

**LEARNING OUTCOMES ASSESSMENT PLAN**  
**DEPARTMENT OF MATHEMATICAL, INFORMATION AND COMPUTER SCIENCES**  
**Updated November 2016**

**COMPUTER INFORMATION TECHNOLOGY MAJOR**

**Department Learning Outcome (Teach):** *Graduates will have a coherent and broad-based knowledge of the discipline of Computer Information Technology.*

**Program Learning Outcomes (Teach):**

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

Means of Assessment: CompTIA A+ certification exam and one additional CompTIA certification exam (Network+, Security+, or Project+).

Criteria for Success: 80% of the students should pass the CompTIA A+ exam and one additional CompTIA certification exam by the end of the fourth term.

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

Means of Assessment: CIT334 Signature Assignment – Project Report.

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

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

Means of Assessment: CIT434 Signature Assignment – Systems Report.

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

**Department Learning Outcome (Shape):** *Students will develop characteristics necessary to be effective members of the communities where they work and live.*

**Program Learning Outcomes (Shape):**

4. Students will be able to apply their technical knowledge to solve problems.

Means of Assessment: CompTIA A+ certification exam and one additional CompTIA certification exam (Network+, Security+, or Project+).

Criteria for Success: 80% of the students should pass the CompTIA A+ exam and one additional CompTIA certification exam by the end of the fourth term.

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

Means of Assessment: CIT481 Signature Assignment. Each student will be required to give a 20-minute oral presentation on a topic in their field as a part of their technical report and presentation at the end of CIT481. 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

Note that the department has a mapping between its rubric and the AAC&U Oral Communication Value Rubric.

Criteria of 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. This translates to 80% of the students being above a 3.5 in the AAC&U rubric.

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

Means of Assessment 1: CIT481 Signature Assignment. Each student will be required to write a paper on a topic in their field as a part of their technical report and presentation at the end of CIT481. The audience for this report will include department faculty, fellow students and possibly some alumni. The students will be given the evaluation criteria in advance of their report presentation and will be rated by the faculty using a rubric with a scale of 4 (outstanding) to 1 (unsatisfactory) in the following areas:

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

Note that the department has a mapping between its rubric and the AAC&U Written Communication Value Rubric.

Means of Assessment 2: CIT424 - ETS Proficiency profile

Criteria of Success:

Measurement 1: 80% of the students should have an average score of at least 2.5 in each of the major areas in the department rubric. This translates to 80% of the students being above a 3.5 in the AAC&U rubric.

Measurement 2: To Be Determined (first cohort takes exam in 2018)

7. Students will collaborate effectively in teams.

Means of Assessment: CIT334 Signature Assignment – Team Project. Teams will rate each other's effectiveness on the team project at the end of the course using a rubric with a scale of 4 (outstanding) to 1 (unsatisfactory) in the following area:

- Met regularly with the team
- Significant contribution to team discussions
- Significant contribution to project report assignments
- Able to avoid and/or resolve conflict effectively

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

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

Means of Assessment: CIT481 Signature Assignment. Each student will be required to write a paper on a topic in their field as a part of their technical report and presentation at the end of CIT481. The audience for this report 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 (capstone) to 1 (benchmark) in the following areas:

- Determine the Extent of Information Needed
- Access the Needed Information
- Evaluate Information and its Sources Critically (carefully explains the reason for the choice of sources).
- Use Information Effectively to Accomplish a Specific Purpose
- Access and Use Information Ethically and Legally

Criteria for Success: 80% of the students should have an average score of at least 3 in each of the major areas.

9. Students will be able to gather relevant information, examine information and form a conclusion based on that information (Critical Thinking).

Means of Assessment: CIT424 – ETS Proficiency Profile

Criteria for Success: To Be Determined (first cohort takes exam in 2018)

10. 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).

Means of Assessment: CIT424 – ETS Proficiency Profile

Criteria for Success: To Be Determined (first cohort takes exam in 2018)

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

Means of Assessment: CIT434 Signature Assignment – Case Analysis.

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

**Department Learning Outcome (Send):** *We believe that work is an act of service. Graduates will be prepared to serve a complex world through their technical and professional abilities.*

**Program Learning Outcomes (Send):**

12. Computer Information Technology graduates will be adequately prepared for entry into graduate school or jobs in the computing profession.

Means of Assessment 1: Graduates will be given an exit interview/survey and they will be asked at least the following questions:

- 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?

Means of Assessment (every 5-6 years): Alumni will be surveyed every five years as part of the Program Review process. They will be asked at least the following questions:

- 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?
- 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 Computer Information Technology curriculum at PLNU prepared you for graduate school?

Criteria of success:

Measure 1: An average response of 2 for the question.

Measure 2: An average response of 2 for each question.