

Computer Information Technology (ADC) Assessment Report

2020-21

Learning Outcomes for Computer Information Technology:

1. Students will be able to identify and evaluate information technology infrastructure necessary to meet an organization's business needs.
2. Students will be able to develop, plan and evaluate appropriate processes for managing information systems and information technology projects.
3. Students will be able to design, develop, and evaluate software solutions to meet an organization's business needs.
4. Students will be able to apply their technical knowledge and critical thinking to solve problems.
5. Students will be able to speak about their work with precision, clarity and organization (Oral Communication).
6. Students will be able to write about their work with precision, clarity and organization (Written Communication).
7. Students will be able to identify, locate, evaluate, and effectively and responsibly use and cite information for the task at hand (Information Literacy).
8. Students will be able to understand and create arguments supported by quantitative evidence, and they can clearly communicate those arguments in a variety of formats (Quantitative Reasoning).
9. Students will collaborate effectively in teams.
10. Students will understand the professional, ethical, legal, security and social issues and responsibilities with the implementation and use of information technology.
11. Graduates will be prepared for:
 - careers that use information technology in business, industry, government and the non-profit sector; and
 - graduate study in fields related to information technology.

Assessment Data Mathematical, Information and Computer Sciences Computer Information Technology (ADC)

Learning Outcome: Students will be able to identify and evaluate information technology infrastructure necessary to meet an organization's business needs.

Outcome Measure: Pass rates on certification exams.

Criteria for Success:

2017-18: By the end of their 4th term:

- 60% of the students will pass the CompTIA A+ exam.
- 60% of the students will pass one additional CompTIA certification exam.

2018-19 and Beyond: By the end of their 4th term (Grossmont) or 3rd term (MiraCosta):

- 80% of the students will be at or above 90% of the score needed to pass the CompTIA A+ exam.
- 80% of the students will be at or above 90% of the score needed to pass one additional CompTIA certification exam.

Aligned with DQP Learning Areas (circle one or more):

1. Specialized Knowledge
2. Broad Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning, and
5. Civic and Global Learning

Longitudinal Data:

	2017-18	2018-19	2019-20	2020-21
Percentage Passing CompTIA A+ Exam	33%			
Percentage at or Above 90% of CompTIA A+ Exam Passing Score		87%	68%	73%
Percentage Passing at Least One of CompTIA Network+, Security+ or Project+	60%			
Percentage at or Above 90% for at Least One of CompTIA Network+, Security+ or Project+ Exam Passing Score		94%	86%	85%

Conclusions Drawn from Data: 2017-18: Note that if we include the students who entered the cohort with the A+ certification, then 60% of the students had the A+ certification by the end of their 4th term. Benchmark met for additional certification passing. In 2018-19 we changed the criteria for success to include those students who came close to passing the certification exam. This is because those who “came close” are demonstrating mastery of the material.

Changes to be Made Based on Data: None beyond adjusting the criteria for success after looking at the data. We are seeing students still having some challenges in doing well on the A+ certification exams. We are doing some analysis on that data, but preliminary findings indicate that many of the students with challenges in passing the exam transferred in the coursework that is foundational for A+ as opposed to taking the coursework from PLNU.

Rubric: Since these are online exams provided by ComTIA, there is no rubric.

**Assessment Data Mathematical, Information and Computer Sciences
Computer Information Technology (ADC)**

Learning Outcome: Students will be able to develop, plan and evaluate appropriate processes for managing information systems and information technology projects.

Outcome Measure: Signature Assignment for a project plan report in CIT3034 Project Management

Criteria for Success: 80% of the students should have an average score of at least 80%.

Aligned with DQP Learning Areas (circle one or more):

- 1. Specialized Knowledge
- 2. Broad Integrative Knowledge
- 3. Intellectual Skills/Core Competencies
- 4. Applied and Collaborative Learning, and
- 5. Civic and Global Learning

Longitudinal Data:

	Percentage of students scoring more than 80%			
	2017-18	2018-19	2019-20	2020-21
Project Plan	77%	84%	85%	90%

Conclusions Drawn from Data: The students are achieving our benchmark. The small sample size means that variability will occur in the scores.

Changes to be Made Based on Data: Continue to monitor.

