# Department of Statistics and Biostatistics, CSCI

## ASSESSMENT PLAN: M.S. in Biostatistics

**Updated Date:** Winter 2015, By Lynn Eudey

### PROGRAM MISSION

<table>
<thead>
<tr>
<th>CSUEB Missions, Commitments, and ILOs, 2012</th>
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**CSUEB Department of Statistics and Biostatistics Mission Statement**

The California State University, East Bay Department of Statistics and Biostatistics aims to provide a strong education in statistics and biostatistics that prepares its students with both theoretical and practical training to function and thrive in our society in roles such as statisticians, biostatisticians, statistical programmers, and data analysts. We also strive to equip non-major students with a better understanding of the quantitative aspects of academia, business and industry.

### PROGRAM STUDENT LEARNING OUTCOMES (SLOs)

Students graduating with a M.S. in Statistics will be able to:

<table>
<thead>
<tr>
<th>SLO 1</th>
<th>ILO 1, 6</th>
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<tbody>
<tr>
<td>apply biostatistical methods to data, including (a) descriptive statistics, probability and graphical displays, (b) distributions, hypothesis testing and confidence intervals, and (c) uncertainty, likelihood, modeling and error analysis.</td>
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<table>
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<tr>
<th>SLO 2</th>
<th>ILO 1,2,3,4,6</th>
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<tr>
<td>derive basic theory and communicate to others results involving biostatistical data analysis,</td>
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<tr>
<th>SLO 3</th>
<th>ILO 1,2,4,6</th>
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<td>formulate problem solutions, produce appropriate computer code and to interpret results.</td>
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### Year 1: 2013-2014

1. **Which SLO(s) to assess**
   - SLO 1 – SLO 3

2. **Assessment indicators**
   - Rubric from Master’s Comprehensive Examination

3. **Sample (courses/# of students)**
4. **Time (which quarter(s))**
   - Fall 2013, Spring 2014

5. **Responsible person(s)**
   - Joshua Kerr/Lynn Eudey

6. **Ways of reporting (how, to who)**
   - Josh Kerr and Lynn Eudey will collect the data, write a report and submit to the chair, Eric Suess, who will distribute to faculty.

7. **Ways of closing the loop**
   - Relevant faculty will brainstorm and implement improved curriculum covering concepts in which student performance does not meet expectations.

### Year 2: 2014-2015

1. **Which SLO(s) to assess**
   - SLO 1 and SLO 3

2. **Assessment indicators**
   - Rubric from written/oral project

3. **Sample (courses/# of students)**
   - STAT 6509 Theory and Application of Regression

4. **Time (which quarter(s))**
   - Spring 2015

5. **Responsible person(s)**
   - Faculty teaching STAT 6509

6. **Ways of reporting (how, to who)**
   - Instructor of STAT 6509 collects the data, writes a report to the chair, Eric Suess, who will distribute to faculty.

7. **Ways of closing the loop**
   - Relevant faculty will brainstorm and implement improved curriculum covering concepts in which student performance does not meet expectations.

### Year 3: 2015-2016

1. **Which SLO(s) to assess**
   - SLO 1 – SLO 3

2. **Assessment indicators**
   - Rubric from written/oral project

3. **Sample (courses/# of students)**
   - BSTA 6653 Clinical Trials in the Pharmaceutical and Biomedical Industries

4. **Time (which quarter(s))**
   - Spring 2016

5. **Responsible person(s)**
   - Lynn Eudey

6. **Ways of reporting (how, to who)**
   - Lynn Eudey collects the data, writes a report to the chair, Eric Suess, who will distribute to faculty.

7. **Ways of closing the loop**
   - Relevant faculty will brainstorm and implement improved curriculum covering concepts in which student performance does not meet expectations.

### Year 4: 2016-2017

1. **Which SLO(s) to assess**
   - Continuation of practices of 2013-2014 through 2015-2016
### Year 5: 2017-2018

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<tr>
<td>2. Assessment indicators</td>
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<td>4. Time (which quarter(s))</td>
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<td>5. Responsible person(s)</td>
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<td>7. Ways of closing the loop</td>
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