

**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?		
Biological Sciences (1) Formal learning outcomes? Yes (6) Date of last Academic Senate Review: 2010-11 Joint Doctoral Program Review: 2007-2008	Master of Science	Biology (Degree Awarded only as part of Integrated BS/MS Degree. Only available to UCSD Students)	Gain advanced research experience, think independently, and be equipped with advanced skills for teaching.	Program Website	Catalog Copy	Written thesis and oral examination	Thesis Committee	Write and successfully defend dissertation in oral examination.
	Doctor of Philosophy	Biology	Developed the skills necessary to become independent researchers and teachers in the biological sciences and to be prepared for a variety of careers in biological sciences.	Program Website	Catalog Copy	Qualifying Examinations, Annual Examinations, written dissertation and oral examination; teaching experience	Doctoral Committee	Pass all exams, write dissertation, pass oral defense of dissertation.
		Biology (Joint Doctorate with SDSU)	Have developed the capacity for independent research and for teaching in the biological sciences.	Program Website	Catalog Copy	Written dissertation and oral examination	Joint Doctoral Committee (UCSD/SDSU)	Pass all exams, write dissertation, pass oral defense of dissertation.
		Biology with Specialization in Bioinformatics	Be equipped with interdisciplinary skills needed in businesses such as the pharmaceutical industry, agrobusiness, and biotechnology companies, or in academia, where there is a great need for academic faculty who have broad, interdisciplinary training.	Program Website	Catalog Copy	Qualifying examinations, teaching requirement, research training, written dissertation and oral examination in defense of dissertation	Interdisciplinary Doctoral Committee comprised of members of home department, Bioinformatics, and other faculty.	Pass all examinations, complete requirements and training for both departments, write dissertation and defend in an oral examination.
		Biology 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.	Program Website	Catalog Copy	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.

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Inventory of Educational Effectiveness Indicators - Graduate
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Biological Sciences (continued)		Biology with Specialization in Quantitative Biology	Develop the interdisciplinary skills necessary to become independent researchers and teachers in the quantitative biological sciences and to be prepared for a variety of careers in biological sciences.	Program Website	Catalog Copy	Qualifying Examinations, Annual Examinations, written dissertation and oral examination; teaching experience	Doctoral Committee	Pass all exams, write dissertation, pass oral defense of dissertation.
		Biology with Specialization in Anthropogeny	Designed to allow students to participate in research and education focused on explaining the origins of the human phenomenon.	Program Website	Catalog Copy	Qualifying examinations, teaching requirement, research training, written dissertation and oral examination in defense of dissertation	Interdisciplinary doctoral committee comprised of members of home department, and other faculty per UCSD committee standards.	Pass all examinations, complete requirements and training for department and specialization, write dissertation and defend in an oral examination.