Rubric: On the next page

Criteria	Outstanding	High Satisfactory	Low Satisfactory	Unsatisfactory
Draft 1	<input type="checkbox"/> 14 - 15 pts Completeness - 300+ words and includes the company's name, the project's name, the date the project was completed or is expected to be completed, employee contact names (minimum two people) and an overview of the project and it's strategic and/or tactical purpose.	<input type="checkbox"/> 12 - 13 pts Completeness - 250 to 300 words or includes all but one of the following: the company's name, the project's name, the date the project was completed or will be expected to be completed, employee contact names (minimum two people) and an overview of the project and it's strategic and/or tactical purpose.	<input type="checkbox"/> 10 - 11 pts Completeness - 200 to 300 words or includes all but two or three of the following: the company's name, the project's name, the date the project was completed or will be expected to be completed, employee contact names (minimum two people) and an overview of the project and it's strategic and/or tactical purpose.	<input type="checkbox"/> 4 - 9 pts Completeness -50 to 200 words or is missing all but one or two of the following: the company's name, the project's name, the date the project was completed or will be expected to be completed, employee contact names (minimum two people) and an overview of the project and it's strategic and/or tactical purpose.
	<input type="checkbox"/> 5 pts Format - No spelling or grammatical errors, meets all APA requirements	<input type="checkbox"/> 4 pts Format - One or two spelling or grammatical errors, or meets all but one APA requirements	<input type="checkbox"/> 2 - 3 pts Format - Two or three spelling or grammatical errors, or meets all but two APA requirements	<input type="checkbox"/> 0 - 1 pts Format - Four spelling or grammatical errors, or does not meet three or more APA formatting requirements.
Draft 2	<input type="checkbox"/> 23 - 25 pts Completeness - Includes complete information on all of the following: the project name, executive summary, project stakeholders, project description, MOV, project scope, project schedule summary, project budget summary, and terminology and glossary	<input type="checkbox"/> 18 - 22 pts Completeness - Includes complete information on all but one or two of the following: the project name, executive summary, project stakeholders, project description, MOV, project scope, project schedule summary, project budget summary, and terminology and glossary	<input type="checkbox"/> 11 - 17 pts Completeness - Includes complete information on all but three to five of the following: the project name, executive summary, project stakeholders, project description, MOV, project scope, project schedule summary, project budget summary, and terminology and glossary	<input type="checkbox"/> 5 - 10 pts Completeness - Includes complete information on only one to three of the following: the project name, executive summary, project stakeholders, project description, MOV, project scope, project schedule summary, project budget summary, and terminology and glossary
	<input type="checkbox"/> 5 pts Format - No spelling or grammatical errors, meets all APA requirements	<input type="checkbox"/> 4 pts Format - One or two spelling or grammatical errors, or meets all but one APA requirements	<input type="checkbox"/> 2 - 3 pts Format - Two or three spelling or grammatical errors, or meets all but two APA requirements	<input type="checkbox"/> 0 - 1 pts Format - Four spelling or grammatical errors, or does not meet three or more APA formatting requirements.
Draft 3	<input type="checkbox"/> 32 - 35 pts Completeness - Includes complete information on all of the following: Updated and corrected content from the second draft, A title page, TOC, project control WBS and Gantt chart, project risk summary, and implementation plan.	<input type="checkbox"/> 29 - 31 pts Completeness - Includes complete information on all but one or two of the following: Updated and corrected content from the second draft, A title page, TOC, project control WBS and Gantt chart, project risk summary, and implementation plan.	<input type="checkbox"/> 23 - 28 pts Completeness - Includes complete information on all but three to five of the following: Updated and corrected content from the second draft, A title page, TOC, project control WBS and Gantt chart, project risk summary, and implementation plan.	<input type="checkbox"/> 14 - 22 pts Completeness - Includes complete information on only one to three of the following: Updated and corrected content from the second draft, A title page, TOC, project control WBS and Gantt chart, project risk summary, and implementation plan.
	<input type="checkbox"/> 5 pts Format - No spelling or grammatical errors, meets all APA requirements	<input type="checkbox"/> 4 pts Format - One or two spelling or grammatical errors, or meets all but one APA requirements	<input type="checkbox"/> 2 - 3 pts Format - Two or three spelling or grammatical errors, or meets all but two APA requirements	<input type="checkbox"/> 0 - 1 pts Format - Four spelling or grammatical errors, or does not meet three or more APA formatting requirements.
Final Plan	<input type="checkbox"/> 23 - 25 pts Report Completeness - Includes all updated sections from draft 2 and draft 3.	<input type="checkbox"/> 18 - 22 pts Report Completeness - Includes all but one or two updated sections from draft 2 and draft 3.	<input type="checkbox"/> 11 - 17 pts Report Completeness - Includes all but three to five updated sections from draft 2 and draft 3.	<input type="checkbox"/> 5 - 10 pts Report Completeness - Includes one or two updated sections from draft 2 and draft 3.
	<input type="checkbox"/> 5 pts Format - No spelling or grammatical errors, meets all APA requirements	<input type="checkbox"/> 4 pts Format - One or two spelling or grammatical errors, or meets all but one APA requirements	<input type="checkbox"/> 2 - 3 pts Format - Two or three spelling or grammatical errors, or meets all but two APA requirements	<input type="checkbox"/> 0 - 1 pts Format - Four spelling or grammatical errors, or does not meet three or more APA formatting requirements.
	<input type="checkbox"/> 14 - 15 pts Presentation Document - Containing all of the following: Four to six slides reporting the main aspects of the project, slides follow the template provided, slides are engaging, readable and have appropriate graphics and information.	<input type="checkbox"/> 12 - 13 pts Presentation Document - Containing all but one of the following: Four to six slides reporting the main aspects of the project, slides follow the template provided, slides are engaging, readable and have appropriate graphics and information.	<input type="checkbox"/> 10 - 11 pts Presentation Document - Containing all but two of the following: Four to six slides reporting the main aspects of the project, slides follow the template provided, slides are engaging, readable and have appropriate graphics and information.	<input type="checkbox"/> 4 - 9 pts Presentation Document - Containing all but three or more of the following: Four to six slides reporting the main aspects of the project, slides follow the template provided, slides are engaging, readable and have appropriate graphics and information.
	<input type="checkbox"/> 14 - 15 pts Presentation - Containing all of the following: Lasts between 5 and 7 minutes, well prepared and rehearsed, avoided reading from the screen, clear and concise presentation, responded well to questions, was attentive during other presentations.	<input type="checkbox"/> 12 - 13 pts Presentation - Containing all but one of the following: Lasts between 5 and 7 minutes, well prepared and rehearsed, avoided reading from the screen, clear and concise presentation, responded well to questions, was attentive during other presentations.	<input type="checkbox"/> 10 - 11 pts Presentation - Containing all but two or three of the following: Lasts between 5 and 7 minutes, well prepared and rehearsed, avoided reading from the screen, clear and concise presentation, responded well to questions, was attentive during other presentations.	<input type="checkbox"/> 4 - 9 pts Presentation - Containing all but four of the following: Lasts between 5 and 7 minutes, well prepared and rehearsed, avoided reading from the screen, clear and concise presentation, responded well to questions, was attentive during other presentations.

