

**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?	
				<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>			
<b>Mechanical and Aerospace Engineering</b>  (1) Formal learning outcomes? Yes  (6) Date of last Academic Senate Review: 2013-14	Master of Science	Engineering Sciences: Aerospace Engineering	Extend and broaden an undergraduate background and/or as practicing engineers be equipped with fundamental knowledge in their particular fields.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Plan 1: Written Master's thesis. Plan 2: Oral comprehensive exam	Plan 1: Thesis Committee Plan 2: Examination Committee	Plan 1: Write thesis and defend in oral examination Plan 2: Pass oral examination
		Engineering Sciences: Applied Mechanics	Extend and broaden an undergraduate background and/or as practicing engineers be equipped with fundamental knowledge in their particular fields.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Plan 1: Written Master's thesis. Plan 2: Oral comprehensive exam	Plan 1: Thesis Committee Plan 2: Examination Committee	Plan 1: Write thesis and defend in oral examination Plan 2: Pass oral examination
		Engineering Sciences: Applied Ocean Science	Extend and broaden an undergraduate background and/or as practicing engineers be equipped with fundamental knowledge in their particular fields.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Plan 1: Written Master's thesis. Plan 2: Oral comprehensive exam	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>Mechanical and Aerospace Engineering (continued)</b>		Engineering Sciences: Engineering Physics	Extend and broaden an undergraduate background and/or as practicing engineers be equipped with fundamental knowledge in their particular fields.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Plan 1: Written Master's thesis. Plan 2: Oral comprehensive exam	Plan 1: Thesis Committee Plan 2: Examination Committee	Plan 1: Write thesis and defend in oral examination Plan 2: Pass oral examination
		Engineering Sciences: Mechanical Engineering	Extend and broaden an undergraduate background and/or as practicing engineers be equipped with fundamental knowledge in their particular fields.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Plan 1: Written Master's thesis. Plan 2: Oral comprehensive exam	Plan 1: Thesis Committee Plan 2: Examination Committee	Plan 1: Write thesis and defend in oral examination Plan 2: Pass oral examination
	Doctor of Philosophy	Engineering Sciences: Aerospace Engineering	Be prepared for a variety of careers in research and teaching with an emphasis on research.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Part 1: Qualifying examination Part 2: Submission of a dissertation prospectus and oral examination	Doctoral Committee	Pass qualifying examinations, write dissertation and defend in an oral examination
		Engineering Sciences: Applied Mechanics	Be prepared for a variety of careers in research and teaching with an emphasis on research.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Part 1: Qualifying examination Part 2: Submission of a dissertation prospectus and oral examination	Doctoral Committee	Pass qualifying examinations, write dissertation and defend in an oral examination
		Engineering Sciences: Applied Ocean Science	Be prepared for a variety of careers in research and teaching with an emphasis on research.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Part 1: Qualifying examination Part 2: Submission of a dissertation prospectus and oral examination	Doctoral Committee	Pass qualifying examinations, write dissertation and defend in an oral examination
		Engineering Sciences: Engineering Physics	Be prepared for a variety of careers in research and teaching with an emphasis on research.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Part 1: Qualifying examination Part 2: Submission of a dissertation prospectus and oral examination	Doctoral Committee	Pass qualifying examinations, write dissertation and defend in an oral examination
		Engineering Sciences: Mechanical Engineering	Be prepared for a variety of careers in research and teaching with an emphasis on research.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Part 1: Qualifying examination Part 2: Submission of a dissertation prospectus and oral examination	Doctoral Committee	Pass qualifying examinations, write dissertation and defend in an oral examination

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<b>Mechanical and Aerospace Engineering (continued)</b>		Engineering Sciences with Specialization in Computational Science	Obtain standard basic training in their chosen field of science, mathematics, or engineering with a specialization in computational science integrated into their graduate studies.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Qualifying examinations, teaching requirement, research training, written dissertation and oral examination in defense of dissertation	Department Faculty, Doctoral Committee	Pass all examinations, complete all requirements and training, write dissertation and defend in an oral examination.
		Engineering Sciences: Applied Mechanics (Joint Doctorate with SDSU)	Attain advanced knowledge and demonstrate research skills in a specialized field.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Part 1: Qualifying examination Part 2: Submission of a dissertation prospectus and oral examination	Advising Committee and Doctoral Committee	Pass qualifying examinations, write dissertation and defend in an oral examination
		Engineering Sciences with Specialization in Multi-Scale Biology	The training outcomes (as summarized on the program website and catalog pages) include (1) experience in cross-disciplinary science at the interfaces between two or more scientific disciplines; (2) hands-on experience in specialized research technologies for probing biological structure and function at multiple scales of biological organization; and (3) familiarity with integrative, quantitative analysis from molecule to organism scales.	<a href="#">Program Website</a>	<a href="#">Catalog Copy</a>	Qualifying examinations, teaching requirement, research training, written dissertation and oral examination in defense of dissertation	Interdisciplinary doctoral committee comprised of required co-mentor(s) from outside the home department, as well as members of home department, and other faculty per UCSD committee standards.	Complete both home department requirements and Interfaces Ph.D. Specialization in Multi-Scale Biology program requirements and training, write dissertation and defend in an oral examination.