



<b>Course Title:</b>	<b>Conservation of Marine Biodiversity in the Mediterranean Sea</b>
<b>Course Code:</b>	<b>Arcadia University Mediterranean Center for Arts and Sciences (AUMCAS) MCAS ESMB 315S</b>
<b>Instructor:</b>	TBD
<b>Credits:</b>	3 (6 credits program total with Italian language component)
<b>Semester(s)/Terms to be offered:</b>	Summer (May-June; 6 weeks)
<b>Course Description:</b>	<p>This course in marine biology and conservation of marine ecosystems takes place in the marine-protected area of Plemmirio south of Syracuse.</p> <p>This six-week program offers students the unique experience to learn about and explore the Mediterranean Sea.</p> <p>Lectures coincide with designated labs and topical discussions for the course, allowing students to apply classroom knowledge to practical field techniques.</p> <p>Students will also learn to immerse in the clear water after completion of a scuba diving component.</p>
<b>Student Learning Outcomes:</b>	<p>Upon successful completion of the course, students will have:</p> <ol style="list-style-type: none"><li>1. Identified and described elements of Mediterranean ecosystems</li><li>2. Discussed the protection and enhancement of natural characteristics (i.e. chemical, physical) of marine ecosystems and coastal biodiversity, particularly related to the protection of posidonia prairies and biocenoses of coral through the intervention of environmental recovery.</li><li>3. Participated in the promotion of environmental education and the dissemination of knowledge of marine and coastal environments of protected marine areas.</li><li>4. Conducted research in the sciences and environmental protection, in order to acquire and advance knowledge.</li></ol>



5. Demonstrated understanding about methods of sustainable development in the area, in regard to the promotion of traditional activities, local cultures of ecotourism, and the appreciation on the part of the categories socially sensitive.

**Course Outline:**

**Week 1:**

Students at AUMCAS engage in academic coursework and develop a research project which they will conduct at sea.

**Week 2:**

Students will learn scuba diving and will gain an OPW certificate with specialized trainers from AMP Syracuse.

**Weeks 3 and 4:**

Research on boats and scuba immersions in the marine reserve of Plemmirio, AMP Syracuse.

**Week 5:**

Students visit Acitrezza which is a small, charming fishing village near Catania with a strong historical /literary background. The trip introduces students to the traditional fishing industry and fishing village life. Fishing is a primary source of employment and income for local communities.

The objective of the trip is to show the importance of environmentally sustainable economic initiatives by training stakeholders in consensus-building and other skills, to improve constituents' capacities to reach agreements on how to solve complex environmental issues.

**Week 6:**

Students complete research projects while acting as members of the scientific team of the marine protected areas.

**Rationale and Impact of the Course:**

The Mediterranean sea is an area of recognized ecological importance, especially for the high biodiversity of its waters, the high number of endemic species, and the presence of key areas for reproduction of pelagic species.

Although it covers only 0.7% of the worldwide marine surface area, the Mediterranean holds 9% of its biodiversity.



In recent decades, the Mediterranean has seen an increase of anthropogenic pressure by the fishing industry, tourism, pollution and coastal development.

Among the various systems for the conservation of this beautiful sea, the establishment of marine protected areas has proven to be the most effective system to cope with the changes of the marine ecosystems.

Italy, located in the Mediterranean region, has the highest number of marine reserves. It was one of the first countries in the world to establish both 27 marine reserves and two submerged parks.

**Country and  
Program  
Connection:**

Based in the renowned marine protected area of Plemmirio, Syracuse, this program provides undergraduates with the opportunity to study the Mediterranean Sea from a variety of academic perspectives, and to do so through lectures, field research and scuba diving immersion in the aforementioned marine reserves.

This is an interdisciplinary program based in Sicily which focuses on Mediterranean ecology, marine ecosystems, biodiversity conservation and environmental and socio-cultural issues related to the exploitation of marine resources and coastlines of the island.

Students examine the impact of human activity on the environment, and the ways in which development and conservation practices can serve both human and environmental interests.