Bachelor of Science with a major in Biology

Macon

Spring Semester 2018

Academic Program Assessment

Program and Assessment Report Information

Prepared on: 7/10/2018 6:27:44 PM	**By: dawn.sherry@mga.edu**
In which college or school is this program located?	Arts and Sciences
Program Type:	Undergraduate (120 Hours)
Program Name:	Bachelor of Science with a major in Biology
Reporting Cycle: (Note: Some programs are required to report on a semester basis for reasons of secondary accreditation or a graduate program required to established assessment data before the next five-year report to SACSCOC.)	Annual Reporting Cycle
Which semester were the data collected and analyzed? If it crossed multiple semesters, select the latest semester of data.	Spring Semester 2018
For which campus are these assessments being submitted? A separate assessment report is needed for each location a program is offered.	Macon
Approximately how many students are in this program at this location?	279

Student Learning Outcomes

SLO 1

What is the first student learning outcome for this academic program? Student Learning Outcomes should be stated in measurable terms (i.e. students will be able to.....)	Biology majors should be able to demonstrate knowledge of the processes of evolution.
What instrument was used to measure student's ability to demonstrate mastery of this learning outcome? (i.e. exam, assignment with rubric, speech, demonstration of ability, lab assignment)	Exam
What level would a student need to achieve on the assessment instrument to demonstrate mastery of this learning outcome? (i.e. 70%, an average of meets on the rubric, 3 of 5 correct).	70% correctly answer 5 questions on exam
What is the target percent of students who should achieve mastery of this Student Learning Outcome? (this should be a number between 0-100)	70
During this assessment cycle, what percent of the students who participated in this assessment demonstrated mastery of this learning outcome? (this should be a number between 0-100)	68

SLO 2

What is the second student learning outcome for this academic program? Student Learning Outcomes should be stated in measurable terms (i.e. students will be able to.....)	Biology majors should be able to demonstrate knowledge of the differences and commonalities between prokaryotic and eukaryotic cells.
What instrument was used to measure student's ability to demonstrate mastery of this learning outcome? (i.e. exam, assignment with rubric, speech, demonstration of ability, lab assignment)	Exam
What level would a student need to achieve on the assessment instrument to demonstrate mastery of this learning outcome? (i.e. 70%, an average of meets on the rubric, 3 of 5 correct).	70% answer 5 questions correctly.
What is the target percent of students who should achieve mastery of this Student Learning Outcome? (this should be a number between 0-100)	70
During this assessment cycle, what percent of the students who participated in this assessment demonstrated mastery of this learning outcome? (this should be a number between 0-100)	93

SLO 3

What is the third student learning outcome for this academic program? Student Learning Outcomes should be stated in measurable terms (i.e. students will be able to.....)	Biology majors should be able to demonstrate knowledge of genetic material.
What instrument was used to measure student's ability to demonstrate mastery of this learning outcome? (i.e. exam, assignment with rubric, speech, demonstration of ability, lab assignment)	Exam
What level would a student need to achieve on the assessment instrument to demonstrate mastery of this learning outcome? (i.e. 70%, an average of meets on the rubric, 3 of 5 correct)	70
What is the target percent of students who should achieve mastery of this Student Learning Outcome? (this should be a number between 0-100)	70% should answer 5 questions correctly
During this assessment cycle, what percent of the students who participated in this assessment demonstrated mastery of this learning outcome? (this should be a number between 0-100)	77.6

SLO 4

What is the fourth student learning outcome for this academic program? Student Learning Outcomes should be stated in measurable terms (i.e. students will be able to.....)	Biology majors should be able to demonstrate knowledge of diversity and speciation of living things
What instrument was used to measure student's ability to demonstrate mastery of this learning outcome? (i.e. exam, assignment with rubric, speech, demonstration of ability, lab assignment)	Exam
What level would a student need to achieve on the assessment instrument to demonstrate mastery of this learning outcome? (i.e. 70%, an average of meets on the rubric, 3 of 5 correct).	70% of students correctly answer 5 questions
What is the target percent of students who should achieve mastery of this Student Learning Outcome? (this should be a number between 0-100)	70
During this assessment cycle, what percent of the students who participated in this assessment demonstrated mastery of this learning outcome? (this should be a number between 0-100)	71.5

Sampling

How many students participated in the assessment of these learning outcomes, in this program, for this assessment cycle at this location?	95

Evidence of changes based on an analysis of results

What changes were implemented based on an analysis of the students' performance on these Student Learning Outcomes? (Evidence of the improvement must be kept and filed in the department or academic unit including but not limited to: changes in exam questions, reading assignments, syllabi, course instruction materials or assignments. Both old versions and new versions should be kept on file for 10 years.)	Students were unable to answer two questions relating to autapomorphy. (Macon) Question #8 -52% students got it correct. 8. An autapomorphy is a. a kind of heritable character b. a unique character that helps define a species c. useless for classifying relationships d. all of the above Question #10- 43% of students got it correct 10. According to the cladogram, Bone is a(an) a. autapomorphy for the clade with the dot at the last common ancestor b. plesiomorphy for the clade with the dot at the last common ancestor c. synapomorphy for the clade with the dot at the last common ancestor d. it cannot be determined from the information given To improve understanding of this concept the instructor will: - provide a pre-vocabulary quiz on terms specific to phylogenetic trees FA17-(n=15) average score was 83.3%. Target was met. (Cochran) SP 18-(n=42) average score was 68%. Students were unable to answer two questions relating to autapomorphy. (Macon) Question #8 -52% students got it correct. 8. An autapomorphy is a. a kind of heritable character b. a unique character that helps define a species c. useless for classifying relationships d. all of the above Question #10- 43% of students got it correct 10. According to the cladogram, Bone is a(an) a. autapomorphy for the clade with the dot at the last common ancestor b. plesiomorphy for the clade with the dot at the last common ancestor c. synapomorphy for the clade with the dot at the last common ancestor

	d. it cannot be determined from the information given To improve understanding of this concept the instructor will: - provide a pre-vocabulary quiz on terms specific to phylogenetic trees - review terms during lecture - give students an assignment that asks them to: a. label a phylogenetic tree with the proper terms b. create a phylogenetic tree and incorporate the new vocabulary terms - provide a post-vocabulary quiz, compare with pre-vocabulary quiz scores *Please Note: this form only allows for 4 SLO's in a program. The B.S. Biology program has 5 outcomes, so the last one is not reported here.

Form run:
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