Computer and Information Science (BS)

📋 Program-198

Annual Assessment Plan

1

2 PLO #1 - Identify solutions (ULO 2)

Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions

Outcome(s)

1 Choose one or more accreditor outcome that aligns with your Program Learning Outcome.

There is no selected outcome.

2 Choose one or more Institution outcome that aligns with your Program Learning Outcome.

Selected Outcomes:

- ULO 2 - Breadth and Depth of Knowledge

3 Please Enter The Following Information Below:

Measures - Need to name specific course/ required experience plus exact exam items, assignments, rubric lines, etc. used for the analysis of performance on the PLO.

Targets - Percentage of students expected to earn a particular score on the measure.

Timeline - The frequency with which the department will analyze and report student performance on the PLO.

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Introductory"-level course learning outcomes linked to the PLO	70%	Annually
"Proficient"-level achievement or better across all "Developing"-level course learning outcomes linked to the PLO	80%	Annually

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Mastery"-level course learning outcomes linked to the PLO	85%	Annually

4 **Results -** Please enter numeric results, indicating the number and percentage of student performance meeting the target. Record faculty discussion about the strengths and weaknesses in student performance. *Please see the May Development section on the Assessment of Student Learning website for suggestions about how to process assessment results.

> In one sequence, namely CIS 284, CIS 384, students were not successful. In CIS 332, students were not successful. The other courses met the target.

5 **Action Plans** - If student performance did not meet the target, identify specific improvement strategies to enact in the upcoming academic year. For example, add instruction on the topic, change an assignment, revise course requirements, revise objectives, identify additional support/resources for students.

> PLO#1 is not associated with CIS 181 and it should be.
>
> We need to be able to access AEFIS data directly to better understand specifics of why students were not successful so that a more goal oriented action plan can be made.

6 **Closing the Loop** - If you entered action plans for the PLO last year, they will appear in the box below. Please explain what you did to accomplish the action plan this year, re-examine student performance, and determine the success of your action plan.

> 1. Insure early linking of assignments to CLOS.
> PROGRESS: The linking was done prior to the semester grade deadline.
>
> 2. Follow-up with adjunct faculty regarding appropriate difficulty for assessments.
> PROGRESS: A review of the applicability of PLO#1 in earlier classes needs to be done.

3 **PLO #2 - Solve given problem (ULO 4)**

Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline

Outcome(s)

1 Choose one or more accreditor outcome that aligns with your Program Learning Outcome.

There is no selected outcome.

2 Choose one or more Institution outcome that aligns with your Program Learning Outcome.

Selected Outcomes:

- ULO 4 - Specialized Skills and Scholarship

3 **Please Enter The Following Information Below:**

Measures - Need to name specific course/ required experience plus exact exam items, assignments, rubric lines, etc. used for the analysis of performance on the PLO.

Targets - Percentage of students expected to earn a particular score on the measure.

Timeline - The frequency with which the department will analyze and report student performance on the PLO.

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Introductory"-level course learning outcomes linked to the PLO	70%	Annually
"Proficient"-level achievement or better across all "Developing"-level course learning outcomes linked to the PLO	80%	Annually

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Mastery"-level course learning outcomes linked to the PLO	85%	Annually

4 **Results -** Please enter numeric results, indicating the number and percentage of student performance meeting the target. Record faculty discussion about the strengths and weaknesses in student performance. *Please see the May Development section on the Assessment of Student Learning website for suggestions about how to process assessment results.

> In 4 of the 6 courses, students met the target.

5 **Action Plans** - If student performance did not meet the target, identify specific improvement strategies to enact in the upcoming academic year. For example, add instruction on the topic, change an assignment, revise course requirements, revise objectives, identify additional support/resources for students.

> Details are needed to determine how students did on assignments so that an action plan can be targeted. In addition, it would be helpful to determine if the linkages are accurate.
>
> We need to be able to access AEFIS data directly to better understand specifics of why students were not successful so that a more goal oriented action plan can be made.

6 **Closing the Loop** - If you entered action plans for the PLO last year, they will appear in the box below. Please explain what you did to accomplish the action plan this year, re-examine student performance, and determine the success of your action plan.

> No further action at this time.

4 **PLO #3 - Communication (ULO 4)**

Communicate effectively in a variety of professional contexts

Outcome(s)

1 Choose one or more accreditor outcome that aligns with your Program Learning Outcome.

There is no selected outcome.

2 Choose one or more Institution outcome that aligns with your Program Learning Outcome.

Selected Outcomes:

- ULO 4 - Specialized Skills and Scholarship

3 **Please Enter The Following Information Below:**

Measures - Need to name specific course/ required experience plus exact exam items, assignments, rubric lines, etc. used for the analysis of performance on the PLO.

Targets - Percentage of students expected to earn a particular score on the measure.

Timeline - The frequency with which the department will analyze and report student performance on the PLO.

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Introductory"-level course learning outcomes linked to the PLO	75%	Assessed annually
"Proficient"-level achievement or better across all "Developing"-level course learning outcomes linked to the PLO	80%	Assessed annually

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Mastery"-level course learning outcomes linked to the PLO	85%	Assessed annually

4 **Results -** Please enter numeric results, indicating the number and percentage of student performance meeting the target. Record faculty discussion about the strengths and weaknesses in student performance. *Please see the May Development section on the Assessment of Student Learning website for suggestions about how to process assessment results.

Students have met their target.

5 **Action Plans** - If student performance did not meet the target, identify specific improvement strategies to enact in the upcoming academic year. For example, add instruction on the topic, change an assignment, revise course requirements, revise objectives, identify additional support/resources for students.

Some of the courses that should be used for this PLO have no data. They are taught by an adjunct, so either the linkages were not done or the mapping isn't correct.

We need to be able to access AEFIS data directly to better understand specifics of why students were not successful so that a more goal oriented action plan can be made.

6 **Closing the Loop** - If you entered action plans for the PLO last year, they will appear in the box below. Please explain what you did to accomplish the action plan this year, re-examine student performance, and determine the success of your action plan.

1. Insure early linking of assignments to CLOS.
PROGRESS: This still needs to be addressed.

2. Follow-up with adjunct faculty regarding appropriate difficulty for assessments.
PROGRESS: This still needs to be adressed

5 **PLO #4 - Ethics (ULO 4)**

Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles

Outcome(s)

1 Choose one or more accreditor outcome that aligns with your Program Learning Outcome.

There is no selected outcome.

2 Choose one or more Institution outcome that aligns with your Program Learning Outcome.

Selected Outcomes:

- ULO 4 - Specialized Skills and Scholarship

3 **Please Enter The Following Information Below:**

Measures - Need to name specific course/ required experience plus exact exam items, assignments, rubric lines, etc. used for the analysis of performance on the PLO.

Targets - Percentage of students expected to earn a particular score on the measure.

Timeline - The frequency with which the department will analyze and report student performance on the PLO.

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Introductory"-level course learning outcomes linked to the PLO	70%	Annually

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Developing"-level course learning outcomes linked to the PLO	80%	Annually
"Proficient"-level achievement or better across all "Mastery"-level course learning outcomes linked to the PLO	85%	Annually

④ **Results -** Please enter numeric results, indicating the number and percentage of student performance meeting the target. Record faculty discussion about the strengths and weaknesses in student performance. *Please see the May Development section on the Assessment of Student Learning website for suggestions about how to process assessment results.

> Only 1 course is identified with this PLO in which students met the target.

⑤ **Action Plans** - If student performance did not meet the target, identify specific improvement strategies to enact in the upcoming academic year. For example, add instruction on the topic, change an assignment, revise course requirements, revise objectives, identify additional support/resources for students.

> Course mapping needs to be checked to determine if there is only 1 course being assessed.
>
> We need to be able to access AEFIS data directly to better understand specifics of why students were not successful so that a more goal-oriented action plan can be made.

⑥ **Closing the Loop** - If you entered action plans for the PLO last year, they will appear in the box below. Please explain what you did to accomplish the action plan this year, re-examine student performance, and determine the success of your action plan.

Assignments for the courses that deal with ethics need to be discussed as a CIS sub-committee. Specific assignments, agreed to by the CIS sub-committee will be implemented.
PROGRESS: A time needs to be set to discuss this.

6   PLO #5 - Team (ULO 4)

Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline

Outcome(s)

1 Choose one or more accreditor outcome that aligns with your Program Learning Outcome.

There is no selected outcome.

2 Choose one or more Institution outcome that aligns with your Program Learning Outcome.

Selected Outcomes:

- ULO 4 - Specialized Skills and Scholarship

3 **Please Enter The Following Information Below:**

Measures - Need to name specific course/ required experience plus exact exam items, assignments, rubric lines, etc. used for the analysis of performance on the PLO.

Targets - Percentage of students expected to earn a particular score on the measure.

Timeline - The frequency with which the department will analyze and report student performance on the PLO.

