

Small Vessel Fabrication and Repair

Honolulu Community College's Small Vessel Fabrication and Repair Program (VESL) is a two-year Associate in Applied Science program that prepares students for employment in the fields of vessel fabrication, repair, composites and tooling, marine joinery, component marine systems and marine manufacturing industries. Students work on a variety of "real world" repair, service and construction projects, and practice boat yard operation skills year round.

Program Entry Requirements

General Requirements:

- Respirator use clearance
- Pass physical fitness test involving climbing, walking, jumping and lifting

English Requirements:

- Completion of ENG 20 BCDE (native speakers only)
- Completion of ESL 11, 13, and 17 (non-native speakers only)
- OR
- COMPASS* placement into ENG 22 or 60

Math Requirements:

- Completion of Math 20 BCD
 - OR
 - COMPASS* placement in Math 50 or 53
- *UH Community College System placement test

Recommended Preparation

Not specified

Costs (not including tuition)

Books, tools and supplies: \$1500-\$1800

Our program technical standards have been developed to help students understand the minimum essential mental, physical, and behavioral skills necessary for participation in and completion of all core aspects of our curriculum.

As a VESL student, you will be expected to do the following:

- General: Apply proper materials and procedures to achieve seaworthy construction and repair of boats and their component systems.
- Specific: Read textbooks, handouts, and Material Safety Data Sheets.
 - Recognize terminology related to vessel fabrication, repair and maintenance.
 - Read blueprints, working drawings, and boat plans.
 - Interpret spatial relationships.
 - Extract information from a set of construction drawings.
 - Take accurate measurements using metric and imperial measurement systems.
 - Interpret readings on meters, gauges and scales.
 - Use proper procedures for tools and machinery, fabrication, joinery, and repairs.
 - Calculate efficient amounts of materials needed for a project.
 - Assess the quality of materials and construction.
 - Conduct maintenance and service routines on boat engines.
 - Troubleshoot a boat's electrical and other operating systems.
 - Perform installations of plumbing and other components and systems.



VESL student extracts information from a set of construction drawings.



VESL student troubleshoots a boat's electrical system while working in a confined space.

Program Technical Standards



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2 VESL student uses sensory cues to assess the quality of constructing, installing, and finishing work.



3 VESL student wears an organic respirator.



5 VESL students work cooperatively with partners and groups.

Sensory/ Observation skills

2

General: Make independent observations and assessments to produce quality work.

Specific: Read devices such as tape measures, framing and adjustable squares, and levels, meters and gauges.
Survey and select proper tools and materials for specific purposes.
Use sensory cues to assess quality of constructing, installing, and finishing work.

Motor skills

3

General: Possess sufficient physical strength, flexibility, and dexterity to do boat yard work.

Specific: Wear an organic respirator.
Operate necessary tools and equipment safely including blades, cutters and rapidly moving parts.
Maneuver a forklift, crane, straddle lift and hydraulic trailer.
Work at varying heights.
Climb ladders.
Jump onto a deck that can be up to 18-inches below pier level.
Maneuver in confined spaces.
Lift and transport necessary equipment and materials.

Communication skills

4

General: Communicate effectively to gather and convey information.

Specific: Obtain necessary information from oral and written sources.
Express information coherently.
Document work and procedures accurately.

Behavioral skills

5

General: Behave appropriately and safely in a shared learning environment.

Specific: Work independently with periodic supervision.
Work cooperatively with partners and groups.
Follow through with individual and shared responsibilities.
Exercise good judgement.
Follow safety procedures.

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4

VESL students document their work.



6

VESL students work on slippery or uneven surfaces.



General: Function safely in a boat yard and shop environment.

Specific: Work for prolonged periods exposed to:

Extreme noise	Dust and fumes
Extreme heat	Machinery with moving parts
Sharp tools and materials	Moving objects and vehicles
Electrical equipment	Slippery or uneven surfaces
Chemicals and toxins	Variations in lighting

For More Information

If you are interested in our program, we encourage you to meet with our VESL counselor (phone: 845-9129) and refer to the information at

<http://tech.honolulu.hawaii.edu/marr/index.html> to decide whether the VESL program is right for you.

Please keep in mind that you may have to fulfill additional requirements to be eligible for certification exams or licensure in the field. For examples go

<http://www.compositescertification.org/certification/> or

<http://www.abycinc.org/educationprograms/certificationpgms.cfm>

Disability Accommodations

We have developed our technical standards in compliance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. We will provide reasonable accommodations to qualified students with disabilities. If you are interested in our program, we encourage you to review the program technical standards and course information at <http://tech.honolulu.hawaii.edu/marr/index.html> to decide whether the VESL program is right for you.

If you have questions about the VESL program, please call the HCC Counseling Office at 845-9129. Individuals with hearing impairments may call 845-9270 (v/t) or use the Telecommunication Relay Service at 1-877-447-5990.

If you have questions about disability access and accommodations, please direct them to HCC's Services for Students with Disabilities (SSD) at 845-9282 (v/t), 845-9272 (v/t), or e-mail access@hcc.hawaii.edu. SSD will be happy to meet with you, evaluate your disability documentation, and, as appropriate, recommend reasonable accommodations consistent with your documented limitations and the technical standards of the program. We will keep your disability information confidential within the parameters of the accommodation process.