

**UNIVERSITY OF CALIFORNIA, SAN DIEGO  
EDUCATIONAL EFFECTIVENESS REVIEW  
PRESCRIBED EXHIBITS AND DATA DISPLAYS**

**Table 7.1b  
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**Inventory of Educational Effectiveness Indicators - Graduate**  
(as of 06/2015)

Department/ Program	Degree Type	Degree	(2) What are these learning outcomes? Where are they published?		(3) What data/evidence is used to determine that graduates have achieved the stated outcomes?	(4) Who interprets the evidence? What is the Process?		
<b>Scripps Institution of Oceanography</b>  <b>(1) Formal learning outcomes?</b> Yes  <b>(6) Date of last Academic Senate Review:</b> 2008-09	Master of Advanced Studies	Climate Science and Policy	Gain scientific knowledge of the earth's climate system as well as provide an understanding of the political, legal and economic challenges associated with applying scientific knowledge to governmental and social contexts. Prepare practitioners to make wise and realistic decisions about the management of climate impacts.	<a href="#">Program Website</a>	<a href="#">Graduate Website</a>	50 units of coursework, a written capstone project report, and oral presentation	Interdisciplinary capstone committee.	Successfully complete all coursework.
		Marine Biodiversity and Conservation	Gain knowledge about marine ecosystems from the scientific, economic and policy perspective, as well as provide important cultural and communication skills needed to improve conservation of marine biodiversity in the world's most diverse and threatened ecoregions through development of local capacity and management tools	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	48 units of coursework, a written capstone project report, and oral presentation	Interdisciplinary capstone committee.	Successfully complete all coursework.
	Master of Science	Earth Sciences	Learning outcomes are determined by curricular programs, as described below.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Plan 1: Written Master's thesis. Plan 2: Oral comprehensive exam. For doctoral students earning the M.S. on the way to the Ph.D., the departmental examination fulfills this requirement.	Plan 1: Thesis Committee Plan 2: Examination Committee	Plan 1: Write thesis and defend in oral examination Plan 2: Pass oral examination
		Marine Biology	Learning outcomes are determined by curricular programs, as described below.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Plan 1: Written Master's thesis. Plan 2: Oral comprehensive exam. For doctoral students earning the M.S. on the way to the Ph.D., the departmental examination fulfills this requirement.	Plan 1: Thesis Committee Plan 2: Examination Committee	Plan 1: Write thesis and defend in oral examination Plan 2: Pass oral examination
		Oceanography	Learning outcomes are determined by curricular programs, as described below.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Plan 1: Written Master's thesis. Plan 2: Oral comprehensive exam. For doctoral students earning the M.S. on the way to the Ph.D., the departmental examination fulfills this requirement.	Plan 1: Thesis Committee Plan 2: Examination Committee	Plan 1: Write thesis and defend in oral examination Plan 2: Pass oral examination

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				<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>			
<b>Scripps Institution of Oceanography (continued)</b>		Earth Sciences (Contiguous BS/MS Degree. Only available to UCSD Students)	Gain advanced research experience in an area of the earth sciences, think independently, and be equipped with advanced skills for teaching.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Written thesis and oral presentation	Thesis Committee	Complete course requirements, write and successfully defend thesis in oral examination.
		Marine Biology (Contiguous BS/MS Degree. Only available to UCSD Students. Starting Fall 2015)	Gain advanced research experience in an area of marine biology, think independently, and be equipped with advanced skills for teaching.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Written thesis and oral presentation	Thesis Committee	Complete course requirements, write and successfully defend thesis in oral examination.
	Concurrent Doctor of Philosophy and MBA	Earth Science, Marine Biology or Oceanography (Joint Doctoral with Rady School of Management)	Enables students to develop linkages between Scripps and Rady studies.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	PhD requirements: Scripps department and qualifying examinations, written dissertation and oral examination in defense of dissertation. Expectations for MBA will be forthcoming.	Scripps and Rady faculty	Pass all examinations, write dissertation and defend in oral examination
	Doctor of Philosophy	Geophysics (Joint Doctorate with SDSU)	Gain advanced knowledge in earthquake science and applied geophysics to provide skills needed to address important local, regional, and global societal problems where geophysics can contribute to solutions.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Department and qualifying examinations, written dissertation and oral examination in defense of dissertation.	Scripps and SDSU faculty	Pass all examinations, write dissertation and defend in oral examination
		Earth Sciences	Learning outcomes are determined by curricular programs, as described below.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Department and qualifying examinations, written dissertation and oral examination in defense of dissertation.	Doctoral Committee	Pass all examinations, write dissertation and defend in oral examination
		Marine Biology	Learning outcomes are determined by curricular programs, as described below.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Department and qualifying examinations, written dissertation and oral examination in defense of dissertation.	Doctoral Committee	Pass all examinations, write dissertation and defend in oral examination

