

2017-2018 Assessment Cycle COS_Biology PhD

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 doctoral students in the degree program will have the knowledge and skills necessary to design a research project that has the potential to contribute new knowledge to the student's field of specialization.(Imported)								
Legends	SLO - Student Learning Outcome/Objective (academic units);								
Standards/Outcomes									
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Goal/Objective	All doctoral candidates in the degree program will be able to demonstrate a breadth of knowledge across the discipline and a depth of knowledge in their field of specialization(Imported)								
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Goal/Objective	All doctoral candidates will have the skills necessary to analyze results and present them in oral and written formats associated with presentation and publication of original research in the student's field of specialization.(Imported)								
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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 2010 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 doctoral students in the degree program will have the knowledge and skills necessary to design a research project that has the potential to contribute new knowledge to the student's field of specialization.(Imported)

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Assessment Measures	Assessment Measure		Criterion		
	Direct - Project		We aim for 80% or more of Ph.D. students to pass the proposal defense successfully with a rubric score of at least 8 or higher.		
Assessment Findings	Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
	Direct - Project	Has the criterion We aim for 80% or more of Ph.D. students to pass the proposal defense successfully with a rubric score of at least 8 or higher. been met yet? Met	To provide meaningful numbers, we report cumulative data for the past five years. From AY 2012-13 through AY 2016-17, we met the target of 80% or more of Ph.D. students earning a rubric score of at least 8 or higher in the proposal defense: 94.4% of student (17 out of 18) who were assessed surpassed the target, with an average score of 10.0. We are currently working to increase participation in the		- Assessment Process: Continuous monitoring: Continuous monitoring did reveal a significant improvement (94% versus 91%) in the student performance in this category. Since we met the criteria, no further improvement is needed.

			assessment process.		
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Assessment List Findings for the Assessment Measure level for All doctoral candidates in the degree program will be able to demonstrate a breadth of knowledge across the discipline and a depth of knowledge in their field of specialization(Imported)

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			currently working to increase participation in the assessment process.		
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Assessment List Findings for the Assessment Measure level for All doctoral candidates will have the skills necessary to analyze results and present them in oral and written formats associated with presentation and publication of original research in the student's field of specialization.(Imported)

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	Direct - Thesis	Has the criterion We aim for 80% or more of Ph.D. students to defend their dissertations successfully with a rubric score of at least 10 or higher. been met yet? Met	To provide meaningful numbers, we report cumulative data for the past five years. From AY 2012-13 through AY 2016-17, we met the target of 80% or more of Ph.D. students earning a rubric score of at least 10 or higher in the dissertation defense: 100% of students (18 out of 18) assessed surpassed the target, with an average score of 11.9. We are currently working to increase participation in the assessment process. Beyond our		- Assessment Process: Continuous monitoring: Continuous monitoring did not reveal any significant changes in the student performance in the category. We are here at the maximum - 100%. No further improvement is needed.

			<p>assessment data, we have been collecting data on the professional accomplishments and post-graduation employment outcomes 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. In the calendar year 2016, biology graduate (MS & PhD combined) students at UL Lafayette published 26 papers in peer-reviewed journals, submitted 9 additional manuscripts for publication, and gave 103 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), 99% of biology PhD graduates started post-graduate careers in biology. The large majority of our graduates stayed in academia, with a much smaller proportion (11%) obtaining a government position. Some graduates entered K-12 education, private industry, or non-governmental organizations. Of those graduates staying in</p>		
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			<p>academia, the majority started out as post-doctoral researchers. Another significant proportion was hired directly into Assistant Professor positions. Most of these were tenure-track positions, while some were appointments as non-tenure-track Research Assistant Professor. A slightly lower proportion of our graduates started as an Instructor or Lecturer at the college level. Among the graduates of our doctoral program who took their first position in government, positions included those at U.S. federal agencies (such as EPA, USDA, NOAA, NMFS, USGS, Smithsonian, Army Corps of Engineers, US Patent Office), state agencies (e.g., Washington State Department of Ecology), and agencies overseas (e.g., the National Aquarium of Taiwan). Finally, some of our graduates started their careers in private industry (e.g., CH2M Hill) or non-governmental organizations (e.g., The Nature Conservancy). Doctoral program graduates are working all over the world, including Australia, Brazil, China, Columbia, Ecuador, France, Germany, Kenya, New Zealand, Nigeria, Panama, South Korea, and Taiwan. Approximately 15% of our graduates work internationally. In the</p>		
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		US, our graduates work in 30 states and Washington DC. We continue to collect data from additional years and will report new results as the data and analyses are updated in future years.		
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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 unnecessary changes. Our previous results have been strong and stable, indicating that our previous action plans have been working well.

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. 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. Moreover, during the 2017-2018 academic years, we observed significant improvements of the Ph.D. student scores for the proposal defense.

Attachments (optional)

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