**Assessment Data Mathematical, Information and Computer Sciences
Computer Information Technology (ADC)**

Learning Outcome: Students will be able to design, develop, and evaluate software solutions to meet an organization's business needs.

Outcome Measure: Signature Assignment to create a systems plan report in in CIT3034 Project Management

Criteria for Success: 80% of the students should have an average score of at least 80%.

Aligned with DQP Learning Areas (circle one or more):

1. Specialized Knowledge
2. Broad Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning, and
5. Civic and Global Learning

Longitudinal Data:

	Percentage of students scoring more than 80%			
	2017-18	2018-19	2019-20	2020-21
System Plan	80%	92%	100%	100%

Conclusions Drawn from Data: The students are achieving our benchmark.

Changes to be Made Based on Data: Continue to monitor.

Rubric: See next page.

**Assessment Data Mathematical, Information and Computer Sciences
Computer Information Technology (ADC)**

Learning Outcome: Students will be able to apply their technical knowledge and critical thinking to solve problems.

Outcome Measure:

- Pass rates on certification exams.
- ETS Proficiency Profile (critical thinking)

Criteria for Success:

2017-18: By the end of their 4th term:

- 60% of the students will pass the CompTIA A+ exam.
- 60% of the students will pass one additional CompTIA certification exam.

2018-19 and Beyond: By the end of their 4th term:

- 80% of the students will be at or above 90% of the score needed to pass the CompTIA A+ exam.
- 80% of the students will be at or above 90% of the score needed to pass one additional CompTIA certification exam.

70% of the students will be marginal or proficient at Level 2 Reading/Critical Thinking.

Aligned with DQP Learning Areas (circle one or more):

1. Specialized Knowledge
2. Broad Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning, and
5. Civic and Global Learning

Longitudinal Data:

	2017-18	2018-19	2019-20	2020-21
Percentage Passing CompTIA A+ Exam	33%			
Percentage at or Above 90% of CompTIA A+ Exam Passing Score		87%	68%	73%
Percentage Passing at Least One of CompTIA Network+, Security+ or Project+	60%			
Percentage at or Above 90% for at Least One of CompTIA Network+, Security+ or Project+ Exam Passing Score		94%	86%	85%

	Percentage of Students Marginal or Proficient			
	2017-18	2018-19	2019-20	2020-21
ETS Proficiency Profile Level 2 Critical Thinking	60%	52%	50%	52%

Conclusions Drawn from Data: Certification Exams: 2017-18: Note that if we include the students who entered the cohort with the A+ certification, then 60% of the students had the A+ certification by the end of their 4th term. Benchmark met for additional certification passing. In 2018-19 we changed the criteria for success to include those students who came close to passing the certification exam. This is because those who “came close” are demonstrating mastery of the material.

ETS: The students are close but missing the target. The department will be looking at the specific skills measured by the test and see if there are locations where the curriculum can be strengthened to reinforce these skills.

Changes to be Made Based on Data: None beyond adjusting the criteria for success after looking at the data. We are seeing students still having some challenges doing well on the A+ certification exams. We are doing some analysis on that data, but preliminary findings indicate that many of the students with challenges in passing the exam transferred in the coursework that is foundational for A+ as opposed to taking the coursework from PLNU.

Changes pending more analysis of the ETS instrument.

Rubric: Since these are online exams provided by ComTIA, there is no rubric.

The ETS exam has no rubric

Assessment Data Mathematical, Information and Computer Sciences Computer Information Technology (ADC)

Learning Outcome:

PLO: Students will be able to speak about their work with precision, clarity and organization (Oral Communication).

GELO 1b: Oral: Students will be able to effectively express ideas and information to others through oral communication.

Outcome Measure: Annual: Each student will be required to give an oral presentation on a topic in their field as a part of their participation in the Information Technology Project (CIT4081). The audience for this talk will include department faculty, fellow students and possibly some alumni. The students will be given the evaluation criteria in advance of their presentation and will be rated by the faculty using a rubric with a scale of 4 (outstanding) to 1 (unsatisfactory) in the following areas:

- Command of background material
- Organization
- Oral presentation skills
- Use of presentation tools
- Ability to field questions from the audience

Criteria for Success: 80% of the students should have an average score of at least 2.5 in each of the major areas in the department rubric.

Aligned with DQP Learning Areas (circle one or more):

1. Specialized Knowledge
2. Broad Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning, and
5. Civic and Global Learning

Longitudinal Data:

	2017-18	2018-19	2019-20	2020-21
Background	100%	100%	97%	100%
Organization	100%	100%	100%	100%
Oral Presentation Skills	100%	100%	100%	100%
Presentation Tools	100%	100%	100%	97%
Ability to Field Questions	100%	100%	100%	97%

Conclusions Drawn from Data: Our cohorts are consistently meeting the benchmark. This is not surprising since we have students give oral presentations in most classes.

