Open Pathway Quality Initiative Report

Institutional Template

The enclosed Quality Initiative Report represents the work that the institution has undertaken to fulfill the quality improvement requirements of the Open Pathway.

06/01/2020

Signature of Institution's President or Chancellor   *Date*

Colleen A. Smith, President

Printed/Typed Name and Title

Coconino Community College

Name of Institution

Flagstaff, AZ

City and State

The institution uses the template below to complete its Quality Initiative Report. The institution may include a report it has prepared for other purposes if it addresses many of the questions below and replaces portions of the narrative in the template. This template may be used both for reports on initiatives that have been completed and for initiatives that will continue and for which this report serves as a milestone of accomplishments thus far. The complete report should be no more than 6,000 words.

The report must be submitted by June 1 of Year 9.

Submit the report as a PDF file at hlcommission.org/upload. Select "Pathways/Quality Initiatives" from the list of submission options to ensure the institution's materials are sent to the correct HLC staff member. The file name of the report should follow this format: QIReport[InstitutionName] [State].pdf (e.g., QIProposalNoNameUniversityMN.pdf). The file name must include the institution's name (or an identifiable portion thereof) and state.

Date: 06/01/2020

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Report Categories

Overview of the Quality Initiative

1. Provide a one-page executive summary that describes the Quality Initiative, summarizes what was accomplished and explains any changes made to the initiative over the time period.

Coconino Community College's goal during the Quality Initiative was to develop effective and systematic program assessment processes to better measure institutional effectiveness and improve student learning. The initiative built on the foundation for assessment created while taking part in the HLC Assessment Academy.

The initiative included three prongs: 1) reviewing and aligning program-level learning outcomes, 2) solidifying the program-level assessment cycle and tools, and 3) conducting program assessment training for faculty and staff.

Many of the Career and Technical Education (CTE) programs had already begun reviewing and aligning their program-level learning outcomes during the Assessment Academy. The remaining CTE programs and the transfer pathway programs reviewed their program-level outcomes for relevancy and accuracy during the Quality Initiative, with a focus on creating Knowledge-Application-Synthesis (KAS) curriculum maps. Similarly, the General Education Committee has revised their philosophy and refined the program-level outcomes for the General Education program. The College is currently in the process of vetting institutional learning outcomes, an initiative that began with the college-wide Assessment Committee and included input from the General Education Committee to ensure that the ILOs align with other program learning outcomes.

The College's program-level assessment cycle (referred to sometimes as "program review") has also been defined and implemented during the Quality Initiative. As part of the process, CTE and transfer programs have determined existing assessment tools and pinpointed courses in which to gather program-level assessment data. Many programs have now collected data and are using it to make changes to both their programs and processes. The General Education program has also made progress in establishing a program-level assessment cycle. Data has been collected in both "Thinking Skills" and "Communication" with plans to assess the remaining General Education outcomes in upcoming semesters.

The College further strengthened its program review process by creating a bi-annual review template for interim progress monitoring, integrating program review with our annual budget-building cycle, and establishing meetings between academic leadership and program faculty to review and reinforce action plans created during program reviews and updated in bi-annual reviews.

The final prong of the Quality Initiative focused on assessment training. College faculty and staff, particularly members of the Assessment Committee, attended conferences and workshops to enhance their own skills. Multiple trainings were then conducted internally through presentations, workshops, and committee readings/discussions. Several faculty and staff are scheduled to attend online assessment workshops during Summer 2020, and training efforts will continue.

Overall, this initiative has strengthened our assessment knowledge and processes, and we will continue to address the challenges we encountered by using those processes. Most importantly, we feel that we have made significant progress toward establishing a culture of assessment at Coconino Community College.

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Scope and Impact of the Initiative

> 2. Explain in more detail what was accomplished in the Quality Initiative in relation to its purposes and goals. (If applicable, explain the initiative's hypotheses and findings.)

Prior to our Quality Initiative, Coconino Community College had created a new assessment infrastructure while participating in the HLC Assessment Academy. While we now had an Assessment Committee, a new program review cycle, a system for capturing course-level assessment data, and the beginnings of program-level assessment, we knew a continued focus on assessment was needed in order to sustain our efforts and build on our successes.

The goal of our Quality Initiative was to build a systematic and meaningful program-level assessment process across the College through an assessment cycle that includes regular program reviews and annual reporting. In doing so, we hoped to use student learning assessment data to inform institutional decisions. In addition, we expected that these processes would contribute to the building of an understood and shared culture of meaningful assessment.

Faculty were to be offered training and learning opportunities to assist in the evaluation and documentation of their assessment efforts at a program level. Each program was charged with taking ownership for reviewing and/or refining their program-level learning outcomes and creating tools to assess those outcomes. In addition, documentation and review processes were to be set in place to encourage the completion of the assessment cycle.

We accomplished the following toward our goals:

A. As the Quality Initiative work began, the College completed two parallel assessment projects: submission of an "Interim Report on Assessment of Student Learning" (See Attachment Q) to the HLC, and completion of the HLC Assessment Academy "Impact Report" (See Attachment R). These reports documented the progress we had made, including establishing the Assessment Committee, creating an Assessment Handbook, revising the program review process, researching and implementing basic systematic assessment data collection, establishing and implementing a plan to assess General Education by focusing on "Thinking Skills", and beginning to reassess learning outcomes for currency and effectiveness.

B. Nearly all programs refined and/or developed program-level outcomes.

   1. In total, there are 19 defined program areas (See Attachment A). Of these, five are within the General Education program. Out of the 19 total programs, 17 of them have reviewed their program-level outcomes, including those within the General Education program (See 2.A.3 and 2.B). These reviews resulted in curricular changes for eight programs.

   2. Seventeen programs created Knowledge-Application-Synthesis (K-A-S) curriculum maps to ensure that the courses within each program contribute to the program-level outcomes. They also designated where and how to collect program-level data for assessment purposes. (See Attachment B for an example of a completed K-A-S curriculum map). The two programs which did not complete a K-A-S curriculum map were Fine Arts and Sociology. Fine Arts reviewed the existing program-level outcomes and considers the outcomes to be representative of the program's skills and knowledge. A previous curriculum map (although not as in-depth as a K-A-S map) was reviewed and determined to be accurate. The program-level outcomes review was postponed for Sociology because the full-time faculty in the program was on sabbatical when program outcomes were being reviewed.

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3. During the 2018-2019 and 2019-2020 academic years, the General Education committee reviewed several models for general education, revised their general education philosophy, and updated the performance measures for their four learning outcomes. At this point in time, the General Education Committee has elected to keep the original performance measures and learning outcomes, although the Committee acknowledges that some of the General Education area blocks may want to revise their performance measures in the future as the outcomes are actively assessed.

4. In 2019-2020, the Assessment Committee created Institutional Learning Outcomes (ILO) in cooperation with the General Education Committee. This work involved many discussions and a lot of research as to what ILOs are and how they differ from program-level outcomes. These ILOs are to be vetted college-wide during the 2020-2021 academic year.

C. General Education pursued two large-scale assessment projects for Critical Thinking and Communication. These projects involved both the General Education Committee and faculty who teach courses within the five general education area blocks.

1. **Critical Thinking.** The initial foray into conducting General Education program-level outcomes assessment began while the College participated in the HLC Assessment Academy before the Quality Initiative began. Critical Thinking was because many of the General Education courses have identified multiple course-level outcomes that align with critical thinking. Consequently, most General Education courses and faculty were involved in this assessment project. After the first year (2016-2017) of asking every faculty member to submit assessment data on critical thinking, it was apparent to the General Education committee that much of what was submitted was course-level assessment data (no shared assignment or rubric/measure), which made identifying any large student learning trends difficult. In 2017-2018, the General Education Committee asked each General Education area to define how the area measured critical thinking by agreeing on performance measures and creating a shared assessment tool with which to gather program-level critical thinking assessment data. Only full-time faculty members participated in the second round of this assessment project. These data (See Attachment C) were gathered and shared with the General Education Committee as well as the separate General Education areas (Composition, Math, Arts and Humanities, Social and Behavioral Sciences, and Physical and Biological Sciences). Many General Education areas used these results for discussion in their program review reports (See Attachment D, pages 13-17 and 18-19).

2. **Communication**. Building on the success of the second round of Critical Thinking assessment in 2018-2019, the faculty of the General Education areas were asked to conduct a similar assessment project for Communication: define the performance measures for communication in the General Education area, create a common assessment tool, and gather assessment data. In addition, all faculty members were asked to submit a course assessment report on a course-level outcome that measured Communication according to the General Education curriculum maps. This project was not as successful as the Critical Thinking project. Only five faculty members submitted program-level outcomes data and many of the faculty did not understand what was being asked for in the course assessment report.

As a result, the project was simplified for the 2019-2020 academic year. Instead of involving all faculty in the program-level outcomes assessment project, the General Education Committee asked all of the intensive writing courses to collect student artifacts for a year. These artifacts will be evaluated in the fall of 2020 by a group of

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General Education Committee members and the faculty of the intensive writing courses. This group will participate in an inter-rater reliability training session and then score a selection of the student artifacts. Once scored, the group will reconvene and discuss the results and prepare a report of their findings and recommendations.

D. Multiple professional development opportunities were offered to assist faculty in increasing their assessment knowledge.

1. Presentations at Division meetings and faculty-led committees: The assessment and faculty development coordinator attended all of the Career & Technical Education (CTE) and Arts and Sciences (A&S) division meetings. On various occasions in both meetings, the Assessment Coordinator presented 10- to 15-minute assessment presentations as well as shared standing reminders about assessment and program review. Additionally, the Assessment Coordinator was invited to share some of these presentations again in faculty committees such as the General Education Committee, Curriculum Committee, and Faculty Senate. Two of the presentations have been about writing good outcomes and creating program-level assessment plans.

2. Individual program meetings: The Assessment Coordinator held multiple meetings with individual programs to discuss their initial assessment plan, a review of the intended outcomes, the process to collect assessment data, and the results from the assessment collection. These meetings took place throughout the Quality Initiative.

3. Assessment Committee training: The Assessment Committee is a college-wide committee with representatives from faculty, Student Affairs, and the Business Office. It has been the goal of the co-chairs (a faculty member and the Associate Dean of Curriculum and Assessment) and the Assessment Coordinator to help advance the understanding of assessment within the committee. Many activities have assisted in this understanding: reviewing the assessment manual, reading selections from *Assessment: Clear and Simple*, acting as the oversight committee for program reviews and bi-annual review reports, reading through the HLC Interim Monitoring Report and accompanying response, and researching institutional learning outcomes.

4. In-house workshops: The Assessment Coordinator and the Associate Dean of Curriculum and Assessment offered two in-house workshops during professional development days hosted by the College. These two workshops were "What to Do with Assessment Data" and "Inter-Rater Reliability." Additionally, the Assessment Coordinator recently held a modified version of the NILOA assignment charette in which faculty members shared their assignments, concerns, and received feedback from other faculty members.

5. External Conference Opportunities:

    i. 2018 and 2019 Arizona Assessment Conference – Once a year, the community colleges and state universities of Arizona gather for one to two days to have a conference on assessment. The Assessment Coordinator and the Associate Dean of Curriculum and Assessment presented a workshop at the 2018 conference called, "How Assessment practices Can Help Inform Curricular Changes." In 2019, the conference was attended by a faculty member and a student affairs representative from the college Assessment Committee.

    ii. Spring 2018 and 2019 Higher Learning Commission (HLC) Conference – It has been the College's practice to invite at least two faculty members to attend the

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HLC Conference, one from each division. Faculty members were encouraged to attend sessions relating to learning outcomes and program assessment.

    iii. 2018 IUPUI Assessment Institute – The Associate Dean of Curriculum and Assessment and a faculty member from the Assessment Committee both attended this conference.

6. Weekly Teaching and Learning Newsletter: Once a week during fall and spring semesters, the Assessment Coordinator will send out a teaching and learning newsletter that addresses a number of topics in a number of different modalities (See Attachment E). These newsletters will often contain topics and tips regarding assessment practices.

E. Program reviews were linked with budget planning and budget requests

The program review template includes questions in sections "IV. Facilities and Resources," "V. Analysis and Reflection," and "VI. Recommendations" (See Attachment D) that focus on budgetary needs. These needs can then be considered in future budget planning. In the early 2018, budget request forms were revised to include a checkbox to indicate if the request was a result of program review findings. These new forms were first used late in 2018, as the FY 2020 budget was being planned.

F. Steps were implemented to "close the loop" on program review.

Part of conducting assessment is making it meaningful. One of the processes used to share and evaluate assessment data is the program review process. In order to help bring more meaning to assessment data and program reviews, the Provost and Deans started to hold debriefings with the program faculty to review their action plans from either the program review report or the bi-annual review report. The Provost and Deans review the reports beforehand and the meeting is focused on reviewing the five-year goals of the program and how they align with assessment results. These meetings were implemented in the 2019-2020 academic year. (See Attachment F).

G. Many of the CTE programs are using their data to focus on improvements. Other programs in CTE and A&S are focused on process improvement.

1. In the Career and Technical Education division, several programs gathered two years of program-level assessment data and used it to make changes within their programs. These programs included Construction Technology Management, Nursing, Emergency Medical Services, and Fire Science. The Construction Technology Management program used summative finals from two courses to review and make changes. The first data collection showed that while safety is an important program outcome, it was hardly being tested in any of the summative finals. The program changed the summative finals to include safety topics is reviewing the assessment data again (See Attachment G). Nursing has been using the NCLEX exam results along with the preceptorship to examine how well their students are prepared for the knowledge and skills it takes to become a registered nurse. The Nursing faculty have recently reviewed their program outcomes again and revised the outcomes to align more closely with multiple Nursing accrediting agencies (See Attachment H).

2. Two other CTE programs, Computer Information Systems (CIS) and Administration of Justice (AJS), used their first year of data to make changes and collected new program-level data in the 2019-2020 school year. CIS reviewed their data to find that the way they collected the data, through a randomized summative final, was problematic for identifying student learning trends (See Attachment I). CIS used the 2018-2019 academic year to review their data collection systems and to pinpoint the

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most valuable courses and assessment tools for collecting meaningful data. The AJS program found that the summative essay and accompanying rubric did not provide good data (See Attachment J), so they revised these assessment tools during the 2018-19 academic year.

3. Other programs collected data in the 2018-2019 academic year. The Psychology program collected program-level data in a higher-level Psychology course that has a large written project and an associated rubric. The Allied Health program used an assessment collection system similar to that of the CIS program, a large randomized electronic test. The faculty are currently evaluating the data to determine how they would like to move forward. Fine Arts wanted to use their student art showcase and an associated rubric in the 2019-2020 academic year, but there were complications due to the onset of the COVID-19 and adjustments to an online format took precedence.

4. Several areas have experienced challenges with program-level assessment. The Hotel and Restaurant Management program is only taught by part-time faculty; without a full-time faculty to act as a shepherd for the program, it has been difficult to coordinate program-level assessment. The full-time faculty member associated with the Sociology program was on a sabbatical while learning outcomes were being refined and is working on reviewing and revising the program-level outcomes now. The Anthropology program has two challenges. First, many of the Anthropology courses are also General Education courses. It has been difficult to determine which students are pursuing an Anthropology pathway. Second, the Anthropology program is working to align our College's curriculum with the transfer universities' curriculum. Once they are more closely aligned, the program will move forward with examining their outcomes within that transfer alignment. Finally, the American Sign Language program went through an extensive revision over two years to move from a focused workforce degree to a more flexible transfer degree. Now that the curriculum has been in place for two years and all of the courses have been offered at least once, the program is ready to begin assessing.

3. Evaluate the impact of the initiative, including any changes in processes, policies, technology, curricula, programs, student learning and success that are now in place in consequence of the initiative.

A. Assessment Manual developed in the spring of 2018 (See Attachment K).

The Assessment Manual was created and vetted in the spring of 2018. Since then, it has been reviewed by the Assessment Committee. In the near future, the Assessment Committee will evaluate it and make changes in order to bring it into alignment with current assessment practices.

B. Revised Policy and Procedures in the spring of 2018 (See Attachment L).

Prior to spring of 2018, there was a college policy on assessment. This has since been revised to add a procedure to better define how the College will gather assessment data.

C. Revisions to the Assessment Committee and its purpose.

The Assessment Committee has existed in a variety of forms since the College opened in 1991. However, there was a brief time period in which there was no formal committee with assessment oversight. The College reformed the Assessment Committee in order to participate in the HLC's Assessment Academy. Once the Academy was completed, the Assessment Committee continued and evolved. Currently, the committee has college-wide representation from faculty, Student Affairs, and the Business Office. Together the committee

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members evaluate submitted program reviews and bi-annual review reports and provide academic and non-academic programs with feedback on their program reviews. Additionally, the Assessment Committee is actively working on becoming more informed about assessment best practices and sharing assessment knowledge throughout the College.

D. Revisions to program-level outcomes.

A large portion of the program-level outcomes revision work took place early in the Quality Initiative period, but it is still ongoing in some of the transfer pathway programs such as Anthropology, Psychology, and Fine Arts. As detailed in previous sections, some programs will be revising their program outcomes based on gathered assessment information or curriculum adjustments to align more closely with transfer institutions.

E. Assessment conversations are now taking place, and faculty are becoming assessment champions.

Anecdotally, faculty appear to be having more conversations and discussions around assessment. Recently in a Faculty Senate meeting, a senator who had been working on their assessment program and making changes shared their work with the Senate. The Senate then asked the Assessment Coordinator to come and share some of the work that has been done in areas throughout the College.

F. The Learning Management System (LMS), Canvas, is being leveraged to collect data in a systematic way without overburdening the faculty.

There is a balancing act between gathering meaningful data and creating burdensome tasks for faculty. This was learned during the collection of program-level Critical Thinking data and the first round of Communication data for the General Education program. Ultimately, the conversations and interactions that come from the student assessment data are the most valued and valuable to faculty. The collection of assessment data and creation of assessment tools needs to be simple and straightforward. Therefore, the LMS was leveraged for the collection of the second round of Communication data to be evaluated in the future.

G. Integration of academic leadership review within the program review and bi-annual review process.

A new step in the program review process has been to add a meeting between the program and the academic leadership team consisting of the Provost and the division Dean. This meeting is a short discussion focused on the future goals of the program and the data that has been gathered to inform these goals.

4. Explain any tools, data or other information that resulted from the work of the initiative.

A. Creation of the bi-annual review template (See Attachment M).

Originally, the plan was to create an annual report that each program would use to evaluate student assessment data and report on the goals identified through the program review process. However, due to the limited full-time faculty, this placed undue burden on the faculty shifting the focus of assessment from being meaningful and impactful to being burdensome and overtaxing. To reduce the load, the Assessment Committee suggested and created a bi-annual review form. The form has been piloted with the Mathematics and English programs (See Attachment N). The response from the faculty has been positive.

B. Assessment data collection.

The Assessment Coordinator has been actively working to assist faculty in finding assessment tools already used within their programs that could be used to gather program-

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level assessment. After creating K-A-S curriculum maps with the program faculty, the faculty then identified which courses really collected assessment data that showcased the students' skills and knowledge from the entire program. In these courses, the faculty identified summative assessment tools that could be used to gather this data. As a result, these tools, many of them being given and taken in paper and pen, needed to be converted to an electronic system that matched the summative assessment with the program-level learning outcomes. While this has been successful (See Attachment B), improvements can still be made.

C. K-A-S maps created by program faculty (See Attachment B).

Nearly all programs have developed K-A-S maps to help ensure that the program outcomes are indeed being covered and developed over the program's entire core coursework. These maps have also acted as the foundations for identifying where and how to collect program-level assessment. General Education has not created any K-A-S curriculum maps, as the program's structure is to allow a student to take any two courses (although different disciplines) in a General Education area. Additionally, there is no required sequence within the required General education coursework making a K-A-S map difficult to create.

D. Shared assessment tools.

During this initiative, it was found that not many shared assessment tools needed to be developed as many of our programs' core courses are only taught by one faculty member or only offered as a single section in an academic year. Because of this, shared assessment tools only needed to be developed for General Education courses. Shared assessment tools have been developed and shared at a section-level for Math and English. These tools appear to be successful and are generating meaningful data to create changes (See Attachment O and Attachment P).

E. Use of course-to-program-level maps In General Education.

Prior to the beginning of the Quality Initiative, the General Education courses participated in a course-to-program-level mapping exercise. These maps have helped faculty understand how their General Education course contributes to the overall program-level outcomes. This is a difficult concept for many faculty, especially given that many of the College's faculty are part-time. These maps have been vital in ongoing conversations of program-level assessment for the General Education program.

F. Assessment Workshops.

To better educate the faculty about program-level assessment, many assessment workshops have been created: inter-rater reliability, course-outcome designs, what to do with assessment data, assignment workshop, course-outcomes revision workshop. These workshops have been offered and are being considered for asynchronous delivery in the future.

5. Describe the biggest challenges and opportunities encountered in implementing the initiative.

A. General Education program and transfer programs overlaps.

- Many of our transfer programs' coursework overlaps with the General Education coursework. This has caused confusion and assessment fatigue on the part of our faculty. Many faculty who offer these courses that lie in both the transfer pathway and the General Education coursework feel as though they are always writing a program review or participating in an assessment project. This has diminished the meaningfulness of assessment for these particular faculty members.

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- We have an opportunity to open discussions as to why we do assessment and how to integrate assessment in the courses, not as an aside.

B. Lack of sequence in the General Education coursework.

The lack of a sequence in the General Education curriculum has presented a unique challenge as faculty struggle with knowing exactly where to collect assessment for the program-level outcomes. Currently, there is no clearly defined way to determine knowledge and skills improvement throughout the coursework. This has led to many conversations, without solutions, about how to determine attainment of skills and knowledge in General Education.

C. Competition for faculty time.

As with all institutions, assessment and teaching are not the only things competing for faculty time. There have been many other initiatives that require faculty attention, discussion, and involvement. This, again, is an opportunity to help faculty understand that assessment is truly a part of teaching and improving.

D. Lack of universal faculty involvement in assessment.

While there is a policy and procedure in regards to assessment, and clear leadership support, some faculty have yet to participate in any of the assessment projects, viewing them as optional.

E. Difficulties in correlating assessment data and necessary changes.

With program-level assessment still in the early development stages for some programs, these programs cannot see how assessment data will be able to help identify issues or challenges that the program can rectify. As program-level assessment develops, ongoing training on a program by program basis will be necessary to help the program faculty be able to interpret the data and make associated changes.

F. Restructuring of academic reporting and leadership.

In the 2019-2020 academic year, the College added a layer of support within the academic leadership team. Previously, there was a Provost and two division Deans. This year, six Lead Faculty were added to the leadership team. The Lead Faculty act as the supervisors of the part-time faculty and as point persons for their areas. We anticipate that these new positions will be helpful in advancing the knowledge of assessment throughout their areas very soon.

G. Cost and benefits of attending assessment conferences.

Part of the initiative was to encourage faculty, and especially members of the Assessment Committee, to attend various assessment conferences. The conferences ranged from ones offered in the state to those offered regionally and nationally. While attendance was encouraged and funding was available, many conference opportunities were not taken advantage of largely due to the distance and time commitments required. In addition, several conferences planned for the spring of 2020 were canceled due to the COVID-19 pandemic. Conferences and distant workshops do not appear to be the best solution to help faculty understand more about assessment and assessment processes. Instead the College should focus on just-in-time trainings to help faculty and staff.

Commitment to and Engagement in the Quality Initiative

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6. Describe the individuals and groups involved at stages throughout the initiative and their perceptions of its worth and impact.

Roles	Responsibilities
Assessment Coordinator	• Hold assessment meetings with program faculty • Offer assessment workshops and other professional development opportunities • Provide data collection assistance • Collate assessment data • Assist in creation of various assessment reports
Associate Dean for Curriculum and Assessment	• Offer assessment workshops and other professional development opportunities • Assist in creation of various assessment reports • Co-chair the Assessment Committee
Assessment Committee	• Review and revise the Quality Initiative activities and progress • Review and make suggestions for the program and bi-annual review reports. • Offer support for areas creating program reviews and bi-annual reports.
Program and General Education Faculty	• Review and revise program outcomes • Develop shared assessment tool (if applicable) • Collect program-level assessment data • Review and evaluate program-level assessment data • Use data to make changes within the program • Utilize lead faculty to act as points of contact to call meetings to order • Create departmental trainings (in some cases)
Academic Affairs Leadership	• Provide leadership and fiscal support to the Quality Initiative • Hold debriefings with program faculty regarding the program and bi-annual review reports

A. The Assessment Coordinator acted as the cheerleader and the follow-up person for the faculty to begin to understand the importance and impact of program-level learning outcomes assessment. As the frontline person, the coordinator helped coordinate initial conversations with faculty about program-level assessment. The coordinator feels these beginning conversations and attempts at program-level assessment were beneficial for the faculty in different ways. On the CTE faculty side, it was different for CTE faculty to

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understand and evaluate how general education should be integrated and built into their programs, not considered "something the student has to do." For transfer pathways that consist primarily of General Education coursework and electives aligned with university study, determining what constitutes a program is an ongoing discussion. Ultimately, the Assessment Coordinator feels that the quality initiative was beneficial to begin the groundwork towards successful program-level assessment.

B. The Associate Dean of Curriculum and Assessment has found the sessions on creating good program learning outcomes and K.A.S. maps resulted in improved curriculum and improved understanding of how courses work together within programs. The programs that began with these strategies have made the most progress in completing the assessment cycle. She has seen an increase in discussion of General Education learning outcomes, how they apply to individual courses, and how they work to create an overall experience for students. Although more discussion and shared decisions need to be made, she feels we are making positive steps with the assessments of Critical Thinking and Communication, and the revised General Education philosophy. In addition, she has seen the program review process, including the review by the Assessment Committee and the deans, become well-established as most programs throughout the College have now been reviewed, and some have conducted their bi-annual assessment updates. More discussions and trainings are needed to help all faculty see the connections between their course outcomes, program outcomes, and the assessment they conduct in their courses, and to understand the value in conveying this information to their students.

C. Program and General Education Faculty

The CTE programs have generally found the initiative's program-level focus to be helpful and meaningful in relation to making changes to their assessments and their programs.

The transfer program faculty have found that all of their courses are also General education courses. This creates a difficulty in defining what constitutes a "program" and being able to assess for program-level outcomes. While the courses have been developed as both program and General Education courses, the student population is not always representative of attending as just a General Education student or transfer program student. Not all of the students identify themselves correctly.

The General Education programs have generally found the focus on program-level assessment to be difficult as they are used to being in their discipline areas, not the broader General Education areas. Disciplines that are also broad General Education areas, such as Mathematics and English, have found success in conducting section level assessment to help make changes to their courses and improve the inter-rater reliability among their full-time and part-time faculty. However, these dual areas struggle with the concept of General Education program assessment and how their areas contribute to General education as a whole.

D. The Academic Affairs Leadership team

The Provost and Deans have found a great deal of value in meeting with faculty to review the findings from their program reviews and bi-annual assessments. These meetings provide the opportunity for program faculty to reflect upon their findings and receive support and affirmation from academic leadership for making program changes and improvements. For example, a recent meeting with the Social & Behavioral Sciences faculty to discuss their program review led to a robust conversation about how to articulate to students the importance of studying these topics as part of their General Education experience. While program faculty have discussed this among themselves, the importance of helping students understand how to view the world from a social and

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behavioral sciences perspective will be an important step forward in improving General Education outcomes.

7. Describe the most important points learned by those involved in the initiative.

A. Keep it simple. It is easy to say and difficult to do. Oftentimes, much of the confusion revolving around program-level assessment stems from the over communication of the assessment project rather than the completion of the assessment project. As many of the program-level outcomes have not been assessed to quite this level before, there is a tendency on the part of the Assessment Coordinator to over communicate instead of keeping the directions simple and straightforward. Additionally, the collection of assessment data needs to be simple. Collecting data and artifacts through the LMS proves to be the best solution.

B. Assessment is not an addition. In the ongoing discussion about assessment, there needs to be a focus that assessment is part of what the faculty are already doing in their courses, not something they need to add to their work.

C. Just-in-time training is necessary. Even though the initiative came with the funding to send faculty and others interested in assessment to conferences and workshops, time was a constant factor. It is important to provide just-in-time training in regards to assessment, whether it be in-person with the Assessment Coordinator or in an asynchronous format.

D. Clear expectations for program-level assessment help to create a systematic process. It is only through engagement, reflection, and repetition that the assessment process becomes meaningful.

Resource Provision

8. Explain the human, financial, physical and technological resources that supported the initiative.

A. Human

1. This was the largest resource used for the Quality Initiative. As indicated above, this required a lot of time of the Assessment Coordinator, program faculty, General Education Committee, and Assessment Committee.

2. There were numerous meetings between the Assessment Coordinator and the program faculty:

i. Reviewing and editing the program outcomes, creating K-A-S maps, identifying which courses to collect assessment data in, and identifying assessment tools to collect data with.

ii. Additional meetings to review the assessment tools and align them with the program-learning outcomes and to discuss the assessment results.

3. The Assessment Committee spent two months each year discussing and reviewing program and bi-annual review reports and another month revising the bi-annual review template.

4. The General Education Committee spent many meetings discussing and revising the assessment projects for Critical Thinking and Communication. There were also dedicated meetings to reviewing the outcomes data.

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5. Math Lead Faculty developed specific discipline training for program assessment and collection process.

6. The Provost and division Deans' involvement in reviewing the program and bi-annual review reports and discussions of the action plans with the full-time program faculty.

B. Financial

1. When time is spent, there is always a salary cost associated with that time.

TABLE 1: FINANCIAL RESOURCES

Title	Total per Year
Assessment Coordinator	$67,300 (100% of position)
Association Dean of Curriculum and Assessment (now the Associate Dean of Learning Services)	$27,300 (25% of position)
Lead Faculty (5)	$900 ($4,500)
Executive Assistant	$0 (Originally 5% of position budgeted. Position support not needed.)
Academic Operations Coordinator	$0 (Originally 5% of position budgeted. Position support not needed.)
Total per Year	$99,100 ($6,000 less than the original projected budget of $105,100)

2. $6,000 was set aside each year for attending assessment conferences, trainings, workshops. Expenditures exceeded the budgeted amount:

TABLE 2: 2018-2019 TRAINING EXPENDITURES

Activities	Actual Expenditure
IUPUI Assessment Institute for Associate Dean and one faculty member	$3,350
Arizona Assessment Conference for Associate Dean, Assessment Coordinator, one faculty member, and a student affairs staff	$850
WASC Assessment Academy for Assessment Coordinator	$3,004
AALHE for Associate Dean	$2050
Total:	$9,254

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TABLE 3: 2019-2020 TRAINING EXPENDITURES

Activities	Actual Expenditure
Investment in Assessment Resources for Assessment Committee	$405
AALHE for associate dean and Assessment Coordinator	$400
Assessment by Design Workshop for associate dean, Assessment Coordinator, one faculty member, business office staff	$740
WASC Assessment Academy for Assessment Coordinator	$4,845
Total per Year	$6,390

    C. Physical

        1. The College meetings rooms were used for the various meetings.

        2. Paper and copy machines were used to produce reports, proposals, and data.

    D. Technological

        1. The LMS (Canvas) was used to collect assessment data when possible.

Plans for the Future (or Future Milestones of a Continuing Initiative)

9. Describe plans for ongoing work related to or as a result of the initiative.

    A. Creation of individual program assessment plans containing all assessment/program data.

    Not all of the programs created assessment plans. For the future, there are some CTE and transfer pathway programs that will need to complete an assessment plan within the next two years to help determine when and where to collect assessment data instead of being overwhelmed with trying to collect assessment data for every outcome, every year.

