

2017-2018 Assessment Cycle COS_Biology MS

Mission (due 12/4/17)

University Mission

The University of Louisiana at Lafayette offers an exceptional education informed by diverse worldviews grounded in tradition, heritage, and culture. We develop leaders and innovators who advance knowledge, cultivate aesthetic sensibility, and improve the human condition.

University Values

We strive to create a community of leaders and innovators in an environment that fosters a desire to advance and disseminate knowledge. We support the mission of the university by actualizing our core values of equity, integrity, intellectual curiosity, creativity, tradition, transparency, respect, collaboration, pluralism, and sustainability.

University Vision

We strive to be included in the top 25% of our peer institutions by 2020, improving our national and international status and recognition.

College / VP and Program / Department Mission

Mission of College or VP-area

Provide the mission for the College or VP-area in the space provided. If none is available, write "None Available in 2017-2018."

Our mission is to serve our students, the citizens of Louisiana, the nation, and the world, through innovative and stimulating educational experiences and compelling research initiatives that create knowledge, deepen our basic understanding of the world around us, further economic development, and enhance quality of life. In support of our mission, The College of Sciences seeks to:

Develop broad-thinking students into mature, ethical professionals, scientists, and researchers with the necessary creativity, critical thinking, and problem solving skills required to make significant contributions to industry, government, and the academic sector.

Recruit and support top-notch teaching and research faculty engaged in scientific endeavors that are recognized nationally for their relevance and impact.

Enrich scientific research and education through on-campus collaborations, multidisciplinary programs, large-scale multi-institution initiatives, as well as partnerships with government and industry.

Foster scientific literacy within the University, the citizens of Louisiana, and the nation by providing stimulating courses for our students and by partnering with educators at the K-12 and community college level.

Provide leadership in the translation and application of research into practical solutions that will benefit our local community, the state of Louisiana, our natural environment, industries of the Gulf Coast region, and society as a whole.

The Ray P. Authement College of Sciences will emerge as a preeminent college of sciences in the Southeast and Gulf Coast region of the United States. The College will be recognized nationally for its innovative education, scholarly research activities addressing our nation's grand challenges, and for its diverse student body with exemplary academic achievements, leadership abilities, and global perspectives.

Mission of Program / Department

Provide the program / department mission in the space provided. The mission statement should concisely define the purpose, functions, and key constituents. If none is available, write "None Available in 2017-2018."

The Department of Biology aims to advance scientific knowledge through research and teaching. We endeavor to train future biologists for careers through extensive hands-on research opportunities coupled with intensive classroom

instruction. We provide three avenues for advanced training and degrees in biology, with each tailored for particular types of careers. We offer non-thesis and thesis tracks for a Master of Science degree in biology, and a Doctor of Philosophy degree in environmental and evolutionary biology.

Attachment (optional)

Upload any documents which support the program / department assessment process.

Assessment Plan (due 12/4/17)

Assessment Plan (Goals / Objectives, Assessment Measures and Criteria for Success)

Assessment List

Goal/Objective	All candidates in the M.S. Program will have the knowledge and skills necessary to understand research methods and results related to the student's field of specialization.(Imported)		
Legends	SLO - Student Learning Outcome/Objective (academic units);		
Standards/Outcomes			
Assessment Measures	Assessment Measure	Criterion	Attachments
	Direct - Written Assignment	We aim for 80% or more students to pass the proposal defense (thesis track) or written exam (non-thesis track) with a score of 8 or better.	MS_Thesis_Assessment_Rubric_A_proposal.pdf MS_NON_THESIS_Assessment_Rubric_A_comps.pdf

Goal/Objective	All candidates in the M.S. program will have the knowledge and skills necessary to evaluate and orally discuss research results in the student's field.(Imported)		
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Assessment Measures	Assessment Measure	Criterion	Attachments
	Direct - Presentation	We aim for 80% or more of M.S. students to defend their theses (thesis track) or pass	MS_Thesis_Assessment_Rubric_B_defense.doc MS_NON_THESIS_Assessment_Rubric_B_final_exam.pdf

		their final oral exams (non-thesis track) successfully with a rubric score of at least 10 or higher.	
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Program / Department Assessment Narrative