Changes to be Made Based on Data: We noticed that the students did not fully understand all categories in the rubric and additional time will be spent reviewing the rubric with them before they prepare their oral presentations

Oral Presentation Rubric Update (4/12/17)

Criteria	Outstanding	High Satisfactory	Low Satisfactory	Unsatisfactory
Command of background material	<input type="checkbox"/> Clearly knows material and key facts by memory <input type="checkbox"/> Expands on PPT slides <input type="checkbox"/> Content appropriate for audience	<input type="checkbox"/> Clearly knows key facts with a few memory slips <input type="checkbox"/> Some expansion on PPT slides <input type="checkbox"/> Partial audience adaptation of content	<input type="checkbox"/> Reads some information; knows some facts from memory <input type="checkbox"/> No expansion of PPT slide content <input type="checkbox"/> Little audience adaptation of content	<input type="checkbox"/> Reads sentences from slides <input type="checkbox"/> Dependent on notes <input type="checkbox"/> Lacks audience adaptation of content
Organization	<input type="checkbox"/> Clear and concise outline <input type="checkbox"/> Relevant graphics and key text items on slides <input type="checkbox"/> Presentation is between 10-15 minutes	<input type="checkbox"/> Clear outline <input type="checkbox"/> Too much information on slides (not concise) <input type="checkbox"/> Presentation 1 minute outside of the range (10-15 minutes)	<input type="checkbox"/> Some sense of outline <input type="checkbox"/> Too much detailed information on slides <input type="checkbox"/> Presentation 2 minutes outside of the range (10-15 minutes)	<input type="checkbox"/> No clear outline <input type="checkbox"/> Slides are in paragraphs; too much detailed information on one slide <input type="checkbox"/> Presentation 3 minutes outside of the range (10-15 minutes)
Oral presentation skills	<input type="checkbox"/> Clearly has practiced several times; smooth transitions <input type="checkbox"/> Engages audience in content multiple times and engagement is well connected to talk (questions, examples, etc.) <input type="checkbox"/> Free of disfluencies (ah, umh) <input type="checkbox"/> Is clearly heard in the room and uses inflection for emphasis <input type="checkbox"/> Engages audience through eye contact <input type="checkbox"/> Engages audience through gestures	<input type="checkbox"/> Has practiced but transitions are not smooth <input type="checkbox"/> Engages audience at least twice in content (questions, examples, etc.) <input type="checkbox"/> A few disfluencies (ah, umh, er) <input type="checkbox"/> Can be understood most of the time and uses some inflection <input type="checkbox"/> Some engagement of audience through eye contact <input type="checkbox"/> Some engagement of audience through gestures	<input type="checkbox"/> Has practiced presentation but cannot verbally make transitions between slides <input type="checkbox"/> Audience engagement at least once with content (questions, examples, etc.) <input type="checkbox"/> Many disfluencies (ah, umh, er) <input type="checkbox"/> Can sometimes be understood and uses little inflection <input type="checkbox"/> Infrequent eye contact <input type="checkbox"/> Distracting gestures or mannerisms	<input type="checkbox"/> Clearly did not practice presentation; Does not anticipate content of next slide <input type="checkbox"/> No audience involvement <input type="checkbox"/> Disfluencies (ah, umh, er) detract from presentation <input type="checkbox"/> Can not be heard and/or speaks in a monotone <input type="checkbox"/> Little audience awareness or eye contact <input type="checkbox"/> Frequent distracting gestures or mannerisms
Use of presentation tools	<input type="checkbox"/> PPT background is matched to content, legible font, seamless transitions <input type="checkbox"/> Graphics imbedded and matched to topic, necessary hyperlinks work	<input type="checkbox"/> Appropriate PPT slide backgrounds, transitions & font <input type="checkbox"/> Most graphics imbedded and matched to topic, most necessary hyperlinks work	<input type="checkbox"/> Distracting PPT slide backgrounds and transitions, font hard to read <input type="checkbox"/> Some inappropriate graphics or use of PPT embellishments, necessary hyperlinks don't work	<input type="checkbox"/> No attention given to PPT slide backgrounds and transitions, font illegible <input type="checkbox"/> Distracting use of embellishments, graphics not connected to topic
Ability to field questions	<input type="checkbox"/> Able to answer questions clearly and without hesitation and prepared material to answer anticipated questions	<input type="checkbox"/> Can answer all questions with some hesitation	<input type="checkbox"/> Able to answer half of the questions with hesitation	<input type="checkbox"/> Unable to answer any questions

Assessment Data Mathematical, Information and Computer Sciences Computer Information Technology (ADC)

Learning Outcome:

PLO: Students will be able to write about their work with precision, clarity and organization (Written Communication).

GELO 1a: Written: Students will be able to effectively express ideas and information to others through written communication.

Outcome Measure: Annual: Each student will be required to write a paper on a topic in their field as a part of their participation in the Senior Seminar. The audience for this talk will include department faculty, fellow students and possibly some alumni. The students will be given the evaluation criteria in advance of their presentation and will be rated by the faculty using a rubric with a scale of 4 (outstanding) to 1 (unsatisfactory) in the following areas:

- Structure
- Organization
- Grammar and spelling
- Depth of information
- Clarity of writing
- Bibliography and other supporting documentation

Annual: ETS Proficiency Profile.

Criteria for Success: 70% of the students should have an average score of at least 2.5 in each of the major areas in the department rubric.

ETS: 60% of our students will be marginal or proficient on the Level 2 Writing test.

