

AQUARIUM SCIENCE, CERTIFICATE OF ACHIEVEMENT

Banner Code: 1_CN_AQUA

Control Number: 37713

Not Financial Aid Eligible

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.

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 facility.

Review Certificate Requirements (<https://catalog.cccd.edu/orange-coast/graduation-requirements/certificates/#achievementtext>).

Course	Title	Units
Required Courses		
MRSC A120	Marine Aquarium Science	2
MRSC A130	Husbandry of Aquatic Organisms ¹	2
MRSC A135	Aquarium Water Quality	2
MRSC A140	Aquarium Life Support Operation and Maintenance	2
MRSC A180	Marine Biology	3
MRSC A180L	Marine Biology Lab	1
MRSC A220	Practical Experience in Aquarium Science and Management 1	2

Course	Title	Units
MRSC A221	Practical Experience in Aquarium Science and Management 2	2
Total Units		16

¹ This course may only be offered in the Fall.

Program Sequence

These sequences at Orange Coast College are curriculum maps for students to finish all requirements for the certificate. There may be advisories, prerequisites, or time requirements that students need to consider before following these maps. **Students are advised to meet with an Orange Coast College Counselor for alternate sequencing.**

Course	Title	Units
Year 1		
Semester 1		
MRSC A120	Marine Aquarium Science	2
MRSC A180	Marine Biology	3
MRSC A180L	Marine Biology Lab	1
Units		6
Semester 2		
MRSC A140	Aquarium Life Support Operation and Maintenance	2
MRSC A220	Practical Experience in Aquarium Science and Management 1	2
Units		4
Year 2		
Semester 1		
MRSC A130	Husbandry of Aquatic Organisms ¹	2
MRSC A135	Aquarium Water Quality	2
MRSC A221	Practical Experience in Aquarium Science and Management 2	2
Units		6
Total Units		16

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