    B. Continued emphasis on academic leadership reviewing the program reviews and five-year plans with programs.

    This year was the pilot year of having the debriefings between the academic leadership and the program faculty. It is a goal to continue these meetings in the future.

    C. Roll-out of Institutional Level Outcomes (ILO) across the College to help develop emphasis and importance of program-level assessment.

    Program-level outcomes are the pivot point between the course-level outcomes and the institutional-level outcomes. As the Assessment Committee begins to vet the ILOs they developed, it will be important to communicate how the program-level outcomes relate to the ILOs.

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D. Continue developing program-level measures and tools.

Some of the programs are still in the developmental stages of conducting program-level assessment while some are in the middle of determining how to collect program-level data. We want to continue this work with all of our 19 programs, no matter where they are in the process.

E. Continue to review assessment collection systems and focus on streamlining them.

There is a system to collect course-level assessment that is simple and efficient. Many of our faculty have been using this system. This course-level system could be reviewed and adapted to reporting program-level assessment as well. By keeping it simple, the College should see an increase in reporting and associated changes as a result.

F. Continued training within the Assessment Committee.

The Assessment Committee acts as the steering committee of assessment programs for the College. It will be important to actively expose the committee to best practices and update them on the results and issues resulting from assessment.

G. Communicate how program reviews are being used to improve the College and its programs.

While overcommunicating can cause confusion, not communicating at all is much worse. The College will need to create a communication plan to continue to help with the just-in-time training that is needed surrounding assessment.

10. Describe any practices or artifacts from the initiative that other institutions might find meaningful or useful and please indicate if you would be willing to share this information.

A. Use of Canvas as data-collection system.

Using the LMS has been a huge benefit in collecting assessment data. While the LMS has specific systems that can collect outcomes information, the College has used the LMS in a different way to gather more information on course-level assessment. This method might be able to be adapted for collecting program-level assessment as well. Within the LMS, a course shell dedicated to assessment has been created. In it, there is a quiz assigned to all college faculty to be completed once a semester. This quiz asks the faculty member to assess one course and one course-level outcome using an assessment tool of their choice. The faculty member reports the student results on the assessment and then reflects on changes they will make to the class the next time the faculty member offers it. This could be easily changed to collecting program-level data as well.

B. Relation of K-A-S maps to learning outcomes training/information.

Many program faculty have found the training regarding Bloom's Taxonomy and developing a K-A-S curriculum map based on that taxonomy useful in determining how their courses contribute to the program-level outcomes. This K-A-S map is then converted into an assessment tools map to identify where to collect program-level assessment data and how to do it. It helps the faculty identify the appropriate level of tool.

C. Bi-Annual Review form.

The bi-annual review form was developed in order to alleviate faculty's feeling of being overburdened. The pilot program faculty, Mathematics and English, felt that this form was very valuable in reminding them of their action plan and student assessment. Ultimately, the bi-annual review form should assist the program faculty in developing their next program review report as well.

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Attachment A

Academic Affairs Defined Programs

ACADEMIC AFFAIRS DIVISION

CTE		
Program Proposed	**Degrees/Certs to be Reviewed**	**Core Courses**
Admin of Justice	AA- Admin of Justice AAS- Admin of Justice CERT-Basic Detention Academy CERT- Forensics Investigations	AJS, BIO, FOR, ENG
Business	AA- Business AAS- Business ABUS - Associate of Business CERT - Accounting	ACC, BUS, ECN, MAT, CIS, ENG, LDR
HRM	AAS- Hospitality Management AA- Hotel & Restaurant Management	ACC, CIS, HRM, BUS, LDR, SPC
Construction Tech Management	AA- Construction Technology Management AA - Vocational Technology Education AAS - Construction Technology AAS - Environmental Technology AAS - Sustainable Green Building CERT - Construction Technology CERT - Environmental Technology	CTM, MAT, ACC, ECN, ENV
CIS	AAS - Computer Software Technology AAS - Network Engineering CERT - Computer Technician CERT - Graphics and Web Design CERT - Network Engineering	BUS, CIS, LDR, ART
Fire Science	AAS - Fire Science CERT - Fire Science	FS
Allied Health	AAS - Medical Office Management CERT - Medical Assistant CERT - Phlebotomy	AHS, CIS, BIO
Nursing	AAS - Nursing AAS - Pre-Health Careers CERT - Pre-Health Careers	NUR, NTR, AHS, BIO, CHM
EMS	AAS - Paramedic Studies	EMS
Liberal Arts & Sciences		
Program Proposed	**Degrees/Certs to be Reviewed**	**Core Courses**
ASL	AAS - ASL CERT- ASL Interpreting	ASL
Anthropology	AA-Anthropology	ANT
Psychology	AA- Psychology	PSY
Sociology	AA - Sociology	SOC
Fine Arts	AFA - Visual Arts	ART

GEN ED - English	AA - General Studies AGS - Associate of General Studies AS - General Studies CERT - AGEC A, B, S	ENG
GEN ED - Math	AA - General Studies AGS - Associate of General Studies AS - General Studies CERT - AGEC A, B, S	MAT
GEN ED - Arts & Humanities	AA - General Studies AGS - Associate of General Studies AS - General Studies CERT - AGEC A, B, S	ANT, ART, COL, CPS, DAN, ENG, HUM, MUS, PHI, REL, THR
GEN ED - Social & Behavioral Sciences	AA - General Studies AGS - Associate of General Studies AS - General Studies CERT - AGEC A, B, S	AJS, ANT, ASL, BUS, CPS, ECN, GEO, HIS, POS, PSY, SOC
GEN ED - Physical & Biological Sciences	AA - General Studies AGS - Associate of General Studies AS - General Studies CERT - AGEC A, B, S	ANT, BIO, CHM, GEO, GLG, PHY

Administration of Justice (AA)

Program Outcomes	REQUIRED					ELECTIVE (10 credits)			
	AJS 101	AJS 110	AJS 130	AJS 260	AJS 280	SPA 100+	NAV 100+	SOC 210	SOC 215
Students will be able to understand the structure of the criminal justice system and the functions of its constituents	K	K	A		A				
Students will be able to communicate knowledgeably about the AJS field	A	A	A	A	S				
Students will be able to react appropriately to a given situation based on the individual needs of a person or event.	K	A	S	K	S	K	K	K	K
Students will be able to practically interpret the Constitution.	K	A	A	S	S				

*Consideration - Opening it up to all foreign languages
*Consideration - Anthropology as a better comprehension of race

Administration of Justice (AAS)

Program Outcomes	REQUIRED										
	AJS 101	AJS 105	AJS 110	AJS 120	AJS 150	AJS 160	AJS 200	AJS 220	AJS 230	AJS 240	AJS 280
Students will be able to understand the structure of the criminal justice system and the functions of its constituents	K	K	K	A	A	K	S	A	A	A	A
Students will be able to communicate knowledgeably about the AJS field	A	K	A		A	K	A		A	K	S
Students will be able to react appropriately to a given situation based on the individual needs of a person or event.	K	K	A			A	S	S	S	S	S
Students will be able to practically interpret the Constitution.	K	K	A	A	A		K	S	S	S	S

*Needs to be removed

Forensic Investigations Certificate *See AAS Forensic Emphasis

Program Outcomes	REQUIRED							
	AJS 101	AJS 220	AJS 250	FOR 101	FOR 150	FOR 289	BIO 160	ENG 101
Students will be able to understand the structure of the criminal justice system and the functions of its constituents	K	A	S	K				
Students will be able to communicate knowledgeably about the AJS field	A		S	K				
Students will be able to react appropriately to a given situation based on the individual needs of a person or event.	K	S	S	A				
Students will be able to practically interpret the Constitution.	K	S	A	A				

Administration of Justice (AAS) - Forensic Emphasis

Program Outcomes	REQUIRED									EMPHASIS		EMPHASIS	
	AJS 101	AJS 110	AJS 120	AJS 150	AJS 200	AJS 220	AJS 230	AJS 240	AJS 280	AJS 105	AJS 160	FOR 101	AJS 250
Students will be able to understand the structure of the criminal justice system and the functions of its constituents	K	K	A	A	S	A	A	A	A	K	K	K	S
Students will be able to communicate knowledgeably about the AJS field	A	A		A	A		A	K	S	K	K	K	S
Students will be able to react appropriately to a given situation based on the individual needs of a person or event.	K	A			S	S	S	S	S	K	A	A	S
Students will be able to practically interpret the Constitution.	K	A	A	A	K	S	S	S	S	K		A	A

GEN ED
BIO 160   Required
BIO 181   Count toward degree
SPC 100

Administration of Justice (AA)

Program Outcomes	REQUIRED					ELECTIVE (10 credits)			
	AJS 101	AJS 110	AJS 130	AJS 260	AJS 280	SPA 100+	NAV 100+	SOC 210	SOC 215
Students will be able to understand the structure of the criminal justice system and the functions of its constituents	Chapter Tests	Visitations	Case Study		Essay/Presentation				
Students will be able to communicate knowledgeably about the AJS field	Case Study	Court and Financial Study	Write Policy / Presentation	Legal Briefs	Essay/Presentation				
Students will be able to react appropriately to a given situation based on the individual needs of a person or event.	Tabletop Exercise	Demographic and Population of Jail Assessment	Case Study	Legal Briefs	Essay/Presentation	K	K	K	K
Students will be able to practically interpret the Constitution.	Chapter Tests	Amendment Studies	Case Study	Legal Briefs	Essay/Presentation				

*Program Assessment

Administration of Justice (AAS)

Program Outcomes	REQUIRED										
	AJS 101	AJS 105	AJS 110	AJS 120	AJS 150	AJS 160	AJS 200	AJS 220	AJS 230	AJS 240	AJS 280
Students will be able to understand the structure of the criminal justice system and the functions of its constituents	Chapter Tests	Chapter Test	Visitations	Statute Testing	Chapter Test	Chapter Test	Tabletop of Partnership/Presentation	Chapter Test	Chapter Test	Chapter Test	Essay/Presentation
Students will be able to communicate knowledgeably about the AJS field	Case Study	Case Study	Court and Financial Study		Chapter Test	Chapter Test	Test		Chapter Test	Presentation	Essay/Presentation
Students will be able to react appropriately to a given situation based on the individual needs of a person or event.	Tabletop Exercise	Visitations	Demographic and Population of Jail Assessment			Tabletop Exercise	Tabletop of Partnership/Presentation	Tabletop Exercise	Research presentation/Essay	Research Project	Essay/Presentation
Students will be able to practically interpret the Constitution.	Chapter Tests	Chapter Test	Amendment Studies	Statute Application	Case Study		Discussion/Testing	Case Study	Research presentation/Essay	Research Project	Essay/Presentation

*Program Assessment

Administration of Justice (AAS) - Forensic Emphasis

Program Outcomes	REQUIRED									EMPHASIS		EMPHASIS	
	AJS 101	AJS 110	AJS 120	AJS 150	AJS 200	AJS 220	AJS 230	AJS 240	AJS 280	AJS 105	AJS 160	FOR 101	AJS 250
Students will be able to understand the structure of the criminal justice system and the functions of its constituents	Chapter Tests	Visitations	Statute Testing	Chapter Test	Tabletop of Partnership/Presentation	Chapter Test	Chapter Test	Chapter Test	Essay/Presentation	Chapter Test	Chapter Test	Comprehensive Exam	Mock Trial
Students will be able to communicate knowledgeably about the AJS field	Case Study	Court and Financial Study		Chapter Test	Test		Chapter Test	Presentation	Essay/Presentation	Case Study	Chapter Test	Discussion Essay	Mock Trial
Students will be able to react appropriately to a given situation based on the individual needs of a person or event.	Tabletop Exercise	Demographic and Population of Jail Assessment			Tabletop of Partnership/Presentation	Tabletop Exercise	Research presentation/Essay	Research Project	Essay/Presentation	Visitations	Tabletop Exercise	Discussion Essay	Mock Trial
Students will be able to practically interpret the Constitution.	Chapter Tests	Amendment Studies	Statute Application	Case Study	Discussion/Testing	Case Study	Research presentation/Essay	Research Project	Essay/Presentation	Chapter Test		Case Study	Case Study / Mock Trial

*Program Assessment

Attachment C

*Spring 2018 Critical Thinking Program Learning Outcomes
Assessment Reports for General Education*

Spring 2018 Critical Thinking Program Learning Outcomes Assessment Reports

COCONINO COMMUNITY COLLEGE

August 29, 2018

General Education Assessment

The General Education programs have been working to establish clear and defined performance measures for critical thinking. The overall definition of critical thinking for General Education as a whole is the students will, "use a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning."

This year, the General Education blocks (Arts & Humanities, English, Math, Social & Behavioral Sciences, and Physical & Biological Sciences), met to discuss the following items:

1. How students move through the Gen Ed block,
2. Create shared critical thinking performance measures,
3. Identify key courses within the Gen Ed block that contribute to critical thinking,
4. And, create a shared assessment tool to measure critical thinking in the key courses.

The goal was to begin to use the new performance measures of critical thinking and gather program-level learning outcomes data in the spring semester.

The following is a list of the program areas within the General Education blocks and the performance measures, selected courses, and reporting assessment tool from which baseline data will be established.

Arts & Humanities (A&H)

In A&H, critical thinking is demonstrated by the following three performance measures:

The student will:

- Exhibit an understanding of relevant concepts,
- Integrate credible evidence into their analysis,
- Derive a well-reasoned conclusion from their analysis.

The A&H program created two rubrics, one with three tiers and one with two tiers, to be used for shared assessing. These rubrics will be used in ART 201, ENG 272, HUM 205, and PHI 101.

English (ENG)

In English, critical thinking is demonstrated by the following two performance measures:

The student will:

- Evaluate resources for credibility
- Integrate evidence to support their own ideas.

The ENG program created one rubric to be used for shared assessing. This rubric will be used in all of the ENG 102 courses.

Math (MAT)

In MAT, critical thinking is demonstrated by the following eight performance measures (with one to be further developed in the future):

Students will:

- Apply mathematics in context using appropriate problem solving skills.
- Choose and manipulate formulas.
- Create graphical representations.
- Interpret graphical representations.
- Perform operations on mathematical structures, which may include real, complex, matrix, function space.
- Demonstrate an understanding of geometric concepts.
- Apply and interpret limits and limit definitions.
- Communicate using the language of mathematics.
- (FUTURE) Gain appreciation of the nature and uses of mathematics.

Currently the MAT program already shares common final questions in many of their courses. It was decided to use these shared common final questions and grading rubrics in MAT 140, 142, 151, 160, 187 and 220 in the 2018 Spring semester to gather MAT program critical thinking assessment data.

Physical & Biological Sciences (P&BS)

In P&BS, critical thinking is demonstrated by the following three performance measures:

The student will:

- Understand required terminology and use proper resources to accurately identify a sample, solution, organism, or assumption,
- Use laboratory equipment and/or computer software to perform an experiment or collect data,
- Demonstrate understanding of various hypotheses and analyze data in order to review an assumption or restate a concept.

The P&BS program will gather data in BIO 100, BIO 181, CHM 152, GLG 101, PHY 180.

Social & Behavioral Sciences (S&BS)

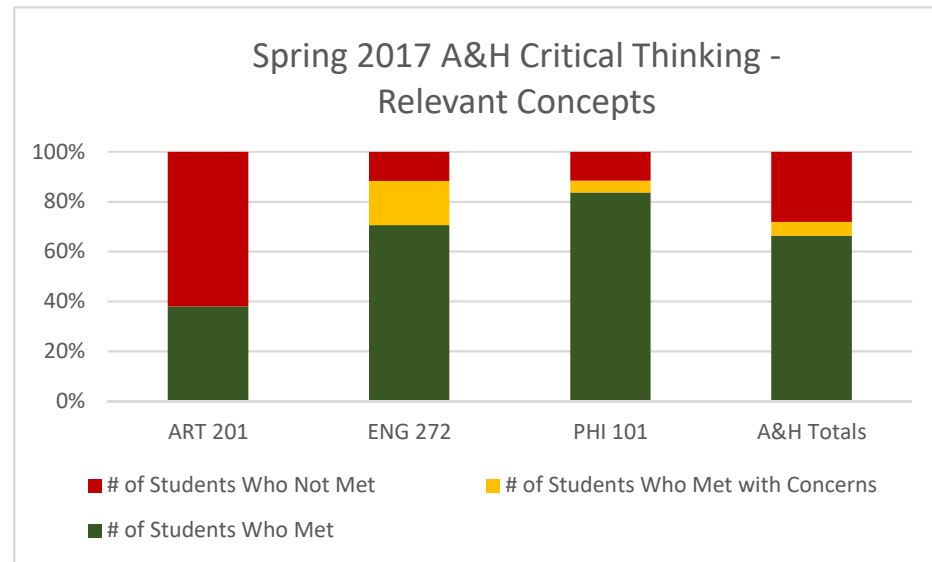In S&BS, critical thinking is demonstrated by the following three performance measures:

The student will:

- Exhibit an understanding of relevant concepts,
- Integrate credible evidence into their analysis,
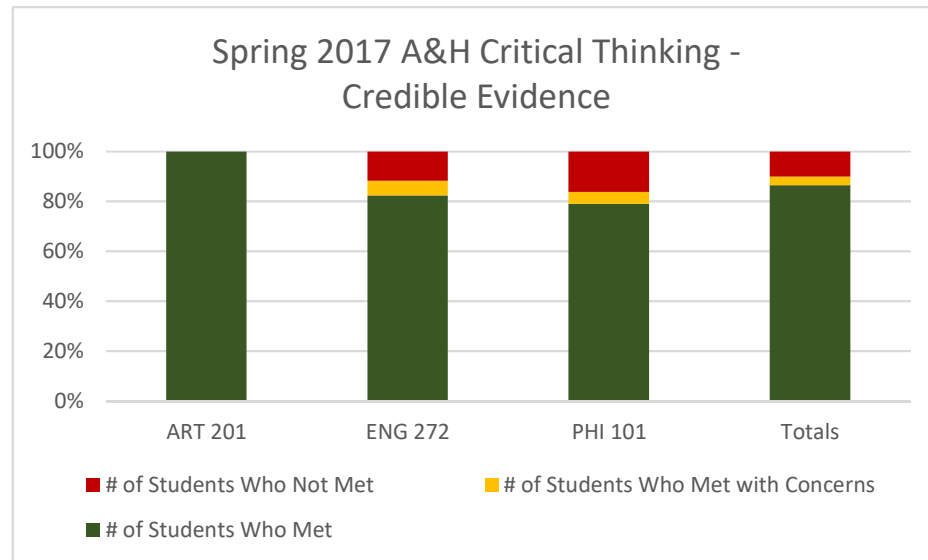- Derive a well-reasoned conclusion from their analysis.

The S&BS program created a two tier rubric to be used for shared assessing. This rubric will be used in ECN 205, ANT 250, PSY 250 and SOC 210.

Spring 2017 Arts & Humanities Critical Thinking Assessment

	Relevant Concepts			
	# of Sections Reporting	# of Students Who Met	# of Students Who Met with Concerns	# of Students Who Not Met
ART 201	1	11		18
ENG 272	1	12	3	2
PHI 101	2	36	2	5
A&H Totals	4	59	5	25

Spring 2017 A&H Critical Thinking - Relevant Concepts

	Credible Evidence			
	# of Sections Reporting	# of Students Who Met	# of Students Who Met with Concerns	# of Students Who Not Met
ART 201	1	29		
ENG 272	1	14	1	2
PHI 101	2	34	2	7
Totals	4	77	3	9

Spring 2017 A&H Critical Thinking - Credible Evidence

Spring 2017 Arts & Humanities Critical Thinking Assessment

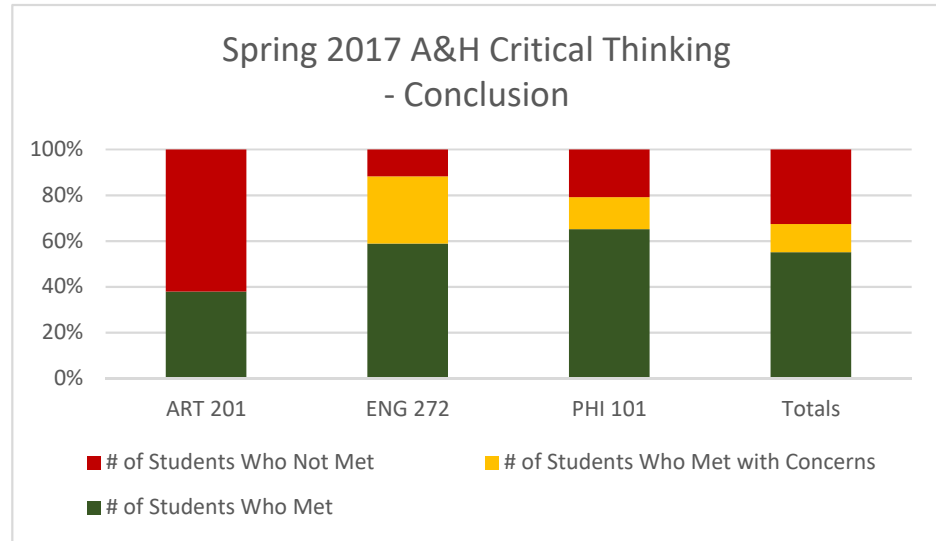|	Conclusion			
	# of Sections Reporting	# of Students Who Met	# of Students Who Met with Concerns	# of Students Who Not Met
ART 201	1	11		18
ENG 272	1	10	5	2
PHI 101	2	28	6	9
Totals	4	49	11	29

Spring 2017 A&H Critical Thinking - Conclusion

■ # of Students Who Not Met   ■ # of Students Who Met with Concerns

■ # of Students Who Met

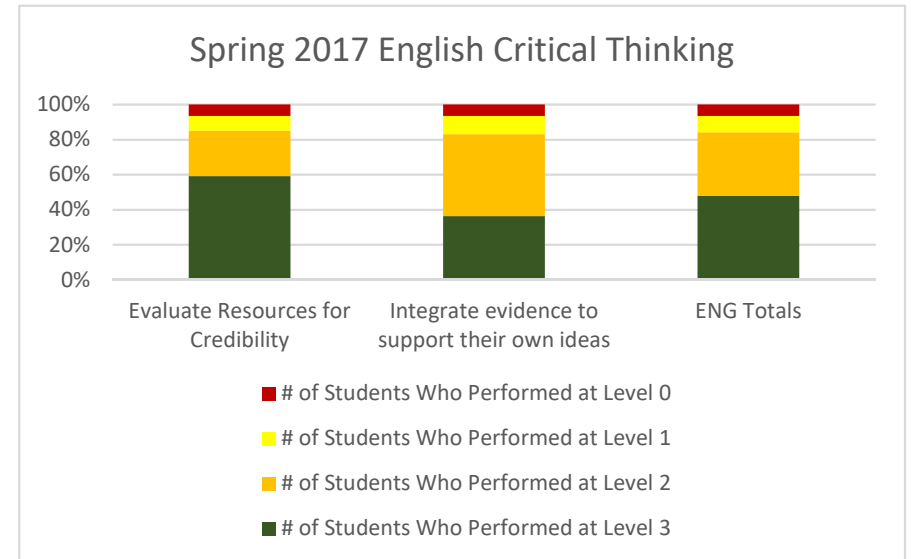**Relevant Concepts:** The student exhibits an understanding of relevant concepts.
Credible Evidence: The student integrates credible evidence into their analysis.
Conclusions: The student derives a well-reasoned conclusion from their analysis.

2 out of 6 selected Arts & Humanities sections did not report any assessment data.

Spring 2017 English Critical Thinking Assessment

	# of Sections	# of Students Who Performed at Level 3	# of Students Who Performed at Level 2	# of Students Who Performed at Level 1	# of Students Who Performed at Level 0
Evaluate Resources for Credibility	9	91	40	13	10
Integrate evidence to support their own ideas	9	56	72	16	10
ENG Totals	9	147	112	29	20

Spring 2017 English Critical Thinking

- # of Students Who Performed at Level 0
- # of Students Who Performed at Level 1
- # of Students Who Performed at Level 2
- # of Students Who Performed at Level 3

Evaluate Resources for Credibility - Levels

3 - Assesses resources for all the following: currency, relevance, authority, accuracy, and purpose

2 - Assesses resources for a minimum of three of the following: currency, relevance, authority, accuracy, and purpose

1 - Assesses resources for a minimum of two of the following: currency, relevance, authority, accuracy, and purpose

0 - No evidence

Integrate evidence to support their own ideas - Levels

3 - Integrates evidence for each topic paragraph to support clear a clear and effective thesis/claim

2 - Integrates some evidence for each topic paragraph to support an effective thesis/claim (evidence in one or more paragraphs may be missing)

1 - Integrates little evidence for each topic paragraph to support a claim (evidence is missing in majority of topic paragraphs). Thesis may be unclear or underdeveloped.
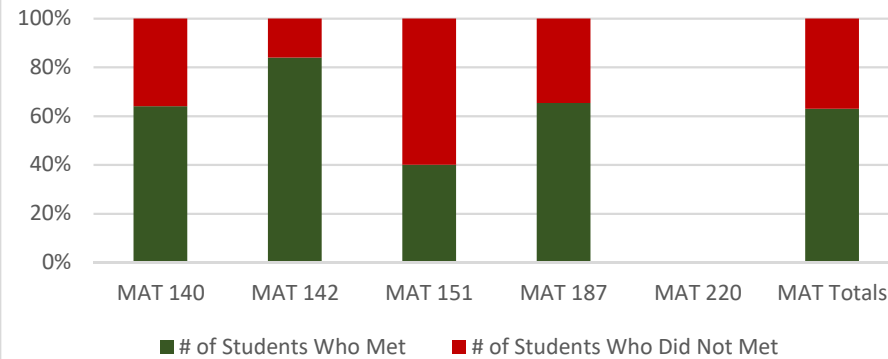
0 - No evidence

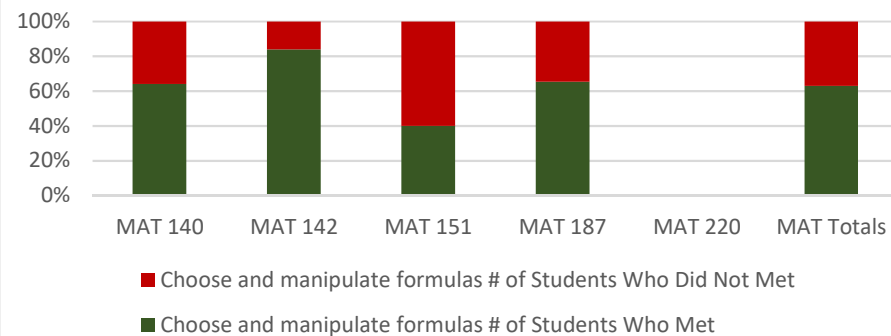# Spring 2017 Mathematics Critical Thinking Assessment

	Apply mathematics in context using appropriate problem solving skills		
	# of Sections Reporting	# of Students Who Met	# of Students Who Did Not Met
MAT 140	5	57	32
MAT 142	2	21	4
MAT 151	2	14	21
MAT 187	5	51	27
MAT 220	0		
MAT Totals	14	143	84

2017 Spring MAT Critical Thinking - Apply mathematics in context using appropriate problem solving skills

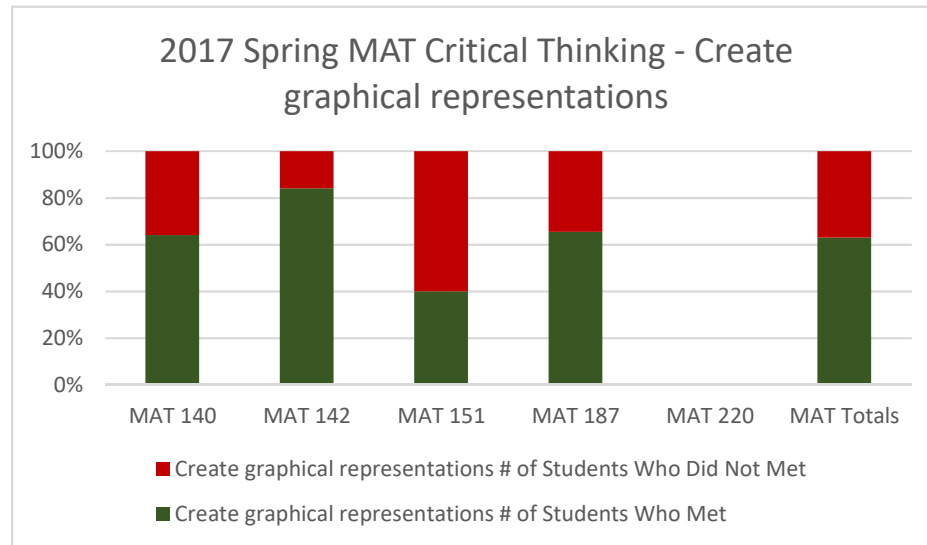|	Choose and manipulate formulas		
	# of Sections Reporting	# of Students Who Met	# of Students Who Did Not Met
MAT 140	5	57	32
MAT 142	2	21	4
MAT 151	2	14	21
MAT 187	5	51	27
MAT 220	0		
MAT Totals	14	143	84

2017 Spring MAT Critical Thinking - Choose and manipulate formulas

Spring 2017 Mathematics Critical Thinking Assessment

Create graphical representations			
	# of Sections Reporting	# of Students Who Met	# of Students Who Did Not Met
MAT 140	5	57	32
MAT 142	2	21	4
MAT 151	2	14	21
MAT 187	5	51	27
MAT 220	0		
MAT Totals	14	143	84