Aligned with DQP Learning Areas (circle one or more):

1. Specialized Knowledge
2. Broad Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning, and
5. Civic and Global Learning

Longitudinal Data:

	2017-18	2018-19	2019-20	2020-21
Structure	100%	100%	100%	100%
Organization	83%	100%	100%	100%
Grammar and Spelling	100%	100%	100%	100%
Depth of Information	100%	100%	100%	100%
Clarity of Writing	100%	100%	100%	100%
Bibliography and support	100%	100%	100%	100%

ETS:

	Percentage of Students Marginal or Proficient			
	2017-18	2018-19	2019-20	2020-21
ETS Proficiency Profile Level 2 Writing	20%	39%	27%	44%

Conclusions Drawn from Data: We now have a few years of data and are looking carefully at the discrepancies. The students have done well on the department rubric but not well on the ETS test. We are reviewing the material on the ETS exam but it appears that the ETS results are testing knowledge of grammar rather than the ability to write technically.

Changes to be Made Based on Data: No changes at this time, we are monitoring progress and reviewing the instruments.

Rubrics:

MICS Writing Rubric: Next page

ETS: No rubric

MICS Written Presentation Rubric

Criteria	Outstanding	High Satisfactory	Low Satisfactory	Unsatisfactory
Bibliography and supporting documents	<ul style="list-style-type: none"> <input type="checkbox"/> Multiple references from distinct reputable sources <input type="checkbox"/> References cited in the body of the document 	<ul style="list-style-type: none"> <input type="checkbox"/> Most references from distinct reputable sources <input type="checkbox"/> Some citation of references in the body of the document 	<ul style="list-style-type: none"> <input type="checkbox"/> Some references from reputable sources <input type="checkbox"/> Limited citation of references in the body of the document 	<ul style="list-style-type: none"> <input type="checkbox"/> No bibliography or all references from untrusted sites on the internet <input type="checkbox"/> No citation of references in the body of the document
Organization	<ul style="list-style-type: none"> <input type="checkbox"/> Conveys a central theme with all ideas connected, arrangement of ideas clearly related to topic <input type="checkbox"/> Clear introduction, body (with sections), and conclusion includes summary and closure <input type="checkbox"/> Includes both an abstract and table of contents 	<ul style="list-style-type: none"> <input type="checkbox"/> Conveys a central idea or topic with some ideas connected to the topic <input type="checkbox"/> Includes introduction, body and conclusion <input type="checkbox"/> Includes abstract and table of contents (one partial and one complete) 	<ul style="list-style-type: none"> <input type="checkbox"/> Attempts to focus on an idea or topic with many ideas not connected to the topic <input type="checkbox"/> Introduction, body, conclusion detectable but not clear <input type="checkbox"/> Includes partial abstract and partial table of contents 	<ul style="list-style-type: none"> <input type="checkbox"/> Has little or no focus on central idea or topic <input type="checkbox"/> Introduction, body or conclusion absent <input type="checkbox"/> No abstract or table of contents
Grammar and spelling	<ul style="list-style-type: none"> <input type="checkbox"/> No use of first- person tense <input type="checkbox"/> No grammatical or spelling errors 	<ul style="list-style-type: none"> <input type="checkbox"/> Few uses of the first-person tense <input type="checkbox"/> Few grammatical and spelling errors 	<ul style="list-style-type: none"> <input type="checkbox"/> Several uses of the first- person tense <input type="checkbox"/> Some grammatical and spelling errors 	<ul style="list-style-type: none"> <input type="checkbox"/> Written in first-person tense <input type="checkbox"/> Many grammatical and spelling errors
Depth of information	<ul style="list-style-type: none"> <input type="checkbox"/> Appropriately synthesizes information from multiple distinct sources <input type="checkbox"/> Draws conclusions and personal insights from synthesis <input type="checkbox"/> Has the minimum number of pages including penalty pages; subject coverage is excellent 	<ul style="list-style-type: none"> <input type="checkbox"/> Synthesis of information from at least three distinct sources <input type="checkbox"/> At least two personal insights or conclusions stated <input type="checkbox"/> Has the minimum number of pages including penalty pages; subject coverage is good 	<ul style="list-style-type: none"> <input type="checkbox"/> Synthesis of information from at least two distinct sources <input type="checkbox"/> At least one personal insight or conclusion stated <input type="checkbox"/> Has the minimum number of pages including penalty pages; subject coverage is adequate 	<ul style="list-style-type: none"> <input type="checkbox"/> Summary reporting of information without synthesis <input type="checkbox"/> No personal insights <input type="checkbox"/> Does not have the minimum number of pages including penalty pages
Clarity of writing	<ul style="list-style-type: none"> <input type="checkbox"/> Sentences flow <input type="checkbox"/> Smooth transitions between paragraphs <input type="checkbox"/> Any and all terms and acronyms are defined <input type="checkbox"/> Provides evidence to support points 	<ul style="list-style-type: none"> <input type="checkbox"/> Good sentence structure <input type="checkbox"/> Adequate transitions between paragraphs <input type="checkbox"/> Most terms and acronyms are defined <input type="checkbox"/> Lacks support for some points 	<ul style="list-style-type: none"> <input type="checkbox"/> Occasional poor sentence structure <input type="checkbox"/> Transitions between paragraphs unclear <input type="checkbox"/> Some terms and acronyms are defined <input type="checkbox"/> Provides minimal support for points 	<ul style="list-style-type: none"> <input type="checkbox"/> Frequent poor sentence structure <input type="checkbox"/> Lacked transitions between paragraphs <input type="checkbox"/> Many terms and acronyms are undefined <input type="checkbox"/> Ideas not supported

Assessment Data Mathematical, Information and Computer Sciences Computer Information Technology (ADC)

Learning Outcome:

PLO: Students will be able to identify, locate, evaluate, and effectively and responsibly use and cite information for the task at hand (Information Literacy).

