

# Department of Statistics and Biostatistics, CSCI

## ASSESSMENT PLAN: MS Statistics

Date Updated: 4/25/2019

### PROGRAM MISSION

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

### PROGRAM LEARNING OUTCOMES (PLOs)

Students graduating with a <degree program> will be able to:

PLO 1	Apply statistical methodologies, including a) descriptive statistics and graphical displays, b) probability models for uncertainty, stochastic processes, and distribution theory, c) hypothesis testing and confidence intervals, d) ANOVA and regression models (including linear, and multiple linear) and analysis of residuals from models and trends at the Master's level.
PLO 2	Derive basic theory underlying these methodologies.
PLO 3	Model practical problems for solutions using these methodologies.
PLO 4	Produce relevant computer output using standard statistical software and interpret the results appropriately.
PLO 5	Communicate statistical concepts and analytical results clearly and appropriately to others; and,
PLO 6	Employ theory, concepts, and terminology at a level that supports lifelong learning of related methodologies.

### Year 1: 2018-2019

1. Which PLO(s) to assess	PLO 5
2. Is it aligned to an ILO?	Yes
3. If yes, list ILO.	Written Communication
4. Course name and number	STAT 632 – Linear and Logistics Regression
5. SLO from course	Communicate statistical concepts clearly and appropriately to others.
6. Assessment activity	Written project report

7. <i>Assessment Instrument</i>	Departmental Rubric for written communication
8. <i>How data will be reported</i>	Quantitatively, proportions of students in each category from 1-5 (5 mastered)
9. <i>Responsible person(s)</i>	STAT 632 Instructor, Assessment Rep
10. <i>Time (which semester(s))</i>	Spring 2019
11. <i>Ways of closing the loop</i>	Included in end-of year report and internal assessment

### Year 2: 2019-2020

1. <i>Which PLO(s) to assess</i>	PLO 6
2. <i>Is it aligned to an ILO?</i>	No
3. <i>If yes, list ILO.</i>	
4. <i>Course name and number</i>	STAT 692 – Comprehensive Exam
5. <i>SLO from course</i>	and theory, concepts, and terminology at a level that supports lifelong learning of related methodologies.
6. <i>Assessment activity</i>	Written Comprehensive Exam
7. <i>Assessment Instrument</i>	Grades from exam
8. <i>How data will be reported</i>	Quantitative, proportions of students in each category from 1-5 (5 mastered)
9. <i>Responsible person(s)</i>	STAT 692 instructor, Assessment Rep
10. <i>Time (which semester(s))</i>	Fall and Spring
11. <i>Ways of closing the loop</i>	Included in end-of year report and internal assessment of PLOs.

### Year 3: 2020-2021

1. <i>Which PLO(s) to assess</i>	PLO 1
2. <i>Is it aligned to an ILO?</i>	Yes
3. <i>If yes, list ILO.</i>	Quantitative Reasoning
4. <i>Course name and number</i>	STAT 692 – Comprehensive Exam
5. <i>SLO from course</i>	statistical methodologies, including a) descriptive statistics and graphical displays, b) probability models for uncertainty, stochastic processes, and distribution theory, c) hypothesis testing and confidence intervals, d) ANOVA and regression models (including linear, and multiple linear) and analysis of residuals from models and trends
6. <i>Assessment activity</i>	Written Comprehensive Exam
7. <i>Assessment Instrument</i>	Grades from exam
8. <i>How data will be reported</i>	Quantitative, proportions of students in each category from 1-5 (5 mastered)
9. <i>Responsible person(s)</i>	STAT 692 instructor, Assessment Rep
10. <i>Time (which semester(s))</i>	Fall and Spring
11. <i>Ways of closing the loop</i>	Included in end-of year report and internal assessment of PLOs.

**Year 4: 2021-2022**

1. Which PLO(s) to assess	PLO 2 & PLO 3 & 4
2. Is it aligned to an ILO?	No
3. If yes, list ILO.	
4. Course name and number	STAT 692 – Comprehensive Exam
5. SLO from course	and understand basic theory underlying these methodologies ate and model practical problems for solutions using these methodologies e relevant computer output using standard statistical software and interpret the results appropriately
6. Assessment activity	Written Comprehensive Exam
7. Assessment Instrument	Grades from exam
8. How data will be reported	Quantitative, proportions of students in each category from 1-5 (5 mastered)
9. Responsible person(s)	STAT 692 instructor, Assessment Rep
10. Time (which semester(s))	Fall and Spring
11. Ways of closing the loop	Included in end-of year report and internal assessment of PLOs.

**Year 5: 2022-2023**

1. Which PLO(s) to assess	PLO 5
2. Is it aligned to an ILO?	Yes
3. If yes, list ILO.	Written Communication
4. Course name and number	STAT 632 – Linear and Logistics Regression
5. SLO from course	Communicate statistical concepts clearly and appropriately to others.
6. Assessment activity	Written project report
7. Assessment Instrument	Departmental Rubric for written communication
8. How data will be reported	Quantitatively, proportions of students in each category from 1-5 (5 mastered)
9. Responsible person(s)	STAT 632 Instructor, Assessment Rep
10. Time (which semester(s))	Spring 2019
11. Ways of closing the loop	Included in end-of year report and internal assessment