

**Biomedical Sciences BS -  
Assessment Plan  
Summary**

# Biomedical Sciences BS

## Effectively Deliver A Core Curriculum

**Goal Description:**

Students will be presented well designed classes to facilitate mastering of the materials identified as a core foundation in biology – Botany, Zoology and Cell Biology

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

**Mastery Of Core Curriculum**

**Learning Objective Description:**

Students will demonstrate a mastery of the core fields in biology: Botany, Zoology, Cell Biology, Microbiology, Genetics and Evolution.

RELATED ITEM LEVEL 2

**Assessment Exam For Core Classes**

**Indicator Description:**

All graduating seniors will take an exiting Biology Assessment Exam (BAE), written by the Biology Faculty. We will analyze the BAE scores from the following areas: botany, zoology, cell biology, microbiology, genetics, evolution to evaluate whether students have a significant level of understanding of each of these fields.

**Criterion Description:**

All Biomedical Sciences majors will be expected to score significantly better than a failing grade in all core areas: botany, zoology, cell biology, microbiology, genetics, evolution.

**Findings Description:**

There are no findings to report for the BAE during the 2016-17 academic year. Although the committee met to discuss developing a new BAE, a new exam was not written and therefore was not administered to the students. The committee will develop a new BAE during the 2017-18 academic year and implement the exam during the new cycle.

RELATED ITEM LEVEL 3

**Develop, implement and analyze BAE**

**Action Description:**

A departmental committee will develop a new BAE during the 2017-2018 academic year. The chair will deliver the exam and analyze the data during the summer of 2018.

RELATED ITEM LEVEL 1

**Understanding The Scientific Method And Develop Critical Thinking**

**Learning Objective Description:**

Students will demonstrate an understanding of the general nature of scientific knowledge and how scientific knowledge is gained (the scientific method). They also will be able to critically evaluate scientific data to draw informed conclusions.

RELATED ITEM LEVEL 2

**BAE Analysis**

**Indicator Description:**

All graduating seniors will take the Biology Assessment Exam (BAE). We will use BAE exam scores from analytical questions to evaluate a student’s understanding of the scientific method and critical thinking.

**Criterion Description:**

All Biomedical Sciences majors will be expected to score significantly better than failing on analytical questions related to the scientific method and critical thinking.

**Findings Description:**

There are no findings to report for the BAE during the 2016-17 academic year. Although the committee met to discuss developing a new BAE, a new exam was not written and therefore was not administered to the students. The committee will develop a new BAE during the 2017-18 academic year and implement the exam during the new cycle.

RELATED ITEM LEVEL 3

**Develop, implement and analyze BAE**

**Action Description:**

A departmental committee will develop a new BAE during the 2017-2018 academic year. The chair will deliver the exam and analyze the data during the summer of 2018.

## **Update to Previous Cycle's Plan for Continuous Improvement**

### **Previous Cycle's Plan For Continuous Improvement (Do Not Modify):**

After the new exit exam is developed, it will be administered to graduating seniors. We will review the results of this exam each year and we will identify weaknesses in content areas - only content areas related to the biomedical sciences will be reviewed (i.e., Botany, Zoology, Cell Biology, Genetics, Microbiology). We will then convene as a faculty to review these weaknesses and implement strategies for improving success in these areas. This may include changes to curriculum, instructional methods, etc.

### **Update of Progress to the Previous Cycle's PCI:**

The undergraduate assessment exam has not been reinstated because the department is still in the process of developing a new test that addresses the criteria all faculty deem as essential and important. A committee will continue to develop this exam and the chair will devise a strategy for administering the exam to graduates.

## **Revising curriculum based on BAE**

### **Closing Summary:**

The BAE will be developed by a departmental committee, approved by the faculty and delivered in spring of 2018. The chair will analyze the results and report to the faculty. Following those results the faculty will evaluate the effectiveness of the established goals in the biology curriculum and decide whether alternative curricula should be developed and tested against the standard curricula.