Colorado State University – Pueblo Academic Program Assessment Report for AY 2017-2018   **Due: June 1ˢᵗ. 2018**

Program: Bachelor of Science – Computer Information Systems   **Date:** May 31ˢᵗ. 2018

Completed by: Yuan (Yoanna) Long

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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 2017-2018 assessment activities for the program in Part I. Use Column H to describe improvements planned for 2018-2019 based on the assessment process. In Part II, please describe activities engaged in during 2017-2018 designed to close-the-loop (improve the program) based on assessment activities and the information gathered in 2016-2017. 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?
FA.17, CIS **SLO 3 – Team Skills** 3.1. Attending project	**FA.2014** and **SP.2015** in CIS432	**FA.17**, the peer evaluations of the term members were	**17** students were assessed in CIS240 on 5	We expect that at least **80%** of the students	For the sub learning goals 3.3, 3.4, 3.5, and	Overall the students' performance exceeds the expectation in 2017-2018	We can take a few approaches to improve SLO on team skills. 1. Developing training

meetings 3.2. Participating meeting discussions 3.3. Participating non-meeting discussions 3.4. Leadership 3.5 Understanding project concepts 3.6. Contributing to the final deliverables.		used to assess team skills in CIS240 (Object Oriented Systems Analysis and Design). Please see attached rubric for CIS240 (Appendix I).	sub learning-goals of team skills. The peer evaluation forms have been collected. And the analysis has been conducted for each sub goals.	either meet or exceed expectation (Need improvement, meet expectation, and exceed expectation, are the three achievement levels from low to high).	3.6, **90%** of the students either meet or exceed expectation. For the sub learning goal 3.1 (**attending team meetings**) and 3.2 (**participating meeting discussions**), **78%** students either meet or exceed expectation.	assessments on SLO 3 (Team Skills). On average, **90%** of the students either meet or exceed the expectation, that is much **higher than the previous assessments** in 2014 and 2015(57%, 65%, and 82% meet or exceed expectation in three different classes). It's interesting to notice the lowest scores in **CIS240** (78% meet or exceed expectation in **face-to-face meeting**) and **CIS432** (86% in **leadership**). This is mainly due to the nature and setting of these two courses. CIS240 (Systems analysis and design) is a regular core class for sophomores and juniors. The students normally do not meet regularly other than	sessions on team skills at the lower level (100 level) classes. 2. Addressing and applying team skills, specifically, making team rules, committing to team activities, and leadership, at 200 & 300 level classes. 3. Re-visiting and assessing team skills at 400 level classes (Exit classes). Additionally, we could re-visit and adjust the sub goals of SLO to meet the new team environment, specifically, the new communication approaches among team members. For instance, do we still require (to assess) the commitment to face-to-face meetings or allow students using any kind of communication
SP.18, CIS learning objective 3 – Team Skills (the same as above)	FA.2014 and SP.2015 in CIS432	**SP.18**, the peer evaluations of the term members were used to assess team skills in CIS432 (Senior Project) and CIS311 (Web Programming). Please see attached the rubrics for	**24** students in **CIS432** and **11** students in **CIS311** were assessed on 5 sub learning-goals of team skills. The peer evaluation forms have	We expect that at least **80%** of the students either meet or exceed expectation (Need improvement, meet expectation, exceed expectation,	For CIS432 (Senior Proj.), **95%** of the students either meet or exceed expectation in all sub learning goals except **Leadership** (**86%**).		

| | | CIS432 (Appendix II) and CIS311 (Appendix III). | been collected. And the analysis has been conducted for each sub goals. | the level from low to high). | For CIS311 (Web Programming), **85%** meet or exceed expectation. | the class time. Therefore, the commitment to meet physically and participate in the meeting discussions becomes a challenge.

CIS432 (Senior project) is a project-based senior class. The class time has been designated for the student to meet, discuss, and visit the clients. Regular Face-to-face meeting is not a problem anymore but a routine. However leadership (team organization and direction) becomes the main issue. | approaches as long as they are effective for team discussions and decision-makings? |