Interpret graphical representations			
	# of Sections Reporting	# of Students Who Met	# of Students Who Did Not Met
MAT 140	5	57	32
MAT 142	2	21	4
MAT 151	2	14	21
MAT 187	5	51	27
MAT 220	0		
MAT Totals	14	143	84

Spring 2017 Mathematics Critical Thinking Assessment

Perform operations on mathematical structures, which may include real, complex, matrix, function space		
# of Sections Reporting	# of Students Who Met	# of Students Who Did Not Met
MAT 140			
MAT 142			
MAT 151	2	14	21
MAT 187	5	51	27
MAT 220			
MAT Totals	7	65	48

2017 Spring MAT Critical Thinking - Perform operations on mathematical structures
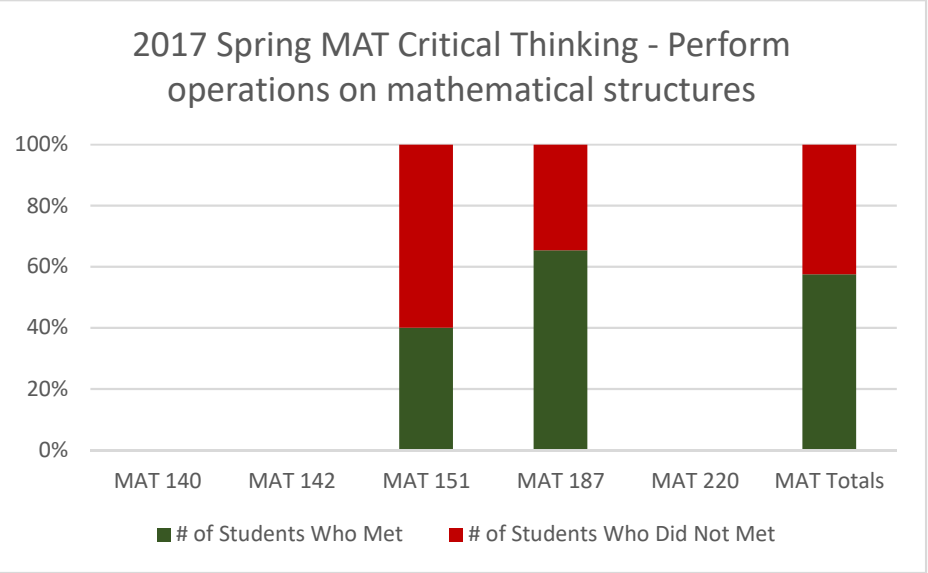
Demonstrate an understanding of geometric concepts		
# of Sections Reporting	# of Students Who Met	# of Students Who Did Not Met
MAT 140			
MAT 142			
MAT 151			
MAT 187			
MAT 220			
MAT Totals	0	0	0

2017 Spring MAT Critical Thinking - Demonstrate an understanding of geometric concepts
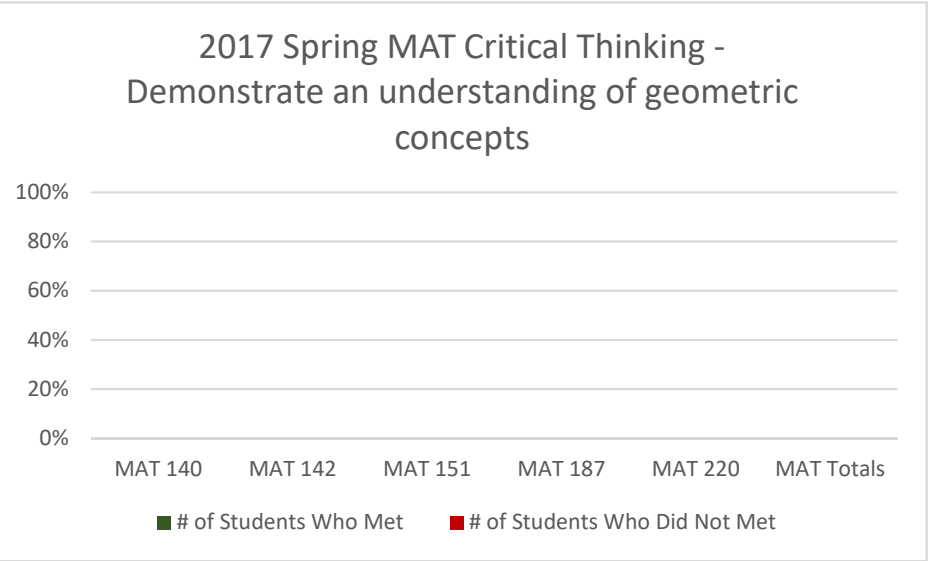
Spring 2017 Mathematics Critical Thinking Assessment

Apply and interpret limits and limit definitions			
	# of Sections Reporting	# of Students Who Met	# of Students Who Did Not Met
MAT 140			
MAT 142			
MAT 151			
MAT 187			
MAT 220	2	14	5
MAT Totals	2	14	5

2017 Spring MAT Critical Thinking - Apply and interpret limits and limit definitions

■ # of Students Who Met   ■ # of Students Who Did Not Met
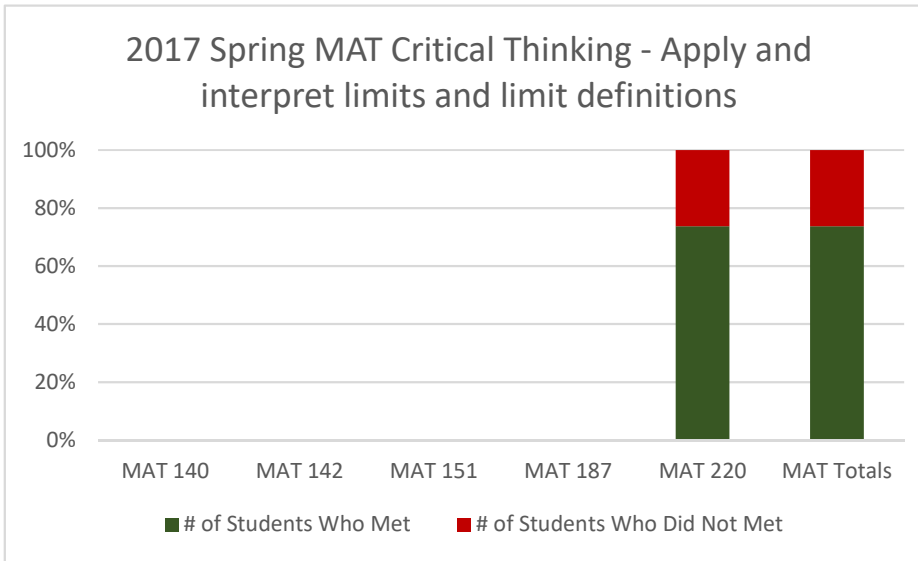
Communicate in the language of mathematics			
	# of Sections Reporting	# of Students Who Met	# of Students Who Did Not Met
MAT 140	5	57	32
MAT 142	2	21	4
MAT 151	2	14	21
MAT 187	5	51	27
MAT 220	2	14	5
MAT Totals	16	157	89

2017 Spring MAT Critical Thinking - Communicate in the language of mathematics

■ # of Students Who Met   ■ # of Students Who Did Not Met
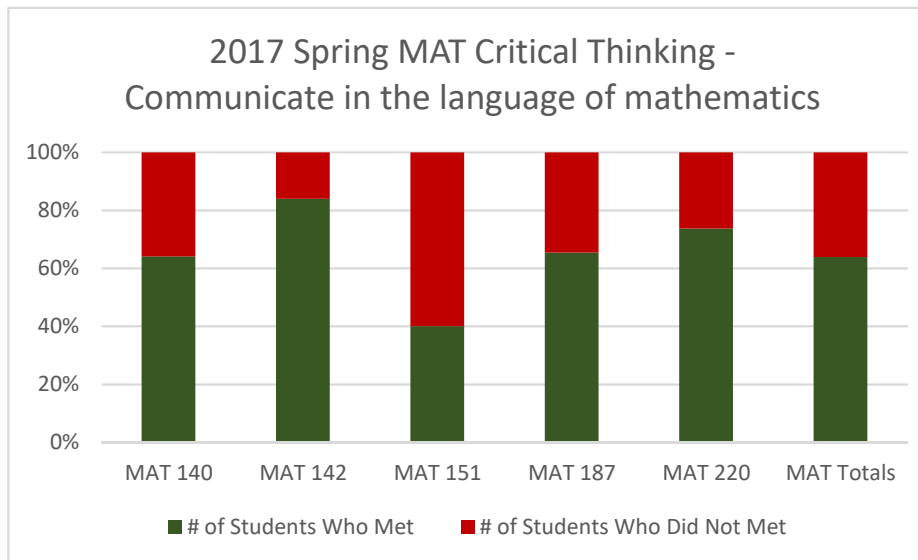
5 out of 21 selected Mathematics sections did not report any assessment data.

Spring 2017 Physical & Biological Sciences Critical Thinking Assessment

	Identification			
	# of Sections	# of Students Who Performed at Level 2	# of Students Who Performed at Level 1	# of Students Who Performed at Level 0
BIO 150	1	17	3	2
BIO 181	7	75	26	19
CHM 152	1	8	11	4
GLG 101	2	36	0	0
PHY 180				
P&BS Totals	11	136	40	25
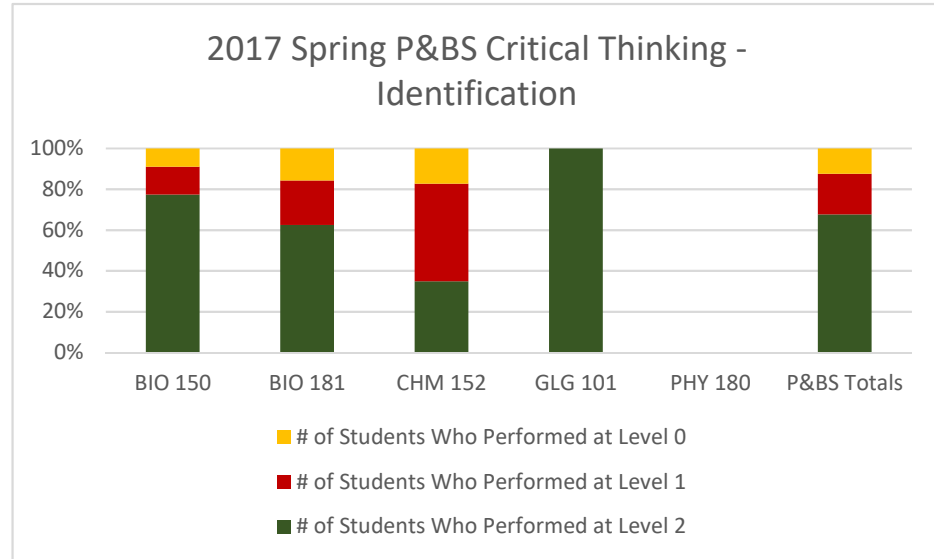
	Application			
	# of Sections	# of Students Who Performed at Level 2	# of Students Who Performed at Level 1	# of Students Who Performed at Level 0
BIO 150	1	17	5	2
BIO 181	7	99	6	19
CHM 152	1	19	0	4
GLG 101	2	36	0	0
PHY 180				
P&BS Totals	11	171	11	25

Spring 2017 Physical & Biological Sciences Critical Thinking Assessment

	# of Sections	Evaluation		
		# of Students Who Performed at Level 2	# of Students Who Performed at Level 1	# of Students Who Performed at Level 0
BIO 150	1	21	3	1
BIO 181	7	90	21	19
CHM 152	1	11	8	4
GLG 101	2	22	14	0
PHY 180				
P&BS Totals	11	144	46	24

2017 Spring P&BS Critical Thinking - Evaluation

- # of Students Who Performed at Level 0
- # of Students Who Performed at Level 1
- # of Students Who Performed at Level 2

Identification: Understand required terminology and use proper resources to accurately identify a sample, solution, organism, or assumption.

Application: Use laboratory equipment and/or computer software to perform an experiment or collect data.
Evaluation: Demonstrate understanding of various hypotheses and analyze data in order to review an assumption or restate a concept.

P&BS Levels -
Level 2 - Completed the assessment - did demonstrate critical thinking
Level 1 - Completed the assessment - didn't demonstrate critical thinking
Level 0 - Did not complete the assessment

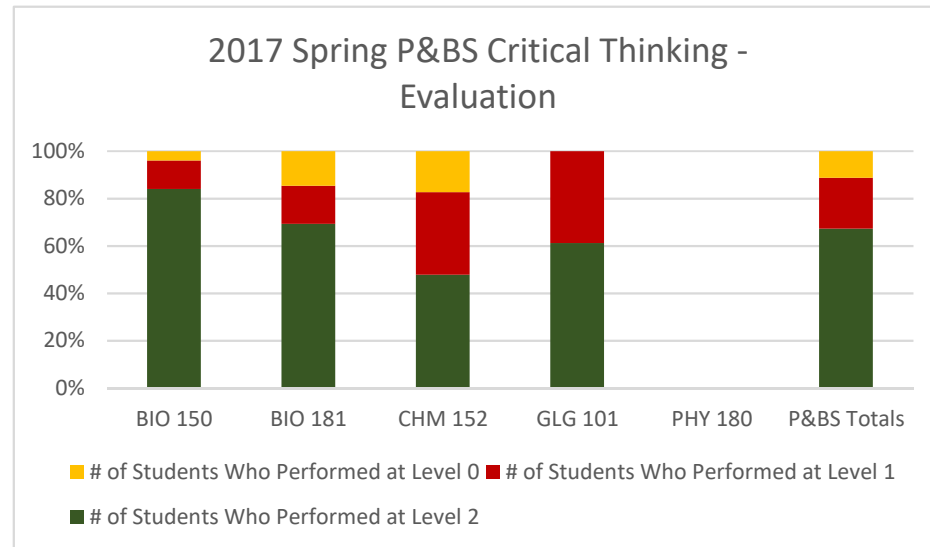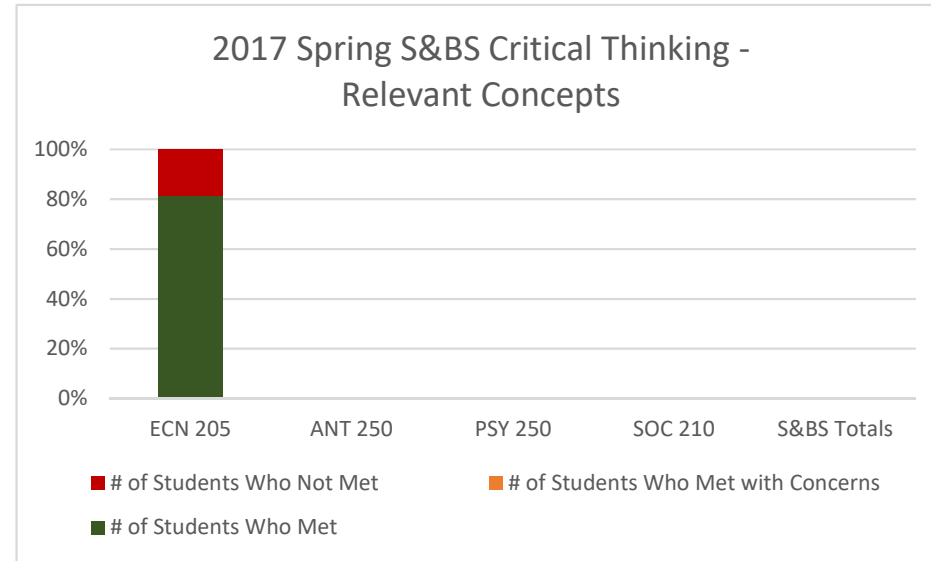*2 out of 13 selected Physical & Biological Sciences sections did not report any assessment data.*

Spring 2017 Social & Behavioral Sciences Critical Thinking Assessment

	Relevant Concepts			
	# of Sections Reporting	# of Students Who Met	# of Students Who Met with Concerns	# of Students Who Not Met
ECN 205	3	48		11
ANT 250				
PSY 250				
SOC 210				
S&BS Totals	3			

2017 Spring S&BS Critical Thinking - Relevant Concepts

■ # of Students Who Not Met   ■ # of Students Who Met with Concerns
■ # of Students Who Met

	Credible Evidence			
	# of Sections Reporting	# of Students Who Met	# of Students Who Met with Concerns	# of Students Who Not Met
ECN 205	3	50		9
ANT 250				
PSY 250				
SOC 210				
S&BS Totals	3			

2017 Spring S&BS Critical Thinking - Credible Evidence

■ # of Students Who Not Met   ■ # of Students Who Met with Concerns
■ # of Students Who Met
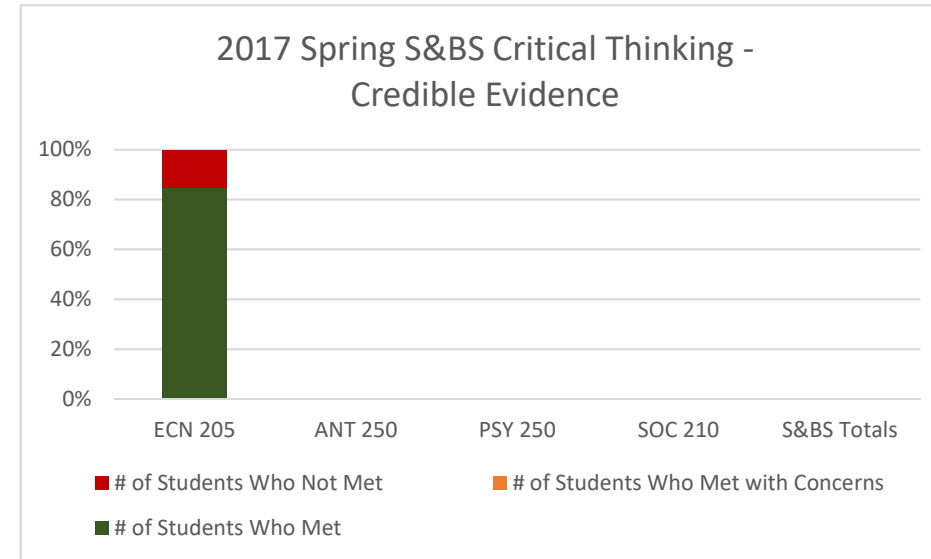
Spring 2017 Social & Behavioral Sciences Critical Thinking Assessment

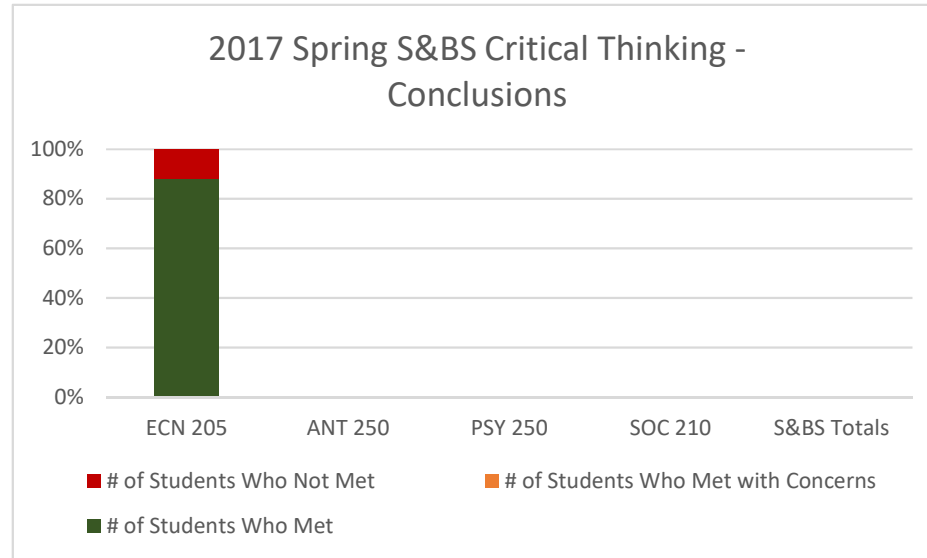|	Conclusions			
	# of Sections Reporting	# of Students Who Met	# of Students Who Met with Concerns	# of Students Who Not Met
ECN 205	3	52		7
ANT 250				
PSY 250				
SOC 210				
S&BS Totals	3			

2017 Spring S&BS Critical Thinking - Conclusions

Relevant Concepts: The student exhibits an understanding of relevant concepts.
Credible Evidence: The student integrates credible evidence into their analysis.
Conclusions: The student derives a well-reasoned conclusion from their analysis.

3 out of 4 selected Social & Behavioral Science courses did not report any assessment data.

2018-2019 Academic Program Review

Program Review Documents should be completed and submitted to the appropriate dean/reporting supervisor and the assessment coordinator no later than June 30th, 2019.

In section I, provide a brief description of the program for someone who may not have direct interactions with the program. A more detailed explanation of the program will be included throughout the review document.

I. **Overview**
a. **Narrative**: **State the purpose of the program and its contributions to the community**.

Arts and Humanities courses do not constitute a distinct program at CCC, but rather, Arts and Humanities courses fulfill general education requirements. A & H classes are especially important for our students who plan to proceed to bachelor's level institutions and beyond. These courses encourage students to explore, question, compare, and analyze moral, aesthetic, intellectual, spiritual, and cultural ideas and works.

All General Education coursework, and hence our Arts and Humanities courses, must fulfill the following criteria:

1. Meet the particular AGEC category criteria.
2. Promote intellectual exchange as an essential part of the learning process
3. With the exception of composition and math courses, all courses must provide tools for a broad understanding of the world, humanity, and the role of individuals within both.
4. Be graded as A/F only, S/U grading is not allowed.
5. Be accepted for transfer credit as elective or better at all three Arizona state universities according to the Course Equivalency Guide for the academic year in which the course was taken.

Define what sets this program apart from other programs in the college.

We are not a traditional program. Arts and Humanities occupies a unique place within the general education curriculum. Part of what makes our program unique is that diverse menu of courses offered requires us as educators to explore interdisciplinary connections among the broad range of subject areas -- principally art, literature, philosophy, history, and religion -- generally included within the Academic hemisphere known as "the Humanities."

How does the program gather input and/or respond to community needs?

We do not have a mechanism for receiving input from the community at large, but we do modify our content in response to those members of the community who enroll in our courses. The full-time faculty who teach Arts and Humanities general education courses do ongoing assessment to coordinate with one another regarding our overall objectives and categories which we use to define our outcomes. We have recently revised our definitions for our Thinking Skills and Communication performance measures. We have also collected data in the Spring of 2018 which measured student performance in regards to our Thinking Skills performance measures. In the current Spring of 2019 we will gather data for Communication.

As individuals, our faculty have engaged the community outside of class through several venues. Aaron Rizzieri has been a speaker as a part of CCC's "ED TALKS" series, which is a series designed to directly engage the community around the 4th street campus. Professor Rizzieri collaborated with a student veteran on the topic of what we can learn from our war veterans regarding community. Rizzieri has also participated in a public forum on "Toxic Masculinity" which was run in conjunction with Philosophy and the Public Interest and the CCC common read program. Matthew Hernando is scheduled to give his own ED Talk in the Fall of 2019 which will be historical in nature.

How long has the program existed?

The Arts and Humanities general education program started with the college in 1991.

When was the last program review?

There has not been a systematic program review for Arts and Humanities before now. CCC has been reworking program assessment for all academic programs in order to put us in line with best practices.

b. **Program goals**: **Define the program goals.**

In our Art and Humanities courses our students learn to:

1. Examine, analyze, and evaluate aesthetic and philosophical contributions of humanity.
2. Cultivate intellectual curiosity and a desire for the pursuit of knowledge.
3. Examine, analyze and evaluate significant trends from various cultures and epochs. In our Humanities survey courses, for example, we explore the connections between trends in science, religion, philosophy, and political theory and corresponding movements in the visual and performing arts, music, literature, and other forms of human self-expression. An example of this might be how the 19th century artistic and literary movement known as Romanticism responded to such changes as the Enlightenment, the Industrial Revolution, and the Napoleonic Wars in Europe.
4. Develop critical thinking and communication skills because our courses teach critical thinking, holistic thinking, and creative thinking skills which are necessary to succeed in advanced undergraduate and graduate level coursework.

All Arts and Humanities courses within the Arizona General Education Curriculum are tasked with teaching critical thinking and communication skills and assessing how well those courses meet the general education learning outcomes for critical thinking and communication. In the English Department's creative writing courses, for example, students use critical thinking in analyzing and evaluating literature to see how various authors incorporate the established elements of fiction, creative nonfiction, and poetry. Students also employ critical thinking as they work on their Final Portfolios. Not only must they revise and edit their work to meet the high standards of publishable literature, but they must also write a reflective essay that analyzes the themes and characteristics of their work and charts their personal and academic growth over the semester. As

for communication in those classes, students share their insights and interpretations about the assigned literature in class discussion, give presentations about authors and their work, and write about issues, themes, events, and people that are important in their lives.

Describe how the program goals are tied to the institutional mission statement.

CCC's institutional mission statement is as follows:

"As a learning-centered college, Coconino Community College enriches lives by embracing diversity and transforming the future through quality education."

Our Arts and Humanities classes are a main driver in exposing students to a diverse range of ideas, cultures, and cultural institutions through both historical and contemporary explorations. Understanding a broad plurality of ideologies and the various rationales behind them as they have been embedded in cultural contexts is necessary for the development of a perspective on the world and her peoples that is truly open to contingency and difference. Dissemination of this knowledge of the value of various types of cultural practices and institutions is a precondition of having a populace that can vote intelligently and relate to others in an empathetic manner.

c.   **Decision making**: **Describe how decisions are made within the program.**

Decisions regarding the deletion, revision, and addition of new Arts & Humanities courses in the AGEC follow a streamlined process within the college. Individual instructors and their departments first design, develop, and revise curriculum during the fall semester and up to the beginning of the following spring term. In January and February new and revised curriculum is submitted to the General Education Committee through ACRES, and then is reviewed by that committee. Curriculum that does not meet our general education outcomes and criteria is returned to the instructor for revision, and approved courses are passed up to the Curriculum Committee for further review. The Associate Dean of Curriculum and Assessment and the Dean of Learning also review and approve the curriculum before sending it up to higher administration.

The full-time faculty who teach Arts and Humanities general education courses do ongoing assessment to coordinate with one another regarding how to define and evaluate the categories which we use to define our learning outcomes. We have recently revised our definitions for our Thinking Skills and Communication performance measures.

Describe the communication process within the program.

See prior entry on how decisions are made within the program. Furthermore, we have recently selected a Faculty Senator (Aaron Rizzieri) who will represent our program at the college Senate for the 2019-2020 academic year. Colleen Carscallen will be serving as the Lead Faculty Member for A & H during this time as well. Having persons in these two newly created position will help us move towards establishing more formal and regular communication patterns. At the moment, our communication procedures within the department, apart from what has been delineated in regards to decision making, is very informal.

Define any outside agencies that inform decision making and their scope.

There is a statewide general education ATF that determines requirements for the AGEC and our primary transfer institutions. There are also more specific ATF's for Philosophy, Art, English, and History which have an effect on how classes transfer and what their content should be.

d. A statement of the program's accomplishments in support of the college's current strategic plan
   ● *Provide the goals from the strategic plan that the program contributes to.*

A total of four goals were developed for the plan based on input received from all areas of the college in the planning process. Those goals are:

I. CCC will provide learners educational opportunities that are accessible and affordable, while also being economically feasible for the College.

Response: Like all CCC classes our General Education Arts and Humanities classes are about one-third the cost of comparable classes at NAU. We provide classes through many formats and at many different times. These formats include Online, ITV, and extension campus offerings as well as many live offerings at our two main campuses. **We have put the modalities data in Appendix A which lists the modalities used for each course from 2013-2018 and some comparative success rates.**

II. CCC will promote a learner-centered environment that incorporates innovative strategies and support structures intended to reduce student attrition, increase retention, and improve learning.

It is the norm for our Humanities, English, and Philosophy professors to make use of multi-staged writing assignments so that our students have an opportunity to revise their works in light of substantive feedback. Our professors all keep attendance and follow-up with students who are not attending. It is the norm for our professors to consistently give out assignments to track the students' comprehension and completion. We make heavy use of student development resources, office hours, and tutoring services. There is a lot of student directed research in our English courses.

III. CCC will empower students to achieve their individual learning goals and implement strategies to increase certificate and degree completion rates.

A & H has been deliberate about adding courses which fulfill the writing intensive gen ed requirement. There had been a shortage of such options which delayed degree completion. We have followed the college as a whole in being more deliberate about spacing how our courses are scheduled in order to be available to the broadest array of students. For many of our courses this has resulted in an alteration regarding when night time courses start and end, and the modalities through which they are offered. Furthermore, we have made increasing use of ZOOM technology even beyond ITV courses. Some of our online professors have used ZOOM to conduct review sessions for online courses.

IV. CCC will strengthen the College's working environment by maximizing college resources, expanding community outreach, and implementing effective personnel management and employee development strategies.

The Arts and Humanities department has recently hired a full-time philosophy instructor and a full-time history and humanities instructor. This has enabled us to have more effective contact with our part time faculty for philosophy, religious studies. This has also enabled us to use a full-time instructor (Matthew Hernando) for our humanities capstone courses. We have coordinated with the Assessment committee in regards to working with all of our faculty to revise the course objectives of large number of our courses in order to better fit the four main learning objectives for A & H general education classes. The diversification of times for classes alluded to earlier and the diversity of modalities through which we teach are relevant here as well.

In the following sections II-IV, provide a detailed description and provide evidence and data to support the claims.

II. **Teaching and Learning**
   a. Program requirements and course offerings
      i. Degrees and Certificates
         ● *Discuss any changes to the degree and certificate outcomes within the program.* (A curriculum map with the degrees and certifications will be provided by the assessment team to be included in the Appendix.)

Arts and Humanities is not a degree or certificate program. However, our classes contribute to fulfilling most of the degree programs throughout the college and many certificate programs as well. Here is a run-down. (**See Appendix B for a complete breakdown**)

Associate of FIne Arts

The Associate of Fine Arts degree in Visual Arts is intended for transfer to a variety of bachelor's degrees in visual arts at all Arizona public universities, as well as for life-long learners seeking a solid foundation in studio art. The program gives students a strong foundation in visual composition and art history and prepares them to continue their education in drawing, painting, photography, ceramics, sculpture, or any number of design disciplines. Students completing this degree will transfer 60-64 credits to all Arizona public universities.

