2016-2017 Assessment Cycle COS_Physics 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".
Our program leads to a practical stand-alone MS degree or is an excellent stepping-stone towards a PhD program

elsewhere. Students take advanced classes
in small-class settings, which are easier to personalize. Students work on research projects in a very close and direct feedback with their research advisers, work which many times leads to publications. This experience and the students' CV strengthening greatly enhance their skills and chances to get jobs or be accepted in PhD programs, if that is what they seek.

Assessment Plan (due 1/20/17)

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

Assessment List

<table>
<tr><td>Goal/Objective</td><td>All candidates in the M.S. program will be able to demonstrate knowledge across the discipline and have a deeper understanding in their area of specialization. General knowledge is assessed though regular evaluation in general classes. Knowledge in their specialized field is assessed through two seminar presentations, proposal defense, and thesis/project defense. Non-thesis track students take an additional written exam.</td></tr>
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<tr><td>Standards/Outcomes</td><td></td></tr>
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		average score above 2.5 (50%) is considered a "pass". An average of the two seminar presentations is considered their final score. The target is to have all students pass.	

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 be able to demonstrate knowledge across the discipline and have a deeper understanding in their area of specialization. General knowledge is assessed though regular evaluation in general classes. Knowledge in their specialized field is assessed through two seminar presentations, proposal defense, and thesis/project defense. Non-thesis track students take an additional written exam.

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Assessment Findings	

Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
Direct - Academic Direct Measure (Other)	Has the criterion All candidates in the M.S. program are evaluated throughout the program through examinations that evaluate their level of preparation in the different academic subjects they are trained. The department maintains the same standards as those of the Graduate School: a minimum GPA of 3.0, no more than 2 grades of C, no grades of D, no grades of F. For a non-thesis track candidate, the total requirement is completed with the passing of a written 3-hours comprehensive examination covering the student's course work, research work, and basic topics in advanced mechanics and electromagnetism, before graduation. The thesis track students are having their comprehensive examination in oral form, during the time of their thesis defense. The performance evaluation is done as described in the Targets of this Measure. (1) Regular classes: Each candidate’s proficiency in the specific subject of a class is evaluated through a final grade. The target is to have	Of the three criteria, two were met (2, 3) and one (1) was not. Therefore, the target was not met. During the 2016-2017 academic year, fourteen students were enrolled in their Master Degree in Physics, each taking an average of 3 classes per semester, plus seminar. Target (1): The majority obtained grades of A and B. One grade of C and one grade of F were obtained. This target was not met. Target (2): Two students on non-thesis track took the written comprehensive exam. Both students passed the four parts of the test (one took the test for the second, allowed, time). This target was met. Target (3): One student on thesis track passed the comprehensive exam and defended his theses. He obtained all scores of (4) and therefore passed. This target was met.		

	all students pass with a grade of B. (2) Comprehensive exam: for the non thesis track, the written exam is considered passed if the candidate obtains a minimum of 50% in each of the tested areas. The target is to have all students taking the exam pass. (3) Comprehensive exam: for the thesis track, the committee will vote to give a score from 1-5 for this assessment on the scale: 1=does not meet expectations; 2=approaching expectations; 3=meets expectations; 4=slightly above expectations, 5=exceeds expectations. A score of three (3) is considered a pass. The target is to have 100% of the students taking this exam pass. been met yet? Not met			

Assessment List Findings for the Assessment Measure level for All candidates in the M.S. program will have the skills and knowledge necessary to design and complete a research project under the guidance of a faculty member who is a member of the Graduate Faculty. All candidates in the M.S. program will have the skills necessary to analyze results and disseminate them verbally and in writing, typically associated with presentations and publications, respectively. Students on thesis track write and defend a thesis and present two seminars; students on non-thesis track finalize the project, present two seminars, and write a final report on the findings.

