

ASSESSMENT REPORT 2016-2017

Biology Undergraduate
(Instructional Degree Program)

B.S./B.A.
(Degree Level)

Program Mission:

The mission of the Biology program is to provide undergraduate and graduate students with a high quality science education that includes experience with research and field projects. The program provides a scientific and technical background that empowers students to successfully pursue science and technology careers, or proceed on to advanced graduate studies.

Student Learning Outcome 1:

Have a command of basic biological knowledge in the areas of ecology and evolution, cell and molecular biology and organismal biology.

NMHU Traits Specifically Linked to Student Learning Outcome 1

- Mastery of Content Knowledge and Skills

First Means of Assessment for Outcome 1:

Successful students will master course content in representative upper level major courses, with an average grade of "C" or better on class tests and laboratory reports in Biol 389 (Fall 2016), 331 (Fall 2016). 75% or more students will meet our criteria for success.

Second Means of Assessment for Outcome 1:

Graduating seniors will take the MFAT test. This test will allow us to track individual performance over time. The MFAT test is more a measure of determining how our students compare to national averages.

Student Learning Outcome 2:

Have an understanding of and the ability to use scientific methodology and technology through which biological knowledge accumulates.

NMHU Traits Specifically Linked to Student Learning Outcome 2

- Effective Communication Skills
- Effective Use of Technology

First Means of Assessment for Outcome 2:

Senior project-successful students will show mastery and apply knowledge of basic biological principles to a degree that is satisfactory to the faculty of the biology discipline as indicated by a grade of "B" or better in Biol 491 (Fall 2015) and Biol 498 (Spring 2016). 75% or more of students will meet our criteria for success.

Second Means of Assessment for Outcome 2:

Mastery of laboratory skills and techniques demonstrated by an average grade of "C" or better on laboratory reports for representative upper level courses: Biol 389 and Biol 331 Fall 2015. 75% or more of students will meet our criteria for success.

Student Learning Outcome 3:

Be able to effectively communicate and critically analyze biological knowledge.

NMHU Traits Specifically Linked to Student Learning Outcome 3

- Effective Communication Skills
- Critical and Reflective Thinking Skills
- Effective Use of Technology

First Means of Assessment for Outcome 3:

Successful students will demonstrate mastery with scores of "B" or better for research papers and/or oral presentations in representative upper level courses, Biol 491 (Fall 2015), Biol 498 (SP 2016), Biol 389 (Fall 2015)

Second Means of Assessment for Outcome 3:

Successful students will show mastery and apply knowledge of basic biological principles to a degree that is satisfactory to the faculty of the biology discipline as indicated by a grade of "B" or better on the Senior project (Biol 498 Spring 2016). 75% or more of students will meet our criteria for success.

Student Learning Outcome 4:

Receive a comprehensive background essential to advanced work and/or a career in biology or related fields.

NMHU Traits Specifically Linked to Student Learning Outcome 4

- Mastery of Content Knowledge and Skills
- Effective Communication Skills
- Critical and Reflective Thinking Skills

First Means of Assessment for Outcome 4:

The student satisfaction survey administered to all graduating seniors by the Office of Institutional Research and Effectiveness. Measures of success- 50% or more of respondents indicate that they are continuing their education or employment in biology or related area. 75% of the respondents will indicate that they are satisfied or very satisfied with their preparation for work or graduate school. Faculty knowledge will be used to collect information on career paths of students who graduated the previous year.

Utilization of Results:

Changes to Program Based on Results:

Retention Strategies: