Colorado State University – Pueblo Academic Program Assessment Report for AY 2015-2016   **Due: June 2016**

Program: Bachelor of Science – Computer Information Systems_   **Date:** June 2016

Completed by: Yuan (Yoanna) Long

Assessment contributors (other faculty involved in this program's assessment): Wayne Martinez, Roberto Mejias, Rick Huff, Joey Cho

Please complete this form for each undergraduate, minor, certificate, and graduate program (e.g., B.A., B.S., M.S.) in your department. Please copy any addenda (e.g., rubrics) and paste them in this document, and submit it to the dean of your college/school as per the deadline established. You'll also find the form at the assessment website at http://www.colostate-pueblo.edu/Assessment/ResultsAndReports/Pages/default.aspx.

Please describe the 2015-2016 assessment activities for the program in Part I. Use Column H to describe improvements planned for 2016-2017 based on the assessment process. In Part II, please describe activities engaged in during 2015-2016 designed to close-the-loop (improve the program) based on assessment activities and the information gathered in 2014-2015. Thank you.

I. Program student learning outcomes (SLOs) assessed in this cycle, processes, results, and recommendations.

A. Which of the program SLOs were assessed during this cycle? **Please include the outcome(s) verbatim from the assessment plan.**	B. When was this SLO last assessed? Please indicate the semester and year.	C. What method was used for assessing the SLO? **Please include a copy of any rubrics used in the assessment process.**	D. Who was assessed? Please fully describe the student group(s) and the number of students or artifacts involved.	E. What is the expected achievement level and how many or what proportion of students should be at it?	F. What were the results of the assessment?	G. What were the department's conclusions about student performance?	H. What changes/improvements to the program are planned based on this assessment?
CIS learning objective 2 – Communication (Oral	Fall 2015 (CIS240 Object oriented	We had two faculties assessed the student	**35** students in total. In fall 2015, **19** students (7	Our expected achievement level is that	**75%-80%** of the students either met or exceeded	Students overall performance are good and at acceptable level in	In general, the student's oral communication is acceptable at the development stage

communication)	systems analysis and design) & Spring 2016 (CIS350 Database Management)	presentation for CIS240 (fall 2015) and CIS 350 (Spring 2016), respectively. The assessment is based on the learning objective rubrics (see appendix). Though both presentations are group project presentations, the faculties evaluated the oral communication based on the performance of each individual student.	groups, 2 to 3 students per group) in CIS240 were assessed on oral communication when they presented term project at the end of the semester. The same assessment took place in spring 2016 for CIS 350. **16** students (6 groups, 2-3 students per group) were assessed by two faculties when the students presented the term projects.	at least 70% of students are at either the "meets expectations" or "exceeds expectations" levels.	expectations. In both classes of fall 2015 and spring 2016, Specifically, for CIS240 in fall 2015, 25% needs improvement, 60% meets expectation, and 15% exceeds expectation. And in spring 2016, the results are very similar, 20% needs improvement, 65% meets expectation, and 15% exceeds expectation.	oral communication. The two areas (based on the assessment rubrics) including body language and delivery receive relatively lower scores than the other areas, indicating those two areas need to be addressed in future.	(junior/sophomore classes). Two items regarding objective 2 (oral communication) in the future plan: 1. Address body language and delivery in presentation. 2. Assess oral communication in mastery stage (senior classes).
CIS learning objective 4 – Identify ethical	Fall 2015 and Spring 2015 in	Case study on the final exams.	**20** students in total. **10** students for	Our expected achievement	Overall, **100%** of the students	Students are performing excellent in	In general, the students' identifying ethical issues is excellent at the

issues and provide solutions	CIS150 (Introduction to Computer Information Systems)		**each** class.	level is that at least 70% of students are at either the "meets expectations" or "exceeds expectations" levels.	either met or exceeded the expectations. Specifically, the results for CIS 150 in fall 2015 show that 50% meets expectations and 50% exceeds expectations. The results for CIS150 in spring 2016 show that 10% meets expectations while 90% exceeds expectations.	understanding ethical concepts at the introduction stage. Among the three areas: identify ethical issues, identify alternative solutions, and provide appropriate solutions, the students received relatively low score on identifying alternative solutions.	introduction stage (freshman classes). Two items regarding objective 4 (ethics) in the future plan: 1. Address and practice more on how to identify alternative solutions on ethical issues. 2. Assess ethics in development and mastery stage.

II. Follow-up (closing the loop) on results and activities from previous assessment cycles. In this section, please describe actions taken during this cycle that were based on, or implemented to address, the results of assessment from previous cycles.

A. What SLO(s) did you address? Please include the outcome(s) verbatim from the assessment plan.	B. When was this SLO last assessed? Please indicate the semester and year.	C. What were the recommendations for change from the previous assessment?	D. Were the recommendations for change acted upon? If not, why?	E. What were the results of the changes? If the changes were not effective, what are the next steps or the new recommendations?
Learning objective 2: Communication (oral communication)	Spring, 2014	We decided to address oral communication in class. Specifically, give students at least two opportunities each semester to present in class. It could be case presentation, discussion, and/or project presentation.	Yes.	75%-80% of the students either meet or exceed expectation at the development stage (junior class). The students need improvement in controlling body languages and deliver the contents more effectively.
Learning objective 4: Identify ethical issues and provide solutions	Never.	We decided to first assess ethics from the freshman class at the introduction level. In class, we would spent time discuss IT ethical cases.	Yes. The students discussed ethical cases in class, understood basic concepts of ethical issues, and were exposed to the most recent IT ethical issues.	100% of the students either meet or exceed the expectation at the introductory stage (freshman class).

Summary and comments:

In the year 2015-2016, we focused on assessing two learning objectives:

1. Objective 2. Communication (oral communication) at the development stage (junior/sophomore classes). Two classes 35 students in total were assessed based on the SLOs rubrics.
2. Objective 4. Ethics at the introductory stage (freshman classes). Two classes 20 students in total were assessed based on the SLOs rubrics.

The assessment results show:

1. 75-80% of the students either meet or exceed the expectations on oral communication.
2. 100% of the students either meet or exceed the expectations on identifying ethical issues and providing solutions.

The results indicate:

1. Overall students reach the expectations on learning objective 2 and objective 4.
2. We need to address some issues including body language and effective delivery in oral communication and the identification of the alternative solutions in ethics in the future teaching and learning.

Future assessment plan:

1. To assess ethics in development (junior or sophomore classes) and/or mastery stage (senior classes)
2. To assess communication in mastery stage (senior classes)

Other comments:

1. We may need to adjust or modify the rubrics. For example, there are five items under oral communication. There are some overlaps therefore we may need to combine them into three items to be consistent with the rubrics for other learning goals.
2. We may need to consider alternative approaches to assess the learning goal more accurately and more rigorously. For example, we base our assessment regarding oral communication purely on the project presentation. Normally a presentation takes about 15-20 minutes; each student has maximum 5 minutes to present his/her ideas. It was challenging to assess five items on the rubrics in 5 minutes for each individual student.

Appendix I. CIS Learning Objectives

At the conclusion of the CIS program, students will demonstrate the ability to:

Objective 1. Analyze, design, implement, and maintain an information system.

Objective 2. Communicate clearly in writing and speaking.

Objective 3. Work effectively as a team member for a common purpose.

Objective 4. Identify ethical issues and provide alternatives or solutions.

CIS Learning Objectives 1: Analyze, design, and implement and maintain an information system

April 16, 2013

Date: _____

Rater: _____   Course: _____ Student: _____

Evaluation Criteria	Exceeds Expectations	Meets Expectations	Needs Improvement	Score
Analysis	Shows strong ability to identify what an Information System should do	Shows some ability to identify what an Information System should do	Often fails to identify what an Information System should do	
Design	Shows strong ability to identify how components of an Information System should be implemented and integrated	Shows some ability to identify how components of an Information System should be implemented	Often fails to identify how components of an Information System should be implemented	
Implementation and Maintenance	Shows strong ability to implement, test, debug, and deploy an error-free & completely functioning Information System	Shows some ability to implement, test, debug, and deploy implement an error-free & completely functioning Information System	Often fails to implement, test, debug, and deploy an error-free & completely functioning Information System	

CIS Learning Objectives 2: Communicate clearly in writing and speaking.

