

# Aquarium Science

## Certificate of Achievement Requirements Checklist

16 unit certificate (Effective Fall 2024)

Aquarium Science is an applied, interdisciplinary science that combines aspects of animal husbandry, community ecology, water chemistry, system design and construction, critical thinking, problem-solving, and group management. This certificate is designed to prepare students interested in gaining experience with aquarium systems and living organism care for a variety of potential future goals. These goals may include working for zoo and aquarium facilities, local aquarium retailers, wholesale supply companies, private maintenance companies, as part of a hands-on experience for an advanced degree in Marine Sciences, organizations/agencies working on water filtration and water quality, stock restoration and conservation projects, research involving keeping aquatic living organisms, and/or the recreational hobby of aquarium-keeping. Students will gain a wide variety of hands-on experience in a number of different skills working in one of the largest and most diverse student-run aquariums in the region.

Courses	Units
<i>Aquarium Science Required Courses: Need to complete each of the following courses</i>	
<input type="checkbox"/> MRSC A120 Marine Aquarium Science	2.0
<input type="checkbox"/> MRSC A130 Husbandry of Aquatic Organisms	2.0
<input type="checkbox"/> MRSC A135 Aquarium Water Quality	2.0
<input type="checkbox"/> MRSC A140 Aquarium Life Support Operations & Maintenance	2.0
<input type="checkbox"/> MRSC A180 Marine Biology	3.0
<input type="checkbox"/> MRSC A180L Marine Biology Lab	1.0
<input type="checkbox"/> MRSC A220 Practical Experience in Aquarium Science & Management I	2.0
<input type="checkbox"/> MRSC A221 Practical Experience in Aquarium Science & Management II	2.0
<b>Certificate Units Required:</b>	
	<b>16.0</b>

### Program Outcomes:

1. Describe how a properly designed aquarium environment (habitat, water parameters, filtration components, and microbial populations) influences the health of aquatic organisms.
2. Identify commonly kept aquatic organisms and explain what critical aspects of their anatomy, physiology and life history a well-trained aquarist must know to be successful with their growth and potential reproduction.
3. Demonstrate the ability to design, set-up, operate, maintain and trouble-shoot aquarium life support equipment including biological filtration, mechanical filtration, chemical filtration, centrifugal pumps, and quarantine life support systems.
4. Demonstrate the ability to manage aquarium facilities including preparation of equipment and supply ordering lists, proper documentation, and restocking of facilities.