# 2017-2018 Assessment Cycle COS\_Computer Engineering 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 multiinstitution 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 purpose of the MS program in computer engineering is to prepare students for positions in industry and to prepare them for doctoral programs in computer engineering.

# **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	Understand and use computer hardware design concepts.(Imported)				
Legends	SLO - Student Lear	rning Outcome/Objective (academic units);			
Standards/Outcomes					
Assessment Measures					
	Assessment Measure	Criterion	Attachments		
	Direct - Academic Direct Measure (Other)	Students should be able to learn and apply fundamental concepts of computer design or very large scale integration. These concepts are taught in courses such as CSCE 581 and CSCE 585 / CSCE 586. The percentage of students who achieve Developing or Developed state on the rubric will indicate the degree of success of this outcome. At least 70% of the students must achieve Developed or Exemplary state on the evaluation rubric.			

Goal/Objective	Understand and use	e core concepts of computer architecture(Imported)	
Legends	SLO - Student Lear	ning Outcome/Objective (academic units);	
Standards/Outcomes			
Assessment Measures			
	Assessment Measure	Criterion	Attachments
	Direct - (Academic Direct Measure (Other)	Concepts of computer architecture are taught in courses such as CMPS 430 and CSCE 530. This outcome will be assesses on the data from one of these courses at a time. At least 75% of the students must achieve Developed or Exemplary state on the rubric. At least 75% of the students must achieve Developed or Exemplary state on the rubric.	

Goal/Objective	Understand and us	e core concepts of operating system(Imported)			
Legends	SLO - Student Learning Outcome/Objective (academic units);				
Standards/Outcomes					
Assessment Measures					
	Assessment Measure	Criterion	Attachments		
	Direct - Academic Direct Measure (Other)	Operating system concepts are taught in CMPS 455 and CSCE 555. This outcome will be assessed on the data from one of these courses a time. At least 75% of the students must achieve Developed or Exemplary state on the rubric. At least 70% of the students must achieve Developed or Exemplary state on the rubric.			

Goal/Objective	Demonstrate comm	nunication Skills(Imported)	
Legends	SLO - Student Lear	rning Outcome/Objective (academic units);	
Standards/Outcomes			
Assessment Measures			
	Assessment Measure	Criterion	Attachments
	Direct - Academic Direct Measure (Other)	Communication skills will be measured by assessing students written reports and oral presentations made in a core subject such as CMPS 455 or CSCE 555. At least 75% of the students must achieve Developed or Exemplary state on the rubric. At least 70% of the students must achieve Developed or Exemplary state on evaluation rubric.	

# **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 assessment considers both (1) technical expertise and (2) communication skills of MS graduate students. To measure (1), we consider their final grades in four courses, namely CSCE 581, CSCE 585/586, CMPS 430/CSCE 530, CMPS 455/CSCE 555. To measure (2), we consider CSCE 555, specifically its oral presentation and report writing components. Since all the assessment goals have been met in the recent years for this program, no improvements have implemented this year. The main goal of the assessment is to monitor the overall quality of graduated students and implement initiatives when necessary, for example, when certain metric is failed. The assessment result is shared with the whole faculty once a year.

# Results & Improvements (due 9/15/18)

# **Results and Improvement Narratives**

# Assessment List Findings for the Assessment Measure level for Understand and use computer hardware design concepts.(Imported)

Goal/Objective	Understand and use computer hardware design concepts.(Imported)				
Legends	SLO - Student Learning Outcome/Objective (academic units);				
Standards/Outcomes					
Assessment Measures					
	Assessment Measure	Criterion			
	Direct - Acader Direct Measure (Other)	computer design taught in course percentage of st the rubric will inc	be able to learn and or very large scale is such as CSCE 58 tudents who achieve dicate the degree of ents must achieve Doc.	integration. Thes 1 and CSCE 585 2 Developing or Do success of this or	e concepts are / CSCE 586. The eveloped state on utcome. At least
Assessment Findings					
-	Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
	Direct - Academic Direct Measure (Other)	Has the criterion Students should be able to learn and apply fundamental concepts of computer design or very large scale integration. These	In the academic year 2017-2018, only 3 students took these courses. Since this is a small number of students, we		- Assessment Process: Continuous monitoring: We will monitor the number of students attending these

	concepts are taught in courses such as CSCE 581 and CSCE 585 / CSCE 586. The percentage of students who achieve Developing or Developed state on the rubric will indicate the degree of success of this outcome. At least 70% of the students must achieve Developed or Exemplary state on the evaluation rubric. been met yet? Met	think it is hard to draw a meaningful evaluation result. We thus do not evaluate this criterion in this cycle. We will watch for this criterion carefully next cycle.		courses to see if the problem with low enrollment persists.
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# Assessment List Findings for the Assessment Measure level for Understand and use core concepts of computer architecture(Imported) Goal/Objective Understand and use core concepts of computer architecture(Imported)