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 3: Team Skills	FA.2014 and SP.2015 in CIS432	The previous results indicate lack of team skills of our graduates. Team Skills (SOL #3) were assessed in CIS432, Senior Project, the exit class of CIS. The results were not satisfactory with 57%, 65%, 82% meet or exceed expectation in the classes in FA14 and SP15. CIS decided to address and educate team skills starting from lower level classes. Additionally, to assess team skills not only in the senior classes but also in 200/300 level classes.	Yes. The main theme of 2017-18 (in terms of AOL/SLO) is team skills. Each faculty has done different things to address team skills in their classes. For example, in CIS350, the students were asked to make team rules at the beginning of the team project, reflect the rules in the middle of the semester, and review the collaboration/team lessons at the end of the semester. In CIS365, the students were introduced an online meeting assignment. In the assignment, project team members need to meet online using Zoom (https://zoom.us/) for at least 5 min. to discuss their final project. The students were required to video-record the meeting and submit the video files for grading. To complete this assignment, the team members need to schedule the meeting, discuss the ideas and the deliverables, and distribute the project tasks online though Zoom. The students enjoy the new communication tool and believe it improves the efficiency of team meetings.	The result shows that the student's performance in team skills improved since 2014/2015. Team skills have been assessed at a 200-level class and senior project again. On average, **90%** of the students either meet or exceed the expectation. Though the overall result is satisfactory, certain team skills such as the commitment to face-to-face meeting (specifically at 100/200/300 level) and leadership (specifically at 400 level) need to improve in the future. Continuing addressing team skills at all level classes and conduct training would help further improvement.

Summary and comments:

In AY 2017-2018, we focused on assessing one Student Learning Objective, SLO 3:

Objective 3: Team skills, including six sub-learning goals,

3.1. Attending project meetings
3.2. Participating in meeting discussions
3.3. Participating in non-meeting discussions
3.4. Leadership
3.5. Understanding project concepts
3.6. Contributing to the final deliverables

CIS 240 (Object Oriented Systems Analysis and Design, a development-stage CIS core class) was assessed in Fall 2017 and CIS432 (Senior Project) vs. CIS311 (Web Programming) were assessed in Spring 2018. The artifacts including the student's peer evaluations of the team members were collected and analyzed.

The assessment results show:

1. In CIS240, **90%** of the students either meet or exceed expectation of sub-goal 3.3, 3.4, 3.5, and 3.6. **78%** of the students either meet or exceed the sub-goal 3.1 (**attending team meeting**) and 3.2 (**participating meeting discussion**).
2. In CIS432, **95%** of the students either meet or exceed expectation in all sub-learning goals except **Leadership** (**86%**).
3. In CIS311, **85%** of the students either meet or exceed expectation.

The results indicate:

1. Overall students meet or exceed the expectations on learning objective 3.
2. Student's commitment to face-to-face meeting and leadership need to improve in the future.

Future assessment plan:

1. To assess Ethics (SLO 4) in development (junior or sophomore classes) stage in AY18-19
2. Re-visit Problem Solving (SLO 1) in AY19-20.

Future improvement:

1. We need to continue addressing team skills (specifically off-line communication and leadership) throughout the curriculum.

2. We need to adjust the SLO rubrics. For example, do we need to emphasize off-line communication the same as online communication? How to assess the effectiveness of different communication approaches?
3. We need to improve the assessment method to make it more accurate and rigorous. Assessment normally takes place towards the end of the semester. The students may not pay sufficient attention if they never heard about the assessment before and had no expectation to take the extra work during the final weeks.

Appendix I. CIS240 Fall2017 Assessment Rubrics and Results

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

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 chatting, or phone calls	Actively participates in or initiates discussions and project related communication	Participates in discussions, letting others provide the direction	Rarely responds to team project related discussions	
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	

Survey

Your name_____

Please rate each of your group members on their team skills, using scale 1-3, 1-Needs improvement, 2-Meets expectation, and 3-Exceeds expectation.

Evaluation Criteria	Group Member No.1 Name_____	Group Member No.2 Name_____	Group Member No.3 Name_____	Group Member No.4 Name_____
Attending team meetings				
Participating meeting discussions				
Participating non-meeting discussions, i.e. emails, online chatting, or phone calls				
Leadership				
Understanding of project concepts				
Contributing to the final deliverables. i.e. report, PowerPoint, etc.				

Assessment results:

Sub-Goals #	Goals	Meet or Exceed Expectation	Need Improvement
1	Attending Team Meeting	78.79%	21.21%
2	Participating meting discussions	78.79%	21.21%
3	Participating non-meeting discussions i.e. emails, online, chatting or phone class	90.91%	9.09%
4	Leadership	87.88%	12.12%
5	Understanding of Project Concepts	90.91%	9.09%
6	Contributing to the final deliverables i.e. report, PowerPoint, etc.	90.91%	9.09%

Appendix II. CIS432 Spring2018 Assessment Rubrics and Results

CIS 432 - Senior Professional Project
Team Member Performance Assessment
End-of-Term 2018
(due by 5:00 p.m. April 27, 2018)

Please complete the following with your impressions of your team project experience. Your honest evaluation is sincerely appreciated. DO NOT make this a mutual admiration exercise, but provide an honest appraisal of each person's effort and contribution to the project.