November 15, 2013

Date: _____

Rater: _____   Course: _____   Student: _____

Oral Communication Rubric

Evaluation Criteria	Exceeds Expectations	Meets Expectations	Needs Improvement	Score
Kinetics (Body Language)	Presenter's body language and voice tone demonstrates high confidence and comfort with the subject matter. Presenter demonstrates high confidence, empathy and comfortable interaction with the audience. Presenter gestures are confident, relaxed and natural and	Body language and voice tone reflect the presenter's relative comfort and command of the subject matter in interacting with the audience. Presenter uses appropriate gestures and body language that are somewhat confident. Presenter makes a good delivery with some level of confidence in body language and voice	Body language and voice tone reveal presenter's discomfort and lack of confidence with the subject matter. Presenter reveals a reluctance to interact with the audience. Presenter's body movement is terse and stiff. Presenter may appear fearful or highly nervous of his/her	

match the content and purpose of the presentation. Presenter makes an excellent delivery with a voice that projects enthusiasm, interest and confidence.	modulation.	audience. Presenter's body language lacks confidence, and voice projection is often hard to understand.	

Organization	Presenter follows a very clear and logical sequence in their presentation that the audience can follow. Presenter focuses on the defined and critical points of the presentation and provides clear explanations for each point. Presenter provides clear and concise "takeways" and conclusions for the audience.	Presenter follows a logical sequence in their presentation but does not provide any additional information. Presenter uses a "checklist" approach to the presentation material. Presentation structure is adequate and mechanical but lacks strong definition and emphasis.	Presenter offers no logical sequence of information. Presenter does not provide clear explanations and elaborations of the subject matter. Presenter fails to focus on the critical points of the presentation. Presenter does not provide clear and concise conclusions for the audience.	
Subject Matter Knowledge	Presenter clearly demonstrates excellent and in-depth knowledge and confidence with the subject matter. Presenter demonstrates a clear	Presenter reflects a relative comfort with the subject matter. Presenter demonstrates a good understanding of the details and interaction of the elements of the subject	Presenter is unclear and not well informed with the subject matter. The presenter appears to be unsure and disorganized in their presentation of the	

	understanding of the details and interconnection links of the elements of the subject matter.

Presenter clearly and thoroughly addresses questions from the audience regarding the subject matter.

Presenter makes a professional and thorough analysis and presentation to the audience. | matter.

Presenter addresses and replies to most questions regarding the subject matter. | subject material.

Presenter may just be repeating facts without understanding details or interaction with other elements of the subject matter.

Presenter cannot address basic questions regarding the subject matter. | |
| **Articulation (Delivery)** | Presenter speaks clearly and loudly enough and for all in audience to hear, at a comfortable rate, makes no grammatical errors, and pronounces all terms correctly and precisely.

Presenter is | Presenter speaks clearly and loudly enough to be heard by most in audience, at an appropriate rate, (some/rare awkward pauses or halting delivery), makes few grammatical errors, and pronounces most terms correctly with fluid | Presenter mumbles, speaks too quietly to be heard by many in audience, mispronounces words, and makes serious and persistent grammatical errors throughout the presentation.

Presenter loses train of thought and is | |

	enthusiastic and engaging. Presenter is extemporaneous and natural.	delivery overall.	tentative.	
Content Clarity and Completeness	Presenter handles all elements professionally. Presenter develops and supports ideas using well- chosen examples and creative details.	Presenter handles material competently and includes essential information which is factually correct.	Presenter misses two or more essential elements. Presentation contains major factual errors and mis-representations.	

Written Communication Rubric

Evaluation Criteria	Exceeds Expectations	Meets Expectations	Needs Improvement	Score
Subject Matter Knowledge	Clearly demonstrates excellent and in-depth knowledge of the subject matter. Demonstrates an excellent understanding of the details and interconnection links of the elements of the subject matter.	Demonstrates fair knowledge of the subject matter. Demonstrates a fair understanding of the details and interconnection links of the elements of the subject matter.	Demonstrates poor/inadequate knowledge of the subject matter. Demonstrates a poor understanding of the details and fails to show interconnection links of the elements of the subject matter.	
Literacy (grammar, spelling, punctuation)	No grammar, spelling, punctuation errors and excellent word usage. Writing at expected grade level or above.	Has some grammatical errors, spelling and punctuation errors. Writing at one or two levels below current grade level.	Has many grammatical errors, spelling and punctuation errors. Writing at more than two levels below current grade level.	
Logical Flow	Demonstrates ability to produce professional quality documents (fully footnoted and referenced, with proper cover pages, headings, footings, and table of contents)	Produces documents with minimal professional elements (footnotes, references, cover pages, headings, footings, table of contents)	Produced documents are lacking significant professional elements (footnotes, references, cover pages, headings, footings, table of contents)	
Proper References	Expertly integrates relevant articles, uses correct citations, and references based on certain academic writing styles.	Fairly integrates relevant articles, has some correct citations and references.	Fails to integrate relevant articles, citations, or references.	