GELO 1c: Information Literacy: Students will be able to access and cite information as well as evaluate the logic, validity, and relevance of information from a variety of sources.

Outcome Measure: Annual: Each student will be required to write a paper on a topic in their field as a part of their participation in the Senior Seminar (CIT4081). The audience for this talk will include department faculty, fellow students and possibly some alumni. The students will be given the evaluation criteria in advance and their paper will be rated by the faculty using a rubric with a scale of 4 (outstanding) to 1 (unsatisfactory) in the following areas:

- References: Multiple references from distinct reputable sources.
- Citation: References cited in the body of the document.
- Synthesis: Appropriately synthesizes information from multiple distinct sources.

Criteria for Success: 80% of the students should have an average score of at least 2.5 in each of the major areas.

Aligned with DQP Learning Areas (circle one or more):

1. Specialized Knowledge
2. Broad Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning, and
5. Civic and Global Learning

Longitudinal Data:

	2017-18	2018-19	2019-20	2020-21
References	100%	100%	100%	100%
Citation	100%	100%	100%	100%
Synthesis	100%	100%	100%	100%

Conclusions Drawn from Data: Our graduates are meeting our expectations.

Changes to be Made Based on Data: Continue to monitor the progress.

Rubric: We used the applicable parts of the writing rubric.

MICS Written Presentation Rubric

Criteria	Outstanding	High Satisfactory	Low Satisfactory	Unsatisfactory
Bibliography and supporting documents	<input type="checkbox"/> Multiple references from distinct reputable sources <input type="checkbox"/> References cited in the body of the document	<input type="checkbox"/> Most references from distinct reputable sources <input type="checkbox"/> Some citation of references in the body of the document	<input type="checkbox"/> Some references from reputable sources <input type="checkbox"/> Limited citation of references in the body of the document	<input type="checkbox"/> No bibliography or all references from untrusted sites on the internet <input type="checkbox"/> No citation of references in the body of the document
Organization	<input type="checkbox"/> Conveys a central theme with all ideas connected, arrangement of ideas clearly related to topic <input type="checkbox"/> Clear introduction, body (with sections), and conclusion includes summary and closure <input type="checkbox"/> Includes both an abstract and table of contents	<input type="checkbox"/> Conveys a central idea or topic with some ideas connected to the topic <input type="checkbox"/> Includes introduction, body and conclusion <input type="checkbox"/> Includes abstract and table of contents (one partial and one complete)	<input type="checkbox"/> Attempts to focus on an idea or topic with many ideas not connected to the topic <input type="checkbox"/> Introduction, body, conclusion detectable but not clear <input type="checkbox"/> Includes partial abstract and partial table of contents	<input type="checkbox"/> Has little or no focus on central idea or topic <input type="checkbox"/> Introduction, body or conclusion absent <input type="checkbox"/> No abstract or table of contents
Grammar and spelling	<input type="checkbox"/> No use of first-person tense <input type="checkbox"/> No grammatical or spelling errors	<input type="checkbox"/> Few uses of the first-person tense <input type="checkbox"/> Few grammatical and spelling errors	<input type="checkbox"/> Several uses of the first-person tense <input type="checkbox"/> Some grammatical and spelling errors	<input type="checkbox"/> Written in first-person tense <input type="checkbox"/> Many grammatical and spelling errors
Depth of information	<input type="checkbox"/> Appropriately synthesizes information from multiple distinct sources <input type="checkbox"/> Draws conclusions and personal insights from synthesis <input type="checkbox"/> Has the minimum number of pages including penalty pages; subject coverage is excellent	<input type="checkbox"/> Synthesis of information from at least three distinct sources <input type="checkbox"/> At least two personal insights or conclusions stated <input type="checkbox"/> Has the minimum number of pages including penalty pages; subject coverage is good	<input type="checkbox"/> Synthesis of information from at least two distinct sources <input type="checkbox"/> At least one personal insight or conclusion stated <input type="checkbox"/> Has the minimum number of pages including penalty pages; subject coverage is adequate	<input type="checkbox"/> Summary reporting of information without synthesis <input type="checkbox"/> No personal insights <input type="checkbox"/> Does not have the minimum number of pages including penalty pages
Clarity of writing	<input type="checkbox"/> Sentences flow <input type="checkbox"/> Smooth transitions between paragraphs <input type="checkbox"/> Any and all terms and acronyms are defined <input type="checkbox"/> Provides evidence to support points	<input type="checkbox"/> Good sentence structure <input type="checkbox"/> Adequate transitions between paragraphs <input type="checkbox"/> Most terms and acronyms are defined <input type="checkbox"/> Lacks support for some points	<input type="checkbox"/> Occasional poor sentence structure <input type="checkbox"/> Transitions between paragraphs unclear <input type="checkbox"/> Some terms and acronyms are defined <input type="checkbox"/> Provides minimal support for points	<input type="checkbox"/> Frequent poor sentence structure <input type="checkbox"/> Lacked transitions between paragraphs <input type="checkbox"/> Many terms and acronyms are undefined <input type="checkbox"/> Ideas not supported

**Assessment Data Mathematical, Information and Computer Sciences
Computer Information Technology (ADC)**

Learning Outcome:

PLO: Students will be able to understand and create arguments supported by quantitative evidence, and they can clearly communicate those arguments in a variety of formats (Quantitative Reasoning).

GELO 1e: Quantitative Reasoning: Students will be able to solve problems that are quantitative in nature.

Outcome Measure: Annual: Each student will participate in the ETS Proficiency Profile exam.

Criteria for Success: 70% of the students will be Marginal or Proficient at Level 2.