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Assessment Findings

Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
Direct - Academic Direct Measure (Other)	Has the criterion Each candidate's ability to analyze and synthesize data, as well as to present the results of their research, is evaluated by a committee of faculty members through a number of public oral events. For the thesis track the evaluation is	During the 2016-2017 academic year, one student completed his Master Degree in Physics. We have fifteen graduate students enrolled, eleven continuing and four new. Four of the students defended their		

			done in four rounds: two seminar presentations (PHYS595/596), proposal defense, and thesis defense. For the non-thesis track, the evaluation is done in three rounds: two seminar presentations (PHYS595/596) and a research proposal defense. During all oral events, the committee and the public will ask questions to evaluate the candidate's understanding of the nature of the research, as well as problems associated with the analysis and interpretation of data. In addition, during a thesis defense, questions covering the student's course work can be asked by committee members only. The performance evaluation is done as described in the Targets of this Measure. (1) Proposal defense: Each candidate's ability to design and conduct a research project is evaluated by a faculty committee selected by the student during the Research Proposal Defense. The committee members vote with a final pass/fail evaluation (i.e. more passes than fails). The target is to have all students pass. (2) Thesis defense: For a thesis defense, the committee will vote to give a score from 1-5 for this assessment on the scale: 1=does not meet expectations;	thesis and submitted it to the Graduate School, on track to graduate in FA17. Five other are defending their proposals this semester (FA17). The results regarding the targets for this measure for the 2016-2017 period are as follows. Target (1): Five students proposed their research subject to their committees. All passed. The target is met. Target (2): One student defended his thesis in front of their committees. He obtained three grades of 4, resulting in an average above 3. All passed. The target is met. Target (3): Six students presented two seminars. The average results for the six students are: Student 1: 69% academic content, 84% presentation skills; Student 2: 73% academic content, 73% presentation skills; Student 3: 91% academic content, 91% presentation skills; Student 4: 82% academic content, 84% presentation skills; Student 5: 82% academic content, 84% presentation skills;		

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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 (selected)
Discussed informally
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) (selected)
Once per cycle
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
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)?

For assessment measure 1, Target 1 (grades) was not met due to one student. He had big adjustment and behavioral problems. Efforts were made by many (our Department, our Dean's office, the Graduate School, International Affairs Office, Housing Office, Health Center) during his time at UL-L to help him but we couldn't. He quit before his last test, acquiring a grade of F for that class. He also had a C from a previous semester. The conclusion we draw from this case is that he was an unpredictable student, high on academics but hard to work with. Nothing appeared to be out of the ordinary when he was interviewed. There are no measurable effects in this case.

Additional actions taken were:
(a) Enforce early research proposal defense. We had one student who defended his proposal one semester earlier than the norm and defended his thesis in the third semester (the average is four semesters). He graduated in three semesters (grad of FA16) and is gainfully employed. Four other students are defending their proposal this semester (FA17) and are on-track.

(b) Four-semester individualized plan for each student. This plan has been successfully implemented for all students. It appears to help students work towards their goal. The requirements are clearly included in a table that is individualized for each student during one-to-one meetings with the Graduate Coordinator. As the student progresses into the program, the requirements are shown as being achieved.

(c) Professional Behavior Education: The graduate coordinator organized a seminar to discuss professional and ethical behavior in the academia. The topics covered included: student-advisor and professional relations, recommendation letters and rules, technical presentations, addressing requests, expected skills at graduation, forms expected to be submitted as progress is made, advice from former graduate students in the department.

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

It is clear that the background preparation (K-12 and undergraduate) affects the quality of the research the student can perform, as well as the time it takes for them to make progress. We noticed that grades are less and less a reflection of the students connecting/learning abilities. In addition, letters of reference are often too general to give relevant information towards the student's probability of success. They are most likely positive and don't address specifics. We are taking additional measured to sort the applications. We interview the students, we call the references when the numbers are provided. It has helped to a certain extent, but it still not a guarantee that the applicant will perform well.

Attachments