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| **Assurance of Student Learning Report**  **2021-2022** | |
| Ogden | School of Engineering and Applied Sciences |
| Computer Information Technology, 555 | |
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| ***Use this page to list learning outcomes, measurements, and summarize results for your program. Detailed information must be completed in the subsequent pages.*** | | | |
| **Student Learning Outcome 1:**  **Validation of student mastery of CIT technical domains** | | | |
| **Instrument 1** | **DIRECT measures of student learning via assessment artifacts from CIT 300 and CIT 490 (f.k.a. AMS 490).** | | |
| **Based on your results, check whether the program met the goal Student Learning Outcome 1.** | | **Met** | **Not Met** |
| **Student Learning Outcome 2: Examination of student mastery of CIT technical domains** | | | |
| **Instrument 1** | **DIRECT measures of student learning via assessment artifacts from CIT 300 and CIT 490 (f.k.a. AMS 490).** | | |
| **Based on your results, check whether the program met the goal Student Learning Outcome 2.** | | **Met** | **Not Met** |
| **Program Summary (Briefly summarize the action and follow up items from your detailed responses on subsequent pages.)** | | | |
| As previously reported, some students discount the value of the assessment process and therefore do not take the assessment surveys seriously. For example, one student stated that she was in a hurry and gave random answers on the surveys. It has been suggested that we could offer grade credit for these surveys. Given that this is an online program, the problem with this approach is reflected in our Covid experience when the testing centers were all closed. Amazingly, student unproctored final exam scores increased significantly compared to the proctored versions, implying that students were looking up answers. Since the assessment surveys are not proctored, we are likely to experience the same effect if we start offering grade credit for them.  While it is not possible to force students to be conscientious, the program will strive to persuade them to be more conscientious by communicating how important the surveys are for program improvement, and that program improvement benefits current as well as past students. Another option we intend to try is to configure CIT 300 and CIT 490 such that students cannot proceed with the course until they complete the assessment surveys. Another potential option is moving the CIT300 surveys to the end of the course so that they can be administered at the same time as the final exam and in a proctored environment. The downside to this approach is that we would be measuring student knowledge after a semester of instruction, which is not desirable.  In addition, although in smaller numbers (approximately 20%), the enhancement of the CIT program with face-to-face instruction has created an additional pathway from which ASL data may be collected. As of yet, these are not well integrated into the data stream. | | | |

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| **Student Learning Outcome 1** | | | | | |
| **Student Learning Outcome** | Validation of student mastery of CIT technical domains. | | | | |
| **Measurement Instrument 1** | DIRECT measure of student learning: All CIT students are given six assessments in the entry course CIT 300, then again in the exit course CIT 490 (formerly CIT 490). The assessments, which are similar to certification exams, cover the technical domains of database, hardware, networks, programming, security, and technology management. Scores are associated with each student, which allow for pairwise comparison. Even so, because ~75% of CIT students transfer with an AAS in IT, they only take four required courses, of which three represent the technical domains. The rest (seven courses) are elective. Thus, it is difficult to draw specific conclusions about individual domain assessment gain scores since different students take different electives that may or may not support learning in a specific domain. As a result, we also validate student mastery of the CIT technical domains through an aggregate gain score of CIT technical domain assessments. | | | | |
| **Criteria for Student Success** | For success, a minimum aggregate percentage gain score of 30% should be achieved. | | | | |
| **Program Success Target for this Measurement** | | An average percentage gain score of 73 % was achieved. | **Percent of Program Achieving Target** | As an average, 100% of the program achieved the target. | |
| **Methods** | For the period, six CIT learning domain assessments including database, hardware, networks, programming, security, and technology management were delivered. These scores were then compared to students’ entry assessments in CIT 300. Percentage gain scores were calculated for each, and an average derived:  Student Count: 31  Max gain score %: 221  Min gain score %: 6  Avg gain score % 80  Std Dev: 60.9  It should be noted that the wide deviation in domain gain scores can be attributed to students discounting the value of the exams and thereby providing invalid answers either in the entry class, exit class, or both. In extreme cases, negative gain scores were omitted. | | | | |
| **Based on your results, highlight whether the program met the goal Student Learning Outcome 1.** | | | | **Met** | **Not Met** |
| **Actions** (Describe the decision-making process and actions for program improvement. The actions should include a timeline.) | | | | | |
| Students continue to discount the value of the assessment process and therefore do not take the surveys seriously. By the end of the fall 2022 semester, CIT 300 and CIT 490 will be configured such that students cannot proceed with the course until they complete the assessment surveys. | | | | | |
| **Follow-Up** (Provide your timeline for follow-up. If follow-up has occurred, describe how the actions above have resulted in program improvement.) | | | | | |
| Follow-up for this action is scheduled for spring 2023. | | | | | |
| **Next Assessment Cycle Plan** (Please describe your assessment plan timetable for this outcome) | | | | | |
| All CIT students are assessed in their first semester while taking CIT 300, and in their last semester while taking CIT 490 (formerly AMS 490). | | | | | |

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| **Student Learning Outcome 2** | | | | | |
| **Student Learning Outcome** |  | | | | |
| **Measurement Instrument 1** | DIRECT measure of student learning: It is difficult to draw specific conclusions about individual CIT domain assessment scores since different students take different electives that may or may not support learning in a specific domain. Even so, a significant change in an individual domain assessment score average could indicate issues in that domain’s curriculum or delivery. As a result, we also validate student mastery of the CIT technical domains through satisfactory individual CIT technical domain assessment averages. | | | | |
| **Criteria for Student Success** | For success, a minimum average gain score for any specific domain will be greater than 15%. | | | | |
| **Program Success Target for this Measurement** | | The lowest individual domain percentage gain score was 62%, which exceeds target. | **Percent of Program Achieving Target** | All domain assessments averaged better than a 15% gain score | |
| **Methods** | For the period, 31 students completed CIT 490, and all of them completed six domain assessments including database, hardware, networks, programming, security, and technology management. These scores were then compared to the student’s entry assessments in CIT300. Percentage gain scores were calculated for each domain:   |  |  |  | | --- | --- | --- | | Domain Count: | | 6 | | Max gain score %: | | 137 | | Min gain score%: | | 62 | | Avg gain score % | | 80 | | Std Dev: |  | 28 | | | | | |
| **Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 2.** | | | | **Met** | **Not Met** |
| **Actions** (Describe the decision-making process and actions planned for program improvement. The actions should include a timeline.) | | | | | |
| Students continue to discount the value of the assessment process and therefore do not take the surveys seriously. By the end of the fall 2022 semester, CIT 300 and CIT 490 will be configured such that students cannot proceed with the course until they complete the assessment surveys. | | | | | |
| **Follow-Up** (Provide your timeline for follow-up. If follow-up has occurred, describe how the actions above have resulted in program improvement.) | | | | | |
| Follow for this action is scheduled for spring 2023. | | | | | |
| **Next Assessment Cycle Plan** (Please describe your assessment plan timetable for this outcome) | | | | | |
| All CIT students are assessed in their first semester while taking CIT 300, and in their last semester while taking CIT 490 (formerly AMS 490). | | | | | |

