



Program Name	Date Completed
Computer Information Systems, B.S.	May 21, 2025
Report Completed By	Report Contributors
Dr. Juyun (Joey) Cho	Dr. Roberto Mejias & Dr. Roohid Syed
Brief Statement of Program Mission and Goals	
<p>HSB Mission statement:</p> <p>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."</p> <ul style="list-style-type: none">• 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 affecting positive changes in our students so that they are prepared as business professionals.• Innovation: We seek to improve and implement the 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.	



Table I Closing the Loop

Report on at least one data-informed change to your curriculum during AY 2024-2025 that was implemented to improve student learning, in response to prior assessments or other data.

A. Describe issues or SLOs addressed in the AY 2024-2025 cycle. Paste SLOs verbatim below.
<p>SLOs addressed:</p> <ol style="list-style-type: none">1. In Spring 2025, we assessed SLO 2a – Use and produce high quality written communication (Data were collected from CIS271, Advanced Java Programming) <p>CIS SLOs:</p> <p>At the conclusion of the CIS program, students will demonstrate the ability to:</p> <ol style="list-style-type: none">1. Analyze, design, implement, and maintain an information system. <u>1a. Analyze problems and design information system solutions to the problems</u> <u>1b. Implement and maintain information system solutions</u>2. Communicate clearly and effectively in writing and speaking. 2a. Use and Produce high quality written communication <u>2b. Effectively use oral communication</u>3. Work effectively as a team member for a common purpose. 3a. Participate effectively in planning, executing, and delivering team projects4. Identify ethical issues and provide alternatives or solutions. 4a. Identify ethical issues and recommend appropriate solutions
B. In which academic year and semester was this SLO last assessed to generate data that informed the change(s)?
Spring 2022
C. What were the recommendations for change in the previous cycle? (See Column H in the previous cycle's report.)
<p>In AY 2024-2025, we assessed SLO 1 (1a, 1b) and SLO 2b:</p> <p>SLO 1: Analyze, design, implement, and maintain an information system.</p> <p>1a. Analyze problems and design information system solutions to the problems → A flowchart design assignment for assessing student problem analysis and design skills was given to 17 students of CIS 315 (Linux Fundamentals).</p> <p>1b. Implement and maintain information system solutions → A programming assignment for assessing student system implementation man maintenance skills were given to 17 students of CIS 315 (Linux Fundamentals).</p> <p>SLO 2: Communicate clearly and effectively in writing and speaking.</p> <p>2b. Effectively use oral communication → Students' oral communication skills were assessed through their final team project presentation (CIS460 Cyber Security & Defense). Each student was assessed individually.</p>



The Recommendation was:

1. **SLO 1a:** 82% of the students evaluated either met or exceeded our expectations. Since the result exceeds the expected proficiency level of 80%, no additional action is needed at this time.
2. **SLO 1b:** 100% of the students evaluated either met or exceeded our expectations. Since the result exceeds the expected proficiency level of 80%, no additional action is needed at this time.
3. **SLO 2b:** 80% of the students evaluated either met or exceeded our expectations. Since the result meets the expected proficiency level of 80%, no additional action is needed at this time.

D. How were the recommendations for change acted upon?

No changes were recommended.

E. How did the change(s) impact student learning? If the change was not effective, what are the next steps or new recommendations?

No changes were implemented based on the reasons outlined in Section C.

Enter Table I Closing the Loop Comments Below

Fall 2023, SLO 1a - **82%** of students evaluated met either "exceeds expectations" or "meets expectations." This is higher than the result of the previous assessment in 2021 (77.3% of the students met or exceeded expectations.)

Fall 2023: SLO 1b - **100%** of students evaluated met either "exceeds expectations" or "meets expectations." This is much higher than the result of the previous assessment in 2021 (77.3% of the students met or exceeded expectations.)

Spring 2024: SLO 2b - **80%** of students evaluated met either "exceeds expectations" or "meets expectations." This is higher than the result of the previous assessment in 2022 (75% of the students met or exceeded expectations.)

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Table II Annual assessment of Student Learning Outcomes (SLOs) in AY 2024-25

1. Include information to share assessment processes, results, and recommendations for improved student learning. Copy this table for each assessed outcome.