CIS Learning Objectives 3: Work effectively as a team member for a common purpose

April, 19 2013

Date: _____

Rater: _____   Course: _____   Student: _____

Evaluation Criteria	Exceeds Expectations	Meets Expectations	Needs Improvement	Score
Attending team meetings	Attends all team meetings without being late	Attends most team meetings. If likely to be absent or late, informs others ahead of time	Rarely attends team meetings Attendance record is haphazard and inconsistent; may be absent or late without notice	
Participating meeting discussions	Actively participates in discussion and asks questions	Participates in discussions, letting others provide the direction	Observes passively and says little or nothing	
Participating non-meeting discussions, i.e. emails, online	Actively participates in or initiates discussions and project related	Participates in discussions, letting others provide the	Rarely responds to team project related discussions	

chatting, or phone calls	communication	direction		
Leadership	Takes a large part in setting group goals and agendas	Takes some part in setting group goals and agendas	Let others set and pursue the agenda	
Understanding of project concepts	Listens actively and shows understanding by paraphrasing or by acknowledging and building on others' ideas	Occasionally introduces the information or asks questions	Has limited understanding of the project concepts	
Contributing to the final deliverables. i.e. report, PowerPoint, etc.	Carries own share of the group's responsibilities, and organizes or helps organize final deliverables	Carries own share of the group's responsibilities	Does not fulfill own share	

CIS Learning Objectives 4: Identify ethical issues and provide alternatives or solutions

April 19, 2013

Date: _____

Rater: _____   Course: _____   Student: _____

Evaluation Criteria	Exceeds Expectations	Meets Expectations	Needs Improvement	Score
Identify ethical issues	Identifies critical and any additional ethical issues	Identifies the critical ethical issues	Identifies no critical ethical issues	
Identify alternative solutions	Identifies multiple alternative solutions	Identifies an alternative solution	Identifies no alternative solutions	
Supply appropriate solutions	Provides multiple appropriate solutions	Provides an appropriate solution	Provides no appropriate solutions	

Appendix II. CIS Curriculum Map

	1 - Analyze, Design[1]	2 - Written/Oral Communication	3 - Team Skills	4 - Ethics
CIS 150 Computer Information Systems		x (I)[2] Research Paper	x(I) Team Project	x (I) Case Study
CIS 171 Intro to Java Programming	c,d (I) homework			
CIS 185 PC Architecture	a,d (I) in-class lab exercise	x (I) Oral Presentation		
CIS 240 Object-Oriented Analysis and Design	a,b (I) Homework, Exam			
CIS 271 Adv. Program Design with Java	b,c,d (D) Project		x (D) Team Project	
CIS 289 Network Concepts	a,b (D) Case Projects	x (D) Paper, Presentation		x (D) Exam
CIS 311 Introduction to Web Development	a,b,c,d (D) Individual Project, Group Project		x (D) Group Project	
CIS 315 UNIX Operating System	c,d (D) Homework, Exam, quiz			x (D) No artifact
CIS 350 Database Systems	a,b,c (D) Quiz, Homework, Exam, Project	x (D) Project Report, Presentation	x (D) Term project	x (D) Case study

[1] a-analysis, b-design, c-implement, and d-maintenance.
[2] I-Introductory, D-development, and M-mastery.

CIS 432 Senior Project	a,b,c,d (M) Team Semester Project	x - written (M) Oral(M) Team Project Document & Presentation	x (M) Semester Project	x (M) Case Study
CIS 493 Senior Seminar		x (M) Case Study		x (M) Case Study