

## ASSESSMENT PLAN: MS in Biological Sciences

Date Updated: 11/1/15

### PROGRAM MISSION

[CSUEB Missions, Commitments, and ILOs, 2012](#)

#### CSUEB Department of Biological Sciences Mission Statement

The mission of the Department of Biological Sciences is to provide students with the most current biological information possible, to provide intensive laboratory and field experiences (needed and trained biologists contribute to society and return this knowledge to the community) (diversity of courses featuring laboratory and field) supports professional specialization in a broad spectrum of disciplines within the life sciences. The degree programs are designed for students with specific career objectives in laboratory, administrative, or field settings, and for students who may see further graduate training or preparation for careers in health professions or teaching.

### PROGRAM LEARNING OUTCOMES (PLOs)

Students graduating with a MS in Biological Sciences will be able to,

	Demonstrate a broad and sophisticated understanding that contributes to biological concepts and principles across all levels of biological organization, from ions to ecosystems.
	Demonstrate expertise in a specific area of biological science.
	Independently apply the scientific method to formulate testable biological hypotheses, analyze empirical data, and synthesize the results of the analysis.
	Clearly communicate the design and results of an observational or experimental analysis in a variety of formats, including the graduate thesis, scientific paper, scientific poster, and oral presentation.
	Evaluate and apply primary scientific literature and integrate the value of the information presented in relation to particular biological questions.

### Year 1: 15, 16

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	Biol 561 University Thesis
	Demonstrate expertise in a specific area of biological science Independently apply the scientific method to formulate testable

	Biological hypotheses, analyze empirical data, and synthesize the results of the analysis. Clearly communicate the design and results of an observational or experimental analysis in a variety of formats, including the graduate thesis, scientific paper, scientific poster, and oral presentation. Analyze and evaluate primary scientific literature and judge the value of the information presented in relation to particular biological questions.
	Oral Defense
	Oral Communication Skills and In. Writing and (Analysis Skills) developed by the department based on the peer-reviewed ; (LUE r Skills)
	< Quantitative
	Maria - Allegos
	Ongoing 7 (= 2017:20168
	(assessment data will be used to inform future curriculum changes)
<b>* Year #: # 1, # #</b>	
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	Critical Thinking
	BIOL 561 University Thesis
	Independently apply the scientific method to formulate testable biological hypotheses, analyze empirical data, and synthesize the results of the analysis.
	Oral Defense
	In. Writing and (Analysis Skills) developed by the department based on the peer-reviewed ; (LUE r Skills)
	< Quantitative
	Maria - Allegos
	Ongoing 7 (= 2016:20208
	(assessment data will be used to inform future curriculum changes)
<b>* Year #: # # , # #1</b>	
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	Oral Communication
	BIOL 561 University Thesis
	Clearly communicate the design and results of an observational or experimental analysis in a variety of formats, including the graduate thesis, scientific paper, scientific poster, and oral presentation.
	Oral Defense
	Oral Communication Skills) developed by the department based on the peer-reviewed ; (LUE r Skills)
	< Quantitative
	Maria - Allegos