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Introductory"-level course learning outcomes linked to the PLO	70%	Annually

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Developing"-level course learning outcomes linked to the PLO	80%	Annually
"Proficient"-level achievement or better across all "Mastery"-level course learning outcomes linked to the PLO	85%	Annually

④ **Results -** Please enter numeric results, indicating the number and percentage of student performance meeting the target. Record faculty discussion about the strengths and weaknesses in student performance. *Please see the May Development section on the Assessment of Student Learning website for suggestions about how to process assessment results.

In 3 of the 4 courses student met the target.

⑤ **Action Plans** - If student performance did not meet the target, identify specific improvement strategies to enact in the upcoming academic year. For example, add instruction on the topic, change an assignment, revise course requirements, revise objectives, identify additional support/resources for students.

As a subcommittee, we need to discuss how to assess this PLO in our courses that have team work. Currently, in many courses that have team assignment, the whole assignment is tied to this PLO, however, that is not an indication of how the student did as a member of the team.

We need to be able to access AEFIS data directly to better understand specifics of why students were not successful so that a more goal oriented action plan can be made.

⑥

Closing the Loop - If you entered action plans for the PLO last year, they will appear in the box below. Please explain what you did to accomplish the action plan this year, re-examine student performance, and determine the success of your action plan.

> 1. Insure early linking of assignments to CLOS.
> PROGRESS: It is not apparent if courses are mapped correctly to this PLO.

7 **PLO #6 - Produce solution (ULO 4)**

Apply computer science theory and software development fundamentals to produce computing-based solutions

Outcome(s)

1 Choose one or more accreditor outcome that aligns with your Program Learning Outcome.

There is no selected outcome.

2 Choose one or more Institution outcome that aligns with your Program Learning Outcome.

Selected Outcomes:

- ULO 4 - Specialized Skills and Scholarship

3 **Please Enter The Following Information Below:**

Measures - Need to name specific course/ required experience plus exact exam items, assignments, rubric lines, etc. used for the analysis of performance on the PLO.

Targets - Percentage of students expected to earn a particular score on the measure.

Timeline - The frequency with which the department will analyze and report student performance on the PLO.

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Introductory"-level course learning outcomes linked to the PLO	70%	Annually

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Developing"-level course learning outcomes linked to the PLO	80%	Annually
"Proficient"-level achievement or better across all "Mastery"-level course learning outcomes linked to the PLO	85%	Annually

④ **Results -** Please enter numeric results, indicating the number and percentage of student performance meeting the target. Record faculty discussion about the strengths and weaknesses in student performance. *Please see the May Development section on the Assessment of Student Learning website for suggestions about how to process assessment results.

In 7 of the 9 courses, student met the target.

⑤ **Action Plans** - If student performance did not meet the target, identify specific improvement strategies to enact in the upcoming academic year. For example, add instruction on the topic, change an assignment, revise course requirements, revise objectives, identify additional support/resources for students.

Look at the assignments associated with this PLO to determine if more granular linkages are necessary.

We need to be able to access AEFIS data directly to better understand specifics of why students were not successful so that a more goal oriented action plan can be made.

⑥

Closing the Loop - If you entered action plans for the PLO last year, they will appear in the box below. Please explain what you did to accomplish the action plan this year, re-examine student performance, and determine the success of your action plan.

> No actions planned at this time.

8 **PLO #7 - Faith (ULO 3)**

Explain how faith connects to their discipline

Outcome(s)

1 Choose one or more accreditor outcome that aligns with your Program Learning Outcome.

There is no selected outcome.

2 Choose one or more Institution outcome that aligns with your Program Learning Outcome.

Selected Outcomes:

- ULO 3 - Faith Knowledge & Application

3 **Please Enter The Following Information Below:**

Measures - Need to name specific course/ required experience plus exact exam items, assignments, rubric lines, etc. used for the analysis of performance on the PLO.

Targets - Percentage of students expected to earn a particular score on the measure.

Timeline - The frequency with which the department will analyze and report student performance on the PLO.

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Introductory"-level course learning outcomes linked to the PLO	70%	Annually

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Developing"-level course learning outcomes linked to the PLO	80%	Annually
"Proficient"-level achievement or better across all "Mastery"-level course learning outcomes linked to the PLO	85%	Annually

4 **Results -** Please enter numeric results, indicating the number and percentage of student performance meeting the target. Record faculty discussion about the strengths and weaknesses in student performance. *Please see the May Development section on the Assessment of Student Learning website for suggestions about how to process assessment results.

Students met the target.

5 **Action Plans** - If student performance did not meet the target, identify specific improvement strategies to enact in the upcoming academic year. For example, add instruction on the topic, change an assignment, revise course requirements, revise objectives, identify additional support/resources for students.

As a subcommittee, we need to discuss appropriate assignments for this PLO in more courses.

