Department of Biological Sciences CSCI

CALIFORNIA STATE UNIVERSITY EAST BAY

ASSESSMENT PLAN: MS in Biological Sciences

Date Updated: 10/31/2019

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 coupled with extensive laboratory and field experiences. An educated and trained biologist contributes to society and returns this knowledge to the community. A diversity of courses featuring laboratory and field work 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 seek 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:

PLO 1	Demonstrate a broad and sophisticated understanding that contributes to biological concepts and principles across all levels of biological organization, from ions to ecosystems.
PLO 2	Demonstrate expertise in a specific area of biological science.
PLO 3	Independently apply the scientific method to formulate testable biological hypotheses, analyze empirical data, and synthesize the results of the analysis.
PLO 4	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.
PLO 5	Gather and evaluate primary scientific literature and judge the value of the information presented in relation to particular biological questions.

Year 1: 2018-2019

1. Which PLO(s) to assess	PLO 2,3,4,5
2. Is it aligned to an ILO?	No
3. If yes, list ILO.	N/A
4. Course name and number	Biol 691 (University Thesis)
5. SLO from course	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. Gather and evaluate primary scientific literature and judge the value of the information presented in relation to particular biological questions.
6. Assessment activity	Oral Defense
7. Assessment Instrument	Oral Communication Rubric and Inquiry and Analysis Rubric developed by the department based on the peer-reviewed VALUE rubrics.
8. How data will be reported	Quantitative
9. Responsible person(s)	Maria Gallegos
10. Time (which semester(s))	Ongoing (AY 2018-2019)
11. Ways of closing the loop	Assessment data will be used to inform future curriculum changes.
Year 2: 2019-2020	
1. Which PLO(s) to assess	PLO3
2. Is it aligned to an ILO?	Yes
3. If yes, list ILO.	Critical Thinking
4. Course name and number	BIOL 691 (University Thesis)
5. SLO from course	Independently apply the scientific method to formulate testable biological hypotheses, analyze empirical data, and synthesize the results of the analysis.
6. Assessment activity	Oral Defense
7. Assessment Instrument	Inquiry and Analysis Rubric developed by the department based on the peer-reviewed VALUE rubrics.
8. How data will be reported	Quantitative
9. Responsible person(s)	Maria Gallegos
10. Time (which semester(s))	Ongoing (AY 2019-2020)
11. Ways of closing the loop	Assessment data will be used to inform future curriculum changes.
Year 3: 2020-2021	
1. Which PLO(s) to assess	PLO4
2. Is it aligned to an ILO?	Yes
3. If yes, list ILO.	Oral Communication
4. Course name and number	BIOL 691 (University Thesis)
5. SLO from course	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.
6. Assessment activity	Oral Defense
7. Assessment Instrument	Oral Communication Rubric developed by the department based on the peer-reviewed VALUE rubrics.
8. How data will be reported	Quantitative
9. Responsible person(s)	Maria Gallegos

10. Time (which semester(s))	AY 2020-2021
11. Ways of closing the loop	Assessment data will be used to inform future curriculum changes.
Year 4: 2021-2022	
1. Which PLO(s) to assess	PLO5
2. Is it aligned to an ILO?	Yes
3. If yes, list ILO.	Information Literacy
4. Course name and number	BIOL 691 (University Thesis)
5. SLO from course	Gather and evaluate primary scientific literature and judge the value of the information presented in relation to particular biological questions.
6. Assessment activity	University Thesis
7. Assessment Instrument	The CSUEB Information Literacy rubric
8. How data will be reported	Quantitative
9. Responsible person(s)	Maria Gallegos
10. Time (which semester(s))	Ongoing (AY 2021-2022)
11. Ways of closing the loop	Assessment data will be used to inform future curriculum changes.
Year 5: 2022-2023	
1. Which PLO(s) to assess	PLO1
2. Is it aligned to an ILO?	No
3. If yes, list ILO.	N/A
4. Course name and number	BIOL 691 (University Thesis)
5. SLO from course	Demonstrate a broad and sophisticated understanding that contributes to biological concepts and principles across all levels of biological organization, from ions to ecosystems.
6. Assessment activity	Oral Defense
7. Assessment Instrument	Biological Concepts Rubric to be developed
8. How data will be reported	Quantitative
9. Responsible person(s)	Maria Gallegos
10. Time (which semester(s))	Ongoing (AY 2022-2023)
11. Ways of closing the loop	Assessment data will be used to inform future curriculum changes.