

Annual Program Assessment Report

Academic Year Assessed: 2019-2020

Department/Program: Biology

1. Program Map

A curriculum map linking courses to program outcomes has been completed.

Yes

No:

If completed, does your program map need to be updated?

Yes: Please send your updated map to Mandy.

No It was recently completed.

2. Assessment Plan and Schedule

Please review your draft assessment plan & schedule and update as needed.

3. Courses Assessed

BIOM 250

BIOH 104

BIOH 201

4. Program Outcomes Assessed

BIOM 250 does not align to specific program outcomes at this time

BIOH 104 & BIOH 201 (Gen Ed Core—Natural Science)

- identify and solve problems using methods of the discipline;
- use logical skills to make judgments;
- demonstrate thinking, comprehension, and expression of subject matter;
- communicate effectively using scientific terminology;
- use quantitative skills to solve problems;
- integrate through analysis;
- demonstrate the relationship between actions and consequences;
- discuss the role of science in the development of modern technological civilization

5. Faculty Data and Course Perceptions

a) Percentage of full-time faculty participating in assessment

75%

b) What went well?

- The majority of students were successful in the course
- High student engagement

- Helping students use learning styles to integrate different study strategies

c) What might have gone better?

- Student attrition occurred due to lack of preparedness and potential schedule overload
- Lack of impact or increased success when using online platforms
- Incorporating active learning activities in online labs
- Attendance

6. Overall Assessment of Student Learning

a) Areas of strength demonstrated in student learning.

- Quality research projects with higher than previous success rates
- Higher than average pass rates and student engagement
- Application of knowledge from hands-on exercises
- Performance on written assignments
- Teamwork skills

b) Areas that need improvement in student learning.

- Some students did not submit a major assignment
- Ability to use technology, particularly multiple platforms
- Student time management and organization
- Use of higher-order thinking skills
- Difficulty processing new information due to previously held misconceptions

c) Measures of student feedback/indirect learning used

Assessment Measure	Where
Anecdotal/informal conversations with students	BIOM 250; BIOH 104; BIOH 201
Instructor-created feedback forms	BIOM 250; BIOH 104; BIOH 201
Institutional student course evaluations	BIOM 250; BIOH 104; BIOH 201
Student success rates in your course	BIOM 250; BIOH 104; BIOH 201
Other indirect measures of student learning (surveys, exit interviews, focus groups, job placement, etc)	BIOM 250; BIOH 104

d) Planned changes and measures of success.

Course	Planned Change	Reason for Change	Success Measure
BIOM 250	Revise research project to fit 8-week course model	Shift to compressed schedule	TBD
BIOH 104	-Weekly check-in points -Hands-on labs -Increase D2L integration -Weekly synchronous meetings for online sections	Student success rates Student feedback	Student feedback and overall success rates Student participation

BIOH 201	-Reduce online assignments that students do not find valuable; increase hands-on learning experiences -Revise tiered questions	Student performance and feedback	Improved performance on higher-order formative exercises—70% met expectations
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e) Changes resulting from previous assessments: What was changed and what drove those changes? How was success measured?

f) What previous departmental or program-level changes have led to outcome improvements? Explain.

7. College Learning Outcomes Assessed

a) CLOs assessed and tools used

CLOs	Course	Assessment Tools	Rating	Average Rating
Communication	BIOM 250	Essay questions on exams	3	2.5
	BIOH 104	Lab activities w/ group work	2	
Critical Thinking	BIOH 201	Case studies	2	2
Professionalism				

Average assessment of student CLO attainment:

- | | |
|-----------------------------|------------------------------|
| 4) Exceeded expectations | 3) Met expectations |
| 2) Approaching expectations | 1) Did not meet expectations |

b) Discussion of student CLO attainment.

- BIOM 250: Students met expectations on assessments for communication
- BIOH 104: Students are early in their education careers and still developing discipline-specific communication skills
- BIOH 201: Bimodal grades/skills distribution; some students are able to meet expectations, while some are not able to sift through extraneous information in problems

c) Areas of strength demonstrated in student CLO attainment.

- Students were able to demonstrate strong conceptual understanding
- Higher-performing students were able to make meaningful connections between concepts studied and real-life scenarios; ability to use deductive reasoning

d) Areas that need improvement in student CLO attainment.

- Poor sentence-level writing skills
- Lower-performing students struggle to differentiate between relevant and irrelevant information

e) Planned changes to CLO assessment and measures of success.

- BIOH 104: Emphasize the importance of communication in healthcare careers; increased quality in lab interactions and lab assessment scores
- BIOH 201: Continue providing practice opportunities to build critical thinking skills

8. High Impact Practices

a) High Impact Practices and integration methods

HIP	Where	How
First-Year Seminars and Experiences		
Common Intellectual Experiences		
Learning Communities		
Writing-Intensive Courses		
Collaborative Assignments and Projects	BIOM 250 BIOH 104 BIOH 201	Group work and projects in lab and lecture
Undergraduate Research		
Diversity/Global Learning		
ePortfolios		
Service Learning/Community-Based Learning		
Internships		
Capstone Courses and Projects		

b) Impact on student success and discussion.

- Students were able to successfully work and study together

c) Planned changes to HIPs integration and success measures.

- Incorporate more collaborative assignments in online courses

9. Response to Assessment

a) Based on the analysis of the data, what was learned from this assessment period?

Although all of our science faculty have continual discussions with students regarding time management, many students are simply unable or unwilling to put in the time necessary to be successful in many Biology courses. We are seeing this issue being negatively amplified by our recent shift to 8 week sessions starting Fall 2020. Perhaps additional discussions between students and advisors prior to registering for the courses would be beneficial?

b) Will there be any program-level curricular or assessment changes (such as plans for measurable improvements, or realignment of learning outcomes)?

YES _____ NO ___X___

If yes, when will these changes be implemented and how (if applicable) will they be measured?

c) If other criteria are used to recommend program changes (such as exit surveys, or employer satisfaction surveys) please explain how the responses are driving department, or program decisions.

None at this time.

Please return this completed form to Mandy Wright at assessment@gfcmsu.edu