

**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?		
Bioengineering (1) Formal learning outcomes? Yes (6) Date of last Academic Senate Review: 2007-08	Master of Engineering	Bioengineering	The purpose of this degree is to prepare design and project engineers for careers in the biomedical and biotechnology industries within the framework of the graduate program of the Department of Bioengineering.	Program Website	Catalog Copy	Students must select six courses from approved core areas, three additional approved technical elective courses, and three general elective courses. Students must maintain at least a B average in the courses taken to fulfill the degree requirements.	Director of Program and graduate services office.	Student's complete industry internship, the report internship results both orally and in written technical report.
	Master of Science	Bioengineering	Extend and broaden an undergraduate background and be equipped with fundamental knowledge in bioengineering. The M.S. is intended for those students wishing to gain experience in academic research, especially those considering continuing graduate studies at the doctoral level.	Program Website	Catalog Copy	Written master's thesis and oral examination in defense of thesis	Thesis Committee	Write thesis and oral examination in defense of thesis

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				Program Website	Catalog Copy			
Bioengineering (continued)	Doctor of Philosophy	Bioengineering	Be prepared for a variety of careers in research and teaching.	Program Website	Catalog Copy	Doctoral examinations, teaching experience, qualifying examination with oral defense, written dissertation with oral defense.	Department Graduate Studies Committee, Doctoral Committee	Pass doctoral examinations in: engineering foundations, integrative bioengineering, and life sciences. Complete 4 quarters of teaching experience. Pass Senate Qualifying Exam, write dissertation and pass oral defense.
		Bioengineering 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.

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Bioengineering (continued)		Bioengineering 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.
		Bioengineering with Specialization in Quantitative Biology	This Ph.D. specialization is designed to train students to develop and apply quantitative theoretical and experimental approaches to studying fundamental principles of living systems.	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.