Aligned with DQP Learning Areas (circle one or more):

1. Specialized Knowledge
2. Broad Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning, and
5. Civic and Global Learning

Longitudinal Data:

	Percentage of Students Marginal or			
	2017-18	2018-19	2019-20	2020-21
ETS Proficiency Profile Level 2 Quantitative Reasoning	60%	39%	50%	52%

Conclusions Drawn from Data: The program has now graduated several cohorts so it is possible to begin to look at longitudinal data. We are looking at the particular skills measured by this exam to see what skills need to be reinforced and to determine if this benchmark is appropriate for the CIT student population. Because these students transfer in their mathematical coursework, PLNU is not providing their mathematical education.

Changes to be Made Based on Data: None at this time. We will continue to monitor the results.

Rubrics

ETS Proficiency Profile (no rubric involved)

**Assessment Data Mathematical, Information and Computer Sciences
Computer Information Technology (ADC)**

Learning Outcome: Students will collaborate effectively in teams.

Outcome Measure: CIT3034 Signature Assignment – evaluation of group while working on a project.

Criteria for Success: 80% of the students should have an average score of at least 2.5 in each of the major areas.

Aligned with DQP Learning Areas (circle one or more):

1. Specialized Knowledge
2. Broad Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning, and
5. Civic and Global Learning

Longitudinal Data:

	Percent of students with average at least 2.5			
	2017-18	2018-19	2019-20	2020-21
Contributes to team meetings	100%	100%	98%	96%
Met regularly with team	89%			
Encourages team members		95%	96%	95%
Contributes to project report assignments	100%			
Contributes individually outside of team meetings		97%	95%	91%
Attitude		100%	98%	96%
Fosters constructive team climate		100%	98%	95%
Responds to conflict	100%	100%	98%	97%

*Note that the CIT program transitioned to using the department teamwork rubric in 2018-19.

Conclusions Drawn from Data: The students are doing well in teams.

Changes to be Made Based on Data: Continue to make use of group activities throughout the curriculum.

MICS Teamwork Rubric

Definition

Teamwork is behaviors under the control of individual team members (effort they put into team tasks, their manner of interacting with others on the team, and the quantity and quality of contributions they make to team discussions).

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet unsatisfactory (cell one) level performance.

The purpose of this is to evaluate individual team members. Although no team member will ever see your evaluation of them, please take it seriously.

Directions:

- **Do not put your own name anywhere on this form, the evaluations are to be anonymous.**
- **Please write the name of the person you are evaluating here**_____
- **Please fill out one copy of this form for every person who was on your team, including one for yourself.**
- **For each row, place a checkmark in the box that best describes your teammate’s performance.**

	Outstanding	High Satisfactory	Low Satisfactory	Unsatisfactory
Contributes to team meetings	<input type="checkbox"/> Helps the team move forward by articulating the merits of alternative ideas or proposals.	<input type="checkbox"/> Offers new suggestions to advance the work of the group.	<input type="checkbox"/> Shares ideas but does not advance the work of the group.	<input type="checkbox"/> Sits quietly in team meetings and does not contribute.
Encourages members of the team	<input type="checkbox"/> Actively seeks to find opportunities to encourage all members of the team.	<input type="checkbox"/> Offers encouragement to all members of the team ³	<input type="checkbox"/> Offers words of encouragement to friends ³	<input type="checkbox"/> Does not offer words of encouragement to anyone.
Individual contributions outside of team meetings	<input type="checkbox"/> Completes all assigned tasks by deadline; work accomplished is thorough. Proactively helps other team members complete their assigned tasks.	<input type="checkbox"/> Completes all assigned tasks by deadline; work accomplished is thorough.	<input type="checkbox"/> Completes all assigned tasks by deadline.	<input type="checkbox"/> Does not complete all assigned tasks by deadline.
Attitude	<input type="checkbox"/> Demonstrates (comments, facial expressions, etc.) a negative attitude rarely and helps others to become more positive.	<input type="checkbox"/> Demonstrates (comments, facial expressions, etc.) a negative attitude rarely .	<input type="checkbox"/> Demonstrates (comments, facial expressions, etc.) a negative attitude less often than a positive attitude.	<input type="checkbox"/> Demonstrates (comments, facial expressions, etc.) a negative attitude more often than a positive attitude.

<p>Fosters constructive team climate</p>	<p><input type="checkbox"/> Supports a constructive team climate by doing all of the following:</p> <ul style="list-style-type: none"> • Treats team members respectfully by being polite and constructive in communication. • Uses positive vocal or written tone, facial expressions, and/or body language to convey a positive attitude about the team and its work. • Motivates teammates by expressing confidence about the importance of the task and the team's ability to accomplish it. 	<p><input type="checkbox"/> Supports a constructive team climate by doing any two of the following:</p> <ul style="list-style-type: none"> • Treats team members respectfully by being polite and constructive in communication. • Uses positive vocal or written tone, facial expressions, and/or body language to convey a positive attitude about the team and its work. • Motivates teammates by expressing confidence about the importance of the task and the team's ability to accomplish it. 	<p><input type="checkbox"/> Supports a constructive team climate by doing any one of the following:</p> <ul style="list-style-type: none"> • Treats team members respectfully by being polite and constructive in communication. • Uses positive vocal or written tone, facial expressions, and/or body language to convey a positive attitude about the team and its work. • Motivates teammates by expressing confidence about the importance of the task and the team's ability to accomplish it. 	<p><input type="checkbox"/> Supports a constructive team climate by doing none of the following:</p> <ul style="list-style-type: none"> • Treats team members respectfully by being polite and constructive in communication. • Uses positive vocal or written tone, facial expressions, and/or body language to convey a positive attitude about the team and its work. • Motivates teammates by expressing confidence about the importance of the task and the team's ability to accomplish it.
<p>Responds to conflict</p>	<p><input type="checkbox"/> Identifies and acknowledges conflict and acknowledges that relationships can be damaged. Seeks to restore relationships.</p>	<p><input type="checkbox"/> Identifies and acknowledges conflict and acknowledges that relationships can be damaged.</p>	<p><input type="checkbox"/> Identifies and acknowledges conflict but will not acknowledge that relationships can be damaged.</p>	<p><input type="checkbox"/> Will not acknowledge that conflict has occurred or that relationships can be damaged.</p>