Philosophy and Religious Studies

Neither philosophy nor religious studies is a degree or a certificate program in itself.   Philosophy and religious studies classes tie into other programs at the college in such a manner that changes to those programs do not have a large effect on philosophy offerings. More specifically, three philosophy classes (PHI 101 (Introduction to Philosophy), PHI 103 (Introduction to Logic), and PHI 105 (Introduction to Ethics)) and REL 201 can be taken to fulfill general education degree requirements in a substantial portion of our degree programs in the form of AGEC elective credits. Furthermore, PHI 105 is an AGEC recommended course for our AA in Business degree.

 Humanities: Humanities is not a degree or a certificate program in itself. In the Spring of 2018 we were hiring a full-time faculty member in history and humanities, but up to that time we had never had a full-time faculty member in that area.

- *Discuss any opportunities and impacts to the program from changes to degrees and certificates at the college.*

Philosophy and Religious Studies: Looking forward, CCC is considering folding many of our degree programs into two specific degrees. One is an Associate of Arts in Transfer Studies, and the other is an Associate of Science in Transfer Studies. If this does take place, students who desire to pursue a philosophy degree at the bachelor's level will have the flexibility to take a large number of philosophy courses.

English: ENG 238 is a required course for the Colorado Plateau Studies degree and the Environmental Studies degree; therefore, retirement of this course would directly impact these programs. Likewise, if changes to the degrees occurred, enrollment in ENG 238 may be adversely affected.

    ii. Course Offerings
  - *Discuss course offerings, types of courses, modalities, scheduling of courses and frequency of offerings.*

Appendix A contains a detailed breakdown of the rates of success students have had in our classes broken down by modality. Here is a summary of that data:

Humanities 242 did not show great fluctuations in data in regards to modality.

Music 100 had very bad online success rates in comparison to their live courses. MUS 145 and 200 showed consistent results across modalities.

PHI 105 students had a seven percent higher completion rate than PHI 101 students. For both classes, ITV receiver and online students did considerably worse than live students.

REL 201 had consistent results across modalities except for ITV receiver students.

The ART classes had pretty consistent results across modalities.

ENG classes had pretty consistent results across modalities.

ANT classes had pretty consistent results across modalities.

Here is a table which lists the semesters when many of our courses are offered and the modality through which they are offered:

Types of Courses	Modalities	Scheduling	Frequency
ART 100: Art Appreciation	In-person, online	Fall, Spring, Summer	Every semester
ART 201: Art History I	In-person	Fall	Every year

ART 202: Art History II	In-person	Spring	Every year
ART 221: Art of the Southwest	In-person		Irregularly
CPS 100: An Overview of the Colorado Plateau	In-person, online	Fall, Spring, Summer	Every semester
ENG 272: Creative Writing Nonfiction	in-person, online	Fall, Spring, Summer	Every semester
*ENG 236: Intro to the American Short Story	in-person	Not offered	N/A
*ENG 237: Women in Literature	in-person	Not offered	N/A
ENG 238: Literature of the Southwest	in-person, online	Fall	Once per year
Hum 205: Technology and Human Values	In-person	Fall and Spring	Every Semester
Hum 235: American Arts and Ideas	In-person	Spring (till AY 2015-16)	Once per year
Hum 241: Humanities I	In-person, ITV	Fall	Once per year
Humanities 242: Humanities II	In-person, ITV	Spring	Once per year
PHI 101: Introduction to Philosophy	in-peron, online	Fall, Spring and Summer	Every semester (multiple sections) and summer
PHI 103: Introduction to Logic	in-person	Spring	Once per year
PHI 105: Introduction to Ethics	in-person, online, ITV	Fall, Spring, and Summer	Every semester (multiple sections) and summer
REL 201: Comparative Religions	in-person	Fall, Spring	Every semester

*ENG 236 was last offered in 2013 but was canceled due to low enrollment, likely because its transfer status changed.
*ENG 237 was not offered for the past five years due to historical low enrollment.
*REL 241 has not been offered since 2013 and is being sunsetted.
*PHI 103 is being taught again in the Spring semester for the first time in a long time (prior to 2013).

iii. Enrollment and student success information for the previous five years
- *Elaborate on any patterns or outlying data contained within provided tables.* (**See Appendix A for breakdown by modality and Appendix C for a breakdown by semester**.) The first set of data tables will contain a breakdown by course of student success rates overall, by campus, by instructional method, and by session (Appendix A). The second set of data tables will contain an overview of the number of courses, sections, enrollments, and potential tuition earned for the previous five years. (Appendix C))
- *Discuss other data collected by the program if desired.*

Art: In general, students taking Art History and Art Appreciation courses do well in their courses. Most courses have a success rate above 70%. A notable exception are the two art history survey courses ART 201 and ART 202, which have averages of 66% and 67%, respectively. One explanation for this may be the generally poor critical thinking skills that are captured in recent assessment projects. Art history is a particularly rigorous discipline and many lower division students today have developing study habits that don't lend themselves to adequate preparation for writing assignments and exams. We do try to ameliorate this condition, and ultimately it is up to the student.

Humanities: In general, students taking Humanities courses have a high success rate. The overall success rate over the last five years has been 79.8%. This is despite the fact that HUM 205, HUM 241, and 242 are all writing intensive courses. HUM 242 was offered in the summer of AY 2017-18, but there is no completion data for that summer session.

Philosophy and Religious studies: Since 2013, the success rates of students enrolled in philosophy classes has gone up and down. The low mark is right around 74% success and the highmark for a year is 84%. The average rate of success from 2013-2014 until 2017-2018 is a 79% success rate. There has been a large variety of part-time faculty during this period which may account for the fluctuations in success rates. I will be interested to see if the statistics become more consistent now that most classes are taught by a single full-time faculty member and one main part-time factulty member.. Another trend worth noting is that the ethics students have performed better than the PHI 101 students. This is not surprising as the subject matter of ethics is a bit more accessible than the subject matter of the 101 course. Students in both PHI 105 and PHI 101 have performed significantly worse online and as an ITV receiver class, in terms of completing the course. The success rate for REL 201 is a solid 80%. There has been comparatively less fluctuation from year to year for this class. This is likely attributable to the fact that a single part-time faculty member has taught the bulk of these courses.

English: ENG 238 --68% success rate in the past 5 years. Success rate dipped in 2015-2016 to 50% success rate, with 10 students. Average enrollment in the class was approximately 9 students. Enrollment is possibly tied to Colorado Plateau Studies program and most likely not reflective of A&H program overall. The reason is that because there is no direct transferability, this is not a high-interest class.

ENG 272--looks great. Overall success rate is 84%. The sample size is 635 students and we average 123 per year. This course is offered in-person and online.

b. Licensure/certifications of students
● *Discuss what licensures/certifications students may be able to obtain upon completion of the program.*
● *Outline the requirements for each licensure/certification.*
● *Describe how the program contributes to the student's ability to achieve the current licensures/certifications.*
● *Discuss any impediments to the student obtaining the licensures/certifications.*

ART: ART 100, ART 201, ART 202, CPS 100, HUM 205, HUM 235, HUM 241, and HUM 242 do not directly lead to any certification or licensure.

Philosophy and Religion: PHI 101, PHI 103, and PHI 105 and REL 201 do not directly lead to any certification or licensure except the AGEC.

English: ENG 238 and 272 do not lead to any certification or licensure.

   c.   Curriculum
i.   Course outline reviews and updates
- *Define how often course outlines are reviewed and updated.*
- *Discuss changes made to the course outcomes since the last program review.*
- *Discuss the effects these changes have had on the program.*

ART course outlines are reviewed and, as required, updated approximately every five years or more often as required. The art classes are ART 100 (2001), ART 201 (2007), ART 202 (2007), CPS 100 (2004).

Humanities:

HUM course outlines are reviewed and, as required, updated approximately every five years or more often as required. HUM 205, HUM 235. HUM 241, HUM 242. Beginning in AY 2018-19 there will be a full-time faculty member in history and humanities, who will undertake regular and necessary reviews of these courses.

English: Course outlines are reviewed and updated approximately every five years or more often as required.

Philosophy and Religious Studies:

These course outlines are reviewed every five years or as required. The PHI 103 (intro to logic) course outline recently received a thorough rewrite in order to bring it into line with the course outcomes of similar courses taught at other AZ community colleges and four year colleges. This was to ensure it would be accepted as a general education course. The number of outcomes was reduced , and those that remained altered. PHI 103 is being taught in Spring 2019 and has solid enrollment. These changes have enabled the instructor to teach the same type of content as taught elsewhere. When Aaron Rizzieri was hired as the full-time philosophy faculty member in 2017 he reviewed the outlines for PHI 101, and PHI 105 as well. No alterations were made.

The REL 201 has also been looked at by Aaron Rizzieri an Joe Maniglia, who is a part-time faculty member that teaches the REL 201 course, during the Fall of 2018 and no changes were made.

ii.   Other curriculum changes

- *Describe any curricular changes since the last program review such as program outcome changes, pedagogy, software updates, different delivery methods, or different time offerings.*
- *Note any impending course changes.*
- *Discuss the effects these changes have had on the program.*

Philosophy and Religious Studies: REL 241 is being sunsetted. PHI 122 (Philosophy of Religion) has been approved by the faculty committee and approved for transfer credit to ASU, U of A, and NAU for philosophy elective credit. This course is now being put through the process of being approved for General Education credit and for fulfilling the special requirement of Contemporary Global/International Awareness or Historical Awareness. PHI 105 (Introduction to Logic) is being taught this semester (Spring of 2019) and has filled to near capacity.

English: ENG 272 in-person time offerings will be changed from evening courses to morning courses for an anticipated increase in enrollment of 5-10%. The department is investigating direct transferability of courses as well as researching

prior enrollments to determine viability. The department is also considering submitting updates of selected courses to fulfill Gen. Ed. special requirements for improved student enrollment, direct transferability to Arizona universities, expansion of the Creative Writing Program, and student success.

Everyone: We modified the criteria for meeting the Critical Thinking requirement during the 2017-2018 academic year.

Humanities: There have been no modifications to course outlines over the last five years. There are no impending course changes.

    d. Articulation
- *Describe the program's participation in Articulation Tasks Forces.*
- *Discuss changes in transferable courses.*
- *Provide elaboration on any courses that are only transferable as electives or non-transferable.* (A transfer table of the courses will be provided by the assessment team to be included in the Appendix.)
- *Discuss at what level of transfer or workforce the curriculum prepares students for.*

Fine Arts: A Fine Arts faculty representative attends the Arizona Art Articulation Task Force meeting each fall. Aside from assigning SUN course numbers, there have been no recent changes in transferable ART courses. ART100, ART 201, and ART 202 all transfer as their equivalent courses. CPS 100 transfers as an elective. ART 100 and CPS 100 prepare students to transfer as sophomores, while ART 201 and ART 202 prepare students to transfer as juniors.

Humanities:
A Humanities faculty representative attends the Arizona Humanities Articulation Task Force meeting on an as needed basis. There have been no recent changes in transferable HUM courses. All humanities courses transfer as credit to the state universities and community colleges.

Philosophy and Religious Studies: In the Fall of 2017 and the Fall of 2018, Aaron Rizzieri has attended both the Philosophy and Religious Studies ATF meetings. Since PHI 101, PHI 103, and PHI 105 are AGEC courses no changes at the four year schools had an impact on our philosophy offerings. No changes in curriculum at the three four year schools have affected REL 201 either. Regarding changes in transferable courses. As noted above, the course outline for PHI 103 has been altered to fit accepted standards for the course.

Our REL 201 transfers to both NAU and ASU as an equivalent for their World Religions courses. But, UA only accepts it as an elective credit. NAU and ASU are our two biggest transfer schools, but it would be better if UA offered more than elective credit.

English: We have been in the rotation to host the ATF at our campus. It is always the responsibility of at least one full-time English faculty to attend. As previously discussed, English faculty are researching transferability of Arts and Humanities courses for student success. Currently, ENG 236 and ENG 238 transfer as elective credits only. The English courses offered in Arts and Humanities assist students in meeting AGEC requirements.

    e. Is the program accredited by a programmatic accrediting agency? If so, name the agency and include the status of the most recent accreditation.

ART - Not accredited.

Humanities - Not accredited.
Philosophy and Religious Studies- Not accredited.
English is not accredited by a programmatic accrediting agency.

f. Teaching loads
● *Provide a description of the responsibilities and loads of the full-time faculty.*
● *Provide a description of the responsibilities and loads of the part-time faculty.*
● *Discuss the delivery methods of the courses.*
● *Discuss any release time of the full-time faculty.* (Charts and tables detailing the number of courses and sections taught by full-time and part-time faculty will be provided by the assessment team to be included in the Appendix.)

All full-time faculty at CCC are required to teach 30 credit hours per academic year, serve on two committees, and perform other duties as assigned. Release time is granted for a limited number of activities such as evaluating part-time faculty, however, none of the full-time faculty in Arts and Humanities were granted such release time during the period under study. Part-time faculty are hired on an as needed basis for specific courses, and are expected to meet with students during class-times and perform course-relevant duties and assessment.

Humanities: During the period under study we had no dedicated full-time humanities instructors. Humanities courses were taught by a variety of credentialed full-time and part-time instructors. Humanities courses have been taught in a face-to-face lecture format, in ITV format, and in seminar format.

ART – FT – 30 load hours/academic year, Pt - <20 load hours/academic year Delivery method/modality is identified above.

Philosophy and Religious Studies: Aaron Rizzieri, who is the full-time philosophy faculty member taught 30 units of philosophy a year in the Fall and Spring semesters and has not taught any summer classes.

Joe Maniglia teaches either two or three sections of REL 201 each Fall and Spring semester of each academic year. A summer section, which Mr. Maniglia teaches, is also usually offered. Other adjuncts have taught Religious Studies over the past five years, but Joe is our only active religious studies part-time professor.

Hana Maris teaches one or two sections of philosophy each Fall and Spring semester. Other adjuncts have taught philosophy over the past five years, but Hana is our only active philosophy part-time professor. Ms. Maris has also taught for us in the summer.

English: ENG 236 Introduction to the American Short Story has not been offered in several years.
ENG 237 Women in Literature has not been offered in several years, but will be offered online in Spring 2019 and taught by a full-time instructor.ENG 238 Literature of the Southwest is taught by Colleen Carscallen, Dean of Assessment and Curriculum, online. ENG 272 Creative Writing: Non-Fiction has been taught by part-time instructors Kate Harkins and Allison Gruber both in-person and online, but the course is currently taught by Jeremy Martin and Sandra Dihlmann, both full-time instructors.

g. **Faculty credentials**
● *Describe minimum credentials needed to teach in the program.*
● *Discuss any specializations or achievements of the current faculty.* (A table listing the program faculty for the last five years with the faculty members' degrees will be provided by the assessment team to be included in the Appendix.)

All: Prior to AY 2017-18, for the minimum qualifications for teaching in each discipline, the college followed credentialing guidelines established by the state of Arizona. Beginning in the Springing semester of 2016 CCC began a transition to the guidelines established by the Higher Learning Commission. These new qualifications are laid out in Procedure 308-01 Faculty Credentialing and are laid out in the table below. These new credentialing standards were implemented in AY 2017-81. Here they are:

Program/Course(s)	Threshold Standards	Documentation Required
General Education and MUS 120	Master's degree in the field or Master's degree and 18 graduate hours in the field	transcripts from a regionally accredited institution

Appendix D contains a list of all faculty who have taught in the Arts and Humanities over the last five years and their credentials.

h. **Student Learning Assessment**
- *Provide detailed descriptions on types of assessment used to measure student learning.*
- *Describe any course level assessments that were conducted and the results since the last program review.*
- *Report any shared assessments within the program and data gathered from those assessments.*
- *Record any observations or trends found within the student learning assessment data.*

Shared Assessments (program level)

Starting in the Fall of 2017, the Arts and Humanities department started renewed and systematic efforts to gather assessment data at both the program level and individual course level. Given the diversity of classes in our program, program level assessment has been unified by the use of a common rubric, but there has also been a broad array of assignments to which the rubric has been applied to. Hence, it is not clear that the aggregate data is particularly meaningful. In any case, we will now review the rubric that was used and some of the results for our Spring of 2017 Arts and Humanities Critical Thinking Assessment.

Arts and Humanities Critical Thinking Assessment for Spring of 2017: The first chart below concerns an assessment which was run in the Spring of 2017 to assess critical thinking in particular. All of our full-time faculty participated and we used a common rubric which is the second chart on the left of the next page. Even though we used the same rubric, we each used different assignments to which we applied the rubric. The three criteria for the rubric are listed on the left hand side of the following two pages of charts.

As you can see the students who participated in the ENG 272 and PHI 101 sections had the vast majority of students either meet the requirement or meet with concerns for each of our three criteria (relevant concepts, credible evidence and conclusion). In contrast, only 40% of the ART 201 students met the relevant concepts and conclusion requirements for the assignment. We did not gather as a group to discuss these results. We suspect the widely disparate results between the art students and the English and philosophy students has a lot to do with a failure on the part of us as faculty to agree on the expectations for students in relation to this assignment.

Spring 2017 Arts & Humanities Critical Thinking Assessment

	Relevant Concepts			
	# of Sections Reporting	# of Students Who Met	# of Students Who Met with Concerns	# of Students Who Not Met
ART 201	1	11		18
ENG 272	1	12	3	2
PHI 101	2	36	2	5
A&H Totals	4	59	5	25

Spring 2017 A&H Critical Thinking -
Relevant Concepts

	Credible Evidence			
	# of Sections Reporting	# of Students Who Met	# of Students Who Met with Concerns	# of Students Who Not Met
ART 201	1	29		
ENG 272	1	14	1	2
PHI 101	2	34	2	7
Totals	4	77	3	9

Spring 2017 A&H Critical Thinking -
Credible Evidence

Spring 2017 Arts & Humanities Critical Thinking Assessment

	Conclusion			
	# of Sections Reporting	# of Students Who Met	# of Students Who Met with Concerns	# of Students Who Not Met
ART 201	1	11		18
ENG 272	1	10	5	2
PHI 101	2	28	6	9
Totals	4	49	11	29

Spring 2017 A&H Critical Thinking -
Credible Evidence

Relevant Concepts: The student exhibits an understanding of relevant concepts.
Credible Evidence: The student integrates credible evidence into their analysis.
Conclusions: The student derives a well-reasoned conclusion from their analysis.

2 out of 6 selected Arts & Humanities sections did not report any assessment data.

Shared assessments (course level): During both the Fall of 2017 and Spring of 2018 professors from a wide array of our courses submitted data that measured the following thinking skill:

"use a variety of inquiry methods, resources and reasoning skills that support and promote lifelong learning"

If you scroll down to the following page you will find the data from the classes which participated in the Fall of 2017. Results were submitted by the individual professors on Canvas. Each professor assessessed an individual course outcome that fit under this particular program level outcome. Given the broad array of courses there was no common rubric used to assess these outcomes other that went beyond the very generic "met/did not meet" dichotomy. The faculty which participated did not gather as a group to discuss the results.

I have also inserted the aggregate data for the Spring of 2018 assessment in regards to the same thinking skills after the Fall of 2017 data.

FALL 2017 GENERAL EDUCATION CRITICAL THINKING

Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

ARTS & HUMANITIES (A&H) BY COURSE

% of Students Meeting Critcal Thinking Course Outcome
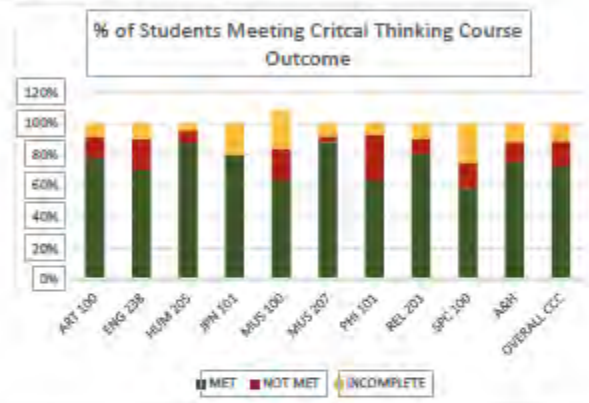
COURSE	MET	NOT MET	INCOMPLETE	CRSE N =	STUDENT N =
ART 100	78%	14%	8%	2	36
ENG 238	70%	20%	10%	1	10
HUM 205	88%	8%	4%	1	24
JPN 101	80%	0%	20%	1	25
MUS 100	64%	20%	24%	1	27
MUS 207	88%	4%	8%	1	25
PHI 101	64%	29%	7%	1	28
REL 201	81%	10%	10%	1	31
SPC 100	58%	17%	25%	1	12
A&H	75%	13%	12%	10	218
OVERALL CCC	73%	15%	12%	68	1438

SPRING 2018 GENERAL EDUCATION CRITICAL THINKING

Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

ARTS & HUMANITIES (A&H) BY COURSE

% of Students Meeting Critical Thinking Course Outcome
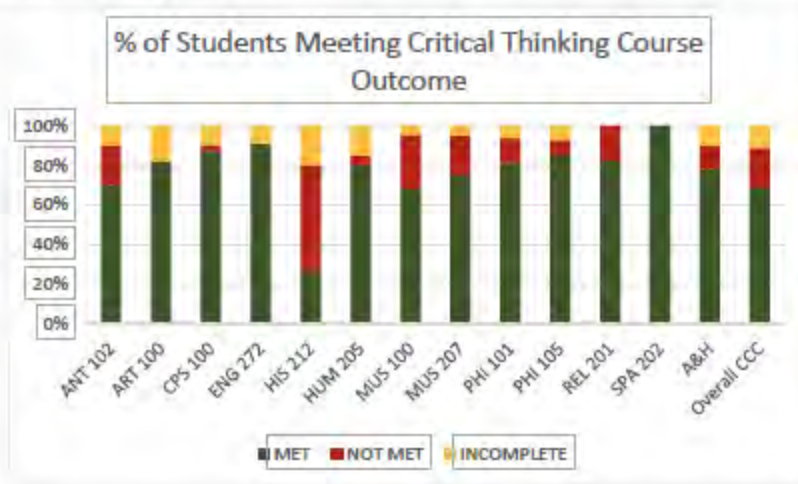
Percentage of Students Meeting Critical Thinking Course Outcome -- Spring 2018

COURSE	MET	NOT MET	INCOMPLETE	CRSE N =	STUDENT N =
ANT 102	70%	20%	10%	1	30
ART 100	82%	0%	18%	3	45
CPS 100	87%	3%	10%	1	31
ENG 272	91%	0%	9%	1	22
HIS 212	27%	53%	20%	1	15
HUM 205	80%	5%	15%	1	20
MUS 100	68%	27%	5%	1	22
MUS 207	75%	20%	5%	1	20
PHI 101	81%	13%	6%	1	16
PHI 105	86%	7%	7%	1	28
REL 201	83%	17%	0%	1	23
SPA 202	100%	0%	0%	1	6
A&H	78%	12%	10%	14	278
Overall CCC	69%	20%	11%	92	1783

Reflections on the 2017 and 2018 course level data: The only highly anomalous outcome is in the History 212 class for the Spring of 2018. It is unclear why this course had such anomalous results.

III. **Facilities and Resources**
   a. Specify any designated space that is primarily for the program's use since the last program review.
      ● *Describe how the designated facilities contribute to the program's overall student success.*
      ● **Art and Humanities**: There are no facilities at CCC designated solely or primarily for the use of faculty or students in the humanities since the last program review. However, a large number of our classes -- especially Hum 241 and Hum 242 -- are taught in the new Zoom (formerly ITV) classrooms. These have been instrumental in making humanities courses available to the students at the CCC campus in Page, Arizona.

   b. Specify any designated equipment purchased primarily for the program's use since the last program review.
      ● *Describe how the designated equipment contributes to the program's overall student success.*
      ● **Art and Humanities**: There has been no designated equipment purchased solely or primarily for the use of faculty or students in the humanities since the last program review.

   c. Specify any designated budget and differential tuition that is primarily for the program's use. (A program budget will be provided by the assessment team.)
      ● **Art and Humanities**: There is no differential tuition or budget item designated primarily for the use of faculty or students in the humanities since the last program review.

IV. **Analysis and Reflection**
   a. Strengths, Weakness, and Challenges Analysis
   This section should include related industry trends/academic program educational trends that support the program and its decisions in relation to the preparation of the students.

What do you see as internal strengths of the program?

Faculty – We have gifted and highly dedicated faculty teaching in the arts and humanities. Our students, by and large, have performed well on the critical thinking and thinking skills assessments that have been performed over the last two years.

Curriculum – We have solid curriculum that is regularly assessed and updated as required. We offer a good variety of Arts & Humanities courses to students, especially for a small community college. We also do a good job coordinating our program requirements with the AGEC and other requirements of our major transfer institutions.

Facilities – Our classrooms are attractive, well-equipped, and highly functional.

What do you see as internal weaknesses of the program?

1. The program could be more cohesive in terms of faculty communication and more unified course offerings. We are technically not a unified program, but now that we have completed our first official program review, we can see the areas where we need to improve and can thus make some progress toward becoming more cohesive.

What do you see as opportunities for the program?
1. As we continue to revise and create new courses for CCC's general education curriculum, we can offer a greater variety of courses, perhaps even designing some toward unified themes or topics.
2. We have an outstanding faculty here, and as we add more full-time faculty members to our program, we will only continue to grow as a program. Hopefully, by continuing to hire more high-quality faculty, we will only enhance our communication and expand our course offerings.

What do you see as challenges of the program?
1. With the college's limited financial resources and small core faculty, it will be challenging to expand the Arts & Humanities program, but we are continuing to grow and we expect the program to become more cohesive and comprehensive over the next few years.

    a. Previous Recommendations and Results
        i. List recommendations that were received at the last program review.
            ● *Elaborate on actions taken on recommendations and effects on the programs.*
        ii. List any recommendations from Program Advisory Committees/Councils (if applicable).
            ● *Elaborate on any actions take on recommendations and effect on the program.*

V.   Recommendations
Provide recommendations for specific actions for continuous improvement of the program.
    a. Five Year Plan
        ● *Where will this program be in five years?*

This is a difficult question to answer as we are not a traditional program. We will do our best to keep on top of any trends at our major transfer institutions and do our best to make students are receiving the kind of broad humanities training that will enable them to think about how to apply their more technical training received in other courses in a humane way that promotes flourishing at the individual and societal level.

More specifically, we are excited to have both a Faculty Senate member and a Lead Faculty for the entire Arts and Humanities program starting in the Fall of 2019. These two positions will provide us with much of the cohesion which has been missing during the last two years. As we learn to think better together as a group we anticipate that new group level initiatives will emerge organically over the next few years.

b. Action Plan/Recommendations (To be completed in the next five years). List action items in order of priority of completion.
 i. Action Item #
 ii. Anticipated date for completion
iii. List the potential benefits to student success
iv. Status update (Only update at Annual Review Meeting)

Item #1: The glaring deficiency which has emerged from our discussion of the data above and that provided in the appendix is that we need to meet as a group in order to discuss the results of the program level and course level assessments which were conducted over the last two years. We need to figure out why the History 212 and relevant Art course students did poorly on their critical thinking and thinking skills assessments. This will also give us an opportunity

to meet and share the assignments we each used to conduct our individual assessments in relation to our common rubrics.

