



Academic Program Assessment Report for AY 2019-2020

(Due: June 1, 2020)

Program: Computer Information Systems, B.S.

Date report completed: May 29, 2020

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Please describe the 2019-2020 assessment activities and follow-up for your program below. Please complete this form for each undergraduate major, minor, certificate, and graduate program (e.g., B.A., B.S., B.A.S, M.S.) in your department. Please copy any addenda (e.g., rubrics) and paste them in this document, save and submit it to both the Dean of your college/school and to the Executive Director for Assessment as an email attachment by June 1, 2020. You'll also find this form on the assessment website at <https://www.csupueblo.edu/assessment-and-student-learning/resources.html>. Thank you.

Brief statement of Program mission and goals:

HSB Mission statement:

The mission of the Hasan School of Business at Colorado State University-Pueblo is "We transform students, innovate in teaching, conduct ourselves with professionalism, and engage with and positively impact our stakeholders."

- Transform: We welcome students from a broad spectrum, including many from lower socio-economic strata, under-represented populations, and first generation students. The core of our mission is effecting positive change in our students so that they are prepared as business professionals.
- Innovation: We seek to improve and implement best practices. We also work to encourage innovation at our university and in regional business, government and non-profit organizations.
- Professionalism: We are recognized in the community for our professionalism. We hold ourselves to high performance standards of collegiality and ethical behavior. We seek to inspire the same in our students.
- Engagement: We connect with students, alumni, employers, community members and other stakeholders to work together and to share knowledge. We build student skills through active learning, experiential education, and collaborations with businesses and community members.
- Impact: We make ongoing campus and community contributions through a variety of service activities. Our research has positive effects on organizational knowledge and practice. Graduates of the Hasan School of Business are a critical component of Pueblo's economic infrastructure, while many make contributions in other cities, states, and countries.

Goals for Computer Information Systems Majors

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

1. Analyze, design, implement, and maintain an information system.
 - 1a. Analyze problems and design information system solutions to the problems
 - 1b. Implement and maintain information system solutions
2. Communicate clearly and effectively in writing and speaking.
 - 2a. Use and Produce high quality written communication
 - 2b. Effectively use oral communication
3. Work effectively as a team member for a common purpose.
 - 3a. Participate effectively in planning, executing, and delivering team projects
4. Identify ethical issues and provide alternatives or solutions.
 - 4a. Identify ethical issues and recommend appropriate solutions

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 <u>program</u> are planned based on this assessment?
Spring 2020: SLO 2a – Written Communication (CIS432 Senior Professional Project)	2015: CIS432 Senior Professional Project	Students were given an assignment to write a thorough reflection report regarding the	23 students in CIS432 (Senior Professional Project)	We expect that at least 80% of the students either meet or exceed expectation (Need	69.6% of students evaluated met either “exceeds expectations” or “meets expectations.”	69.6% of students evaluated met either “exceeds expectations” or “meets expectations,” which is lower	Review the CIS curriculum map and identify courses that involve the training and assessment of the written communication skill. Design and and implement intervention

		progress and their contributions to the senior project.		improvement, meet expectation, and exceed expectation, are the three achievement levels from low to high).		than the expected result of 80% of the students. Interventions are needed to improve student writing skills.	activities into courses that will be offered in Fall 2020. Re-assess the written communication skill in Spring 2021 to evaluate the results of intervention.
Spring 2020: SLO 2b – Oral Communication (CIS432 Senior Professional Project)	Fall 2016: CIS289 Network Concept	Each student was assessed individually during the final project presentation (online presentation via Zoom)	13 students in CIS432 (Senior Professional Project)	We expect that at least 80% of the students either meet or exceed expectation (Need improvement, meet expectation, and exceed expectation, are the three achievement levels from low to high).	100% of students evaluated met either “exceeds expectations” or “meets expectations”.	Student performance is at an acceptable level. 100% of the students met or exceeded expectations, which is higher than the result of previous assessment in 2016 (98% of the students met or exceeded expectations.)	<ol style="list-style-type: none"> 1. Review the CIS curriculum map and identify courses that involve the training and assessment of the oral communication skill, and in these courses continue to monitor the student demonstration of this skill. 2. Revisit and possibly increase rigorousness of the rubric (and/or assessment method)