The primary purpose of assessment is to use data to inform decisions and improve programs (student learning) and departments (operations); this is an on-going process of defining goals and expectations, collecting results, analyzing data, comparing current and past results and initiatives, and making decisions based on these reflections. In the space below, describe the program's or department's overall plan for improving student learning and/or operations (the "assessment plan"). Consider the following:

- 1) What strategies exist to assess the outcomes?
- 2) What does the program/department expect to achieve with the goals and objectives identified above?
- 3) How might prior or current initiatives (improvements) influence the anticipated outcomes this year?
- 4) What is the plan for using data to improve student learning and/or operations?
- 5) How will data be shared within the Program/Department (and, where appropriate, the College/VP-area)?

Assessment Process

Monitoring data for both M.S. and Ph.D. graduate programs are available from 2011 till 2016. During this period of time the students in the programs have met ALL very stringent goals and objectives put forth by the Department of Biology. The overall plan of the Department is then not to lose the track and stay on course with this high level performance, which includes continuing assessment and monitoring graduate student performance in the program and their professional successes after graduation. The standard strategy for assess the outcomes will continue to be based on assessment rubrics designed for every step of the educational process in our programs. There is one avenue for improvement that we will pursue: improve the reporting and faculty participation in evaluation of proposal defenses, comprehensive examinations and thesis and dissertation defenses. We anticipate that these initiatives further improve overall scores of our student performance. The data on the program performance will be shared though Department/Program-wide e-mails and informal conversations.

Results & Improvements (due 9/15/18)

Results and Improvement Narratives

Assessment List Findings for the Assessment Measure level for All candidates in the M.S. Program will have the knowledge and skills necessary to understand research methods and results related to the student's field of specialization.(Imported)

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		<p>of biology graduate students. We provide a summary of these findings below to supplement the regular assessment and to demonstrate the outstanding productivity and success of the biology graduate programs. During the preceding 5 years (2013-2017) , biology graduate (MS & PhD combined) students at UL Lafayette published 101 papers in peer-reviewed journals, submitted 68 additional manuscripts for publication, and gave 306 presentations at off-campus conferences or seminars. We have also assembled longer-term data on the employment outcomes of biology MS and PhD graduates. As of 2016 (the most recent year for which we have analyzed data), 93% of biology MS graduates started careers in science following graduation and most continued as doctoral students; a substantial proportion took jobs as field and laboratory technicians or took positions in federal or state agencies. We continue to collect data from additional years and will report new results as the data and analyses are updated in future years.</p>		
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Reflection (Due 9/15/18)

Reflection

The primary purpose of assessment is to use data to inform decisions and improve programs and operations; this is an on-going process of defining goals and expectations, collecting results, analyzing data, comparing current and past results and initiatives, and making decisions based on these reflections. Recalling this purpose, respond to the questions below.

1) How were assessment results shared in the program / department?

Please select all that apply. If "other", please use the text box to elaborate.

Distributed via email

Presented formally at staff / department / committee meetings

Discussed informally (selected)

Other (explain in text box below)

2) How frequently were assessment results shared?

Frequently (>4 times per cycle)

Periodically (2-4 times per cycle)

Once per cycle (selected)

Results were not shared this cycle

3) With whom were assessment results shared?

Please select all that apply.

Department Head (selected)

Dean / Asst. or Assoc. Dean

Departmental assessment committee (selected)

Other faculty / staff (selected)

4) Consider the impact of prior applied changes. Specifically, compare current results to previous results to

evaluate the impact of a previously reported change. Demonstrate how the use of results improved student learning and/or operations.

Our previous action plan was to continue our strong graduate education as we have been doing for many years, without implementing new and unnecessary changes. Our previous results have been strong and stable, indicating that our previous action plans have been working well. Moreover, during the 2017-2018 academic years, we observed further (albeit modest) improvements of the MS student performance.

5) Over the past three assessment cycles, what has been the overall impact of "closing the loop"? Provide examples of improvements in student learning, program quality, or department operations that are directly linked to assessment data and follow-up analysis.

Our graduate programs are preparing students well for further graduate study and employment. Impressive student accomplishments in publishing, presenting research at conferences, and finding jobs in their fields after graduation all demonstrate that our programs are working well and do not need changes at this time.

Attachments (optional)

Upload any documents which support the program / department assessment process.