2017-2018 Assessment Cycle COS_Computer Science 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 primary mission of the doctoral program in computer science is to prepare and train students for careers in the research and teaching of computer science.

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 must demonstrate breadth of knowledge as evidenced through expertise in at least two areas of computation.(Imported)
Legends	SLO - Student Learning Outcome/Objective (academic units);
Standards/Outcomes	

Assessment Measures			
	Assessment Measure	**Criterion**	**Attachments**
	Direct - Comprehensive Exam (graduate level)	Students' breadth of knowledge is assessed by a written comprehensive examination in the areas of computer algorithm analysis and theory of computation, software development, and applications. A student is examined in two areas of his or her own choice. Each area examination is a three-hour session and is prepared and graded by at least two graduate faculty members who are experts in that area. All CACS faculty members as a body meet every semester to review the examination and vote on whether a student has passed or failed an examination. Each student must receive a passing grade in both areas to pass an examination. This assessment is conducted in the 2nd year of a student's Ph.D. studies. The written comprehensive exam is conducted every year in January and August. At least 70% of the students who attempt the comprehensive examination must pass it.	

Goal/Objective	Doctoral students must be able to do original research in an area of computing.(Imported)
Legends	SLO - Student Learning Outcome/Objective (academic units);
Standards/Outcomes	

Assessment Measures			
	Assessment Measure	**Criterion**	**Attachments**

| | Direct - Prospectus Exam (Other) | All doctoral students must show ability to do original research in an area of computing. All doctoral students are required to pass Ph.D. prospectus exam that is examined by student's advisor as well as committee members. The percentage of students who pass their prospectus indicates the degree of success of this outcome. At least 70% of the students who take the prospectus exam must pass it. Prospectus exam demonstrates the ability to do original research. | |

Goal/Objective	All doctoral students must be able to present their research(Imported)
Legends	SLO - Student Learning Outcome/Objective (academic units);
Standards/Outcomes	
Assessment Measures	

Assessment Measure	Criterion	Attachments
Direct - Doctoral Defense Exam (Other)	All doctoral must be able to present their research in a formal setting. Doctoral defenses are used to measure this outcome. The percentage of students who successfully defend their dissertation indicates the degree of success of this outcome. At least 70% of the students who take the doctoral defense exam must pass it.	

Goal/Objective	Doctoral students must be able to publish their research in a peer reviewed medium.(Imported)
Legends	SLO - Student Learning Outcome/Objective (academic units);
Standards/Outcomes	
Assessment Measures	

Assessment Measure	Criterion	Attachments
Direct - Peer Reviewed Publication (Other)	Doctoral students must be able to publish their work in a peer reviewed medium. The percentage of doctoral students who are able to achieve one or more peer reviewed publication will indicate the degree of success of this outcome. At least 70% of doctoral students must graduate with at least one peer reviewed research publication.	

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

The program requires students to gain breadth of knowledge in areas of computer science, able to do original research and present in a formal setting. The program assesses the outcomes through written comprehensive exams, Ph.D. prospectus exams, Doctoral Defense Exams, and peer reviewed research publications. At least 70% of the students must pass all the exams with at least one peer reviewed research publication. The results of assessment are sent out to the whole department through email annually.

Results & Improvements (due 9/15/18)

Results and Improvement Narratives

Assessment List Findings for the Assessment Measure level for All doctoral students must demonstrate breadth of knowledge as evidenced through expertise in at least two areas of computation.(Imported)

Goal/Objective	All doctoral students must demonstrate breadth of knowledge as evidenced through expertise in at least two areas of computation.(Imported)
Legends	SLO - Student Learning Outcome/Objective (academic units);
Standards/Outcomes	
Assessment Measures	

Assessment Measure	Criterion
Direct - Comprehensive Exam (graduate level)	Students' breadth of knowledge is assessed by a written comprehensive examination in the areas of computer algorithm analysis and theory of computation, software development, and applications. A student is examined in two areas of his or her own choice. Each area examination is a three-hour session and is prepared and graded by at least two graduate faculty members who are experts in that area. All CACS faculty members as a body meet every semester to review the examination and vote on whether a student has passed or failed an examination. Each student must receive a passing grade in both areas to pass an examination. This

		assessment is conducted in the 2nd year of a student's Ph.D. studies. The written comprehensive exam is conducted every year in January and August. At least 70% of the students who attempt the comprehensive examination must pass it.

Assessment Findings					
	Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
	Direct - Comprehensive Exam (graduate level)	Has the criterion Students' breadth of knowledge is assessed by a written comprehensive examination in the areas of computer algorithm analysis and theory of computation, software development, and applications. A student is examined in two areas of his or her own choice. Each area examination is a three-hour session and is prepared and graded by at least two graduate faculty members who are experts in that area. All CACS faculty members as a body meet every semester to review the examination and vote on whether a student has passed or failed an examination. Each student must receive a passing grade in both areas to pass an examination. This assessment is conducted in the	Eight students took the comprehensive exams in fall 2017 and spring 2018. All passed and became Ph.D. candidates. The goal of at least 70% of the students who attempt the comprehensive examination must pass it has been met.		- Assessment Process: Continuous monitoring: The outcome for this assessment has been well achieved. We will continue to monitor in the coming academic year.

