

Assessment Plan

Western Michigan University

Biological Sciences

Mission Statement: Our mission is to provide the best possible education in the biological sciences that emphasizes breadth of student learning through the evaluation, analysis and application of comprehended knowledge. We intend that our students will become productive and informed participants in society and that they will be appreciated for their skills and ability to understand and communicate the significance of biological concepts, techniques and applications.

Outcome: 1.1: Demonstrated Knowledge

Demonstrated knowledge of form, function, mechanism, organization, scale, hierarchy, diversity and evolution.

Track: Biological Sciences Graduate Programs
 Biological Sciences Majors
 Biology Secondary Education Major

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
National Content Test (What test)	Need to state the criterion for success.		Yes
Pre-test/Post-test evaluation	Need detail		Yes

Outcome: 1.2: Ability to retrieve information

Ability to retrieve information from databases.

Track: Biological Sciences Graduate Programs
 Biological Sciences Majors
 Biology Secondary Education Major

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Course-Embedded Measures			Yes

Outcome: 2.1: Knowledge Foundation

Ability to use knowledge foundation to illustrate and compare examples.

Track: Biological Sciences Graduate Programs
 Biological Sciences Majors
 Biology Secondary Education Major

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Analysis of Writing Intensive classes.			Yes
Portfolio Evaluation			Yes

Outcome: 2.2: Communicate Knowledge

Ability to communicate knowledge and concepts both in writing and orally.

Track: Biological Sciences Graduate Programs
 Biological Sciences Majors
 Biology Secondary Education Major

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Analysis of Writing Intensive Classes			Yes
Portfolio Evaluation			Yes
Capstone Course Evaluation			Yes

Outcome: 3.1: Integrating knowledge

Ability to make links among classes and sub-disciplines so that information can be used for deeper comprehension.

Track: Biological Sciences Graduate Programs
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 Biology Secondary Education Major

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
National Content Test			Yes
Portfolio Evaluation			Yes
Student Surveys			Yes

Outcome: 4.1: Interpreting Observations

Ability to interpret observations through the creation, testing, analysis, and communication of parsimonious hypotheses.

Track: Biological Sciences Graduate Programs
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Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Course-Embedded Measures			Yes
Employer Surveys			Yes
Alumni Surveys			Yes

Outcome: 4.2: Designing Experiments

Ability to design both laboratory and field experiments.

Track: Biological Sciences Graduate Programs
Biological Sciences Majors
Biology Secondary Education Major

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Course-Embedded Measures			Yes

Outcome: 4.3: Good Laboratory Practice

Ability to perform good laboratory practice.

Track: Biological Sciences Graduate Programs
Biological Sciences Majors
Biology Secondary Education Major

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Course Embedded Measures			Yes

Outcome: 4.4: Data Analysis

Ability to inspect data and apply basic statistics to their analysis and communication.

Track: Biological Sciences Graduate Programs
Biological Sciences Majors
Biology Secondary Education Major

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Course Embedded Measures			Yes
Course-embedded measures			Yes

Outcome: 4.5: Ethics

Appreciation for ethical conduct in science.

Track: Biological Sciences Graduate Programs
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Biology Secondary Education Major

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Course-embedded Measures			Yes

Outcome: 4.6: Methodological Familiarity

Promote familiarity with a range of methods and techniques relevant to application of the biological sciences.

Track: Biological Sciences Graduate Programs
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 Biology Secondary Education Major

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Course-embedded Measures			Yes

Outcome: 4.7: Reflection

Ability to reflect upon and discuss the nature of biology as a science and its historical, philosophical and ethical impact on humanity and the environment.

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 Biology Secondary Education Major

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Analysis of Writing-Intensive Classes			Yes
Portfolio Evaluation			Yes
Capstone Course Evaluation			Yes

Outcome: 5.1: Evaluate Published Information

Ability to determine the veracity and value of published information.

Track: Biological Sciences Graduate Programs
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 Biology Secondary Education Major

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Portfolio Evaluation			Yes

Outcome: 6.1: Proposal Writing

Ability to write proposals to fund research or develop new programs that apply biological concepts and knowledge.

Track: Biological Sciences Graduate Programs

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Portfolio Evaluation			Yes

Outcome: 6.2: Fostering Ownership

Foster ownership of ideas, research, concepts, knowledge, and effort.

Track: Biological Sciences Graduate Programs

Outcome Status: Active

Means of Assessment			
Assessment Method	Criterion	Schedule	Active
Portfolio Evaluation			Yes