We will complete this action item in the Fall of 2019.

v. Last reviewed date

Appendix A: Arts and Humanities Courses: Success by Instructional Method

2013-2018 ARTS & HUMANITIES COURSE SUCCESS BY INSTRUCTIONAL METHOD

SUBJ/CRSE	2013-2014			2014-2015			2015-2016		
	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL
ANT	314	296	76.01%	320	305	78.69%	303	282	80.50%
ANT 102	314	296	76.01%	320	305	78.69%	303	282	80.50%
In Person	187	177	76.84%	199	191	81.68%	150	137	76.64%
ITV Originator	24	24	87.50%	27	27	70.37%	29	28	89.29%
ITV Receiver	6	6	83.33%	3	3	100.00%	4	4	100.00%
Online Web Class	97	89	70.79%	91	84	73.81%	120	113	82.30%
ART	264	247	85.83%	324	311	77.49%	314	297	79.80%
ART 100	151	142	86.62%	195	185	76.76%	212	200	84.00%
In Person	151	142	86.62%	195	185	76.76%	137	129	85.27%
Online Web Class		0			0		75	71	81.69%
ART 201	61	59	91.53%	62	61	73.77%	34	33	72.73%
In Person	15	14	100.00%	18	18	83.33%	18	17	70.59%
Online Web Class	46	45	88.89%	44	43	69.77%	16	16	75.00%
ART 202	52	46	76.09%	67	65	83.08%	68	64	70.31%
In Person		0		15	15	100.00%	21	20	65.00%
Online Web Class	52	46	76.09%	52	50	78.00%	47	44	72.73%
ART 221		0			0			0	
Online Web Class		0			0			0	
CPS	91	84	63.10%	121	114	68.42%	117	117	72.65%
CPS 100	91	84	63.10%	121	114	68.42%	117	117	72.65%
In Person	31	30	63.33%	31	30	70.00%	65	65	75.38%
Online Web Class	60	54	62.96%	90	84	67.86%	52	52	69.23%
DAN	29	27	96.30%	35	33	78.79%	30	29	82.76%
DAN 201	29	27	96.30%	35	33	78.79%	30	29	82.76%
In Person	29	27	96.30%	35	33	78.79%	30	29	82.76%
ENG	107	105	82.86%	139	137	86.86%	134	129	89.15%
ENG 238		0		10	10	80.00%	12	10	50.00%
Online Web Class		0		10	10	80.00%	12	10	50.00%
ENG 272	107	105	82.86%	129	127	87.40%	122	119	92.44%
In Person	57	57	82.46%	32	32	84.38%	47	44	90.91%
Online Web Class	50	48	83.33%	97	95	88.42%	75	75	93.33%
HUM	139	121	82.64%	129	116	78.45%	149	136	82.35%
HUM 205	73	61	83.61%	70	63	79.37%	95	87	85.06%
In Person	73	61	83.61%	70	63	79.37%	95	87	85.06%
HUM 235	18	14	64.29%	16	12	75.00%	11	10	90.00%
In Person	18	14	64.29%	16	12	75.00%	11	10	90.00%
HUM 241	26	25	88.00%	23	22	63.64%	22	19	78.95%
ITV Originator	12	12	100.00%	11	11	54.55%	5	4	75.00%
ITV Receiver	14	13	76.92%	12	11	72.73%	17	15	80.00%

SUBJ/CRSE	2016-2017			2017-2018			Totals			ATTEMPTED
	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	
ANT	360	338	74.56%	336	312	71.79%	1633	1533	76.19%	
ANT 102	360	338	74.56%	336	312	71.79%	1633	1533	76.19%	
In Person	192	180	75.56%	170	162	80.25%	898	847	78.28%	
ITV Originator	29	29	86.21%	27	27	92.59%	136	135	85.19%	
ITV Receiver	5	5	100.00%	7	7	85.71%	25	25	92.00%	
Online Web Class	134	124	69.35%	132	116	54.31%	574	526	69.77%	
ART	393	371	77.63%	304	280	64.64%	1599	1506	76.96%	
ART 100	256	238	79.83%	238	216	59.72%	1052	981	76.66%	
In Person	157	145	81.38%	81	71	71.83%	721	672	80.95%	
Online Web Class	99	93	77.42%	157	145	53.79%	331	309	67.31%	
ART 201	52	51	66.67%	47	45	86.67%	256	249	78.71%	
In Person	22	22	68.18%	13	12	91.67%	86	83	80.72%	
Online Web Class	30	29	65.52%	34	33	84.85%	170	166	77.71%	
ART 202	84	81	77.78%	19	19	68.42%	290	275	76.36%	
In Person	42	42	71.43%		0		78	77	75.32%	
Online Web Class	42	39	84.62%	19	19	68.42%	212	198	76.77%	
ART 221	1	1	100.00%		0		1	1	100.00%	
Online Web Class	1	1	100.00%		0		1	1	100.00%	
CPS	94	93	78.49%	126	119	76.47%	549	527	72.11%	
CPS 100	94	93	78.49%	126	119	76.47%	549	527	72.11%	
In Person	35	35	80.00%	31	30	63.33%	193	190	71.58%	
Online Web Class	59	58	77.59%	95	89	80.90%	356	337	72.40%	
DAN	36	33	93.94%	14	14	85.71%	144	136	87.50%	
DAN 201	36	33	93.94%	14	14	85.71%	144	136	87.50%	
In Person	36	33	93.94%	14	14	85.71%	144	136	87.50%	
ENG	170	156	78.85%	165	155	79.35%	715	682	83.14%	
ENG 238	14	13	76.92%	15	14	64.29%	51	47	68.09%	
Online Web Class	14	13	76.92%	15	14	64.29%	51	47	68.09%	
ENG 272	156	143	79.02%	150	141	80.85%	664	635	84.25%	
In Person	62	62	83.87%	33	31	70.97%	231	226	83.19%	
Online Web Class	94	81	75.31%	117	110	83.64%	433	409	84.84%	
HUM	156	139	84.17%	192	180	73.33%	765	692	79.77%	
HUM 205	117	106	84.91%	133	122	82.79%	488	439	83.37%	
In Person	117	106	84.91%	133	122	82.79%	488	439	83.37%	
HUM 235		0			0		45	36	75.00%	
In Person		0			0		45	36	75.00%	
HUM 241	18	14	64.29%	24	23	95.65%	113	103	79.61%	
ITV Originator	5	4	75.00%	19	18	94.44%	52	49	83.67%	
ITV Receiver	13	10	60.00%	5	5	100.00%	61	54	75.93%	

Appendix B: Mapping of courses to degree completion and AGEC fulfillment

COURSES TO DEGREES

GEN ED BLK	COURSE		AJS (AA)	ASL (AA)	ANT (AA)	BUS (AA)	CPS (AA)	CTM (AA)	ENV (AA)	GS (AA)	HRM (AA)	PSY (AA)	SOC (AA)	VT (AA)	AJS (AAS)	ASL (AAS)	BUS (AAS)	CS (AAS)
AH/SBS	ANT 102	Introduction to Cultural Anthropology	AE	AE	C	AE	CE	AE	C	AE	AE	AE	AE	AE	AE		AE	AE
AH	ART 100	Art Appreciation	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	ART 201	Art History: Prehistoric to 1400	AE	AE	AE	AE	CE	AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	ART 202	Art History: 1400-2000	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	ART 221	Art of the Southwest	AE	AE	AE	AE	AR	AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	COL 130	Resume, Financial & College Literacy	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	CPS 100	Overview of the Colorado Plateau	AE	AE	AE	AE	C	AE	AR	AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	DAN 201	Dance History	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	ENG 236	Intro to the American Short Story	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	ENG 237	Women in Literature	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	ENG 238	Literature of the Southwest	AE	AE	AE	AE	AR	AE	AR	AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	ENG 272	Creative Writing: Nonfiction	AE	AE	AE	AE	CE	AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	HUM 205	Technology & Human Values	AE	AE	AE	AE		AE	AR	AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	HUM 235	American Arts and Ideas	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	HUM 241	Humanities I	AE	AE	AE	AE	CE	AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	HUM 242	Humanities II	AE	AE	AE	AE	CE	AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	MUS 100	Music Appreciation	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	MUS 145	Jazz History & Literature	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	MUS 207	American Popular Music	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	PHI 101	Introduction to Philosophy	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	PHI 105	Introduction to Ethics	AE	AE	AE	A*		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	REL 201	Comparative Religions	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	REL 241	Asian Religions	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	AE	AE	AE
AH	THR 101	Introduction to Theatre	AE	AE	AE	AE		AE		AE	AE	AE	AE	AE	AE	CE	AE	AE

*No longer accepting st

AE - AGEC Elective
AR - AGEC Required
A* - AGEC Recommended
C - Core Coursework
CE - Core Elective
PP - Program Prerequistes

APPENDIX C: Course success by semester

2013-2018 ARTS & HUMANITIES COURSE SUCCESS BY SEMESTER

SUBJ/CRSE	2013-2014			2014-2015			2015-2016		
	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL
ANT	314	296	76.01%	320	305	78.69%	303	282	80.50%
ANT 102	314	296	76.01%	320	305	78.69%	303	282	80.50%
FALL	132	120	76.67%	130	124	76.61%	126	114	79.82%
SPRING	131	125	75.20%	127	118	82.20%	126	118	78.81%
SUMMER	51	51	76.47%	63	63	76.19%	51	50	86.00%
ART	264	247	85.83%	324	311	77.49%	314	297	79.80%
ART 100	151	142	86.62%	195	185	76.76%	212	200	84.00%
FALL	74	69	91.30%	99	95	77.89%	106	102	83.33%
SPRING	77	73	82.19%	78	72	72.22%	90	82	81.71%
SUMMER		0		18	18	88.89%	16	16	100.00%
ART 201	61	59	91.53%	62	61	73.77%	34	33	72.73%
FALL	15	14	100.00%	18	18	83.33%	18	17	70.59%
SPRING	24	23	91.30%	23	22	54.55%	16	16	75.00%
SUMMER	22	22	86.36%	21	21	85.71%		0	
ART 202	52	46	76.09%	67	65	83.08%	68	64	70.31%
FALL	23	22	77.27%	24	22	68.18%	29	26	61.54%
SPRING	29	24	75.00%	15	15	100.00%	21	20	65.00%
SUMMER		0		28	28	85.71%	18	18	88.89%
ART 221		0			0			0	
SPRING		0			0			0	
CPS	91	84	63.10%	121	114	68.42%	117	117	72.65%
CPS 100	91	84	63.10%	121	114	68.42%	117	117	72.65%
FALL	61	58	63.79%	57	53	67.92%	35	35	68.57%
SPRING	30	26	61.54%	33	30	53.33%	63	63	74.60%
SUMMER		0		31	31	83.87%	19	19	73.68%
DAN	29	27	96.30%	35	33	78.79%	30	29	82.76%
DAN 201	29	27	96.30%	35	33	78.79%	30	29	82.76%
FALL	11	10	100.00%	26	24	70.83%	17	17	82.35%
SPRING	18	17	94.12%	9	9	100.00%	13	12	83.33%
ENG	107	105	82.86%	139	137	86.86%	134	129	89.15%
ENG 238		0		10	10	80.00%	12	10	50.00%
FALL		0		10	10	80.00%	12	10	50.00%
ENG 272	107	105	82.86%	129	127	87.40%	122	119	92.44%
FALL	47	46	82.61%	44	44	88.64%	50	48	93.75%
SPRING	49	48	81.25%	64	62	85.48%	49	48	89.58%
SUMMER	11	11	90.91%	21	21	90.48%	23	23	95.65%

2013-2018 ARTS & HUMANITIES COURSE SUCCESS BY SEMESTER

SUBJ/CRSE	2016-2017 BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	2017-2018 BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	Totals BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	ATTEMPTED
ANT	**360**	**338**	**74.56%**	**336**	**312**	**71.79%**	**1633**	**1533**	**76.19%**	
ANT 102	**360**	**338**	**74.56%**	**336**	**312**	**71.79%**	**1633**	**1533**	**76.19%**	
FALL	169	152	77.63%	161	145	77.93%	718	655	77.71%	
SPRING	132	127	75.59%	128	120	81.67%	644	608	78.62%	
SUMMER	59	59	64.41%	47	47	27.66%	271	270	67.04%	
ART	**393**	**371**	**77.63%**	**304**	**280**	**64.64%**	**1599**	**1506**	**76.96%**	
ART 100	**256**	**238**	**79.83%**	**238**	**216**	**59.72%**	**1052**	**981**	**76.66%**	
FALL	107	99	83.84%	117	103	66.99%	503	468	79.91%	
SPRING	137	127	77.17%	90	82	73.17%	472	436	77.29%	
SUMMER	12	12	75.00%	31	31	0.00%	77	77	53.25%	
ART 201	**52**	**51**	**66.67%**	**47**	**45**	**86.67%**	**256**	**249**	**78.71%**	
FALL	22	22	68.18%	13	12	91.67%	86	83	80.72%	
SPRING	30	29	65.52%	34	33	84.85%	127	123	74.80%	
SUMMER		0			0		43	43	86.05%	
ART 202	**84**	**81**	**77.78%**	**19**	**19**	**68.42%**	**290**	**275**	**76.36%**	
FALL	28	25	88.00%	19	19	68.42%	123	114	72.81%	
SPRING	42	42	71.43%	0			107	101	75.25%	
SUMMER	14	14	78.57%	0			60	60	85.00%	
ART 221	**1**	**1**	**100.00%**		**0**		**1**	**1**	**100.00%**	
SPRING	1	1	100.00%	0			1	1	100.00%	
CPS	**94**	**93**	**78.49%**	**126**	**119**	**76.47%**	**549**	**527**	**72.11%**	
CPS 100	**94**	**93**	**78.49%**	**126**	**119**	**76.47%**	**549**	**527**	**72.11%**	
FALL	35	35	80.00%	68	63	74.60%	256	244	70.49%	
SPRING	37	36	77.78%	32	30	90.00%	195	185	72.43%	
SUMMER	22	22	77.27%	26	26	65.38%	98	98	75.51%	
DAN	**36**	**33**	**93.94%**	**14**	**14**	**85.71%**	**144**	**136**	**87.50%**	
DAN 201	**36**	**33**	**93.94%**	**14**	**14**	**85.71%**	**144**	**136**	**87.50%**	
FALL	23	21	100.00%	14	14	85.71%	91	86	86.05%	
SPRING	13	12	83.33%	0			53	50	90.00%	
ENG	**170**	**156**	**78.85%**	**165**	**155**	**79.35%**	**715**	**682**	**83.14%**	
ENG 238	**14**	**13**	**76.92%**	**15**	**14**	**64.29%**	**51**	**47**	**68.09%**	
FALL	14	13	76.92%	15	14	64.29%	51	47	68.09%	
ENG 272	**156**	**143**	**79.02%**	**150**	**141**	**80.85%**	**664**	**635**	**84.25%**	
FALL	73	63	84.13%	60	54	83.33%	274	255	86.27%	
SPRING	69	66	72.73%	69	66	78.79%	300	290	81.03%	
SUMMER	14	14	85.71%	21	21	80.95%	90	90	88.89%	

2013-2018 ARTS & HUMANITIES COURSE SUCCESS BY SEMESTER

SUBJ/CRSE	2013-2014			2014-2015			2015-2016		
	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL
HUM	139	121	82.64%	129	116	78.45%	149	136	82.35%
HUM 205	73	61	83.61%	70	63	79.37%	95	87	85.06%
FALL	48	42	88.10%	45	42	83.33%	48	45	84.44%
SPRING	25	19	73.68%	25	21	71.43%	47	42	85.71%
HUM 235	18	14	64.29%	16	12	75.00%	11	10	90.00%
SPRING	18	14	64.29%	16	12	75.00%	11	10	90.00%
HUM 241	26	25	88.00%	23	22	63.64%	22	19	78.95%
FALL	26	25	88.00%	23	22	63.64%	22	19	78.95%
HUM 242	22	21	85.71%	20	19	94.74%	21	20	70.00%
SPRING	22	21	85.71%	20	19	94.74%	21	20	70.00%
SUMMER		0			0			0	
MUS	171	163	92.02%	157	150	94.00%	161	154	78.57%
MUS 100	77	75	92.00%	68	66	93.94%	66	63	79.37%
FALL	33	33	87.88%	33	31	90.32%	32	30	66.67%
SPRING	36	34	94.12%	35	35	97.14%	34	33	90.91%
SUMMER	8	8	100.00%		0			0	
MUS 145	25	23	95.65%	20	19	94.74%		0	
SPRING	25	23	95.65%	20	19	94.74%		0	
MUS 207	69	65	90.77%	69	65	93.85%	95	91	78.02%
FALL	35	34	88.24%	34	33	90.91%	35	34	76.47%
SPRING	34	31	93.55%	35	32	96.88%	60	57	78.95%
PHI	477	432	74.77%	481	433	81.99%	507	471	79.41%
PHI 101	290	257	72.37%	267	232	78.88%	273	251	80.88%
FALL	142	123	67.48%	133	113	80.53%	137	123	78.86%
SPRING	103	89	73.03%	112	97	78.35%	96	89	82.02%
SUMMER	45	45	84.44%	22	22	72.73%	40	39	84.62%
PHI 105	187	175	78.29%	214	201	85.57%	234	220	77.73%
FALL	91	82	75.61%	108	99	82.83%	137	129	82.17%
SPRING	72	69	73.91%	90	86	86.05%	86	80	67.50%
SUMMER	24	24	100.00%	16	16	100.00%	11	11	100.00%
REL	227	217	82.49%	191	177	80.79%	186	178	80.90%
REL 201	173	171	82.46%	149	144	79.86%	143	140	83.57%
FALL	76	74	74.32%	85	84	79.76%	75	73	83.56%
SPRING	81	81	88.89%	55	51	78.43%	62	61	81.97%
SUMMER	16	16	87.50%	9	9	88.89%	6	6	100.00%
REL 241	54	46	82.61%	42	33	84.85%	43	38	71.05%

2013-2018 ARTS & HUMANITIES COURSE SUCCESS BY SEMESTER

SUBJ/CRSE	2016-2017			2017-2018			Totals			ATTEMPTED
	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	BEGIN ENROLL	ATTEMPTED	% SUCCESSFUL	
HUM	156	139	84.17%	192	180	73.33%	765	692	79.77%	
HUM 205	117	106	84.91%	133	122	82.79%	488	439	83.37%	
FALL	47	45	82.22%	69	64	79.69%	257	238	83.19%	
SPRING	70	61	86.89%	64	58	86.21%	231	201	83.58%	
HUM 235		0			0		45	36	75.00%	
SPRING		0			0		45	36	75.00%	
HUM 241	18	14	64.29%	24	23	95.65%	113	103	79.61%	
FALL	18	14	64.29%	24	23	95.65%	113	103	79.61%	
HUM 242	21	19	94.74%	35	35	25.71%	119	114	67.54%	
SPRING	21	19	94.74%	11	11	81.82%	95	90	85.56%	
SUMMER		0		24	24	0.00%	24	24	0.00%	
MUS	192	183	75.41%	250	236	71.19%	931	886	81.04%	
MUS 100	65	62	74.19%	143	136	63.24%	419	402	77.86%	
FALL	35	32	75.00%	55	52	82.69%	188	178	80.90%	
SPRING	30	30	73.33%	61	57	75.44%	196	189	85.19%	
SUMMER		0		27	27	0.00%	35	35	22.86%	
MUS 145	18	18	61.11%	18	17	70.59%	81	77	81.82%	
SPRING	18	18	61.11%	18	17	70.59%	81	77	81.82%	
MUS 207	109	103	78.64%	89	83	84.34%	431	407	84.03%	
FALL	65	61	81.97%	44	40	85.00%	213	202	84.16%	
SPRING	44	42	73.81%	45	43	83.72%	218	205	83.90%	
PHI	471	447	84.34%	396	358	73.18%	2332	2141	78.98%	
PHI 101	258	241	78.42%	173	153	65.36%	1261	1134	75.93%	
FALL	147	137	85.40%	88	79	77.22%	647	575	78.09%	
SPRING	89	83	66.27%	71	60	65.00%	471	418	73.68%	
SUMMER	22	21	80.95%	14	14	0.00%	143	141	73.76%	
PHI 105	213	206	91.26%	223	205	79.02%	1071	1007	82.42%	
FALL	139	134	90.30%	133	124	73.39%	608	568	81.34%	
SPRING	74	72	93.06%	66	57	84.21%	388	364	80.77%	
SUMMER		0		24	24	95.83%	75	75	98.67%	
REL	215	203	73.40%	179	162	83.33%	998	937	80.04%	
REL 201	170	163	75.46%	179	162	83.33%	814	780	80.90%	
FALL	110	104	75.96%	97	87	79.31%	443	422	78.44%	
SPRING	60	59	74.58%	82	75	88.00%	340	327	83.18%	
SUMMER		0			0		31	31	90.32%	
REL 241	45	40	65.00%		0		184	157	75.80%	

Appendix D: Art and Humanities Faculty and their Educational Credentials

2013-2018 ARTS & HUMANITIES Faculty Credential List

INSTRUCTOR	SUBJECT	FT_PT	DEGREE	DEGREE	CERTIFICATES	NOTES
ACTIVE INSTRUCTORS						
Arini, Marianne	ENG	PT	PhD Creative Writing	MA English		
Becker, Lisa	ANT	PT	PhD Biological Anthropology	MA Biological Anthropology		
Borcoman, Kelvin	PHI	PT	MA Philosophy	BA Philosophy/Religion		
Carscallen, Colleen	ENG	FT/PT	MA English	BA English		
Costa, Maureen	ART	PT	MFA Art (Wood)	BFA Sculpture		
Dihlmann Lunday, Sandra	ENG	FT	MA Writing Seminar	BA English		
Doskocil, Lisa	ANT	PT/FT	MA Cultural Anthropology	BA Anthropology		
Glau, Tracy	ART	PT	M.Ed. Counseling	BFA Studio Art		
Ketel, Kristine	HUM	PT	MA Liberal Arts	BA Communications		
Maniglia, Joseph	REL	PT	MA Youth Ministry/Counseling Ministry	BA Communications and Theatre		
Maris, Hana	PHI	PT	MS Environmental Studies	BA Philosophy		
Martin, Jeremy	ENG	FT	MFA Creative Writing	BA English Writing		
Natseway, Patrick	ART	PT	MFA Studio Art	Masters of Arts-Teaching		
Neff, Linda	ANT	PT	MA Anthropology	BA Anthropology		
Petersen, Alan	ART/CPS	FT	MA Painting	BFA Painting and Art History		
Rizzieri, Aaron	PHI	PT/FT	PhD Philosophy	MA Philosophy Religion & Ethics		
Roth, Jeffery	ART	PT	Master's of Visual Arts	Bachelor's Fine Arts		
Rudakewich, David	HUM	FT	MS Political Science	BA Political Science		
Sheeley, Barbara	ART	PT	M.Ed. Art Education	BFA		
Slusher, Audra	MUS	PT	MA Music (In progress)	BA MusicBA Political Science		
Tucker, Dawn	THR	PT	Master of Arts, Letters	Bachelor's Fine Arts Theater Performance		
INACTIVE INSTRUCTORS						
Attrep, Kara	MUS	PT	PhD Ethnomusicology	MA Music		no longer teaching
Bacon, Gerald	ANT	PT	MA History	BS Business Admin		no longer teaching
Coleman, Chase	MUS	PT				no longer teaching
Dale, Kerstin	ART	PT				no longer teaching
Darlington, Gina	DAN	PT		BA Professional Dance		no longer teaching
Eaves, Emery	ANT	PT	PhD Anthropology	MA Anthropology		no longer teaching
Farretta, Kathleen	CPS	PT	MA History	BS Education		no longer teaching
Gonzales, Ellena	ART	PT				no longer teaching
Harkins, Kate	ENG/PHI	PT	MA English Literature	BA English, Philosophy, and Religion		no longer teaching
Hatcher, Alexandra	ANT	PT				no longer teaching
Hulen, Elizabeth	ANT	PT				no longer teaching
McIntosh, Kenneth	REL	PT				no longer teaching
Myers, Jordan	ANT	PT	MA Anthropology	BS Anthropology		no longer teaching
Oakleaf, Holly	REL	PT				no longer teaching
Park, Juhee	MUS	PT	MS Mathematics Education	BA Music		no longer teaching
Petersen, Catherine	ART	PT	MA Art History	BA Studio Art		no longer teaching
Piper, Samuel	ENG/HUM/THR	PT	MA English	BA English		no longer teaching
Popejoy, Michael	PHI	PT	PhD Pantheism&Philosophy of Religion	BA Philosophy		no longer teaching
Ramsey, William	REL	PT				no longer teaching
Rickli, Robin	ANT	PT	MA Applied Anthropology	BA Anthropology		no longer teaching
Russell, Jennifer	MUS	PT				no longer teaching
Sabalos-Gruber, Allison	ENG	PT	MFA Writing	BA English		no longer teaching
Sanford, Judith	HUM/PHI	PT	MA Interdisciplinary Humanities	BA Philosophy		no longer teaching
Sherman, Keith	PHI	PT	Ph.D. Philosophy (ABD)	MA		no longer teaching
Sucha, Dobromila	ANT	PT	JD Criminal Law	MA Public Policy		no longer teaching
Summers, Gamin	ART/HUM	PT	M.Ed. Secondary Ed	BA English		no longer teaching
Walsh, Stephen	PHI	PT				no longer teaching
Ward, Jane	HUM	PT	MA History	BS History/Humanities		no longer teaching
Wynne, Meredith	MUS	PT				no longer teaching

Note: Joe Maniglia has completed additional graduate level coursework in religious studies in order to meet the HLC credentialin requirements. Hana Maris has completed additional graduate level coursework in philosophy to meet HLC standards.

TLC Office Hours have Changed!: Tuesdays 2-3 pm and Wednesdays 10-11 am:

The TLC has been offering open office hours through Zoom for any faculty member to drop in and ask a question. These hours have now change! The calendar invites are attached to this email if you would like to add them to your own calendar. Stop by and ask a question.

CCC Library Services Still Available!:

Now that we're all teaching online, you might be wondering about that library visit you had scheduled during the next month. If your class isn't meeting on campus anymore, can Luke still come visit your class? Yes he can! Here's how:

- Luke can join a discussion about research and respond to students' topics, sources, and questions.
- Luke can create custom Research Guides for your course or assignment. Here's an example. (Links to an external site.)
- Need a research overview for your students? Luke can create screen recordings showing your students how to access library databases, pick good keywords, etc. Here's a very basic example.

Email Luke.Owens@coconino.edu and we'll get the process started.

20 MINUTE TEACHING & LEARNING WEBINAR: How Can I Keep Students Engaged with Instructor Presence?:

Teaching with technology is different from traditional teaching in many ways, particularly when it comes to establishing a vibrant learning community. Without the automatic cues for student connection that a classroom provides, some faculty are at risk of turning into the dreaded absent or robot professor. Once these characters show up in an online classroom, grades tend to go down while attrition rates and academic dishonesty go up. There's a better way. In this program, the presenter will show you how to model the kind of communication and class participation you'd like to see. This presentation is chock full of best practices you can implement immediately to encourage more authentic interaction with your students.

Click here to see the webinar and use the password engaged246 to view it. This webinar is only available for the week of April 20, 2020.

20 MINUTE TEACHING & LEARNING WEBINAR: How Can Universities Empower Adult Learners?:

In order to truly advance the careers and lives of adult learners, educators need to understand the importance of adult learners to universities, the complex lives of adult learners, and the appeal of online courses among this learner group. Many of these learners are now millennials with distinct learning preferences and life challenges. In seeking to accomplish their duty of care to adult learners, university administrators and educators are strongly encouraged to adopt the HIDI model: human interaction, institutional support, design, and IT infrastructure and support. Based on research conducted at three Canadian universities, the HIDI model has proven to be a valuable and practical way of meeting the learning needs of today's adult learners.

Click here to see the webinar and use the password empower365 to view it. This webinar is only available for the week of April 20, 2020.

BLOG: Teaching online during shortened summer terms:

Are you having to transition teaching your traditional face-to-face summer class to an online environment? This can be a daunting task with a full 16-week semester, let alone for a super short 5-week mini-mester! Compound that with the fact that you may not have taught online previously, and this could easily intimidate even the most seasoned instructor. Have no fear! Many have traversed this path before you and come out successful—you can, too!

<u>Chronicle of Higher Education</u>: <u>Can You Teach a Small Seminar From a Distance?</u>:
Read one professor's thoughts on trying to recreate a small liberal-arts seminar with remote instruction along with one program's strategy for ensuring courses have a backup plan in case instructors are unable to keep teaching.

<u>CCC RESOURCES</u>: Use the <u>Faculty 4-11</u> and the <u>Keep Teaching Guide</u>:
The Learning Services group has been building resources to help faculty as they move their courses online. The "Keep Teaching Guide" has tools from Zoom to Canvas to screencasting as well as strategies and resources to help faculty. The Faculty 4-11 is also a source of information with alternative delivery resources, information about the TLC Zoom Office Hours (**invites included!)**, Faculty FAQS, and Faculty Support Discussion Boards.

If you have any issues access either of these resources, please let Luke Owens, luke.owens@coconino.edu, or myself, sarah.southwick@coconino.edu, know.

<u>UPCOMING WEBINARS & CONFERENCES:</u>

04/22/20- <u>Supplemental Instruction in high DFW Math Courses</u> hosted by Texas LEAP. Gateway math classes (such as MATH 1312 and 1314) and developmental math classes are often courses with high Drop-Fail-Withdraw rates, and students' failure to pass prevents them from being able to progress in their major courses. This session will discuss several approaches to fostering student success. We will highlight the use of the Supplemental Instruction (SI) model in both developmental and first-year math classes, share student success rates, and discuss both challenges and strategies for effective implementation.

- 04/22/20 – <u>Delivering Quality Student Experiences in Virtual Learning Environments</u> hosted by the Chronicle of Higher education. During these unprecedented times, higher ed educators are faced with more challenges than ever before to ensure the needs of their students are being met while juggling the logistics to deliver quality education experiences. Join this dynamic panel discussion on April 22 to gain relevant insights and practical tips for supporting students as higher ed navigates the new normal of virtual learning environments.
- 04/22/20 – <u>Tips to Effectively Deliver & Maximize Attendance at Virtual Presentations</u> hosted by AALHE. So you were supposed to attend or perhaps present at a conference this spring and it was canceled or perhaps moved online. Presenting or even attending a session virtually has a number of nuances yet there are also best practices and theoretical approaches you can take to maximize your own and your audience's professional learning experience. This session will engage you in strategies to enhance your virtual conference experience and open your mind to new approaches to teaching and learning.
- 04/24/20 – <u>Rethinking Information Literacy in the Digital Age</u> hosted by MacMillan: Shevaun Watson, Writing Program Administrator (WPA) at the University of Wisconsin—Milwaukee, wanted a way to engage her students in a few key concepts for writing and research and she needed a way to systematize the teaching of that information for all her colleagues. She developed a series of Active Instructional Modules that require students to read, think critically, interact and respond on topics such as the information cycle, rhetorical situation, stakeholders and citation chasing.
- 04/27/20 – <u>Strategies for Developing Adjunct Faculty in an Online Setting</u> hosted by Texas LEAP: With the shifting tides in higher education, many colleges and universities are branching out into the world of online education. As a result, instructors are requiring enhanced trainings, skill sets, and foundational knowledge in order to adjust and succeed within the virtual classroom. The American Women's College (TAWC) at Bay Path University, a division employing adjunct-practitioners as course instructors for its 1300 adult women undergraduates, has developed a culture focused on the professional development and support of those who educate our students.
- 04/28/20 – <u>Steps Towards the Use of AI and VALUE Assessment of Student Work</u> hosted by Texas LEAP: Objective and valid assessment of student performance on the six core objectives mandated by THECB is sometimes difficult and very time-consuming. Although conducting calibration sessions for comparative analysis at the course- and institutional-level assessment is beneficial, rater bias exists and it takes multiple inter-rater sessions to ensure findings are truly an authentic assessment of student performance on Critical Thinking and Communication. In this session, we will review how Texas Southmost College (TSC) addresses this challenge by incorporating artificial intelligence (AI) scored writing for diagnostic and formative assessment of adapted AAC&U rubrics.
- 05/01/20 – <u>Using Technology to Streamline Core Curriculum Assessment from Individual Courses to Year-End Reports</u> hosted by Texas LEAP: A significant challenge to establishing a successful assessment program can be creating one that encourages assessment year-round while not adding to everyone's already full plate. The American Women's College of Bay Path University, which primarily serves undergraduate adult women studying online, has designed a simple-to-use and straightforward system to assess student learning in courses and seamlessly integrate data for program and institutional level reporting. The system leverages existing LMS technology with which most faculty are already familiar. This system encourages collaboration of administrators, faculty, instructional designers, and IT professionals to facilitate and systematize course, program, and institutional assessment.

NILOA Webinar series: Community Check-In and Updates: NILOA will host weekly webinars every Thursday at 3:00pm EST through the end of April. The webinars focuses on providing a space for people to come together and decompress, share concerns, and experiences.

- 06/15/20-07/12/20 - Online workshop – "Assessment by Design" - This online workshop guides participants through the Cycle of Assessment with a goal of developing an assessment plan for the upcoming academic year. This experience focuses on using the Cycle of Assessment as a unifying conceptual framework for organizing assessment efforts at all levels and promotes decision-making that leads to improvement in student learning. NOTE: Learning Services is offering to pay the workshop fee. Contact Colleen Carscallen if interested.
- 10/19/20-10/21/20 – Conference – "Arizona Community College Leadership Conference" – A conference that invites new, experienced, and aspiring leaders to participate in sessions focused on innovation, collaboration, and growth.

If you know of any professional development opportunities or classroom techniques that you would like to see included in future versions of this email, please let me know!