Team Member Assessment Rubric

rick.huff@csupuel | CIS 432 Team As

Key: E - Exceeded Expectations,
     M - Met Expectations,
     N - Needs Improvement

Your Name: [   ]

Team Name: [   ]

Attending team meetings

E Attended all team meetings without being late.

M Attended most team meetings. If likely to be absent or late, informed others ahead of time.

N Rarely attended team meetings. Attendance record is haphazard and inconsistent; would be absent or late without notice.

Please complete the following for your first teammate:

Team Member Name: [   ]

Attending team meetings: [   ]

Participation in meeting discussions: [   ]

Participation in non- [   ]

Participation in meeting discussions

E Actively participated in discussion and asked questions.

M Participated in discussions, letting others provide the direction.

N Observed passively and said little or nothing.

Participation in non-meeting discussions, i.e. emails, online chatting, or phone calls

E Actively participated in or initiated discussions and project related communication.

M Participated in discussions, letting others provide the direction.

N Rarely responded to team project related discussions.

Leadership

E Took a large part in setting group goals and agendas.

M Took some part in setting group goals and agendas.

N Let others set and pursue the agenda.

meeting discussions:

Leadership [▼]

Understanding of project concepts: [▼]

Contribution to final deliverables: [▼]

Contribution to Team Product (%): [|] (Integers only!)

Please complete the following for your second teammate:

Team Member Name: [▼]

Attending team meetings: [▼]

Participation in meeting discussions: [▼]

Participation in non-meeting discussions: [▼]

Leadership [▼]

Understanding of project [▼]

Understanding of project concepts

E Listened actively and showed understanding by paraphrasing or by acknowledging and building on others' ideas.

M Occasionally introduced the information or asked questions.

N Had limited understanding of the project concepts.

Contribution to the final deliverables. i.e. report, PowerPoint, etc.

E Carried own share of the group's responsibilities, and organized or helped organize final deliverables.

M Carried own share of the group's responsibilities.

N Did not fulfill own share.

concepts:

Contribution to final deliverables:

[▼]

Contribution to Team Product (%):

[   ][   ] (Integers only!)

Please complete the following for your third teammate:

Team Member Name: [▼]

Attending team meetings: [▼]

Participation in meeting discussions: [▼]

Participation in non-meeting discussions: [▼]

Leadership [▼]

Understanding of project concepts: [▼]

Contribution to final deliverables: [▼]

Contribution to Team
Product (%):   [|]   (Integers only!)

Your Contribution to
Team Product (%):   [   ] (Integers only!)

Total of Team
Percentages:

Your Email Address: [   ]

                              [Send Assessment]   [Erase All Information]

Assessment results:

Sub-Goals #	Goals	Meet or Exceed Expectation	Need Improvement
1	Attending Team Meeting	100.00%	0.00%
2	Participating meting discussions	94.64%	5.36%
3	Participating non-meeting discussions	98.21%	1.79%
4	Leadership	85.71%	14.29%
5	Understanding of Project Concepts	94.64%	5.36%
6	Contributing to the final deliverables	94.64%	5.36%

CIS 311 - Introduction to Web Development
Team Member Project Participation Form
(due by Noon, May 3, 2018)

Please complete the following with your impressions of your team project experience. Your honest evaluation is sincerely appreciated. DO NOT make this a mutual admiration exercise. Please provide an honest appraisal of each person's relative contribution to the project.

NOTE: THE TOTAL OF THE TEAM PERCENTAGES MUST EQUAL 100% ! ! ! ! ! !

ALSO: YOU DO NOT EVALUATE YOURSELF ! ! ! ! ! !

Team Member Participation Rubric

| rick.huff@csupue | CIS 311 Team Me | CIS_311_Student |

Your Name: [▼]   Your Portion of Team Product Completed: [   ] %

Team Member #1 Name: [▼]   Team Member #2 Name: [▼]

Portion of Team Product Completed: [   ] %   Portion of Team Product Completed: [   ] %

[   ] [   ]   **Total of Team Percentages:** [   ] %

Equal Work

1 Did less work than other team members.

2 Did almost as much work as others.

3 Did a full share of the work.

4 Did significantly more than a full share of the work.

Team Member #1 Equal Work

Score: [▼]

Team Member #2 Equal Work

Score: [▼]

Contribution

1 Seemed bored with conversations about the project

2 Listened to others. On some occasions made suggestions for project work.

3 Participated in discussions about the project work.

4 Provided many ideas for the project work.

Team Member #1 Contribution

Score: [▼]