	2nd year of a student's Ph.D. studies. The written comprehensive exam is conducted every year in January and August. At least 70% of the students who attempt the comprehensive examination must pass it. been met yet? Met			

Assessment List Findings for the Assessment Measure level for Doctoral students must be able to do original research in an area of computing.(Imported)

Goal/Objective	Doctoral students must be able to do original research in an area of computing.(Imported)
Legends	SLO - Student Learning Outcome/Objective (academic units);
Standards/Outcomes	
Assessment Measures	

Assessment Measure	Criterion
Direct - Prospectus Exam (Other)	All doctoral students must show ability to do original research in an area of computing. All doctoral students are required to pass Ph.D. prospectus exam that is examined by student's advisor as well as committee members. The percentage of students who pass their prospectus indicates the degree of success of this outcome. At least 70% of the students who take the prospectus exam must pass it. Prospectus exam demonstrates the ability to do original research.

Assessment Findings	

Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
Direct - Prospectus Exam (Other)	Has the criterion All doctoral students must show ability to do original research in an area of computing. All doctoral students are	Three computer science Ph.D. students took the prospectus exam during the FA17 -		- Assessment Process: Continuous monitoring: The outcome for this assessment has been well

| | | required to pass Ph.D. prospectus exam that is examined by student's advisor as well as committee members. The percentage of students who pass their prospectus indicates the degree of success of this outcome. At least 70% of the students who take the prospectus exam must pass it. Prospectus exam demonstrates the ability to do original research. been met yet? Met | SP18 academic year. All passed the exam. The goal of at least 70% of the students who take the prospectus exam must pass it has been met. | | achieved. We will continue to monitor in the coming academic year. |

Assessment List Findings for the Assessment Measure level for All doctoral students must be able to present their research(Imported)

Goal/Objective	All doctoral students must be able to present their research(Imported)
Legends	SLO - Student Learning Outcome/Objective (academic units);
Standards/Outcomes	
Assessment Measures	

Assessment Measure	Criterion
Direct - Doctoral Defense Exam (Other)	All doctoral must be able to present their research in a formal setting. Doctoral defenses are used to measure this outcome. The percentage of students who successfully defend their dissertation indicates the degree of success of this outcome. At least 70% of the students who take the doctoral defense exam must pass it.

Assessment Findings	

Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
Direct - Doctoral	Has the criterion All doctoral must be able to present their	Four computer science Ph.D. students took		- Assessment Process: Continuous

	Defense Exam (Other)	research in a formal setting. Doctoral defenses are used to measure this outcome. The percentage of students who successfully defend their dissertation indicates the degree of success of this outcome. At least 70% of the students who take the doctoral defense exam must pass it. been met yet? Met	their doctoral defense exams during the FA17 - SP18 academic year. All passed exams. The goal of at least 70% of the students who take the doctoral defense exam must pass it has been met.		monitoring: The outcome for this assessment has been well achieved. We will continue to monitor in the coming academic year.

Assessment List Findings for the Assessment Measure level for Doctoral students must be able to publish their research in a peer reviewed medium.(Imported)

Goal/Objective	Doctoral students must be able to publish their research in a peer reviewed medium.(Imported)
Legends	SLO - Student Learning Outcome/Objective (academic units);
Standards/Outcomes	

Assessment Measures	

Assessment Measure	Criterion
Direct - Peer Reviewed Publication (Other)	Doctoral students must be able to publish their work in a peer reviewed medium. The percentage of doctoral students who are able to achieve one or more peer reviewed publication will indicate the degree of success of this outcome. At least 70% of doctoral students must graduate with at least one peer reviewed research publication.

Assessment Findings	

Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
Direct - Peer Reviewed Publication (Other)	Has the criterion Doctoral students must be able to publish their work in a peer reviewed medium. The percentage of	Four computer science Ph.D. students graduated during the FA17 - SP18 academic year. Based on DBLP (a computer science		- Assessment Process: Continuous monitoring: The outcome for this assessment has been well achieved. We

		doctoral students who are able to achieve one or more peer reviewed publication will indicate the degree of success of this outcome. At least 70% of doctoral students must graduate with at least one peer reviewed research publication. been met yet? Met	bibliography website), each student has published at least one peer-reviewed research paper. Note that the numbers do not include the submitted or under reviewed papers. The goal of at least 70% of doctoral students must graduate with at least one peer-reviewed research publication has been met.		will continue to monitor in the coming academic year.

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 (selected)
Presented formally at staff / department / committee meetings
Discussed informally
Other (explain in text box below)

All faculty and staff in CACS were emailed a copy of the detailed assessment report.

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 (selected)
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.

The program has achieved all its outcomes.

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.

With robust data collection and mapping, the program has achieved the outcomes.

Attachments (optional)
Upload any documents which support the program / department assessment process.