Biomedical Sciences BS

Demonstrate Mastery in Core Concepts in the Fields of Biology and Biomedical Sciences

Goal Description:

Students completing the core courses required for a BS will demonstrate knowledge of core concepts of cell biology, biodiversity, genetics and evolution.

Providing Department: Biomedical Sciences BS

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Mastery Of Core Curriculum
Learning Objective Description:

Students completing the core courses required for a BS will demonstrate knowledge of core concepts of cell biology, biodiversity, genetics and evolution.

RELATED ITEM LEVEL 2

Mastery of Core Curriculum
Indicator Description:

All students, regardless of concentration area, take the same core courses (BIOL 1406, BIOL 1407, BIOL 3450, and BIOL 4361). Faculty teaching each of these courses will agree on a set of embedded questions to include on the final exam. Students will correctly answer these embedded questions.

Criterion Description:

Students will score 70% on the embedded questions.

Findings Description:

Students in BIOL 1406 and 1407 scored well below the 70% rate (52.4%) Students in BIOL 3450 and 4361 scored at or above the 70% reate.

RELATED ITEM LEVEL 3

Mastery of Core Curriculum
Action Description:

Students in BIOL 1406 and 1407 did not perform well. This was the first time these courses were offered. Instructors of these courses will assess the material and try to identify strategies to improve student engagement.

Student Engagement in Undergraduate Research

Goal Description:

Students will engage in the process of scientific discovery by participating in faculty mentored research.

Providing Department: Biomedical Sciences BS

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Undergraduate Research
Learning Objective Description:

Students will engage in the process of scientific discovery by participating in faculty mentored research.

RELATED ITEM LEVEL 2

Undergraduate Research
Indicator Description:

Students will enroll in BIOL 4095: Undergraduate Research Topics and participate directly in faculty mentored biological research, with the goal of producing publishable research and/or quality research that can be presented at scientific conferences.

Criterion Description:

50% of each graduating class will have enrolled in BIOL 4095 . Using the departmental Faculty Evaluation Instrument, that tracks faculty engagement with undergraduate researchers, the department chair will track the number of peer-reviewed publications and presentations at scientific conference on which our undergraduate students appear on the author line.

Findings Description:

38 students were enrolled in BIOL 4095. This is well below the 50% benchmark for each graduating class. The majority of these students were seniors but still did not reach the 50% mark.

RELATED ITEM LEVEL 3

Undergraduate Research
Action Description:

Continue to recruit students into research. Will look into finding additional funds to student research.

Update to Previous Cycle's Plan for Continuous Improvement Item

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

Closing Summary

We will continue to implement the critical thinking exam in BIOL 2110 and 4110 and analyze the results to assess students critical thinking skills between sophomore and senior years. This will help where improvements can be made in the curriculum.

We have also formed an ad hoc Biomedical Sciences review committee. This committee has been charged with reviewing the curriculum during the 2021-2022 academic year and will report their recommendations to the faculty.

Update of Progress to the Previous Cycle's PCI:

The COSET critical thinking exam has been phased out.

The committee recommended slight modification to the curriculum. These changes have been implemented into the 2022 catalog.

New Plan for Continuous Improvement Item

Closing Summary:

We plan to identify new ways to recruit students into research in the department.

The instructors of BIOL 1406 and 1407 will look for ways to increase student engagement and develop strategies for students to master core competencies.