Thank you,

Sarah Southwick
Assessment and Faculty Development Coordinator
PT Faculty – English and PTK Advisor
Academic Affairs
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Attachment F

Example of a 2018-2019 Program Review Action Plan Approval Form

5-Year Action Plan and Updates Approval

Program Name:	Social & Behavioral Sciences – General Education
Date:	04/16/20
Comments:	**SBS Strengths** The SBS faculty lend support to the college community as a whole as act as a critical eye and a great source for resource materials for various college committees. The programs have built-in components of service learning and a lot of outreach in the community with organizations such as Victim Witness, Habitat for Humanity, Catholic Charities, all of which align with the strategic plan. **SBS Weaknesses** There are some areas that could benefit from differential tuition like CTE. Anthropology has funding for materials and field trips, but this could be explored in other areas. There is a shallow pool for recruiting qualified PT faculty. As there has been a college-wide move to focusing on hiring in-state candidates due to costs, SBS could be missing out on opportunities that could be brought in by recruiting outside of the state as well. The transferability of courses is a weakness. Some of the courses only transfer at the 300 or 400 level. Some are not accepted at all or do not have direct transfers. **SBS Opportunities** Anthropology has an opportunity to work closely with the NAU faculty to revising and offer field schools. There is a lot of flexibility in terms of modality within SBS. Students have a lot of ways to connect with the materials and faculty backgrounds. **SBS Challenges** Marketing and outreach for SBS is a challenge. There does not seem to be an emphasis on the SBS as a whole. There could be outreach to the high schools. It could benefit from better marketing and working alongside a CCC Marketing Committee. Other options include reaching out to CTE faculty and modeling how CTE reaches out to the community and to potential students. There is a narrow vision of what SBS offers, and much of it focuses around psychology. There could be a development of a SBS website to provide information to students about the benefits of participating in SBS courses and pursuing SBS degrees.

|	**SBS Recommendations** The SBS area should develop a cohesive identity and philosophy on what it means for students to engage with SBS courses and programs. There are several questions to consider: • What will students become, know, understand better, be changed after experiencing SBS courses? This could be about different social lens or particular research methods. • What are the different worlds in SBS and how do they connect? Consider the real-world applications of some courses and theoretical presentations in others. • How does SBS answer the student question of "Why do I need to study this?" The SBS area will need to decide how to create this statement, whether it is organically or at a certain point of time. It should also be decided how to share this with students and advisors to help all involved stakeholders understand its importance. This statement creation will help when making budget requests as the SBS area will be able to explain exactly how the request will matter rather than relying on simple saying it is important. Additionally, consider adding more to the action plan that revolves around the strengths of the program. • Promoting more internships • Tying the theoretical values to real-world applications We have access to a culturally and geographical rich area. Consider how to incorporate that as well.

Approvals:

Dean: _____ **Date:** _____

Provost: _____ **Date:** _____

Attachment G

*2017-2020 Program-Level Outcomes Summary for
Construction Technology Management (CTM)*

Summary of 2017-2020 CTM Exam Results

	CTM 124 F17	CTM 224 S18	CTM 224 F18	CTM 123 F19
PLO #1	88%	81%	70%	87%
PLO #2	93%	85%	95%	78%
PLO #3	65%	75%	64%	74%
PLO #4	65%	52%	63%	86%
PLO #5	65%	52%	59%	72%
N =	27	13	10	17
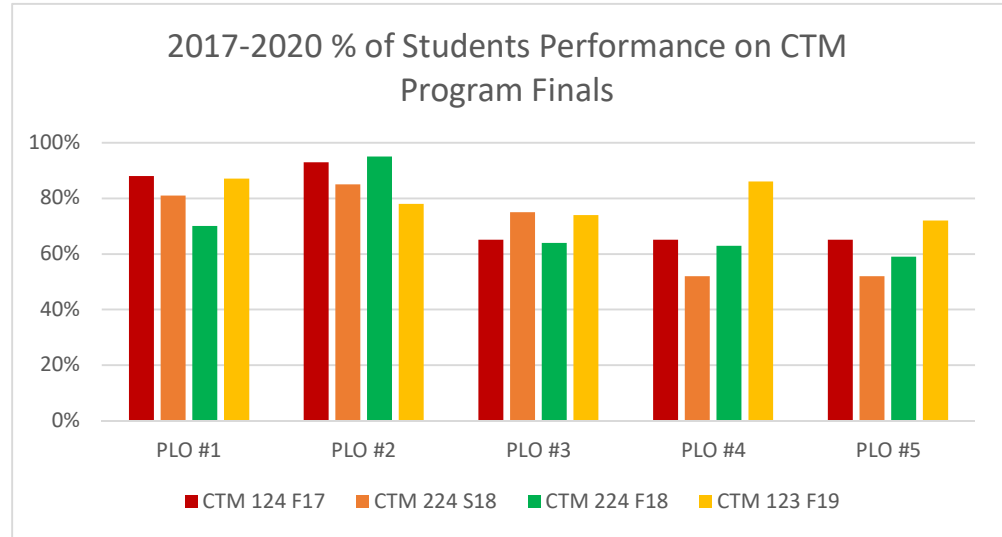
2017-2020 % of Students Performance on CTM Program Finals

CTM Program Outcomes

Students will be able to:

1. apply fundamental construction technologies
2. recognize when and how to apply basic jobsite safety procedures
3. apply basic construction mathematics
4. differentiate basic blueprints and specifications
5. create a jobsite estimation

Results of 201780 CTM 124 Final

CTM Program Outcomes

Students will be able to:

1. apply fundamental construction technologies
2. recognize when and how to apply basic jobsite safety procedures
3. apply basic construction mathematics
4. differentiate basic blueprints and specifications
5. create a jobsite estimation

CTM 124 Comprehensive Results

PO #1	PO #2	PO #3	PO #4	PO #5	CTM 124 Comprehensive Exam	Overall # of Students Who Got Question Fully Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Partially Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Incorrect	Overall % of Students Who Got Question Incorrect
x					Q1 - What term is used for the amount of roofing required to cover 100 sq ft?:	19	70%	0	0%	8	30%
x					Q2 - List the five basic types of windows:	25	93%	2	7%	0	0%
x					Q3 - Hand the doors pictured below:	27	100%	0	0%	0	0%
x					Q4 - What are the two most common doors on a construction site:	26	96%	0	0%	1	4%
x					Q5 - Describe the term "span":	26	96%	0	0%	1	4%
x					Q6 - Describe the term "total run":	25	93%	0	0%	2	7%
x					Q7 - What are the three basic roof slopes used on a construction site?:	23	85%	1	4%	3	11%
x					Q8 - Describe the term "slope":	26	96%	0	0%	1	4%
x					Q9 - Name the 4 basic roof styles used for homes:	24	89%	3	11%	0	0%
x					Q10 - Describe the "Pythagorean Theorem":	27	100%	0	0%	0	0%
x					Q11 - What is the term for the long piece of 2x lumber that supports a stair?:	24	89%	0	0%	3	11%
x	x				Q12 - What is the minimum headroom for a flight of stairs?:	25	93%	0	0%	2	7%
x					Q13 - What does "ridge allowance" mean?	25	93%	0	0%	2	7%
x					Q14 - Name the 3 most commonly used trusses on houses:	24	89%	1	4%	2	7%
x					Q15 - What is the difference between the "theoretical rafter length" and the "actual rafter length"?:	27	100%	0	0%	0	0%
x					Q16 - List 4 ways to calculate the "theoretical length" of a rafter:	24	89%	2	7%	1	4%
x					Q17 - What is the difference between a "common rafter" and a "hip rafter"?:	26	96%	0	0%	1	4%
x					Q18 Name 3 basic types of cornice:	27	100%	0	0%	0	0%
x					Q19 - Label the parts of the roof pictured below:	17	63%	10	37%	0	0%
x					Q20 - What are the 2 parts of a "birds mouth" and tell where they bear?:	25	93%	0	0%	2	7%
x					Q21 - What is the length of a "common rafter" per foot of a run of an 8/12:	25	93%	0	0%	2	7%
x					Q22 - Describe the term "dropping the stringer":	24	89%	0	0%	3	11%
x					Q23 - What is the length of a "hip rafter" per foot of a run of a 4/12:	19	70%	0	0%	8	30%
x					Q24 - Label the parts of this staircase pictured below:	26	96%	1	4%	0	0%
x					Q25 - What is the difference in length of a "jack rafter" 16" centers of a 5/12?:	20	74%	0	0%	7	26%
x					Q26 - What is the minimum tread width for a set of stairs?:	13	48%	0	0%	14	52%
x					Q27 - What is the difference in length of a "jack rafter" 24" centers of a 7/12?	19	70%	0	0%	8	30%
x					Q28 - What is the general rule for the perfect staircase?:	25	93%	0	0%	2	7%

CTM 124 Comprehensive Results

PO #1	PO #2	PO #3	PO #4	PO #5	CTM 124 Comprehensive Exam	Overall # of Students Who Got Question Fully Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Partially Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Incorrect	Overall % of Students Who Got Question Incorrect
x					Q29 - What is the term "spread rate" mean?:	26	96%	0	0%	1	4%
		x	x	x	Q30 - For a stairway with a total rise of 9' 1-3/4" and finished floor of 5/8" and 2x tread stock, determine the:						
		x	x	x	A. Number of risers	19	70%	3	11%	5	19%
		x	x	x	B. Unit of rise per stair	17	63%	5	19%	5	19%
		x	x	x	C. Number of treads	19	70%	3	11%	5	19%
		x	x	x	D. Unit of run per stair	15	56%	6	22%	6	22%
		x	x	x	E. Total run	14	52%	6	22%	7	26%
		x	x	x	F. Drop-off amount	20	74%	1	4%	6	22%
		x	x	x	G. Stringer Length	11	41%	7	26%	9	33%
		x	x	x	Q31 - Estimate the number and cost of 4x8 sheets of drywall at $4.50 (Allow 5% waste), 250' rollls of tape at $2.50 and boxes of compound (50 lbs. each) at $9.98 need to cover 4 walls and the ceiling of a 35'x40' addition with 8' high ceilings. (370' of tape and 130 lbs. of compund per 1000 sq ft of drywall):						
		x	x	x	A. Sheets	19	70%	0	0%	8	30%
		x	x	x	B. Rolls of tape	17	63%	1	4%	9	33%
		x	x	x	C. Boxes of mud	17	63%	1	4%	9	33%
		x	x	x	D. Total cost	21	78%	3	11%	3	11%
		x	x	x	Q32 - Estimate the number of gallons and the cost of the paint needed to paint 2 coats on the addition mentioned aobve. ($16.97 per gallon and spread rate of 150 sq ft per gallon) :	18	67%	1	4%	8	30%
		x	x	x	Q33 - Estimate the amount of R 21 batt insulation in the walls (68 sq ft per bag @ 63.26) and R 49 blown insulation in the ceiling (59 sq ft per bag @ $54.49) in the addition mentioned above. (Add 5% for waste):						
		x	x	x	A. Walls	20	74%	7	26%	0	0%
		x	x	x	B. Ceiling	17	63%	9	33%	1	4%
		x	x	x	Q34 - (A) Determine the "actual length" of the common rafter and (B) estimate the total amount of rafters needed for the roof pictured below. (6/12 with 1'6" overhang @ 24" OC). Also estimate the amount of © sheathing (allow 5% waste) and (D) asphalt shingles needed. (E) Using the attached span chart, determine the lumber species that can be used (2x10). (Dead load = 20 psf)						
		x	x	x	A.	18	67%	7	26%	2	7%
		x	x	x	B.	21	78%	5	19%	1	4%
		x	x	x	C.	14	52%	11	41%	2	7%
		x	x	x	D.	12	44%	12	44%	3	11%
		x	x	x	E.	23	85%	2	7%	2	7%
29	1	23	23	23							
56%	2%	44%	44%	44%							

Results of SEMESTER CTM 224 Final

CTM Program Outcomes
Students will be able to:
1. apply fundamental construction technologies
      2. recognize when and how to apply basic jobsite safety procedures
           3. apply basic construction mathematics
              4. differentiate basic blueprints and specifications
                5. create a jobsite estimation

CTM 224 Comprehensive Exam Results

PO #1	PO #2	PO #3	PO #4	PO #5	CTM 224 Comprehensive Exam	Overall # of Students Who Got Question Fully Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Partially Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Incorrect	Overall % of Students Who Got Question Incorrect
x					Q1 - A concrete mixture that has a 0" to 2" slump is:	12	92%	0	0%	1	8%
x					Q2 - BLANK concrete is decorative concrete in which the cement paste of the concrete is removed.	12	92%	0	0%	1	8%
x					Q3 - A BLANK test is a soil test that measures and expresses attainable soil density and the effect of moisture on soil density.	9	69%	0	0%	4	31%
x					Q4 - A #6 rebar has a diameter of BLANK "	11	85%	0	0%	2	15%
x					Q5 - A BLANK concrete component is formed, placed, and cured to a specific strength at a location other than its final installed location.	13	100%	0	0%	0	0%
x					Q6 - The BLANK test is a field soil test that measures the dry density of compacted soil.	9	69%	0	0%	4	31%
	x				Q7 - What is the depth at which shoring, benching, or sloping required for trenching?	11	85%	0	0%	2	15%
x					Q8 - BLANK is a mixture of cement and water without aggregate that acts as a binding agent in the concrete.	13	100%	0	0%	0	0%
x					Q9 - The BLANK test is a field test that measures the consistency of concrete.	13	100%	0	0%	0	0%
x					Q10 - Curing should continue for a minimum of BLANK days to allow adequate strength gain before concrete is exposed to weather.	10	77%	0	0%	3	23%
x		x			Q11 - A general rule for concrete slabs is to place control joints about BLANK times (in feet) the slab depth (in inches).	10	77%	0	0%	3	23%
x					Q12 - BLANK is a method of pre-stressing reinforced concrete in which the tendons in the structural member are tensioned before the concrete has hardened.	12	92%	0	0%	1	8%
x					Q13 - Two common protective coatings for rebar	12	92%	1	8%	0	0%
x		x			Q14 - During initial curing, concrete shrinks approximately BLANK inches per 100'	10	77%	0	0%	3	23%
x					Q15 - Minimum crawl space foundation depths range	9	69%	1	8%	3	23%
x					Q16 - A(n) BLANK foundation is a continuous slab of concrete, usually refinforced, laid over soft ground or where heavy loads must be supported to form a foundation.	10	77%	0	0%	3	23%
x		x			Q17 - A(n) BLANK load is the weight of a single stationary body or the combined weights of all staintionary bodies in a structure	12	92%	0	0%	1	8%
x		x			Q18 - A BLANK is the primary support for a structure through which imposed loads are transmitted to the ground.	11	85%	0	0%	2	15%
x		x			Q19 - Any load that is not permenently applied to a structure is a(n) BLANK load.	13	100%	0	0%	0	0%

CTM 224 Comprehensive Exam Results

PO #1	PO #2	PO #3	PO #4	PO #5	CTM 224 Comprehensive Exam	Overall # of Students Who Got Question Fully Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Partially Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Incorrect	Overall % of Students Who Got Question Incorrect
x					Q20 - A BLANK foundation is a monolithic structural support consisting of a wall with a vertical exterior face and a sloping interior face.	9	69%	0	0%	4	31%
		x			Q21 - Total BLANK is the horizontal length of stairway measured from the foot of the stairway to the point where the stairway ends.	11	85%	0	0%	2	15%
x		x			Q22 - Each BLANK % of entrapped air can reduce compressive strength by 3% to 6%.	11	85%	0	0%	2	15%
x					Q23 - A BLANK foundation is a continuous footing with a slab-like shape that can be placed monolithically or as a separate footing and foundation and can support an array of columns in several rows in each direction.	9	69%	0	0%	4	31%
x					Q24 - BLANK is achieved through tamping, rodding, and vibration.	13	100%	0	0%	0	0%
		x			Q25 - Concrete reaches about BLANK % of final strength in the first seven days of curing.	11	85%	0	0%	2	15%
x					Q26 - BLANK floats should only be used on non-air entrained concrete.	9	69%	0	0%	4	31%
x					Q27 - BLANK concrete provides greater density, improves the bond between concrete and steel reinforcement, and increases the tensile strength.	6	46%	0	0%	7	54%
x		x			Q28 - Full concrete strength is reached after approximately BLANK days of proper curing.	10	77%	0	0%	3	23%
x					Q29 - BLANK is a chemical reaction between cement and water that bonds molecules and results in the hardening of the concrete mixture.	9	69%	0	0%	4	31%
x		x			Q30 - Three compression test are required for concrete:	11	85%	1	8%	1	8%
		x			Q31 - The formula for calculating the area of concrete in a circular form is:	10	77%	0	0%	3	23%
x					Q32 - A BLANK trowel should not be used to finish colored concrete.	9	69%	0	0%	4	31%
x					Q33 - BLANK substances other than water, aggregate, or Portland cement that are added to concrete to modify its properties.	13	100%	0	0%	0	0%
x		x			Q34 - The slump increases resulting from the addition of a superplasticizer lasts approximately:	11	85%	0	0%	2	15%
		x			Q35 - Aggregate comprises BLANK of the total volume of concrete.	9	69%	0	0%	4	31%
		x			Q36 - BLANK is the surface measurement within two boundaries and is expressed in square unit.	8	62%	0	0%	5	38%
x		x			Q37 - Steel reinfrocement should be placed in the top BLANK of the slab to counteract curling action.	10	77%	0	0%	3	23%
x		x			Q38 - A(n) BLANK test is used to determine the compressive strength of concrete.	9	69%	0	0%	4	31%
		x			Q39 - What is the forumla for calculating the volume of concrete for square or rectangular structures?	12	92%	0	0%	1	8%
x					Q40 - Superplasticizer	11	85%	0	0%	2	15%
x					Q41 - Bonding	13	100%	0	0%	0	0%
x					Q42 - Retarder	12	92%	0	0%	1	8%
x					Q43 - Water-reducing	9	69%	0	0%	4	31%
x					Q44 - Accelerator	13	100%	0	0%	0	0%
x					Q45 - Air-entraining	13	100%	0	0%	0	0%
x					Q46 - TYPE I	10	77%	0	0%	3	23%

CTM 224 Comprehensive Exam Results

PO #1	PO #2	PO #3	PO #4	PO #5	CTM 224 Comprehensive Exam	Overall # of Students Who Got Question Fully Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Partially Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Incorrect	Overall % of Students Who Got Question Incorrect
x					Q47 - TYPE II	11	85%	0	0%	2	15%
x					Q48 - TYPE III	13	100%	0	0%	0	0%
x					Q49 - TYPE IV	12	92%	0	0%	1	8%
x					Q50 - TYPE V	9	69%	0	0%	4	31%
x					Q51 - High-early strength	12	92%	0	0%	1	8%
x					Q52 - Air-entrained	10	77%	0	0%	3	23%
x					Q53 - Heavyweight	7	54%	0	0%	6	46%
x					Q54 - Roller-compacted	12	92%	0	0%	1	8%
x					Q55 - Decorative	13	100%	0	0%	0	0%
x		x	x	x	Q56 - Estimate the concrete footings, stem wall, and floor slab from the following foundation drawing.	7	54%	6	46%	0	0%
x		x	x	x	Q57 - Estimate the concrete piers from the deck foundation plan.	6	46%	6	46%	1	8%
x		x	x	x	Q58 - Using the cross-section method, determine the volume of material excavated (in cu yd) for the following excavation.	6	46%	5	38%	2	15%
x		x	x	x	Q59 - Using the average end area method, determine the volume of material excavated (in cu yd) for the following excavation.	8	62%	3	23%	2	15%
					Q60 - Estimate the materials and concrete required for the following form system.						
x		x	x	x	A. Form-Plywood	13	100%	0	0%	0	0%
x		x	x	x	B. Form Ties	12	92%	1	8%	0	0%
x		x	x	x	C. Studs	12	92%	1	8%	0	0%
x		x	x	x	D. Plates	11	85%	1	8%	1	8%
x		x	x	x	E. Walers	11	85%	2	15%	0	0%
x		x	x	x	F. Braces	11	85%	1	8%	1	8%
x		x	x	x	G. Concrete	8	62%	3	23%	2	15%
59	1	28	11	11							
100%	2%	47%	19%	19%							

Results of 201880 CTM 224 Final

CTM Program Outcomes

Students will be able to:

1. apply fundamental construction technologies
2. recognize when and how to apply basic jobsite safety procedures
3. apply basic construction mathematics
4. differentiate basic blueprints and specifications
5. create a jobsite estimation

CTM 224 Comprehensive Results

PO #1	PO #2	PO #3	PO #4	PO #5	CTM 224 Comprehensive Exam	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	Overall # of Students Who Got Question Fully Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Partially Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Incorrect	Overall % of Students Who Got Question Incorrect
X					Q1- A concrete mixture that has a 0" to 2" slump is ____.	2	2	2	2	2	2	2	2	2	2	10	100%	0	0%	0	0%
X					Q2- Name the two main types of masonry units manufactured today _____ and _____.	2	2	0	2	2	0	0	2	2	1	6	60%	1	10%	3	30%
X					Q3- _____ concrete is decorative concrete in which the cement paste of the concrete is removed.	2	2	2	2	2	0	0	2	2	2	8	80%	0	0%	2	20%
X					Q4- A _____ test is a soil test that measures and expresses attainable soil desnity and the effect of moisture on soil density.	2	2	2	2	2	2	2	2	2	0	9	90%	0	0%	1	10%
X					Q5- A #6 rebar has a diameter of _____ "	2	2	2	2	2	0	2	2	2	2	9	90%	0	0%	1	10%
X					Q6- A _____ concrete component is formed, placedm and cured to a specific strength at a location other than its final installed location.	2	2	2	2	2	2	2	2	2	2	10	100%	0	0%	0	0%
X					Q7- A row or horizontal layer of masonry is called a _____.	2	2	0	0	2	0	0	2	2	2	6	60%	0	0%	4	40%
X					Q8- The _____ test is a field soil test that measures the dry density of compacted soil.	2	2	2	2	2	2	2	2	2	2	10	100%	0	0%	0	0%
X					Q9- To be sure of a good bond, excess mortar should be thrown away after _____.	2	2	0	2	2	0	2	2	2	2	8	80%	0	0%	2	20%
	X				Q10- What is the depth at which shoring, benching, or sloping required for trenching?	2	2	0	2	2	2	2	2	2	2	9	90%	0	0%	1	10%
X					Q11- _____ is a mixture of cement and water without aggregate that acts as a binding agent in concrete.	2	2	2	2	2	0	2	2	2	2	9	90%	0	0%	1	10%
X					Q12- The _____ test is a field test that measures the consistency of concrete.	2	2	0	2	2	2	0	2	2	2	8	80%	0	0%	2	20%
X					Q13- Curing should continue for a minimum of _____ days to allow adequate strength gain before concrete is exposed to weather.	2	2	2	2	2	2	0	2	2	2	9	90%	0	0%	1	10%
X		X			Q14- A general rule for concrete slabs is to place control joints about _____ times (in feet) the slab depth (in inches).	2	2	2	2	2	2	2	2	2	2	10	100%	0	0%	0	0%
X					Q15- A(n) _____ is a strapped bundle of approximately 500 standard bricks or 90 standard blocks.	2	2	2	2	2	0	0	2	2	2	8	80%	0	0%	2	20%
X					Q16- _____ is a method of pre-stressing reinforced conrete in which the tendons in the structural member are tensioned before the concrete has hardened.	2	2	2	2	2	2	0	2	2	2	9	90%	0	0%	1	10%
X					Q17- A mixture of Portland cement, lime, fine aggregate, and water stiff enough to hold its shape between masonry units is called _____.	2	2	2	2	2	2	0	2	2	2	9	90%	0	0%	1	10%
X					Q18- Two common protective coatings for rebar _____ and _____.	2	2	0	2	2	0	0	2	2	2	7	70%	0	0%	3	30%
X		X			Q19- During initial curing, conrete shrinks approximately _____ " per 100'.	2	2	2	0	2	0	2	2	0	2	7	70%	0	0%	3	30%
X					Q20- A(n) _____ is a small opening in mortar joints or faces to allow the escape of moisture.	2	2	2	2	2	0	0	2	2	2	8	80%	0	0%	2	20%
	X		X		Q21- Minimum craw space foundation depths range from _____ to ____.	2	2	2	2	2	2	2	2	2	2	10	100%	0	0%	0	0%
X					Q22- A(n) _____ foundation is a continous slab of concrete, usually reinforced, laid over soft ground or where heavy loads must be supported to form a foundation.	2	2	2	2	2	0	0	0	2	2	7	70%	0	0%	3	30%
X					Q23- A(n) _____ load is the weight of a single stationary body or the combined weights of all stationary bodies in a structure.	2	2	2	2	2	2	0	2	2	2	9	90%	0	0%	1	10%
X					Q24- A mixture of Portland cement, lime, and water, with or without fine aggregate, with a high-enough water content that it can be poured into spaces between masonry units and voids in a wall is called _____.	2	2	2	2	2	0	2	2	2	2	9	90%	0	0%	1	10%
X					Q25- A _____ is the primary support for a structure through which imposed loads are transmitted to the ground.	2	2	2	2	2	2	0	2	0	2	8	80%	0	0%	2	20%

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X					Q26- Any load that is not permanently applied to a structure is a(n) _____ load.	2	2	2	2	2	2	0	2	2	2	9	90%	0	0%	1	10%
X					Q27- A _____ foundation is a monolithic structural support consisting of a wall with a vertical exterior face and a sloping interior face.	2	2	0	0	0	0	0	2	2	2	5	50%	0	0%	5	50%
X					Q28- A continou section of masonry wall, one masonry unit in thickness, or that part of a wall that is one masonry unit in thickness is called a _____.	2	2	2	0	2	0	0	2	2	2	7	70%	0	0%	3	30%
X					Q29- Total _____ is the horizontal length of a stairway measured from the foot of the stairway to the point where the stairway ends.	2	2	2	2	2	2	2	2	2	2	10	100%	0	0%	0	0%
X		X			Q30- Each ___% of entrapped air can reduce compressive strength of conrete by 3% to 6%.	2	2	2	2	2	2	2	2	0	0	7	78%	0	0%	2	22%
X					Q31- A ____ foundation is a continuous footing with a slab-like shape that can be placed monolithically or as a separate footing and foundation and can support an array of columns in several rows in each direction.	2	2	0	2	2	2	0	0	2	0	5	56%	0	0%	4	44%
X					Q32- _____ is achieved through tamping, rodding, and vibration.	2	2	2	2	0	2	0	2	2	2	7	78%	0	0%	2	22%
X					Q33- _____ is the term used to describe alinement of a masonry unit or wall along the plane or face of the wall.	2	2	2	0	2	2	0	2	2	2	7	78%	0	0%	2	22%
X		X			Q34- Concrete reaches about _____% of final strength in the first seven days of curing.	2	2	2	2	2	2	2	2	2	2	9	100%	0	0%	0	0%
X					Q35- _____ floats should only be used on non-air-entrained concrete.	2	2	0	2	2	0	0	2	2	2	6	67%	0	0%	3	33%
X					Q36- _____- concrete provides greater density, improves the bond between concrete and steel reinforcement, and increases the tensile strength.	2	2	2	2	2	0	2	2	2	2	8	89%	0	0%	1	11%
X					Q37- Full concrete strength is reached after approximately ____ days of proper curing.	2	2	2	2	2	2	2	2	2	2	9	100%	0	0%	0	0%
X					Q38- Laying out masonry unit to establish spacing is known as a _____.	2	2	0	0	2	0	0	2	0	2	4	44%	0	0%	5	56%
X					Q39- _____ is a chemical reaction between cement and water that bonds molecules and results in the hardening of the concrete mixture.	2	2	2	2	2	2	0	2	2	2	8	89%	0	0%	1	11%
X					Q40- Three compression test are required for conrete; day _____, day _____, and day _____.	2	2	2	2	2	1	2	2	2	2	8	89%	1	11%	0	0%
		X			Q41- The formula for calculating the area of concrete in a circular form is _____.	2	2	2	2	2	2	2	2	2	2	9	100%	0	0%	0	0%
X					Q42- The number of types that ASTM classifies concrete masonry units (block) into is _____.	2	2	2	0	2	0	0	2	2	0	5	56%	0	0%	4	44%
X					Q43- A _____ trowel should not be used to finish colored concrete.	2	2	2	2	2	0	0	2	0	0	5	56%	0	0%	4	44%
X					Q44- The process of ____ the joint compresses the mortar and thereby increases its weather resistance.	2	2	0	2	2	0	0	2	0	2	5	56%	0	0%	4	44%
X					Q45- _____ are substances other than water, appregate, or portland cement that are added to concrete to modify its properties.	2	2	2	2	2	2	2	2	2	2	9	100%	0	0%	0	0%
X					Q46- The slump increases resulting from the addition of a superplasticizer lasts approximately _____.	2	2	2	0	2	0	0	2	2	0	5	56%	0	0%	4	44%
X					Q47- Aggregate comprimises _____ of the total volume of concrete.	2	0	0	0	2	2	2	2	2	2	6	67%	0	0%	3	33%
X					Q48- Masons used the term _____ to describe the support beam over an opneing such as a window or door.	2	2	2	2	2	0	0	2	2	2	7	78%	0	0%	2	22%
X					Q49- _____ is the surface measurement within two boundaries and is expressed in square unit.	2	2	0	2	2	0	0	2	0	2	5	56%	0	0%	4	44%
X			X		Q50- Steel reinforcement should be placed in the top ____ of the slab to counteract curling action.	2	2	2	2	2	0	0	2	0	2	6	67%	0	0%	3	33%
X					Q51- A(n) _____ test is used to determine the compressive strength of concrete.	0	2	0	2	2	2	0	2	2	2	7	78%	0	0%	2	22%
X				X	Q52- What is the formula for calculating the volume of conrete for square or rectangular structures?	2	2	2	2	0	2	2	2	2	0	7	78%	0	0%	2	22%
X					Q53- The compressive strength of a block is measure in _____.	2	2	2	2	2	2	0	2	2	2	8	89%	0	0%	1	11%
X			X		Q54- Superplasticizer.	2	0	2	2	2	2	0	0	0	0	4	44%	0	0%	5	56%
X			X		Q55- Bonding.	2	2	2	2	2	2	0	2	2	2	8	89%	0	0%	1	11%
X			X		Q56- Retarder.	2	2	2	2	2	2	2	0	0	0	6	67%	0	0%	3	33%