We need to be able to access AEFIS data directly to better understand specifics of why students were not successful so that a more goal oriented action plan can be made.

6 **Closing the Loop** - If you entered action plans for the PLO last year, they will appear in the box below. Please explain what you did to accomplish the action plan this year, re-examine student performance, and determine the success of your action plan.

> Assignments for the courses that deal with faith will be discussed as a CIS sub-committee. Specific assignments, agreed to by the CIS sub-committee will be implemented.
> PROGRESS: This still needs to be done.

9 **PLO #8 - Vocation (ULO 5)**

Explain how the biblical call to vocation relates to their potential career options

Outcome(s)

1 Choose one or more accreditor outcome that aligns with your Program Learning Outcome.

There is no selected outcome.

2 Choose one or more Institution outcome that aligns with your Program Learning Outcome.

Selected Outcomes:

- ULO 5 - Self-Awareness

3 **Please Enter The Following Information Below:**

Measures - Need to name specific course/ required experience plus exact exam items, assignments, rubric lines, etc. used for the analysis of performance on the PLO.

Targets - Percentage of students expected to earn a particular score on the measure.

Timeline - The frequency with which the department will analyze and report student performance on the PLO.

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Introductory"-level course learning outcomes linked to the PLO	75%	Assessed annually

Measures	Targets	Timeline
"Proficient"-level achievement or better across all "Developing"-level course learning outcomes linked to the PLO	80%	Assessed annually
"Proficient"-level achievement or better across all "Mastery"-level course learning outcomes linked to the PLO	85%	Assessed annually

4 **Results -** Please enter numeric results, indicating the number and percentage of student performance meeting the target. Record faculty discussion about the strengths and weaknesses in student performance. *Please see the May Development section on the Assessment of Student Learning website for suggestions about how to process assessment results.

> This was not reviewed/discussed by the CIS sub-committtee

5 **Action Plans** - If student performance did not meet the target, identify specific improvement strategies to enact in the upcoming academic year. For example, add instruction on the topic, change an assignment, revise course requirements, revise objectives, identify additional support/resources for students.

> This was not reviewed/discussed by the CIS sub-committtee

6 **Closing the Loop** - If you entered action plans for the PLO last year, they will appear in the box below. Please explain what you did to accomplish the action plan this year, re-examine student performance, and determine the success of your action plan.

This PLO should be reviewed by the department and eliminated if it considered to be redundant with PLO #7.

2   Holistic program improvement goals: Programs are expected to have at least one action plan to improve student learning annually. If you have not yet identified an action plan associated with this year's assessment results, or if the department has identified additional issues that require action plans, describe the specific, measurable action plan and its relation to evidence of student performance.

Due to Covid and change in the department structure and leadership, the assessment is not fully implemented and results are not reliable. The overall feeling is that the CIS program is very good, so focus for next year will be to work on the setting up AEFIS properly, and no changes to the programs is planned.

Assessment Rubric

1

Process

	1	2	3	4
	◯	⦿	◯	◯
Is the plan being implemented faithfully and revised as needed?	Assessment plan is not implemented.	Most aspects of plan are being implemented or all aspects are implemented to some degree.	Assessment plan is fully implemented.	Plan is faithfully executed and modified/evaluated as needed.

2   Explanations:

Due to Covid and change in the department structure and leadership, the assessment is not fully implemented and results are not reliable.

3 **Engagement**

	1	2	3	4
	◯	⦿	◯	◯
Are all relevant parties are meaningfully involved in the creation/revision, implementation, analysis, interpretation and learning improvement process?	Limited involvement beyond chair/director	All educators contributing to the curriculum are aware of process and results	All educators contributing to the curriculum participate in conversations regarding the use of assessment data to improve student learning	All relevant stakeholders (students, employers, alumni) are meaningfully involved in the creation/revision, implementation, analysis, interpretation, and/or improvement processes associated with this assessment plan.

4 Explanations:

["Overall good engagement from the faculty, but we need to make sure everyone is using meaningful assignmments and link them properly in AE
"]

5 **Program Learning Objectives**

	1	2	3	4
Are the program learning objectives clear, measurable, aligned with ULOs/GLOs, and representative of the range of learning for that major/program?	○ PLOs are problematic (vague, abstract, not aligned with ULOs/GLOs) or missing.	○ PLOs are clear, mostly measurable, partially aligned with ULOs/GLOs.	◉ PLOs are clear, measureable, aligned with ULOs/GLOs, and represent a summary of the knowledge, skills, beliefs, and values that a graduate of this major/program should attain by completing the required curriculum, accounting for variations in learning outcomes due to tracks/concentrations	○ PLOs are clear, measurable, aligned with ULOs/GLOs, and representative of the range of learning students achieve through completion of the program. The learning objectives provide a comprehensive view of the knowledge, skills, beliefs, and values that are important for a graduate of this major/program and account for variations in learning outcomes due to tracks/concentrations.