Team Member #2 Contribution

Score: [▼]

Availability

1 Did not meet team members at agreed times and places.

2 Could be coaxed into meeting with other team members.

3 Worked agreeably with team members concerning times and places to meet.

4 Took the initiative to help the team get organized and get together.

Team Member #1 Availability

Score: [▼]

Team Member #2 Availability

Score: [▼]

Cooperation

1 Put little or no effort into completing own project tasks.

2 Merely focused on completing own project tasks.

3 Offered encouragement to other team members concerning their project tasks.

4 Assisted other team members to accomplish their project tasks.

Team Member #1 Cooperation

Score: [▼]

Team Member #2 Cooperation

Score: [▼]

Reliability

1   Some work never completed, forcing other team members to complete them.

2   Completed work was usually too late to be included in project meetings and/or deliverables.

3   Work was ready very close to the time agreed.

4   Work was ready on time or ahead of agreed time.

Team Member #1 Reliability   Team Member #2 Reliability

Score: [▼]   Score: [▼]

Cohesiveness

1   Team members often wondered, "What is going on here?"

2   Occasionally encouraged and appreciated team members; seemed to take the work of others for granted.

3   Often encouraged and appreciated other team members.

4   Expressed frequent appreciation for other team members.

Team Member #1 Cohesiveness   Team Member #2 Cohesiveness

Score: [▼]   Score: [▼]

Feedback Acceptance

1   Refused to listen to feedback.

2   Argued own point of view over feedback.

3   Reluctantly accepted feedback.

4   Accepted feedback from others willingly.

Team Member #1 Feedback Acceptance

Score: [▼]

Team Member #2 Feedback Acceptance

Score: [▼]

Feedback to Others

1   Was openly rude when giving feedback.

2   Sometimes hurt feelings of others with feedback.

3   Gave feedback in ways that did not offend others.

4   Gave respectful feedback that dignified the efforts of others.

Team Member #1 Feedback to Others

Score: [▼]

Team Member #2 Feedback to Others

Score: [▼]

Quality of Work

1   Provides work that usually needs to be checked/redone by others to ensure quality.

2   Provides work that sometimes needs to be checked by other team members to ensure quality.

3   Provides quality work.

4   Provides work of the highest quality.

Team Member #1 Quality of Work

Score: [   ] ▼

Team Member #2 Quality of Work

Score: [   ] ▼

Problem Solving

1   Does not try to solve problems or help others solve problems. Let's others do the work.

2   Does not suggest or refine solutions, but is willing to try out solutions suggested by others.

3   Refines solutions suggested by others.

4   Actively looks for and suggests solutions to problems encountered.

Team Member #1 Problem Solving

Score: [   ] ▼

Team Member #2 Problem Solving

Score: [   ] ▼

Attitude

1   Often criticizes the project or the work of other team members.

2   Occasionally criticizes the project or the work of other team members.

3   Rarely criticizes the project or the work of other team members.

4   Never criticizes the project or the work of other team members.

Team Member #1 Attitude

Score: [▼]

Team Member #2 Attitude

Score: [▼]

Working with Others

1   Rarely listens to, shares with, and supports the efforts of other team members. Mostly is not a good team member.

2   Occasionally listens to, shares with, and supports the efforts of other team members, but is not a good team member at times

3   Usually listens to, shares with, and supports the efforts of other team members. Does not create conflict within the team.

4   Almost always listens to, shares with, and supports the efforts of other team members. Tries to keep people working together.

Team Member #1 Working with Others

Score: [▼]

Team Member #2 Working with Others

Score: [▼]

Time Management

1   Rarely or never completes assigned tasks on time. Causes major disruption to project schedules; forces team members to complete work.

2   Does not use time well to ensure timely completion of assigned tasks. Occasionally causes disruption to project schedules.

3   Usually uses time well to ensure timely completion of assigned tasks. Causes little or no disruption to project schedules.

4   Routinely uses time well to ensure timely completion of assigned tasks. Never causes disruption to project schedules.

Team Member #1 Time Management

Score: [▼]

Team Member #2 Time Management

Score: [▼]

[Submit Evaluation]   [Erase All Information]

Assessment results:

	Meet or exceed expectation	Need Improvement
SLO 3.	85.19%	14.81%

Appendix IV. 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

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	

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

	projects enthusiasm, interest and confidence.		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 "takeaways" 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.	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 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

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 chatting, or phone calls	Actively participates in or initiates discussions and project related communication	Participates in discussions, letting others provide the direction	Rarely responds to team project related discussions	
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

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 IV. 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