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?
All the CIS SLOs. One of the focuses of our AY 2019-20 AoL tasks was to redesign the CIS SLOs. This was based on the feedback of CIS faculty as well as the recommendation from the Association to Advance Collegiate Schools of Business (AACSB). AACSB is the major accreditor for business programs	N/A	It was mentioned in the AY 2018-19 assessment report that the CIS revisit and revise the CIS SOL rubrics and the CIS curriculum map in order to 1. Simplify the assessment process, and 2. Improve the rigorousness of the assessment. These recommendations were in line with AACSB's assessment recommendation.	Yes. In Fall 2019 with the collaboration among the CIS faculty members we redesigned the CIS SLO. There were originally 4 learning goals, with a total of 11 sub-goals, in the CIS SLO, which increase the difficulty, and consequently the quality, of assessment. In the redesigned CIS SLO, there are 4 learning goals, with a total of 6 sub-goals. The revised CIS SLO is listed in appendix I.	See appendix I for the revised CIS SLOs
All the CIS SLOs. Another focus of the CIS AoL tasks in AY 2019-20 was to revisit and revise the CIS curriculum map in order to provide a updated mapping between the CIS SLOs and our current CIS curriculum	N/A		Yes. In Fall 2019 with the collaboration among the CIS faculty members we redesigned the CIS curriculum map. This ensures a better CIS SLO – CIS courses mapping. The revised CIS curriculum map is displayed in appendix II.	See appendix II for the revised CIS curriculum map

Summary and comments:

In AY 2019-2020, we assessed SLO 2 (2a and 2b):

SLO2: Communicate clearly and effectively in writing and speaking.

- 2a. Use and Produce high quality written communication
- 2b. Effectively use oral communication

Two activities from CIS 462 (Senior Professional Project) was assess in Spring 2020. The assessment questions and rubrics are attached as the appendix.

The assessment results show:

- 1. SLO2a: **69.6%** of students evaluated met either “exceeds expectations” or “meets expectations”.
- 2. SLO2b: **100%** of students evaluated met either “exceeds expectations” or “meets expectations”.

The results indicate:

- 1. Student oral communication skills meet our expectation that at least 80% of the student assessed should met either “exceeds expectations” or “meets expectations”.
- 2. Interventions are needed in order to improve student written communication skills. The intervention is expected to be implemented in Fall 2020, and the SLO will be re-assessed in Spring 2021.

Future AoL plan:

- 1. Assess the CIS SLO 1 (Problem Solving) in AY 2020-21.
- 2. As recommended in the AY2018-19 assessment report, revisit and possibly revise the CIS SOL rubrics to improve the rigorouness and the quality of assessment.

Appendix I. The revised CIS SLOs

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

1. Analyze, design, implement, and maintain an information system.
 - 1a. Analyze problems and design information system solutions to the problems
 - 1b. Implement and maintain information system solutions
2. Communicate clearly and effectively in writing and speaking.
 - 2a. Use and Produce high quality written communication
 - 2b. Effectively use oral communication
3. Work effectively as a team member for a common purpose.
 - 3a. Participate effectively in planning, executing, and delivering team projects
4. Identify ethical issues and provide alternatives or solutions.
 - 4a. Identify ethical issues and recommend appropriate solutions

Appendix II. The revised CIS curriculum map

CIS Outcomes	PROBLEM SOLVING (Analyze, design, implement, and maintain an information system)		COMMUNICATION (Communicate clearly in writing and speaking)		TEAM SKILLS (Work effectively as a team member for a common purpose)	ETHICAL AWARENESS (Identify ethical issues and provide alternatives or solutions)
	1.1	1.2	2.1	2.2	3.1	4.1
Sub-Goals						
CIS Core Courses	Analysis and Design	Implementation & Maintenance	Written	Oral	Participation & Contribution	Identify ethical issues and recommend solutions
CIS 150 Computer Ethics and Society	Introductory	Introductory	Introductory	Introductory	Introductory	Introductory
CIS 171 Intro to Java Programming		Introductory				
CIS 185 PC Architecture	Introductory		Introductory	Introductory	Introductory	
CIS 240 Object-Oriented Analysis and Design	Introductory	Introductory	Introductory		Introductory	Introductory
CIS 271 Adv. Program Design with Java	Developing	Developing			Developing	
CIS 289 Network Concept	Deveolping	Introductory		Developing	Developing	Developing
CIS 311 Intro to Web Development	Developing	Developing			Developing	
CIS 315 Linux Fundamentals	Developing	Developing				
CIS 350 Database Management	Developing	Developing		Developing		
CIS 432 Senior Professional Project	Developing/ Mastering	Developing/ Mastering	Developing/ Mastering	Developing/ Mastering	Developing/Mastering	
CIS 493 Seminar	Mastering		Mastering			Mastering

Appendix III. CIS432 Assignment for Assessing the CIS SLO 2a: Written Communication

Assignment Instruction

Conduct a thorough reflection on the questions below. Your individual reflective learning entries will be evaluated on the basis of the quality of thought that went into the entry, the clarity of expression surrounding the events or ideas presented, and the degree to which you demonstrate understanding of the events of the week. The actual content and ideas should be yours alone. They will not, however, be the sole focus of evaluation. The effort, in terms of completeness and quality of observations, will be most important.