6 Explanations:

> no major concern here

7

Measures

	1	2	3	4

	1	2	3	4
	◯	⦿	◯	◯
Are the instruments used to assess learning relevant to the objective? Do measures yield information/data you can use to drive improvement?	Not all objectives have a measure identified. OR Measures do not directly connect to the objectives.	All objectives have at least one direct measure. Measures connect to learning objectives superficially or tangentially and/or include learning other than stated objectives. Relies almost exclusively on the same form of assessment (survey, exam, project). Relies almost exclusively on data from a single source (course, program, activity).	All objectives have at least one direct measure. Some objectives have multiple measures. Measures clearly connect to learning objectives. And two of the following four criteria: Objective measures more than one point in time (formative). Indirect measure are used strategically. Plan Incorporates different forms of assessment (survey, exam, project). Plan incorporates from a variety of sources (course, program, activity).	Measures meet all of the following criteria: All objectives have at least one direct measure. Some objectives have multiple measures. Measures clearly connect to learning objectives. Objectives measured more than one point in time (formative). Indirect measures are used strategically. Plan incorporates different forms of assessment (survey, exam, project). Plan incorporates data from a variety of sources (course, program, activity).

8 Explanations:

> Assignments are in most cases not designed to directly address the learning objectives.

9

Targets

	1	2	3	4

	1	2	3	4
Are the targets based on professional standards and/or analysis of past student work? Are targets challenging and achievable?	○ Some targets are missing.	○ Targets are arbitrarily chosen or reflect minimal expectations.	◉ Targets are challenging and achievable based on prior student performance, and reflect an appropriate level of performance.	○ Targets are challenging and achievable. Targets are based on professional standards and/or prior student performance. Targets are set at a level to inspire program improvement.

10 Explanations:

> we need to review once we have all linking etc properly set up.

11

Timeline

	1	2	3	4

	1	2	3	4
Is the timeline for data collection manageable with sufficient data points to effectively inform decision making and program review?	◯ Not identified clearly for all measures.	◯ Clearly states semester/year for each objective/measure. Data analysis delayed from data collection. Time between collection points may not facilitate informed decision making.	⦿ Clearly stated and manageable schedule. At least two data points for each objective per review cycle.	◯ Timeline for data collection is manageable and allows for continuous improvement with timely and meaningful decision making even before program review.

12 Explanations:

we need to review once we have all linking etc properly set up.

13

Action Plan

	1	2	3	4

	1	2	3	4
Is the department effectively examining and using assessment data to revise curriculum and pedagogy to support student learning?	◉ Assessment data not collected/analyzed/used for decisions and/or results not documented in AEFIS.	○ Data collected, documented and discussed by department. Department reviewed confidence in measures and data as sufficient indicators of student performance. If data indicated changes were needed, action plans were developed in consultation with dean (e.g. improving outcomes, measures, targets, curriculum or pedagogy).	○ Data collected, documented and discussed by department. Department and dean confirmed confidence in measures and data as sufficient indicators of student performance. Action plans (e.g. improving outcomes, measures, targets, curriculum or pedagogy) developed in consultation with dean. If prior year data warranted action plans, the department implemented the changes.	○ Department collected and discussed follow-up data after the implementation of action plans in order to determine whether changes resulted in improvement or whether additional action is necessary. Data confirms effective curriculum and pedagogy for learning outcomes. Score of 4 should be assigned only if objectives, measures, targets and timeline all score a 4.

14 Explanations:

> most curriculum decissions are not driven by A

15

Dissemination

	1	2	3	4

	1	2	3	4
Is the department communicating learning objectives, results and improvements related to student learning to a wide audience?	◉ No record of assessment results and changes made as a result of assessment findings.	○ The department/program retains records of assessment results and positive changes made as a result of assessment findings, and results are entered in assessment software system.	○ The department/program retains records of assessment results and changes made as a result of assessment findings, results are entered in assessment software system, and assessment results and improvements are publicly posted.	○ The department/program retains records of assessment results and changes made as a result of assessment findings, and results are entered in assessment software system. Assessment results and improvements are publicly posted and shared proactively with faculty, prospective students, employers and alumni in ways that facilitate their discussion.

16 Explanations:

No - are we supposed to? How?

Additional Feedback

1 Please enter any additional feedback for changes that should be made:

CLOSE AND EXIT