

## 2016-2017 Assessment Cycle COS\_Biology MS

### Mission (due 1/20/17)

#### 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 / Department / Program Mission

##### College Mission

*Provide the college mission in the space provided. If none is available, write "None Available in 2016-2017."*

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.

##### Department / Program Mission

*Provide the department / program mission in the space provided. If none is available, write "None Available in 2016-2017".*

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.

## Assessment Plan (due 1/20/17)

### Assessment List (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.  |   |             |                    |           |             |                             |   |   |
|-----------------------------|---|---|-------------|--------------------|-----------|-------------|-----------------------------|---|---|
| Legends                     | SLO - Student Learning Outcome/Objective (academic units);  |   |             |                    |           |             |                             |   |   |
| Standards/Outcomes          |   |   |             |                    |           |             |                             |   |   |
| Assessment Measures         | <table border="1"> <thead> <tr> <th>Assessment Measure</th> <th>Criterion</th> <th>Attachments</th> </tr> </thead> <tbody> <tr> <td>Direct - Written Assignment</td> <td>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.</td> <td>MS_Thesis_Assessment_Rubric_A_proposal.pdf<br/>MS_NON_THESIS_Assessment_Rubric_A_comps.pdf</td> </tr> </tbody> </table> |   |             | 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<br>MS_NON_THESIS_Assessment_Rubric_A_comps.pdf |
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|                             |   |   |             |                    |           |             |                             |   |   |

| 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.  |   |             |                    |           |             |                       |  |   |
|-----------------------|--|---|-------------|--------------------|-----------|-------------|-----------------------|--|---|
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|                       |  |   |             |                    |           |             |                       |  |   |

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|  |  | thesis track) successfully with a rubric score of at least 10 or higher. |  |
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## Results & Improvements (due 9/15/17)

### 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.**

|                     |  |  |   |                                       |   |
|---------------------|--|--|---|---------------------------------------|---|
| 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. |  |   |                                       |   |
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| Assessment Measures | <b>Assessment Measure</b>  |  | <b>Criterion</b>  |                                       |   |
|                     | 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.                            |   |                                       |   |
| Assessment Findings | <b>Assessment Measure</b>  | <b>Criterion</b>   | <b>Summary</b>  | <b>Attachments of the Assessments</b> | <b>Improvement Narratives</b>   |
|                     | Direct - Written Assignment  | Has the criterion 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. been met | To provide meaningful numbers, we report cumulative data for the past five years. From AY 2012-13 through 2016-17, we met the target of 80% or more of M.S. students earning a rubric score of at least 8 or higher in the proposal defense or comprehensive exam: 94.4% (17 out of 18) of students who were assessed surpassed the target, with an average |                                       | - Assessment Process: Continuous monitoring: We plan to work on increasing faculty compliance with assessments. |

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|--|--|---------------------|---|--|--|
|  |  | <p>yet?<br/>Met</p> | <p>score of 10.0. We are still considering additional revisions of the assessment rubrics to make the results for thesis-track and non-thesis-track M.S. students more comparable to one another. In addition to these possible revisions and to accumulating sufficient data for analysis, we are currently working to increase participation in the assessment process. Independently of our assessment data, we have also 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 &amp; 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), 93% of biology MS graduates started careers in science following graduation and most continued as doctoral students; a</p> |  |  |
|--|--|---------------------|---|--|--|

|  |  |  |  |  |  |
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|  |  |  | 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. |  |  |
|--|--|--|--|--|--|

**Assessment List Findings for the Assessment Measure level for 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.**

| 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.  |   |                                |  |  |                    |           |                       |  |                        |                       |   |   |  |  |
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|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  | <p>21) of students who were assessed surpassed the target, with an average score of 10.8. We are still considering additional revisions to make the assessment results for thesis-track and non-thesis-track M.S. students more comparable to one another. In addition to these possible revisions and to accumulating sufficient data for analysis, we are currently working to increase participation in the assessment process.</p> |  |  |
|--|--|--|--|--|--|

## Reflection (Due 9/15/17)

### Reflection

#### 1) How were assessment results shared in the unit?

*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 in the unit?

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) What were the measurable or perceivable effects on your current (2016-2017) findings based on prior action plans (created in 2015-2016)?**

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.

**5) What has the unit learned from the current assessment cycle?**

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

### Attachments

**Upload any supporting documents related to your assessment plans, results, or improvements. Documents may include rubrics, survey questions, reports, etc. There is no limit to the number of documents you can upload.**

**Click "Select File" to upload document(s)**