- Who do I think contributed the most to the senior project this week and what was their contribution?
- Was there anything unusual, unplanned, or disruptive that I experienced this week working with my senior project team and what it was?
- How did I handle the unusual, unplanned, or disruptive occurrence and how could I have handled it better?

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.	Have some grammatical errors, spelling and punctuation errors. Writing at one or two levels below current grade level.	Have 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	Fairly integrates relevant articles, has some correct citations and references.	Fails to integrate relevant articles, citations, or references.	

	based on certain academic writing styles.			
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Appendix IV. CIS432 Assignment for Assessing the CIS SLO 2b: Oral Communication

Activity Details

Students project teams with 3 to 4 students each were formed at the beginning of this capstone course. Throughout the course student teams work together on capstone projects. These projects include: Emergency Service System (CSUP Office of Student Conducts & Community Standards), Integrity Technical Solutions (Pueblo Board of Water Works), Southern Colorado Tech Consulting Company (CSUP Trio – Educational Opportunity Center), Donor Database Upgrade (Pueblo Cooperative Care Center) and so on. They also met with the course instructor and project stakeholders on a regular basis. During the finals week, student teams met with the course instructor online and present their project accomplishments. Each team presentation lasted 20-30 minutes long. During team presentations, each student take turns to present their projects. Two SLO assessors were also invited to participate in the student presentations to assess student oral communication skills. Each student was assessed individually.

Oral Communication Rubric

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

<p>Organization</p>	<p>Presenter follows a very clear and logical sequence in their presentation that the audience can follow.</p> <p>Presenter focuses on the defined and critical points of the presentation and provides clear explanations for each point.</p> <p>Presenter provides clear and concise “takeaways” and conclusions for the audience.</p>	<p>Presenter follows a logical sequence in their presentation but does not provide any additional information.</p> <p>Presenter uses a “checklist” approach to the presentation material.</p> <p>Presentation structure is adequate and mechanical but lacks strong definition and emphasis.</p>	<p>Presenter offers no logical sequence of information.</p> <p>Presenter does not provide clear explanations and elaborations of the subject matter.</p> <p>Presenter fails to focus on the critical points of the presentation.</p> <p>Presenter does not provide clear and concise conclusions for the audience.</p>	
<p>Subject Matter Knowledge</p>	<p>Presenter clearly demonstrates excellent and in-depth knowledge and confidence with the subject matter.</p> <p>Presenter demonstrates a clear understanding of the details and interconnection links of the elements of the subject matter.</p> <p>Presenter clearly and thoroughly addresses questions from the audience regarding the subject matter.</p>	<p>Presenter reflects a relative comfort with the subject matter.</p> <p>Presenter demonstrates a good understanding of the details and interaction of the elements of the subject matter.</p> <p>Presenter addresses and replies to most questions regarding the subject matter.</p>	<p>Presenter is unclear and not well informed with the subject matter.</p> <p>The presenter appears to be unsure and disorganized in their presentation of the subject material.</p> <p>Presenter may just be repeating facts without understanding details or interaction with other elements of the subject matter.</p>	

	Presenter makes a professional and thorough analysis and presentation to the audience.		Presenter cannot address basic questions regarding the subject matter.	
Articulation (Delivery)	<p>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.</p> <p>Presenter is enthusiastic and engaging.</p> <p>Presenter is extemporaneous and natural.</p>	<p>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 delivery overall.</p>	<p>Presenter mumbles, speaks too quietly to be heard by many in audience, mispronounces words, and makes serious and persistent grammatical errors throughout the presentation.</p> <p>Presenter loses train of thought and is tentative.</p>	
Content Clarity and Completeness	<p>Presenter handles all elements professionally.</p> <p>Presenter develops and supports ideas using well- chosen examples and creative details.</p>	<p>Presenter handles material competently and includes essential information, which is factually correct.</p>	<p>Presenter misses two or more essential elements.</p> <p>Presentation contains major factual errors and mis- representations.</p>	