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X			X		Q57- Water-reducing.	2	0	2	0	2	0	2	0	0	0	3	33%	0	0%	6	67%
X			X		Q58- Accelerator.	2	2	2	2	2	0	2	2	0		7	78%	0	0%	2	22%
X			X		Q59- Air-entraining.	2	2	2	2	2	2	2	2	2		9	100%	0	0%	0	0%
X			X		Q60- Type I	2	2	2	2	0	2	2	0	2		7	78%	0	0%	2	22%
X			X		Q61- Type II	2	2	2	0	2	2	2	0	2		6	67%	0	0%	3	33%
X			X		Q62- Type III	2	0	2	0	2	2	2	0	0		5	56%	0	0%	4	44%
X			X		Q63- Type IV	2	0	2	0	2	2	2	2	2	0	6	67%	0	0%	3	33%
X			X		Q64- Type V	2	0	0	2	2	2	2	0	0		5	56%	0	0%	4	44%
X			X		Q65- High-early-strength	2	0	2	0	2	2	2	2	2		6	67%	0	0%	3	33%
X			X		Q66- Air-entrained	2	0	2	2	2	2	2	2	0		7	78%	0	0%	2	22%
X			X		Q67- Heavyweight	2	2	0	2	2	0	2	0	2	2	6	67%	0	0%	3	33%
X			X		Q68- Roller-compacted	2	2	2	2	2	2	2	2	2		9	100%	0	0%	0	0%
X			X		Q69- Decorative	2	2	0	2	2	2	2	2	2		8	89%	0	0%	1	11%
X			X		Q70- Building Brick	2	0	0	2	0	2	2	2	2	0	5	56%	0	0%	4	44%
X			X		Q71- Face Brick	2	2	2	2	2	2	2	2	0		8	89%	0	0%	1	11%
X			X		Q72- Clinker Brick	2	0	0	2	0	0	2	0	0		3	33%	0	0%	6	67%
X			X		Q73- Pressed Brick	2	2	2	2	2	2	2	0	2		8	89%	0	0%	1	11%
X			X		Q74- Glazed Brick	2	2	2	2	0	2	2	0	0		6	67%	0	0%	3	33%
X			X		Q75- Fire Brick	2	2	2	2	0	2	2	0	2		7	78%	0	0%	2	22%
X			X		Q76- Cored Brick	2	2	2	2	2	2	2	2	2		9	100%	0	0%	0	0%
X			X		Q77- Type M	2	2	2	0	0	2	2	0	2		6	67%	0	0%	3	33%
X			X		Q78- Type S	2	2	0	2	0	0	2	2	0	2	5	56%	0	0%	4	44%
X			X		Q79- Type N	2	2	0	2	0	0	2	2	0		4	44%	0	0%	5	56%
X			X		Q80- Type O	2	2	0	2	0	0	2	2	0	0	4	44%	0	0%	5	56%
X			X		Q81- Type K	2	2	0	2	0	0	2	2	0	2	5	56%	0	0%	4	44%
					Q82- Estimate the Monolithic Concrete footings, Stem wall, and Floor slab from the following orthographic plans.																
		X		X	A. Concrete Foundation	2	2	0	2	2	0	2	2	2	2	7	78%	0	0%	2	22%
		X		X	B. Concrete Stem wall	2	2	2	2	2	0	2	2	2	0	7	78%	0	0%	2	22%
		X		X	C. Concrete floor slab	2	2	2	2	2	0	2	2	2	0	7	78%	0	0%	2	22%
		X		X	D. Total Yards	2	2	0	2	1	0	2	1	2	0	4	44%	2	22%	3	33%
					Q83- Estimate the volume of concrete in the piers form the deck foundation plan pictured below.																
		X		X	A. Total Yards	2	2	0	2	2	0	1	2	2	2	6	67%	1	11%	2	22%
		X		X	Q84-Using the cross-section method, determine the volume of material excavated (in cu yd) for the following excavation	2	2	1	2	2	2	1	2	2	1	6	67%	3	33%	0	0%
		X		X	Q85- Using the average and area method, determine the volume of material excavated (in cu yd) for the following excavation.	2	2	1	2	2	1	1	2	2	1	5	56%	4	44%	0	0%
					Q86-Estimate the Materials and Conrete required for the following form system. (Form-Plywood, Form ties, studs, plates, walers, braces, and concrete)																
		X		X	A. Form-Plywood = # pf 4'x8' panels	2	2	2	2	2	2	2	2	2	2	9	100%	0	0%	0	0%
		X		X	B. Form ties (10 per panel)	2	2	2	2	2	0	2	2	2	2	8	89%	0	0%	1	11%
		X		X	C. Studs (Spacing @ 16" O.C.)	2	2	2	2	0	0	2	2	2	2	7	78%	0	0%	2	22%
		X		X	D. Plates (Lineal Feet)	2	0	2	2	2	2	2	2	2	2	8	89%	0	0%	1	11%
		X		X	E. Walers (Lineal feet)	0	0	0	0	0	0	0	2	0	2	2	22%	0	0%	7	78%
		X		X	F. Braces =8'6", 8' oc (Lineal feet)	2	2	0	2	2	2	0	2	2	1	6	67%	1	11%	2	22%
		X		X	G. Concrete (Cubic Yards)	2	0	0	2	0	0	0	2	0	2	3	33%	0	0%	6	67%
					Q87- Estimate the amount of CMU and Mortar required for the exterior wall in the orthographic floor plan below.																
		X		X	A. Block Required	2	0	2	2	0	1	1	2	1	2	4	44%	3	33%	2	22%
		X		X	B. Mortar Required.	2	0	2	2	2	1	1	2	1	1	4	44%	4	44%	1	11%
80%	2%	22%	31%	18%	97																
78	2	21	30	17																	

Results of 201980 CTM 123 Final

CTM Program Outcomes
Students will be able to:
1. apply fundamental construction technologies
2. recognize when and how to apply basic jobsite safety procedures
3. apply basic construction mathematics
4. differentiate basic blueprints and specifications
5. create a jobsite estimation

CTM 123 Comprehensive Results

PO #1	PO #2	PO #3	PO #4	PO #5	CTM 123 Comprehensive Exam	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	Overall # of Students Who Got Question Fully Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Partially Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Incorrect	Overall % of Students Who Got Question Incorrect
	X				Q1 - What does OHSA stand for and what is its purpose?:	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	17	100%	0	0%	0	0%
X					Q2- In _____ Framing, each story of a building is framed as a unit consisting of wall, joists, and a subfloor.	2	2	0	2	0	2	2	2	2	2	2	2	2	2	2	0		14	82%	0	0%	3	18%
		X			Q3- Describe the term "Competent Person" as it relates to construction safety.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	17	100%	0	0%	0	0%
X			X		Q4- What are the 3 most common types of concrete reinforcement?	2	1	1	2	2	2	2	2	0	2	2	2	2	2	2	2		14	82%	2	12%	1	6%
		X			Q5- How many cubic feet are in one cubic yard?	2	2	0	2	2	2	2	2	0	0	2	2	2	2	2	2		14	82%	0	0%	3	18%
X	X				Q6-What is a GFCI?	2	2	0	2	2	2	2	2	0	2	2	2	2	2	2	2		15	88%	0	0%	2	12%
X					Q7- In _____ framing, all joists, studs, and rafters are giving the same spacing.	2	2	0	0	2	2	2	2	2	2	2	2	2	2	2	0	2	14	82%	0	0%	3	18%
X			X		Q8- What is a foundation footer and why is it important?	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2		16	94%	0	0%	1	6%
	X				Q9- What is the proper working angle for setting a ladder?	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	17	100%	0	0%	0	0%
X		X			Q10- What would a 1:2:3 batch of good concrete mix, measured in buckets have in it?	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2		16	94%	1	6%	0	0%
X					Q11- What is the most ocmmon cause of injury on a construction site?	2	2	0	0	2	2	2	2	2	2	2	0	2	2	0	0		12	71%	0	0%	5	29%
	X				Q12-At what depth is a trench required to be sloped, benched, or shored?	0	2	2	2	2	0	0	2	2	0	2	0	2	2	2	2		12	71%	0	0%	5	29%
	X				Q13- What does NIOSH stand for and what is its purpose?	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2		16	94%	1	6%	0	0%
	X				Q14- What is the minimum a ladder must extend above "the point of support"?	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2		16	94%	0	0%	1	6%
X					Q15- _____ framing is the system that relies on fewer but larger pieces of framing memebers spaced further apart than conventional framing.	2	2	0	0	2	2	2	2	0	0	2	2	2	2	2	2		13	76%	0	0%	4	24%
X			X		Q16- Name at least 4 building codes used in modern construction?	2	2	2	2	2	2	2	2	0	2	2	2	2	2	2	2		16	94%	0	0%	1	6%
	X				Q17- OSHA requires scaffold platforms must be a minimum of….	2	2	0	2	0	0	0	2	2	2	2	2	2	2	2	2		13	76%	0	0%	4	24%
	X				Q18- OSHA requires mid-rails on a scaffolding must withstand a minimum force of….	2	2	0	0	2	0	0	2	2	2	2	0	2	0	2	2		10	59%	0	0%	7	41%
X			X		Q19- Name the 7 types of plans that you would find in a full set of Architectural Blue Prints?	2	1	2	2	2	2	2	2	0	2	2	2	2	2	2	2		15	88%	1	6%	1	6%
			X		Q20-What is the main purpose of the "Building Code"?	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2		16	94%	0	0%	1	6%
	X				Q21- Scaffold must be secured to the structure when it exceeds height to base ratio over……	2	2	0	2	0	2	0	2	0	0	2	0	2	2	2	0		9	53%	0	0%	8	47%
	X				Q22- OHSA require a safety net must absorb the minimum force of…	0	2	0	2	2	2	0	0	2	2	0	2	0	2	0	2	2	10	59%	0	0%	7	41%
X					Q23- In _____ framing the walls are framed continous from one story to another. The studs run from the still plate to the top plate of the 2nd floor.	2	2	2	2	2	2	2	2	0	2	2	2	2	2	0	2		15	88%	0	0%	2	12%
	X				Q24- OSHA requires all fall protection system must withstanding a force of….	2	2	2	2	0	2	0	0	2	2	0	0	0	2	0	2	2	10	59%	0	0%	7	41%
			X		Q25- What is the purpose of a "Building Permit"?	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		17	100%	0	0%	0	0%
X				X	Q26- what is the formul (math) for estimating concrete?	2	2	0	2	2	2	2	2	0	2	2	2	2	2	2	2		15	88%	0	0%	2	12%
	X				Q27- The top rail of a handrail system must withstand a minimum force of…	0	2	0	2	0	0	0	0	2	2	2	0	2	0	2	2		9	53%	0	0%	8	47%
	X				Q28- Where is the first aid section located on an SDS?	2	2	2	2	0	2	0	2	2	2	2	0	2	2	2	2		14	82%	0	0%	3	18%
					Q29- Draw the symbol used on a set of Blue Prints for the following:																							
X			X		A. Hose Bib	2	2	0	2	0	2	2	2	2	2	2	2	2	2	0	2		13	81%	0	0%	3	19%
X			X		B. Pull Switch	2	0	2	2	2	2	2	2	2	2	2	2	0	2	2	2		14	88%	0	0%	2	13%
X			X		C. Duplex Receptacle	2	2	2	2	0	2	2	2	2	2	2	2	0	2	2	2		13	81%	0	0%	3	19%
X			X		D. Tub	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		16	100%	0	0%	0	0%
X			X		E. Range Outlet	2	2	0	2	0	2	2	2	2	2	2	2	2	2	2	2		14	88%	0	0%	2	13%
X			X		F. Door	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		16	100%	0	0%	0	0%
X			X		G. Toilet	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		16	100%	0	0%	0	0%
X			X		H. Window	2	2	0	2	0	2	2	2	2	2	2	2	2	2	2	2		14	88%	0	0%	2	13%
X			X		I. Power Panel	2	2	2	2	2	2	2	2	0	2	2	0	2	2	2	2		14	88%	0	0%	2	13%

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X			X		J. Single Pole Switch	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	0	2	14	88%	0	0%	2	13%
X	X				Q30- A procedure using tags to prevent accidents	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
		X		X	Q31- Estimate how many yards of concrete are in a footing of a house that is 23'-6" x 31'-6", the footing is 16" wide and 8" deep. (Show your work) (Round to the nearest 1/4 yard)	2	2	0	1	1	1	2	2	0	0	1	2	1	2	2	1	2	7	44%	6	38%	3	19%
					Q32- Match Each concrete related term to its defintion below																							
X					A. An ingredient added to concrete to speed the curling process	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
X					B. The granular component of concrete, such as sand or gravel.	2	2	0	2	2	2	2	2	0	2	2	2	2	2	2	2	2	14	88%	0	0%	2	13%
X					C. The component of concrete that is made of lime, silica, and alumina.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
X					D. The chemical reaction that occurs when concrete is mixed with water.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
					Q33- A unit of measure that represents a piece of lumber with a flat surface of 1 sq. ft. and a thickness of 1" is called?	2	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	88%	0	0%	2	13%
	X				Q34- Convert each fraction to a decimal:																							
	X				A. 1/8"	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
	X				B. 5/16"	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
	X				C. 1/2"	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
	X				D. 5/8"	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
	X				E. 13/16"	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
	X				F. 7/8"	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
	X				Q35- What is required for excavation over 4' deep?	2	2	0	2	2	2	2	2	2	2	2	0	2	0	2	2	2	13	81%	0	0%	3	19%
	X				Q36-Guardrails, hole covers, safety nets are considered what type of fall protection?	2	2	0	2	0	2	2	2	2	2	2	0	2	2	0	2		12	75%	0	0%	4	25%
X					Q37- Describe the difference between live load and dead load.	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
	X				Q38- OSHA requires top Guardrails to be placed at what elevation from finished floor?	2	2	2	2	0	2	0	0	2	0	2	2	2	2	2	2		12	75%	0	0%	4	25%
	X				Q39- Personal fall arrest systems and positioning systems are considered what type of fall protection system?	2	2	0	2	2	2	2	2	2	0	2	0	2	2	2	2		13	81%	0	0%	3	19%
	X				Q40- The OHSA act was written into law which year?	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
					Q41- Estimate the materials for the wood floor pictured below. Include steel columns @ 10' OC, Sill stock (Add 10%), Sill seal (50' per roll), Floor Joist @ 24"OC , and Plywood.																							
		X		X	A. Steel Posts	2	2	1	2	0	0	0	0	0	0	0	2	2	2	2	2	0	7	44%	1	6%	8	50%
		X		X	B. Sill stock	2	2	1	2	1	0	0	2	2	0	0	2	2	2	2	2	0	9	56%	2	13%	5	31%
		X		X	C. Sill seal	2	2	1	2	1	0	0	2	2	0	2	2	2	2	2	2	0	10	63%	2	13%	4	25%
		X		X	D. Joist Stock	0	0	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	4	25%	0	0%	12	75%
		X		X	E. Plywood	2	2	1	2	0	2	0	2	0	2	2	2	2	2	2	2	0	11	69%	1	6%	4	25%
		X		X	Q42- Describe the differences between an Estimate and a BID?	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
X					Q43- What test measure's the consistency of concrete?	2	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	14	88%	0	0%	2	13%
	X				Q44- OSHA requires Fall Protection if a worker can fall more than_____	2	0	2	2	2	2	0	2	2	0	2	2	2	2	2	2	2	13	81%	0	0%	3	19%
					Q45- Estimate how many yards of concrete are in the house pictured below. (Show your work) (round to the nearest 1/4 yard)																							
		X		X	A. 4" Thick slab	0	0	0	0	0	2	0	2	0	0	0	2	1	2	2	0	0	5	31%	1	6%	10	63%
		X		X	B. 6" Thick slab	0	0	0	0	0	2	0	2	0	0	1	2	1	2	2	2	0	6	38%	2	13%	8	50%
					Q46- Calculate the block and mortar needed for a retaining wall 8' tall and 25' long retention wall. (Show your work) (round to the nearest 1/4 yard.) (Block add 2% for waste)																							
		X		X	A. Block	2	2	2	1	0	0	1	2	0	0	0	2	2	2	2	2	2	9	56%	2	13%	5	31%
		X		X	B. Mortar	2	2	2	2	0	0	2	2	0	0	0	2	2	2	2	2	2	11	69%	0	0%	5	31%
					Q47- Calculate the block nad mortar needed for a 4' tall stem wall on a building thatis 30' x 45' (Show your work) (Round to the nearest 1/4 yard) (Block add 2% for waste)																							
		X		X	A. Block	2	0	1	1	0	2	2	2	2	0	0	2	2	2	2	1	1	8	50%	4	25%	4	25%
		X		X	B. Mortar	2	0	2	2	0	2	2	2	0	0	0	2	1	2	2	1	1	8	50%	3	19%	5	31%
					Q48- Label all of the framing members shown in the drawing below:																							
X					A. Bottom Plate	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
X					B. Cripple	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
X					C. Built-up header	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
X					D. Studs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
X					E. Trimmer	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
X					F. Dble. Top Plate	2	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	14	88%	2	13%	0	0%

CTM 123 Comprehensive Results

PO #1	PO #2	PO #3	PO #4	PO #5	CTM 123 Comprehensive Exam	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	Overall # of Students Who Got Question Fully Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Partially Correct	Overall % of Students Who Got Question Fully Correct	Overall # of Students Who Got Question Incorrect	Overall % of Students Who Got Question Incorrect
X					G. Sill Plate	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
X					H. Solid Header	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
X					I. Top Plate	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	1	6%	0	0%
X					J. Dble. Sill Plate	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
					Q49- Use the Span Chart on the last page: What is the Maximum Allowable spans for: DL = 10 DL =20																							
X		X	X	X	A. Douglas Fir, Sel Struc, 2x12 @24"oc:	2	2	2	2	0	2	2	1	2	2	2	2	2	2	2	2	2	14	88%	1	6%	1	6%
X		X	X	X	B. Southern Pine, No. 2, 2x10 @ 19.2"oc:	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
X		X	X	X	C. Douglas Fir, No. 1 2x10 @16"oc;	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
X		X	X	X	D. Hem Fir, No. 2 2x8 @12"oc	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
X		X	X	X	E. Larch, No. 3, 2x12 @19.2"oc;	2	2	2	2	0	2	0	2	2	2	2	2	2	2	2	2	2	14	88%	0	0%	2	13%
X		X	X	X	F. Southern Pine, No. 3, 2x6 @ 24'oc:	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
X		X	X	X	G. Spruce, No. 1 2x8 @12'oc;	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
X		X	X	X	H. Pine, No. 3, 2x6 @ 19.2"oc:	2	0	2	0	0	0	0	2	0	0	2	2	2	2	2	2	2	9	56%	0	0%	7	44%
X		X	X	X	I. Douglas Fir, No. 2, 2x8 @16"oc:	2	2	2	1	0	2	2	2	2	2	2	2	2	2	2	2	2	14	88%	1	6%	1	6%
X		X	X	X	J. Hem Fir, No. 1, 2x10 @24'oc:	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
X		X	X	X	K. Spruce, SS, 2x8 @19.2'oc:	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
			X		X	Q50- 14 3/4" 10 1/2" + 9 5/8"	2	2	2	0	2	0	2	0	2	0	2	2	2	2	2	2	2	12	75%	0	0%	4	25%
			X		X	Q51- 17 5/8" 12 3/16" +11 15/16'	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
			X		X	Q52- 2' 4 7/8" 9 5/16" + 3 3/4"	2	2	2	0	0	2	2	2	2	2	2	2	2	2	2	2	2	14	88%	0	0%	2	13%
			X		X	Q53- 13' 2 1/4" 1' 3 11/16" +4 5/8"	2	2	2	0	2	0	2	2	2	2	2	2	2	2	2	2	2	14	88%	0	0%	2	13%
			X		X	Q54- 11 3/4" -3 13/16"	2	2	2	0	0	2	2	2	0	2	2	2	2	2	2	2	2	13	81%	0	0%	3	19%
			X		X	Q55- 13 3/8" -7 5/16"	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	16	100%	0	0%	0	0%
			X		X	Q56- 2' 8 3/8" -11 516"	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
			X		X	Q57- 19' 1 3/4" -7' 4 3/8"	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
			X		X	Q58- 13 1/4" 8 15/16" +3 3/8"	2	2	2	0	0	2	2	2	2	2	2	2	2	2	2	2	2	14	88%	0	0%	2	13%
			X		X	Q59- 12 5/16" 9 3/16" +1 3/16"	2	2	2	0	0	2	2	2	2	2	2	2	2	2	2	2	2	14	88%	0	0%	2	13%
			X		X	Q60- 1' 5 7/8" 1' 2 5/16" +1' 2 1/4"	2	2	2	0	2	2	2	0	2	2	2	2	2	2	2	2	2	13	81%	0	0%	3	19%
			X		X	Q61- 11' 2 3/4" 11' 1 15/16" +5/8"	2	2	2	0	0	2	2	2	0	2	2	2	2	2	2	2	2	13	81%	0	0%	3	19%
			X		X	Q62- 123 1/4" -81 15/16"	2	2	2	0	0	2	2	2	0	2	2	2	2	2	2	2	2	13	81%	0	0%	3	19%
			X		X	Q63- 9 5/8" -9 3/16"	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	15	94%	0	0%	1	6%
			X		X	Q64- 11' 3 3/8" -1 5/16"	2	2	2	0	0	2	2	0	2	0	2	2	2	2	2	2	2	12	75%	0	0%	4	25%
			X		X	Q65- 9' 1 3/4" -11 3/8"	2	2	2	2	0	2	2	0	2	0	2	2	2	2	2	2	2	13	81%	0	0%	3	19%
X			X		Q66- Draw the cross section of a typical single story residential footing. Include depth, width, and all details required by the IRC/UBS codes. Be sure to label all parts. (Please use a straight edge, neatness counts).	2	2	2	2	0	2	2	2	2	1	1	2	2	2	2	2	2	13	81%	2	13%	1	6%

47%	19%	45%	26%	38%	108
51	21	49	28	41	

Attachment H

2017-2019 Program-Level Outcomes Summary for Certified Nursing Assistant and the Nursing Degree

Spring 2017- Spring 2019 Summary of Skills Lab Final Exam Results

Summary of Skills Lab Results

	201710	201780	201810	201910
PLO #1	92%	95%	97%	97%
PLO #2	94%	95%	96%	97%
PLO #3	92%	95%	97%	97%
PLO #4	98%	99%	98%	98%
PLO #5	92%	95%	97%	97%
N =	42	29	31	38

Spring 2017-Spring 2018 % of Students Performance in Skills Lab
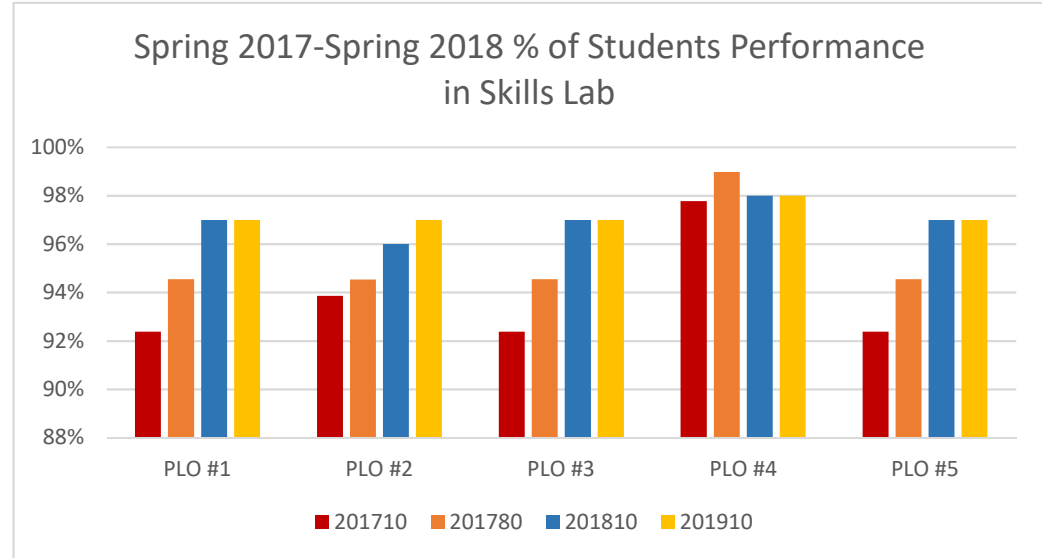
Student Learning Program-level Learning Outcomes

PLO #1	1. prepared to take the certified nursing assistant exam
PLO #2	2. ultilize medical terminology appropriately
PLO #3	3. solve problems using skills and knowledge in regards to body systems
PLO #4	4. apply their understanding of patient rights
PLO #5	5. demonstrate scope of practice as a nursing assistant

Key

OVERALL	# of Questions Answered Correctly
OVERALL %	% of Questions answered Correctly
MAX	MAX # of Students who answered PLO Question Corrcetly
MIN	MIN # of Students Who Answered Question Correctly

Nursing (AAS)

Program Outcomes	NEW Program Outcomes
demonstrate safe performance of nursing skills of a registered nurse;	prioritize care for multiple patients
exhibit legal and ethical behaviors of a registered nurse;	demonstrate technical skills required of a registered nurse
manage client care by using the nursing process;	incorporate current evidence into clinical practice
effectively communicate nursing knowledge with patients and other healthcare professionals;	demonstrate patient, self, environmental safety
incorporate evidence based practice;	demonstrate professional, ethical and legal behaviors of a registered nurse
and be prepared to take nursing licensure testing;	utilize the nursing process effectively to provide patient centered care
	integrate healthcare technology into clinical practice
	function effectively within nursing and interprofessional teams

Nursing (AAS) to QSEN Competencies

Program Outcomes	Patient-Centered Care	Teamwork & Collaboration	Evidence Based Practice	Quality Improvement	Safety	Infomatics
prioritize care for multiple patients	X	X			X	X
demonstrate technical skills required of a registered nurse	X		X		X	X
incorporate current evidence into clinical practice	X		X	X	X	?
demonstrate patient, self, environmental safety	X	X			X	
demonstrate professional, ethical and legal behaviors of a registered nurse	X	X	X	X		
utilize the nursing process effectively to provide patient centered care	X	X	X	X	X	X
integrate healthcare technology into clinical practice	X			X	X	X
function effectively within nursing and interprofessional teams	X	X		X	X	X

Nursing (AAS)

Program Outcomes	REQUIRED						
	NTR 135	NUR 114	NUR 116	NUR 124	NUR 215	NUR 220	NUR 222
prioritize care for multiple patients				A	S	S	
demonstrate technical skills required of a registered nurse		A	A	S	S	S	
incorporate current evidence into clinical practice	K	A	K	A	S	S	S
demonstrate patient, self, environmental safety		A	A	A	S	S	S
demonstrate professional, ethical and legal behaviors of a registered nurse	K	A	A	A	A	S	S
utilize the nursing process effectively to provide patient centered care		K	K	A	S	S	
integrate healthcare technology into clinical practice		A	A	A	A	S	
function effectively within nursing and interprofessional teams	K	K	K	A	A	S	S

Nursing (AAS)

Program Outcomes	REQUIRED						
	NTR 135	NUR 114	NUR 116	NUR 124	NUR 215	NUR 220	NUR 222
prioritize care for multiple patients				Clinical Observation/ Written tests	Clinical / Written test	Clinical / Written test / ATI	
demonstrate technical skills required of a registered nurse		Medication calculation test	Skills lab checkoff/ Medication administration	Clinical / Sim / Written / Skills Lab	Clinical / Sim / Written / Skills Lab	Clinical / Sim / Written / Skills Lab / ATI	
incorporate current evidence into clinical practice	K	Medication calculation test	Create a concept map	Concept map / Sim lab / Clinical	Concept map / Sim lab / Clinical	Concept map / Sim lab / Clinical / ATI	Written tests
demonstrate patient, self, environmental safety		Medication calculation test	Medication administration check-off/Skills Lab	Concept map / Sim lab / Clinical / Written	Concept map / Sim lab / Clinical / Written	Concept map / Sim lab / Clinical / Written / ATI	Written tests
demonstrate professional, ethical and legal behaviors of a registered nurse	K	Written tests	Clinical observation/ Written tests	Sim Lab / Clinical / Written	Sim Lab / Clinical / Written	Sim Lab / Clinical / Written / ATI	Written tests
utilize the nursing process effectively to provide patient centered care		Written tests	Concept Map/Written test	Concept / Sim / Clinical / Written	Concept / Sim / Clinical / Written	Concept / Sim / Clinical / Written / ATI	
integrate healthcare technology into clinical practice		Written tests	Skills lab check-off	Sim Lab / Skills Lab / Clinical	Sim Lab / Skills Lab / Clinical	Sim Lab / Skills Lab / Clinical / ATI	
function effectively within nursing and interprofessional teams	K	Written tests	Clinical Observation/ Written tests	Sim Lab / Clinical / Written	Sim Lab / Clinical / Written	Sim Lab / Clinical / Written / ATI	Written tests

Attachment I

2017-2018 Program-Level Outcomes Assessment for Computer Information Systems (CIS)

Sarah Southwick

From:	Sarah Rencher
Sent:	Tuesday, February 12, 2019 10:28 AM
To:	Sarah Southwick
Cc:	Duane Marshall
Subject:	Re: 2019 Spring CTE Assessment Projects - CIS

Sarah S.,

Please find our update for our 17-18 assessment data below:

Our department collected data on CIS117 and CIS240 in the academic year 17-18. After thoroughly reviewing this data, we have made a few conclusions. First, it was made clear that we should revise our program outcomes. The current set of program outcomes we are working from are quite old and do not clearly reflect the goals for our program at this time. As a department, we are working to revise the program outcomes to better align with our overall goals for the program. We are working on this revision during the academic year 18-19. In addition, we did find value in the CIS117 and CIS240 data on a general level. The CIS117 data has helped to identify a few areas where the additional focus is needed and areas where students may need reinforcement of concepts. CIS240 is undergoing a complete overhaul. It was helpful to see how broadly the students were assessed and why narrowing that and being more deliberate with the assessment is crucial to gain valuable data.

Please let us know if you need additional information from us.

Sarah Rencher
CIS Full Time Faculty
Career and Technical Education
2800 S. Lone Tree Road | Flagstaff, AZ 86005
www.coconino.edu | Phone: 575-322-8045
Email: sarah.rencher@coconino.edu

Students: Have a question? Schedule a meeting with me by visiting: https://calendly.com/sarah-rencher

Do not be afraid to walk the path that you must go just because you cannot see the end. The path becomes clearer as you continue to go on. - Tracy Allen

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From: Sarah Southwick
Sent: Tuesday, January 29, 2019 12:14 PM
To: Sarah Rencher; Duane Marshall
Cc: Jeff Jones; Colleen Carscallen; Gonzalo Perez
Subject: 2019 Spring CTE Assessment Projects - CIS

Hi Sarah and Duane!

There are a couple of assessment projects that need to be completed to help grow assessment into something you can use and benefit your program. I have included a Word document that goes into more detail about the projects, but essentially they are decide on the program outcomes you want to measure, review the assessment data gathered from last year, create an assessment plan (prioritize the program outcomes you want to measure each year), and map the course outcomes to the program outcomes.

Once you have an assessment plan, we can meet to review it and decide where to gather good assessment data this year.