A. Program SLO assessed in this cycle. Copy the SLOs verbatim from the assessment plan.
<p>Assessment of SLO 2a took place in Spring 2025.</p> <p>CIS SLOs:</p> <p>At the conclusion of the CIS program, students will demonstrate the ability to:</p> <ol style="list-style-type: none"> 1. Analyze, design, implement, and maintain an information system. <ol style="list-style-type: none"> 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. <ol style="list-style-type: none"> <u>2a. Use and Produce high quality written communication</u> 2b. Effectively use oral communication 3. Work effectively as a team member for a common purpose. <ol style="list-style-type: none"> 3a. Participate effectively in planning, executing, and delivering team projects 4. Identify ethical issues and provide alternatives or solutions. <ol style="list-style-type: none"> 4a. Identify ethical issues and recommend appropriate solutions
B. Semester and year this SLO was reported on prior to this cycle.
Spring, 2022
C. Describe the assessment method for this SLO.
For assessment purposes, the project proposals from CIS 271, Advanced Java Program, were provided to two CIS faculty members. These faculty members each conducted an individual evaluation of the written components of the project proposals, utilizing the rubrics located at the end of this document.
D. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.
24 students in CIS 271, Advanced Java Programming were assessed.

E. Expected proficiency level and proportion of students who should reach this level.
Our expected proficiency level is that at least 80% of students will meet or exceed expectations (where achievement levels are: Need Improvement, Meet Expectation, and Exceed Expectation, in ascending order).
F. Assessment results and number of students who met proficiency level.
<p>SLO 2a Assessment Results:</p> <p>Subject Matter Knowledge: 100% of students met either “exceeds expectations” or “meets expectations”.</p> <p>Literacy (grammar, spelling, punctuation): 88% of students met either “exceeds expectations” or “meets expectations”.</p> <p>Logical Flow: 89% of students met either “exceeds expectations” or “meets expectations”.</p> <p>Proper References: This part was not assessed.</p> <p>The overall percentage of students meeting or exceeding expectations in previous assessments was 100% in 2022 and 69.6% in 2020.</p>
G. Describe what results indicate about student performance.
The assessment of written communication using all three rubrics revealed that students achieved the 80% proficiency target.
H. Describe program level changes/improvements planned for AY 2025-2025 informed by this assessment.
No additional actions are needed currently; however, continued monitoring of students' written communication skills is necessary.

Appendix A

Rubric for evaluating the CIS SLO 2a: Written communication skills:

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 the 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 based	Fairly integrates relevant articles, has some correct	Fails to integrate relevant articles, citations, or references.	



**Academic Program Assessment
AY 2024-2025**

	on certain academic writing styles.	citations and references.		
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Appendix B

CIS271 project proposal instructions for assessing the CIS SLO 2a (Use and produce high quality written communication)

Your project proposal should include at least the following items. Project samples are attached for your reference.

1. Name of team members
2. Title of your project
3. What is your project about?
4. What functions will be implemented?
5. What does your GUI look like?



Appendix C

Updated 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)
Sub-Goals	1.1	1.2	2.1	2.2	3.1		4.1
CIS Core	Analysis and Design	Implementation & Maintenance	Written	Oral	Participation & Contribution		Identify ethical issues and recommend solutions
CIS 120							
Intro to Programming with Python	Introductory	Introductory					
CIS 150							
Computer Ethics and Society	Introductory	Introductory	Introductory	Introductory	Introductory		Introductory
CIS 171		Introductory					
Intro to Java Programming							
CIS 210	Introductory	Introductory	Introductory	Introductory	Introductory		
Intro to Cyber Security							
CIS 240	Introductory	Introductory		Introductory	Introductory		Introductory
Object-Oriented Analysis and Design							
CIS 250	Introductory	Introductory	Introductory	Introductory	Introductory		
Intro to Business Analytics							
CIS 271	Developing	Developing	Developing	Developing	Developing		
Adv. Program Design with Java							
CIS 289	Developing	Introductory	Developing	Developing	Developing		Developing
Network Concept							
CIS 311	Developing	Developing	Developing	Developing	Developing		
Intro to Web Development							
CIS 315	Developing	Developing					
Linux Fundamentals							
CIS 350	Developing	Developing	Developing	Developing	Developing		
Database Management							
CIS 432	Developing/ Mastering	Developing/ Mastering	Developing/ Mastering	Developing/ Mastering	Developing/Mastering		Developing/Mastering
Senior Professional Project							
CIS 493	Mastering		Mastering				Mastering
Seminar							