



**Program Title:** Malama Wa'a Training Program

**Liaison:** Bob Perkins

**Program Mission:** The mission of this program is to serve the community as a learning-centered, open door program providing technical training to meet the needs of those wanting to gain knowledge, skills, and the hands-on opportunities working with small vessel fabrication and repair.

**Program Description:** The Malama Wa'a training program is centered on providing training in small vessel fabrication utilizing shop tools and equipment geared specifically for the purposes of repair and fabrication techniques. Above all, understanding and following safety procedures and personal protective equipment knowledge for all aspects of vessel repair and fabrication will be covered and highly stressed in all aspects of training.

Instruction for the program will be held at the Marine Education and Training Center (METC) located on Sand Island, Keehi Lagoon, which is a state-of-the-art training facility. The METC ranks as one of the premier training facilities in the United States featuring four large work bays to allow work on vessels up to 45 feet, a concrete pier equipped with two cranes to allow work on vessels in the water, finger piers for removing vessels from the water employing a marine straddle-lift, as well as classroom, laboratory, and office space.

For enrollment in the program, students must be able to climb a twelve-foot ladder onto a vessel's deck, get on the deck, walk around the cabin and descend to the ground in a time period of not more than twice the time it takes the instructor to perform these tasks. The students must be able to jump onto the deck of a boat that is 18 inches below pier level, work in a crouching or standing position for hours at a time, lift 40 pounds from the floor onto a 34 inch high table top, and be physically fit to wear an organic respirator.

Each student will be required to obtain a note from a physician stating that the student is capable of wearing an organic respirator. There are many physical demands and hazards in the small vessel fabrication maintenance and repair industry and the program. These include, but are not limited to, occasional heavy lifting, bending, crouching, and working in a cramped position. There will be exposure to woodworking saw blades and cutters, rapidly moving parts, and live electrical circuits. There will also be exposure to resins, solvents, fuel, paints, exhaust fumes, and dust. Students may get cuts, abrasions, burns, aches, and pains.

**Program Learning Outcomes:** Upon successful completion of the Malama Wa'a training program, students will be able to:

- Perform tasks and best practices in accordance with the small vessel fabrication maintenance and repair industry.
- Secure vessels, safely operate machinery and perform operations associated with dry-docking operations.
- Operate and maintain standard woodshop stationary and portable tools; sharpen, tune, and use standard woodworking hand tools; true wood stock accurately, safely, and efficiently; construct shop fixtures and jigs; and, read, interpret and create blueprints.

- Identify a variety of composite materials, formulate laminate schedules and demonstrate proficiency in laminating techniques, perform standard composite quality control tests, practice quality assurance and safety, and utilize the practical principles of composite-resin chemistry.
- Perform pre-paint preparation and procedures, understand air compressor requirements, utilize common coating application systems, techniques and equipment, and understand and employ multi-component paint systems.
- Present a systematic approach to surveying damaged vessels and be able to execute repairs.

**Program Requirements:** The following courses are required for this training program:

**Course Title:** Portable Hand Tools and Machinery

**Course Description:** This course provides an introduction to hand tools and machinery used in the marine industry. The proper use of machinery such as a hydraulic prop and bearing remover, bead blaster and sandblaster will be demonstrated and practiced. The following woodworking tools will be introduced and utilized in class: table saw, band saw, power hand planer, and drill press. Hands-on training is emphasized. The proper utilization, safety procedures, and care of tools will be stressed. Classroom instruction and tasks performed will be in accordance with standard industry best practices. This course includes forklift training and certification, as well as utilizing related heavy equipment tailored for the maritime industry.

**Course Hours:** 60                      **Number of Meetings:** 20

**Course Days and Dates:** Wednesdays and Saturdays; August 14, 17, 21, 24, 28, 31, September 4, 7, 11, 14, 18, 21, 25, 28, October 2, 5, 9, 12, 16, 19, 2019

**Course Times:** Wednesdays: 5:00 PM – 8:00 PM; Saturdays: 9:00 AM – 12:00 PM

**Course Cost: Introductory Price:** \$185/person      **Regular Price:** \$895/person

**Course Title:** Woodworking

**Course Description:** This course covers the safe and proper use of power and hand woodworking tools. Procedures for sharpening, maintenance, and adjustment of tools are stressed. Rough wood stock is milled and the fabrication of proper wood joints is stressed. Instruction is also provided in the survey and repair of the wooden components of a vessel. Classroom instruction and tasks performed will be in accordance with standard industry best practices.

**Course Hours:** 90                      **Number of Meetings:** 30

**Course Days and Dates:** Wednesdays and Saturdays; October 23, 26, 30, November 2, 6, 9, 13, 16, 20, 23, December 4, 7, 11, 14, 18, 21, 2019, January 8, 11, 15, 18, 22, 25, 29, February 1, 5, 8, 12, 15, 19, 22, 2020  
**No class meetings on November 27, 30, December 25, 28, 2019, January 1, 4, 2020**

**Course Cost: Introductory Price:** \$195/person      **Regular Price:** \$1395/person

**Course Title:** Composite Repair Techniques

**Course Description:** This course covers the procedures employed in planning and executing repairs to composite vessels. Various common procedures used in the industry for composite repairs are covered in lecture, and projects dealing with these procedures are provided in the lab component of training. Classroom instruction and tasks performed will be in accordance with standard industry best practices.

**Course Hours:** 90                      **Number of Meetings:** 30

**Course Days and Dates:** Wednesdays and Saturdays; February 26, 29, March 4, 7, 11, 14, 18, 21, 25, 28, April 1, 4, 8, 11, 15, 18, 22, 25, 29, May 2, 6, 9, 13, 16, 20, 23, 27, 30, June 3, 6, 2020

**Course Cost: Introductory Price:** \$195/person      **Regular Price:** \$1395/person