Assessment Data Mathematical, Information and Computer Sciences Computer Information Technology (ADC)

Learning Outcome: Students will understand the professional, ethical, legal, security and social issues and responsibilities with the implementation and use of information technology.

Outcome Measure: Signature Assignment in CIT4034 Management Information Systems

Criteria for Success: 80% of the students should have an average score of 3 or higher for each case.

Aligned with DQP Learning Areas (circle one or more):

1. Specialized Knowledge
2. Broad Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning, and
5. Civic and Global Learning

Longitudinal Data:

	Percent of 3 or higher			
	2017-18	2018-19	2019-20	2020-21
Case 1	100%	75%	95%	84%
Case 2	80%	58%	76%	68%
Case 3	100%	92%	92%	94%

Conclusions Drawn from Data: The students in the first cohort met our benchmarks. The students in the second cohort, which graduated in 18-19, did not. The last two years of students have been more successful.

Changes to be Made Based on Data: We made some adjustments to the questions and will continue to monitor progress. The four years of data indicate that we should take a closer look at Case 2 to consider why students are not performing as well on that case study.

Rubric:**CIT434 - Ethics Response Rubric**

Points	1	2	3	4	5
Case 1	Do nothing.	Option between do nothing and confronting the employee or terminating the employee.	Confront him and remove the expenses since they are essentially stealing.	Option between confronting the employee and offering him assistance.	Confront him and remove expense but offer assistance.
Case 2	Use it.	An option between using it and not using it for fear of getting caught, such as making modifications so getting caught is not likely.	Do not use it because you are afraid of getting caught.	An option between not using it for fear of getting caught and discussing it with the engineer.	Do not use it because it would be stealing, and discuss with engineer why decision was made.
Case 3	Use it.	An option between using it and not using it for fear of getting caught, such as making modifications so getting caught is not likely.	Do not use it because you are afraid of getting caught.	An option between not using it for fear of getting caught and discussing it with the engineer.	Do not use it because it would be stealing, and discuss with engineer why decision was made.

Assessment Data Mathematical, Information and Computer Sciences

Learning Outcome: Graduates will be prepared for careers that use information technology in business, industry, government and the non-profit sector; and graduate study in fields related to information technology.

Outcome Measure: Annual: Pass rates on certification exams.

Every 5 Years: Alumni will be surveyed every five years. They will be asked at least the following questions:

1. If you have a job in Information Technology: On a scale of 1 to 5, 1 being outstanding and 5 being poor, how well do you think that the undergraduate CIT curriculum at PLNU prepared you for your work in the field?
2. If you are going to graduate school or went to graduate school: On a scale of 1 to 5, 1 being outstanding and 5 being poor, how well do you think that the undergraduate CIT curriculum at PLNU prepared you for graduate school?

Criteria for Success:

Annual Certification Exams: 2017-18: By the end of their 4th term:

- 60% of the students will pass the CompTIA A+ exam.
- 60% of the students will pass one additional CompTIA certification exam.

2018-19 and Beyond: By the end of their 4th term:

- 80% of the students will be at or above 90% of the score needed to pass the CompTIA A+ exam.
- 80% of the students will be at or above 90% of the score needed to pass one additional CompTIA certification exam.

Alumni Survey: 75% of the respondents say they were well prepared or higher.

Aligned with DQP Learning Areas (circle one or more):

1. Specialized Knowledge
2. Broad Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning, and
5. Civic and Global Learning

Longitudinal Data:

Certification Exams:

	2017-18	2018-19	2019-20	2020-21
Percentage Passing CompTIA A+ Exam	33%			
Percentage at or Above 90% of CompTIA A+ Exam Passing Score		87%	68%	73%
Percentage Passing at Least One of CompTIA Network+, Security+ or Project+	60%			
Percentage at or Above 90% for at Least One of CompTIA Network+, Security+ or Project+ Exam Passing Score		94%	86%	85%

Alumni Data: We have not yet given an alumni survey to CIT graduates.

Conclusions Drawn from Data: Certification Exams: 2017-18: Note that if we include the students who entered the cohort with the A+ certification, then 60% of the students had the A+ certification by the end of their 4th term. Benchmark met for additional certification passing. In 2018-19 we changed the criteria for success to include those students who came close to passing the certification exam. This is because those who “came close” are demonstrating mastery of the material.

Changes to be Made Based on Data: None beyond adjusting the criteria for success after looking at the data. We are seeing students still having some challenges doing well on the A+ certification exams. We are doing some analysis on that data, but preliminary findings indicate that many of the students with challenges in passing the exam transferred in the coursework that is foundational for A+ as opposed to taking the coursework from PLNU.

Rubric: Since these are online exams provided by ComTIA, there is no rubric.

Alumni Survey: This is not rubric scored, but the data is tabulated.