

## MODESTO CITY SCHOOLS COURSE OUTLINE

<b>Course Title</b>	Marine Science OLL S1	Marine Science OLL S2
<b>Course Number</b>	OLL54431	OLL54432
<b>Recommended Grade</b>	<input type="checkbox"/> 7 <input type="checkbox"/> 8 <input checked="" type="checkbox"/> 9 <input checked="" type="checkbox"/> 10 <input checked="" type="checkbox"/> 11 <input checked="" type="checkbox"/> 12	
<b>Duration</b>	<input type="checkbox"/> Quarter <input checked="" type="checkbox"/> Semester	
<b>Credit</b>	<input type="checkbox"/> 2.5 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 10	
<b>Repeatable for Credit</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Required for Graduation</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Meets Graduation Requirement</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>CALPADS Course Number</b>	9341	
<b>CALPADS Course Name</b>	Marine Science	
<b>Meets UC/CSU Requirements</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, which area? <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G	
<b>CTE Course</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>CTE Course Level</b>	<input type="checkbox"/> Introduction <input type="checkbox"/> Concentrator <input type="checkbox"/> Capstone N/A	
<b>Part of a Course Pathway</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, which pathway?	
<b>Credential Requirements</b>		
<b>Replaces</b>	N/A	
<b>Recommended Prerequisites</b>	N/A	
<b>Aligned to Standards Date</b>		
<b>Content Delivery Method</b>	<input type="checkbox"/> Instructor Led <input checked="" type="checkbox"/> Online Provider Modesto Virtual Academy	
<b>Other Information</b>		
<b>Board Approval Date</b>		
<b>Implementation Date</b>	Fall 2020	

**Course Description:**

**Required Text(s):** (Title, Publisher, Year):

**Supplementary Materials(s):**



**Course Name:** Marine Science / Honors v15

**Course Credit:** 1.0

**Course Estimated Completion Time:** 2 segments/32-36 weeks

**Course Description:** Since the beginning of time, humans have relied on the ocean. But as our planet continues to change over time, human activity has impacted the environment. In the marine science course, students explore the watery depths of our own planet in order to understand just how vital the ocean is to our existence. Throughout the course, students meet marine animals and learn about their interactions with each other and their environment. Students tour the evolving seafloor, where they encounter trenches, volcanoes, and ridges. Along the way, students hang ten as they discover waves, currents, tides, and other physical interactions between the ocean and the land. Finally, students study the impacts of chemical processes on our blue planet and how they affect the water, the atmosphere, and our climate. With a focus on conservation, this course shows students that the ocean connects us all, across distance and even time. Hang on—it's going to be an amazing journey.

**Prerequisites:**

**Honors Lessons:** Yes

**Course Profile (Includes Honors, if applicable)**

Type of Assessment	Quantity	Location(s)
Teacher-graded	23	
Auto-graded	15	
Partial Auto-graded	24	
Discussion-Based (DBA)	6	1.05, 2.07, 3.07, 4.07, 5.07, 6.05
Collaboration	2	
Project-based		
<b>Total Assessments</b>	<b>62</b>	

**Types of Assessments (Includes Honors, if applicable)**

Type of Assessment	Available	Type of Assessment	Available
Multiple Choice	Yes	Essay	Yes
Worksheets	No	Collaborative	Yes
Web 2.0	Yes	Short Response	Yes
Project - Based	Yes	Labs	Yes
Self - Check	Yes	DBAs	Yes

## Scope and Sequence

### SEGMENT 1

#### Module 1:

- Introduction to Marine Science
- Ocean Exploration
- Ocean Zones
- Properties of Water

#### Module 2:

- Plate Tectonics
- Ocean Formation
- Ocean's Impact on Weather
- Ocean's Impact on Climate, Air and Sea Interactions

#### Module 3:

- Seasonal Changes
- Ocean's Systems
- Waves
- Tides and Currents
- Coastal Dynamics

### SEGMENT 2

#### Module 4:

- Marine Biodiversity
- Ecosystem Health
- Marine Populations
- Adaptations
- Marine Habitats

#### Module 5:

- Marine Ecosystems
- Food Webs and Energy Transfer
- Marine Relationships
- Human Impact on Marine Life
- Biotechnology
- Pollution

#### Module 6:

- Conservation
- Research and Resources
- Future of an Ocean Planet