

## Fundamentals of Scientific Diving: Option II

### Assessment and Earning Criteria

#### Assessment

#### Earning Criteria

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| <p>Quizzes</p> <ul style="list-style-type: none"> <li>• Diving physics</li> <li>• Diving physiology</li> <li>• Accident management and emergency procedures</li> <li>• Hazardous aquatic life</li> <li>• Hyperbaric chambers and support equipment</li> <li>• Dive planning</li> <li>• Decompression profiling</li> <li>• Nitrox</li> <li>• Diving under special conditions</li> <li>• Procedures for scientific diving</li> <li>• AAUS scientific diving history and regulations</li> <li>• Diver and diving support equipment</li> <li>• Handling high pressure cylinders</li> </ul> | <p>Pass each quiz with an 80 or above</p>   |
| <p>Reflection Paper</p> <p>Learners will reflect on the core competencies of Scientific Diving and articulate in a holistic reflection the connection between these core competencies and how they have contributed to their overall personal and professional development.</p>  | <p>Student reflections should contain a minimum of 250 words for each of three <a href="#">writing prompts</a>, a minimum of 750 words for the final paper (approximately three double-spaced pages). Students must earn 15 out of 20 total points based upon criteria detailed in the reflection rubric.</p> |
| <p><i>Note: Successful completion of the above assessments entitles students to receive their <a href="#">micro-credential</a>. The following assessments and earning criteria are required for FIU Scientific Diving certification.</i></p>   |   |
| <p>Cumulative Final Exam (120 questions)</p>   | <p>Pass with an 80 or above</p>   |
| <p>Swim Test</p> <ul style="list-style-type: none"> <li>• Swim underwater for 25 yards without surfacing</li> <li>• Swim 400 yards in less than 12 minutes</li> <li>• Tread water for 10 minutes, or 2 minutes without use of hands</li> <li>• Transport a passive person of equal size a distance of 25 yards in the water</li> </ul>   | <p>Completed under the supervision of Aquarius personnel</p>  |

**Assessment****Earning Criteria**

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| <p>Diving Emergency Care Training</p> <ul style="list-style-type: none"><li>• Cardiopulmonary Resuscitation (CPR)</li><li>• AED</li><li>• Standard or Basic First Aid</li><li>• Recognition of DCS and AGE</li><li>• Accident Management</li><li>• Field Neurological Exam</li><li>• Oxygen Administration</li></ul>   | <p>Completed under the supervision of Aquarius personnel</p> |
| <p>Confined Water Skills</p> <ul style="list-style-type: none"><li>• Enter water fully equipped for diving</li><li>• Clear fully flooded face mask</li><li>• Demonstrate air sharing and ascent using an alternate air source, as both donor and recipient, with and without a face mask</li><li>• Demonstrate buddy breathing as both donor and recipient, with and without a face mask</li><li>• Demonstrate understanding of underwater signs and signals</li><li>• Demonstrate ability to remove and replace equipment while submerged</li><li>• Demonstrate acceptable watermanship skills for anticipated scientific diving conditions</li></ul>   | <p>Completed under the supervision of Aquarius personnel</p> |
| <p>Open Water Skills</p> <ul style="list-style-type: none"><li>• Surface dive to a depth of 10 feet without scuba</li><li>• Enter and exit water while wearing scuba gear</li><li>• Kick on the surface 400 yards while wearing scuba gear, but not breathing from the scuba unit</li><li>• Demonstrate proficiency in air sharing ascent as both donor and receiver</li><li>• Demonstrate the ability to maneuver efficiently in the environment, at and below the surface</li><li>• Complete a simulated emergency swimming ascent</li><li>• Demonstrate clearing of mask and regulator while submerged</li><li>• Underwater communications</li><li>• Demonstrate ability to achieve and maintain neutral buoyancy while submerged</li><li>• Demonstrate techniques of self-rescue and buddy rescue</li><li>• Navigate underwater</li><li>• Plan and execute a dive</li><li>• Demonstrate judgment adequate for safe scientific diving</li></ul> | <p>Completed under the supervision of Aquarius personnel</p> |

**Assessment****Earning Criteria**

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| <p>Rescue Skills</p> <ul style="list-style-type: none"><li>• Rescue from depth and transport 25 yards, as a diver, a passive simulated victim of an accident: surface diver, establish buoyancy, stabilize victim</li><li>• Demonstrate simulated in-water mouth-to-mouth resuscitation</li><li>• Removal of victim from water to shore or boat</li><li>• Stressed and panicked diver scenarios</li><li>• Recommendations For rescue of a submerged unresponsive compressed-gas diver</li></ul> | <p>Completed under the supervision of Aquarius personnel</p> |
| <p>Techniques for underwater research (subject to change)</p> <ul style="list-style-type: none"><li>• Coral reef fish identification</li><li>• Assessing fish community structure</li><li>• Assessing coral reef structure</li><li>• Marine archaeology sampling techniques</li><li>• Coral restoration techniques</li></ul>  | <p>Completed under the supervision of Aquarius personnel</p> |