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				<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>			
Scripps Institution of Oceanography (continued)		Oceanography	Learning outcomes are determined by curricular programs, as described below.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Department and qualifying examinations, written dissertation and oral examination in defense of dissertation.	Doctoral Committee	Pass all examinations, write dissertation and defend in oral examination
	Curricular Programs	Applied Ocean Science	Perform research in marine acoustics, optics, electromagnetics, geophysics, ecology, sediment transport, coastal processes, physical oceanography, and air-sea interactions, with emphasis on the resolution of key scientific issues through novel technological development.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Department and qualifying examinations, written dissertation and oral examination in defense of dissertation.	Doctoral Committee	Pass all examinations, write dissertation and defend in oral examination
		Biological Oceanography	Gain interdisciplinary knowledge about ocean ecology, including how populations of marine organisms interact with one another and with their physical and chemical environment and how marine communities respond to natural and human impacts on the ocean environment.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Department and qualifying examinations, written dissertation and oral examination in defense of dissertation.	Doctoral Committee	Pass all examinations, write dissertation and defend in oral examination
		Climate Sciences	Gain knowledge about the study of the climate system of the Earth with emphasis on the physical, dynamical, and chemical interactions of the atmosphere, ocean, land, ice, and the terrestrial and marine biospheres.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Department and qualifying examinations, written dissertation and oral examination in defense of dissertation.	Doctoral Committee	Pass all examinations, write dissertation and defend in oral examination
		Geosciences	Gain knowledge about the application of general principles of geology, geochemistry, and geophysics to problems in the marine and terrestrial environments of the Earth.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Department and qualifying examinations, written dissertation and oral examination in defense of dissertation.	Doctoral Committee	Pass all examinations, write dissertation and defend in oral examination
		Geophysics	Gain knowledge about the application of general principles of mathematics and experimental physics to fundamental problems of the oceans, oceanic and continental lithosphere, crust, and deep interior of the Earth.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Department and qualifying examinations, written dissertation and oral examination in defense of dissertation.	Doctoral Committee	Pass all examinations, write dissertation and defend in oral examination

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Scripps Institution of Oceanography (continued)		Marine Biology	Gain knowledge about the study of marine organisms concerning the evolutionary, organismic, genetic, physiological, and biochemical processes in these organisms and the relationship between them and their biotic and physical environment.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Department and qualifying examinations, written dissertation and oral examination in defense of dissertation.	Doctoral Committee	Pass all examinations, write dissertation and defend in oral examination
		Marine Chemistry and Geochemistry	Explore links between a range of study areas including the oceans, the solid earth, the atmosphere, marine organisms, polar ice sheets, lakes, meteorites and the solar system.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Department and qualifying examinations, written dissertation and oral examination in defense of dissertation.	Doctoral Committee	Pass all examinations, write dissertation and defend in oral examination
		Physical Oceanography	Gain knowledge about the mechanisms of energy transfer through the sea and across its boundaries, and with the physical interactions of the sea with its surroundings, especially including the influence of the seas on the climate of the atmosphere.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Department and qualifying examinations, written dissertation and oral examination in defense of dissertation.	Doctoral Committee	Pass all examinations, write dissertation and defend in oral examination