Goal/Objective	Understand and use core concepts of computer architecture(Imported)					
Legends	SLO - Student L	.earnir	ng Outcome/Object	ctive (academic un	its);	
Standards/Outcomes						
Assessment Measures						
	Assessment Measure		Criterion			
	Direct - (Academic Dire Measure (Othe	ect er)	430 and CSCE 5 one of these courachieve Develope	30. This outcome verses at a time. At le	will be assesses o east 75% of the strate on the rubric.	udents must At least 75% of the
Assessment Findings						
	Assessment Measure	Crite	erion	Summary	Attachments of the Assessments	Improvement Narratives
	Direct - (Academic Direct Measure (Other)	Con com arch	the criterion cepts of puter nitecture are pht in courses	This criterion is evaluated on CSCE 530. In the year 2017- 2018, 14		- Assessment Process: Continuous monitoring: Since the target was

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# Assessment List Findings for the Assessment Measure level for Understand and use core concepts of operating system(Imported)

Goal/Objective	Understand and use core concepts of operating system(Imported)					
Legends	SLO - Student L	earnir	ng Outcome/Objec	ctive (academic unit	s);	
Standards/Outcomes						
Assessment Measures						
	Assessment Measure		Criterion			
	Direct - Acader Direct Measure (Other)	-	This outcome will time. At least 75% Exemplary state	n concepts are taug I be assessed on th % of the students m on the rubric. At lea ed or Exemplary sta	e data from one c ust achieve Deve st 70% of the stud	of these courses a loped or
Assessment Findings						
J	Assessment Measure	Crit	erion	Summary	Attachments of the Assessments	Improvement Narratives
	Direct - Academic Direct Measure (Other)	Ope con- in C CSC outc ass	the criterion erating system cepts are taught MPS 455 and CE 555. This come will be essed on the a from one of	This criterion is measured on CSCE 555. CSCE 555 was offered in Spring 2018. In total, 19 students took the course and		- Assessment Process: Continuous monitoring: We will monitor the assessment result next year.

		these cours time. At lea the student achieve De or Exempla on the rubr least 70% of students m achieve De or Exempla on the rubr met yet? Met	ast 75% of ts must eveloped ary state of the aust eveloped ary state eveloped ary state.		
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# Assessment List Findings for the Assessment Measure level for Demonstrate communication Skills(Imported) Goal/Objective Demonstrate communication Skills(Imported)

Goal/Objective	Demonstrate communication Skills(Imported)					
Legends	SLO - Student Learning Outcome/Objective (academic units);					
Standards/Outcomes						
Assessment Measures						
	Assessment Measure		Criterion			
	Direct - Acader Direct Measure (Other)	e	reports and oral p 455 or CSCE 555 Developed or Exc	kills will be measur presentations made 5. At least 75% of the emplary state on the hieve Developed or	in a core subject e students must a e rubric. At least 7	such as CMPS achieve '0% of the
Assessment Findings	Assessment	Crite	erion	Summary	Attachments	Improvement
	Measure				of the Assessments	Narratives
	Direct - Academic Direct Measure (Other)	Com skills mea asse writte oral mad subje CMF 555. the s	the criterion munication s will be sured by essing students en reports and presentations le in a core ect such as PS 455 or CSCE At least 75% of students must eve Developed	This criterion is measured on CSCE 555. This course was offered in Spring 2018. In total, 19 students took the course, 16 students (84.2%) achieved Developed or Exemplary state		- Assessment Process: Continuous monitoring: While students performed well on oral presentations, there is some room for improvement for their writing. We will emphasize

students must achieved CSCE 555. achieve Developed or or Exemplary state Exemplary state	on evaluation rubric. on writing. As a been met yet? result, this Met criterion is met.		students must achieve Developed or Exemplary state on evaluation rubric. been met yet?	achieved Developed or Exemplary state on writing. As a result, this	more on writing in the future offerings of CSCE 555.
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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 (selected)
Presented formally at staff / department / committee meetings
Discussed informally
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.

Since all the targets were met in the last assessment cycle, no new changes were introduced. Nevertheless, we followed the best practices we established in earlier assessment cycles, and again all targets are met in this cycle.

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.

All the evaluation criteria have been met in the past three assessment cycles.

### **Attachments (optional)**

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