It would help me a great deal if you could review this plan and provide me with a rough idea of how long it might take you to complete and whether or not you will need assistance from me. Ideally, I'd like to have it done by Spring Break to have time to decide where to collect assessment data for this year.

If you have any questions or concerns, please let me know.

Thank you,
Sarah

Attachment J

*2017-2018 Program-Level Outcomes Assessment for
Administration of Justice (AJS)*

2017-2018 Summary of AJS 280 Final Exam Results

2017-2018 % of Students Peformance on AJS 280 Final Exam
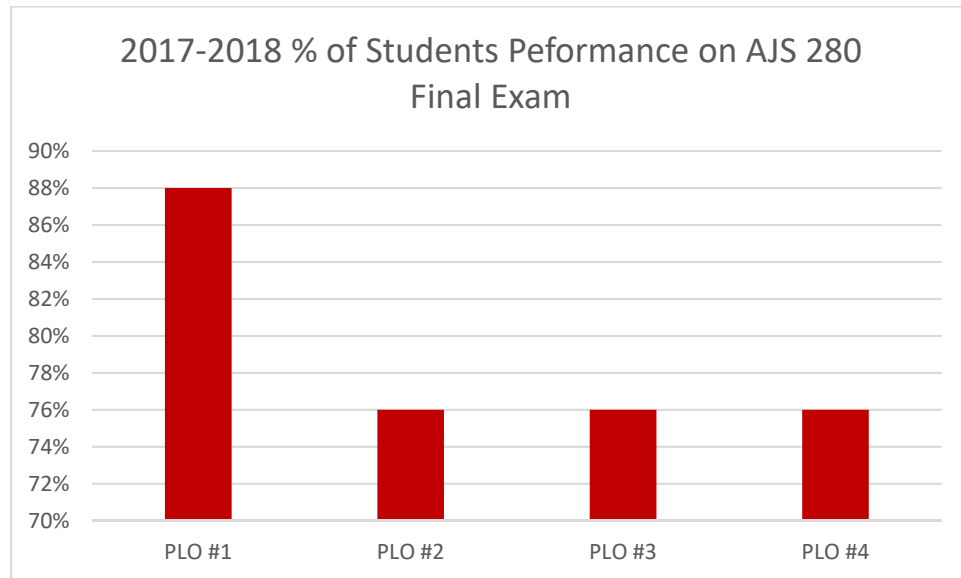
**2017-2018 Summary Results
from AJS 280 Exam**

	17-18
PLO #1	88%
PLO #2	76%
PLO #3	76%
PLO #4	76%
N =	**32**

Student Learning Program-level Learning Outcomes

Students will be able to:

PLO #1	1. understand the structure of the criminal justice system and the functions of its constituents
PLO #2	2. communicate knowledgeably about the AJS field.
PLO #3	3. react appropriately to a given situation based on the individual needs or a person or situation.
PLO #4	4. practically interpret the Constitution.

Results of 201810 AJS 280 Final

AJS Program Outcomes

Students will be able to:

1. understand the structure of the criminal justice system and the functions of its constituents

    2. communicate knowledgeably about the AJS field.

        3. react appropriately to a given situation based on the individual needs or a person or situation.

            4. practically interpret the Constitution.

Results of Spring 2018 AJS 280 Comprehensive Final

PO #1	PO #2	PO #3	PO #4	AJS 280 Final Exam Questions	Overall # of Students Who Answered Question Correct	Overall % of Students Who Answered Question Correct
x				1. An academic discipline that makes use of the scientific method to study the nature, extent, cause and control of criminal behavior. This is the definition of:	32	100%
	x			2. The concept of criminal law has been recognized for more than 3000 years. Hammurabi (1792-2750 BCE) was the 6th King of Babylon and is repsonsible for creating the 1st set of known written law:	32	100%
x	x			3. Positivism has two main elements: Human behavior is a function of forces beyond a person's control and biological makeup influences human behavior.	27	84%
x	x			4. Define Pedophile:	32	100%
x	x	x		5. Females ar emost likely to commit suicide and be aggressive and otherwise antisocial just before or during menstruation.	28	88%
	x	x		6. There is evidence that states, people with BLANK are prone to depression, irritability, temper outbourst and even homicidal attacks.	20	63%
	x	x		7. The most serious forms of psychological disturbance will result in mental illness referred to as psychosis.	24	75%
	x	x		8. Human Nature Theory argues that personal traits such as genetic makeup, intelligence, and body-build may outweigh the importance of social variables as predictors of criminal activity.	16	50%

Results of Spring 2018 AJS 280 Comprehensive Final

PO #1	PO #2	PO #3	PO #4	AJS 280 Final Exam Questions	Overall # of Students Who Answered Question Correct	Overall % of Students Who Answered Question Correct
	x	x		9. Studies have shown implusive people have low self-control and a weak bond to society; they often cannot resist criminal opportunities.	32	100%
	x	x		10. Submission involves:	32	100%
	x	x		11. At what point does homicide become the work of a serial killer:	32	100%
x	x	x		12. Explain Hate Crimes:	32	100%
x				13. 4 billion dollars is spent annually in this country to deal with:	32	100%
	x	x		14. Under Biosocial Theories of Crime, what are the causes of criminal behavior?	31	97%
	x	x		15. The consensus view of crime links illegal behavior to the concept of:	27	84%
		x		16. The sexual equality view of prostitution considers the porstitute a victim of:	24	50%
x	x			17. An aspect of criminology that overlaps with the study of criminal justice which involves the corrections and control of known criminal offenders is:	27	84%
	x	x	x	18. Under the Definition of crime, the consensus view is:	24	75%
x				19. The Code of Hammurabi dates back to:	31	97%
		x	x	20. In AZ Revised Stastutes, rape is defined as:	29	60%
			x	21. Enforcing social control, discouraging revenge, punishing wrongdoing, maintaining social order, providing restortaion, are goals of:	23	48%
	x	x		22. The phrase "ecology of crime" refers to:	19	59%
		x		23. Violent crimes are more likely to be solved than property cimes because police devote more resources to the more serious acts.	31	65%
	x			24. Criminologists who focus their attention on crime victims rather to themselves as:	30	94%
	x			25. Victims' Rights were created under which Presidential Administration?	18	56%

Results of Spring 2018 AJS 280 Comprehensive Final

PO #1	PO #2	PO #3	PO #4	AJS 280 Final Exam Questions	Overall # of Students Who Answered Question Correct	Overall % of Students Who Answered Question Correct
	x	x		26. Deterrence Thoerist tends to believe that the BLANK of punishment seems to have a greater impact than its severity of speed.	17	53%
	x	x		27. The basic elements of classical criminology do nto include which of the following ideas:	26	81%
	x	x		28. Level sof testosterone, the principle male steroid hormore, decrease during the life cycle and may explain why violence increases with age.	29	91%
	x	x		29. Females are most likely to not commit suicide and not be aggressive or otherwise antisocial just before or during menstruation.	16	50%
	x	x		30. Studies have found that in areas with high levels of lead tend to rpeort the highest level in homicides.	30	94%
	x	x		31. The most serious forms of psychological disturbance will result in mental illness referred to as paranoia.	6	19%
	x	x		32. Social learning theorists view violence as something learned through a process called:	27	84%
x				33. The work of Cesare Lombroso and his contemporaries is regarded today as historical scientific fact.	20	63%
				34. None	27	56%
	x	x		35. Excessive amounts of harmful substances such as food dyes and articfical colors and or flavors along with sugar and carbohydrates seem to provoke hostile, implusive, and otherwise anti-social behavior.	31	97%
			x	36. People in the United States live in what type of society?	27	56%
x	x	x		37. The wealth concentration effect in a worldwide phenomenon. In the United States, the top 1/10th of 1% of households averages about how much annually?	19	59%

Results of Spring 2018 AJS 280 Comprehensive Final

PO #1	PO #2	PO #3	PO #4	AJS 280 Final Exam Questions	Overall # of Students Who Answered Question Correct	Overall % of Students Who Answered Question Correct
	x	x		38. BLANK suggest that social and economic forces operating in deteriorated lower class areas are the key determinan of criminal behavior patterns.	25	78%
	x	x		39. Those who occupy the lowest levels of the underclass in which they are socially isolated, live in urban inner cities, and are victims of discrimination are known as:	18	56%
	x	x		40. Social disorganizzation theory was popularized by the work of two Chicago sociologist:	27	84%
	x	x		41. BLANK occurs when the rules expressed in the criminal law clash with the demands of group conduct norms.	20	63%
	x	x		42. BLANK theory focuses on the conditions within the urban environment that effect crime rates.	24	75%
	x	x		43. Social process theories hold that criminality is a function of individual socialization.	24	75%
	x	x		44. Males ar emore likely to socialize with deviant peers than are females and they are more likely to be deeply influenced by these deviant peers. This finding explains how differential association may explain the gender difference in the crime rate.	20	63%
			x	45. Contextual discrimination refers to judicial practices in some jurisdictions whereby lighter sentences are imposed on African Americans for certain offenses.	19	40%
	x	x		46. Which of the following has been linked to decreasing crime?	29	91%
	x	x		47. The morally tinged influences, which have been become entrenched in the culture, but that are publically condemned, are known as:	24	75%
	x	x		48. This occurs when norm violationns or crimes have very little influence on the actor and can be quickly forgotten.	18	56%
	x	x		49. ALF, Animal Liberation Front; ELF, Earth Liberation Front and Earth First are also known as:	19	59%

Results of Spring 2018 AJS 280 Comprehensive Final

PO #1	PO #2	PO #3	PO #4	AJS 280 Final Exam Questions	Overall # of Students Who Answered Question Correct	Overall % of Students Who Answered Question Correct
	x	x		50. According to Sir Patrick Devlin, so-called victimless crimes should be prohibited because one of the functions of criminal laws is to express a shared sense of:	22	69%
10	39	36	5			
13%	52%	48%	7%			

Coconino Community College Assessment Manual

Assessment Manual

COCONINO COMMUNITY COLLEGE

APRIL 4, 2018

Introduction

Through the analysis of how we teach, we improve learning. This requires engaged students, faculty, and staff who together evaluate what is being taught and learned. Determining if a student is on track to accomplish expected outcomes requires the attention of the entire Coconino Community College community. Assessment is that process of learning how to improve, be better teachers, and ensure Coconino students are progressing, gaining knowledge, and preparing for their next steps.

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PART I - Assessment of Student Learning Outcome Rationale

Coconino Community College (CCC) values institutional effectiveness. Since offering the first course in 1991, various departments and faculty have engaged in numerous assessment practices for strengthening the teaching and learning processes.

The College recognizes its responsibility for assessing student learning outcomes. To achieve this, it is important to have both consistency and flexibility. The consistency is needed to create baseline and subsequent data for continual assessment decision making. Flexibility is required as newly developed programs and courses are added and as established programs and courses adapt to new technologies. Flexibility is also needed to adjust to findings determined in evaluating learning outcomes. Assessment of student learning helps the College achieve the highest quality education available to its students. In addition, the College recognizes the need for long-term commitment to assessment through leadership and strategic fiscal planning.

All faculty, whether they realize it or not, evaluate themselves in one way or another because when teaching, they care about learning. Assessment allows us to share what faculty are learning about teaching with others. Quantifying and qualifying what we know about learning helps colleagues see what is of value and what needs to change.

It is critical that CCC has an organized and systematic method of assessment that adequately maintains the assessment plans over time and does not depend on any one individual in any particular position. Therefore, we strive to implement our learning outcomes assessment plan with broad-based participation to assure that assessment at CCC is an integral part of all college activities (Banta and Palomba).

CCC has developed a formal policy to help ensure continuity in its assessment of student learning. DGB Policy 302-00 provides one such step towards valuing learning assessment over time. The policy reads:

<u>302-00 ASSESSMENT OF STUDENT LEARNING – POLICY</u> (Approved by DGB Feb. 21, 2018)

Assessment of student learning is an ongoing, systematic approach to establishing clear and measurable goals of learning. Coconino Community College supports student learning assessment as a means of understanding and improving student learning. Information on student learning will be gathered, analyzed, and interpreted for continuous improvement of teaching and learning. The assessment of student learning may be at the course, program, or institutional level. Assessment fosters effective student learning, curriculum enhancement, and program development, and contributes to resource allocation decisions. While assessment of student learning is a college-wide responsibility, the College is committed to the central role of Academic Affairs in the assessment processes.

PART II - Guiding Philosophy

Coconino Community College (CCC) is a multi-campus public institution of higher education serving primarily the residents of Coconino County. College faculty and staff aspire to challenge students academically, encourage pride in self and heritage, and promote an appreciation of other cultures. The College is dedicated to the ideals of life-long learning by addressing the whole person through its commitment to those who seek to improve their skills, enrich their lives, and enhance their futures. The faculty and staff strive to advance democratic ideals of equal opportunity for success, individual worth, and informed responsible citizenship.

The College's mission statement informs all of CCC's assessment practices:

COCONINO COMMUNITY COLLEGE MISSION STATEMENT
As a learning-centered college, we enrich lives by embracing diversity and transforming the future through quality education.

To accomplish its mission, the College provides access to educational opportunities for a diverse student population. The College promotes cultural, intellectual, physical, and social development, technical competence, and serves as a resource for community development. As a degree-granting institution, the College assesses its programs, services, and student academic achievement for the purpose of continuous improvement and to guide strategic planning and decision-making.

Assessment is a term currently used for "evaluating student learning outcomes." Assessment is designed to improve learning. Data and "artifacts" are gathered to learn how to better evaluate instruction and learning. All effort is undertaken with the goal of how to improve teaching and learning in our courses.

The Higher Learning Commission (HLC) (2017) that accredits CCC has much to say on assessment. Section 4 of the **HLC Guiding Values** provides a context as to why we value assessment at Coconino Community College. In the section on "A culture of continuous improvement," it states:

Continuous improvement is the alternative to stagnation. Minimum standards are necessary but far from sufficient to achieve acceptable quality in higher education, and the strongest institutions will stay strong through ongoing aspiration. HLC includes improvement as one of two major strands in all its pathways, the other being assurance that member institutions meet the Criteria and the Federal Requirements.

A process of assessment is essential to continuous improvement, and therefore a commitment to assessment should be deeply embedded in an institution's activities. Assessment applies not only to student learning and educational outcomes but to an institution's approach to improvement of institutional effectiveness.

For student learning, a commitment to assessment would mean assessment at the program level that proceeds from clear goals, involves faculty at all points in the process, and analyzes the assessment results; it would also mean that the institution improves its

programs or ancillary services or other operations on the basis of those analyses. Institutions committed to improvement review their programs regularly and seek external judgment, advice, or benchmarks in their assessments. Because in recent years the issues of persistence and completion have become central to public concern about higher education, the current Criteria direct attention to them as possible indicators of quality and foci for improvement, without prescribing either the measures or outcomes.

Innovation is an aspect of improvement and essential in a time of rapid change and challenge; through its Criteria and processes HLC seeks to support innovation for improvement in all facets of institutional practice. (p. 6)

As noted, there is reference to meeting Federal Requirements. This reference is to the Department of Education (DOE), which puts forward this dictum through the Office of Educational Technology (2015): "At all levels, our education system will leverage the power of technology to measure what matters and use assessment data to improve learning." Most of the Department of Education's efforts have been geared towards K-12 assessment, but efforts at the lower levels inform many of the efforts at the post-secondary level.

PART III - Historical Background of Assessment at Coconino Community College

It is important to provide a historical context of our assessment process, informing where we were and where we need to go. Assessment planning in 1991 began at the grass roots level with the full support of the faculty and staff. In the first developed assessment manual and documents, it was contended that the purpose of assessment was designed to:

1) Enroll students in courses/programs in which they will most likely succeed;
2) Promote continuous, constructive, and critical review of all CCC programs and courses;
3) Assess the college's effectiveness in fulfilling its mission.

Through the assessment process we can enhance student learning outcomes and improve the quality of instruction and programs, administrative and support services, and resource allocation.

From 1991 to the present, our concept of the meaning of assessment has evolved. Currently, we have set out to make a dynamic process that considers the best of practices in assessing student learning.

PART IV - What is Assessment?

Coconino Community College desires to have a meaningful assessment program that reflects its values and academic culture. To that end, a clear understanding of what assessment means is needed. Definitions can be concise, others wordy; they can be influenced by personality, experience, expertise and expectation. There are multiple approaches to defining assessment, but the underlying purpose of each is to improve student learning.

Consider the following brief survey of definitions from other colleges and universities:

> "The word *assess* comes from the Latin *assidere*, which means *to sit beside*. Literally then, *to assess* means to *sit beside the learner*." (Stefanakis 2002).

> "Assessment is a set of processes designed to improve, demonstrate, and inquire about student learning" (Marchese 1987).

> "Assessment is the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving learning and development" (Palomba and Banta 1999: 4).

> "The process of documenting knowledge, skills, attitudes and beliefs, usually in measurable terms.   The goal of assessment is to make improvements, as opposed to simply being judged. In an educational context, assessment is the process of describing, collecting, recording, scoring, and interpreting information about learning" (Pennsylvania State University 2018).

> Assessment, as the term is used at MSU-Bozeman, is the systematic process of gathering, interpreting, and acting upon data related to student learning and experience for the purposes of course and program improvement.   The connection between teaching and learning is a complex one, and it is necessary to use multiple measures to develop a comprehensive understanding of how curriculum design and delivery relate to student learning. Assessment is an iterative and adaptive process in which results inform changes to instructional and assessment practices. The critical element is the use of results in decision-making.   Finally, the basis of good assessment practice is a shared understanding of program goals to ensure that all those involved in curriculum delivery are working toward the same ends (Montana State University 2004 :1).

Accrediting agencies in the United States all have their own definition for assessment. The Higher Learning Commission (2017) that accredits Coconino Community College states, "Assessment and evaluation are used as ordinary language synonyms. When a narrower referent is intended, the terms are modified, as in "assessment of student learning" or "evaluation of academic services." (p. 13) In the assumed practices, HLC prescribes that data and artifacts "are accurate and address the full range of students who enroll." (p. 14) This means assessment should be consistent across all instructors, instructional methods, and instructional sites.

<u>Coconino Community College's Definition of Assessment</u>

Using HLC's broad definitions as a guide, Coconino Community College (2018) has created its own definition of assessment. The definition states:

Assessment is an ongoing, systematic process that involves: establishing clear, measurable expected goals of student learning; gathering, analyzing, and interpreting information; and applying information and using the results for continuous improvement of teaching and learning.

Student Learning Outcomes represent the measurable knowledge and skills that serve as the foundation for success in society and one's discipline, vocation, and life. Student Learning Outcomes are designed at the course level and program level, posted on the College website within course-level and program-level outlines, and included in course syllabi. Classroom and co-curricular data are collected and analyzed by faculty and staff from across the campus to determine whether students are meeting the expectations described by these outcomes.

PART V - Purpose of Assessment

To answer the question, "Why do we need assessment?" the College has developed a list of purposes for the assessment process:

1) To enhance the learning and teaching processes,
2) To satisfy student needs,
3) To compare with other institutions,
4) To provide continuous quality improvement,
5) To promote effective and efficient resources allocation,
6) To enhance faculty pedagogy/andragogy,
7) To improve college governance,
8) To provide information to stakeholders,
9) To promote staff development;
10) To improve strategic planning,
11) And to demonstrate institutional effectiveness to internal and external stakeholders.

To accomplish our purpose in assessment, we must have the following in place:

1) Establish a culture of assessment.
2) The assessment program must have the long-term commitment of administrative support and leadership.
3) Trust needs to exist between all players at the institution for there to be collaborative effort.
4) Faculty need to maintain assessment of student learning plans.
5) Programs are required to conduct regular program review.
6) Regular communication of assessment should occur through established processes.
7) Assessment results are not used for personnel evaluations.

Ultimately, all college personnel have responsibility in ensuring the education of our students. In order to accomplish the purpose of assessment, Coconino Community College has developed specific roles and responsibilities to ensure its continuity.

PART VI - Roles and Responsibilities

Faculty –
- Own and are responsible for the assessment of student learning.
- Participate in assessment activities such as developing learning outcomes, collecting samples of student work, participating in norming sessions, discussing desired outcomes or how to use results, directing students to appropriate co-curricular activities.
- Complete Course Assessment Reports regularly.

Programs – The councils (Executive, Academic, Student Development, and Business & Administrative) are responsible for establishing programs based on curricular or structural components or college needs. A list of current CCC programs for assessment purposes can be found in Appendix A.
- Engage program colleagues in shared conversations about student learning and assessment.
- Develop program goals and student learning objectives.
- Maintain assessment maps: a program curriculum map, Knowledge-Application-Synthesis map, and assessment activities map.
- Develop and implement direct and indirect assessment methods appropriate for the program.
- Routinely collect, assess, and reflect on data and artifacts about the program and student learning based on assessment.
- Work with other faculty to close the loop between findings and instruction.
- Report the use of assessment and specific changes to the Assessment, Program, and Training Coordinator.
- Relay assessment information to all program faculty.
- Act on assessment results.

Assessment, Program, and Training Coordinator –
- Assists the Assessment Committee and faculty to prioritize, develop, implement, and coordinate the assessment of student learning outcomes and academic program reviews.
- Completes assessment reports and collects and analyzes data for improving student learning.
- Ensures validity and reliability of data used in internal and external correspondences and reports.
- Maintains a repository for final assessment and program review resources and student learning outcome assessment materials.
- Provides information and advice on current instructional and assessment strategies.

- Prepares and disseminates materials to assist faculty and programs in the development of effective, meaningful, and manageable strategies for the assessment of student learning.
- Works with faculty to create an understanding of how assessment informs instruction and guides classroom teaching.
- Assists programs undertaking program review by providing strategies and processes for assessment of student learning.
- Works with the Institutional Research to facilitate support of faculty in assessment of student learning.
- Provides workshops or related activities to disseminate information about effective instructional practices and/or assessment practices as related to improving student learning.
- Ensures alignment of campus assessment initiatives with the reaccreditation standards and their emphasis on assessment of student learning.

Associate Dean of Curriculum and Assessment –
- Provides positive leadership in the coordination of campus-wide efforts related to improving student learning and educational effectiveness.
- Works with the Assessment Coordinator to ensure the assessment program functions at a high level.
- Acts as the co-chair of the Assessment Committee.

Assessment Committee – The charter for the Assessment Committee can be found in Appendix B.
- Acts as a resource to academic and non-academic programs, individual faculty, and committees for assessing student learning outcomes and program evaluation.
- Receives evaluation reports from all programs.
- Helps each program formulate an assessment plan.
- Verifies implementation of assessment plans.
- Helps conduct general education assessment.
- Proposes recommendations facilitating ongoing assessment practices which enhance institutional effectiveness.
- Provides training and educational opportunities for faculty and staff to facilitate awareness of assessment issues and practices.
- Remains current and knowledgeable about the latest assessment tools, practices, and guidelines.

General Education Committee - The charter for the General Education can be found in Appendix C.
- Coordinates assessment of the General Education program and student learning outcomes for general education.
- Assesses the quality of the General Education Program.
- Facilities and supports assessment efforts of the Assessment Committee.

- Works with the Assessment Coordinator and the Dean of Curriculum and Assessment to ensure the design, implementation, analysis, documentation, and funding of general education assessment.

Institutional Research –
- Provides support in developing, implementing, and analyzing appropriate methods as requested for program- and institutional-level assessment efforts.
- Provides findings from university-wide assessment methods.

Deans –
- Encourage and support faculty and programs to engage in assessing student learning at the classroom and program level.
- Make funding available to support program assessment efforts.
- Provide leadership and work with programs and the Assessment Coordinator to ensure completion of the assessment reports, including assessment updates.
- Act on assessment results.

Provost –
- Communicates the value of assessment and publicly promotes its importance.
- Identifies, establishes, and makes available support and resources that initiate, build, and sustain the commitment to assessment.
- Acts on assessment results.

PART VII - Assessment Plan

The assessment process for student academic achievement at CCC has been developed to respond effectively to the specific needs of our students and communities.

To make anything work, we need a map of where we are going and when we intend to get there. There are multiple ways to organize an assessment plan, but commitment to communication and excellence is the foundation. Agreement on determining the direction of an effective plan involves listening as part of the foundation-building process. Agreement means understanding multiple points of view so that we can improve our teaching. Time consideration in planning is a critical component of the process. Since students are only at the college for a short while, the assessment plan must advance at a pace that enables us to grow and learn to benefit students while they are here with us in the college. We owe it to our students to improve learning in a timely way so that their education is relevant to the world they enter when they leave Coconino Community College. It is critical to know where we are going and how to improve student learning. Knowing that students are engaged and progressing requires effort.

It is essential to have an assessment plan in place that evolves and changes within a structured framework. An assessment plan is:

"a document that outlines what empirical data will be collected, by whom, for the assessment each of the learning outcomes…." When this data is collected depends on the needs of the college, but typically it is collected in a multi-year cycle that allows for reflection and processing of the information. The process "*for reviewing the data, policies and procedures to guide discussion and feedback of the results; and the process for modifying the course, program or curriculum to improve student learning "*is a key component of the plan (California State University Northridge 2018).

Assessment planning is like any learning endeavor; it proceeds step by step. Assessment should be the process of sharing what we know about teaching and learning, and in this manual, we lay out steps to consider and the theoretical underpinning for what Coconino Community College is trying to accomplish through its assessment plans.

The current Coconino Community College Draft Procedure for Assessment (Appendix D) aligns us with the development of an assessment plan and the steps outlined below. As stated in the purpose of the draft Procedure, the goal is:

> To create an organized and systematic method of assessment at CCC. As a degree-granting institution, the College assesses its programs, services, and student academic achievement for the purpose of continuous improvement and to guide strategic planning and decision-making. We strive to implement this procedure with broad-based participation to assure that assessment at CCC is an integral part of all college activities.

Assessment Steps

Assessment steps include:
- *Develop learning outcomes.*
- *Check for alignment between the curriculum and the outcomes.*
- *Develop an assessment plan (must use direct measures).*
- *Collect assessment data.*
- *Use results to improve the program.*
- *Routinely examine the assessment process and correct, as needed* (California State University Northridge 2018; Allen 2003).

PART VIII - Developing Outcomes

Course Content versus Outcomes

Course content should be supportive of the intended course outcomes and consistent with the course description. Course content is not textbook specific and should be reflective of the required topics for the course. Course content should be the day-to-day class objectives that are introduced throughout the course. Content should be described in noun-based terms and written in outline form.

Example of course content:
>   "Will include:
>   1. The nature of religious experience, philosophy, and the problems/challenges of comparing religions
>   2. Conceptions of God: polytheism; henotheism, pantheism, monotheism, theism, deism; the questions of God's existence: cosmological, teleological, and ontological arguments"

>   "Will include:
>   1. Scientific method
>   2. Characteristics of Life"

>   "Will include:
>   1. Review:
>   a. evaluating formulas;
>   b. ratio, proportions, and variation;
>   c. using radicals to solve equations;
>   d. exponentials and logarithms;
>   e. graphing functions;
>   f. solving quadratic equations with the quadratic formula;
>   g. the Pythagorean Theorem;
>   2. Finance, growth, probability, statistics"

Course outcomes describe what students are expected to know and able to do by the end of the course. These relate to skills, knowledge, and behaviors that students acquire as they progress through the program.

Examples of course outcomes:
>   "Students will be able to:
>   1. identify the characteristics common to all life.
>   2. apply the scientific method to previous research and in their lab studies."

>   "Student will be able to:
>   1. demonstrate how social structure is interconnected to social groups, status and roles."

>   "Student will be able to:
>   1. solve various types of growth problems.
>   2. use various developmental algebraic techniques to solve problems."

Program outcomes identify what the student will learn as a result of successfully completing the multiple courses that constitute a program.

Examples of program outcomes:
   "Students will be able to:
    1. demonstrate safe performance of nursing skills of a registered nurse.
    2. exhibit legal and ethical behaviors of a registered nurse."

   "Students will be able to:
    1. understand the structure of the criminal justice system and the functions of its constituents.
    2. communicate knowledgeably about the AJS field."

Writing Outcomes

It is important for faculty to review the definitions for program- and course-level learning outcomes, which are essentially what the program or course prepares the student to do. Complex and convoluted outcomes are difficult to define and are nearly impossible to measure.

The ultimate goal will be to simplify the outcomes to state: "The student will <<verb>> <<something>>." Each outcome should have only one verb, and it should be the highest learning order verb from Bloom's Taxonomy. The goal of the simplified outcomes is for the students to really understand what skills and/or knowledge they should have once they complete their course and their program and for faculty to be able to measure them.

Bloom's Taxonomy

Bloom's Taxonomy is an educational philosophy used to classify learning outcomes for students. It is a component of how we evaluate student learning at Coconino Community College.

In the cognitive model of the taxonomy, learning is divided into six levels. This model includes classification levels that travel from basic to complex thinking. These levels are: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. A brief look at these classifications illustrate the method by which learning advances in this taxonomy:

- *Knowledge - to know specific facts, terms, concepts, principles, or theories;*
- *Comprehension - to be able to understand, interpret, compare, and contrast, explain;*
- *Application - to apply knowledge to new situations, to solve problems;*
- *Analysis - to identify the organizational structure of something; to identify parts, relationship and organizing principles;*
- *Synthesis - to create something, to integrate ideas into a solution, to propose an action plan, to propose a new classification scheme;*
- *Evaluation - to judge the quality of something based on its adequacy, value, logic, or use* (Dominican University of California 2018)

This classification system is a powerful tool to use to develop and evaluate outcomes as it explains the process of learning:

- Before a student can **understand** a concept, a student must **remember** it.
- To **apply** a concept, a student must first **understand** it.
- In order to **evaluate** a process, a student must have **analyzed** it.
- To **create** an accurate conclusion, a student must have completed a thorough **evaluation**.

As a student progresses through the curriculum to the completion of their program, the student should pass through the levels of Bloom's Taxonomy, establishing knowledge and understanding towards the beginning to evaluating and/or creating at the end of the program. Creating a learning process map to see where students first gain knowledge, then apply, and finally evaluate provides a good picture of where the program outcomes are being taught and applied.

Course and program outcomes should be leveled and tied to Bloom's Taxonomy as much as possible.
- K = Knowledge (gain, knowledge, comprehend information)
- A = Application (apply knowledge gained to real situations, analyze questions and issues)
- S = Synthesis (Prepare a work product – exam, paper, presentation, etc. – that presents knowledge gained, application, and synthesis or evaluation of knowledge and ideas).

Bloom's Taxonomy has key verbs that are used with each level of learning. Additionally, these learning levels can be used in conjunction with levels of questions and types of assessments. A resource has been compiled to be used when considering creating new outcomes or revising current ones. This worksheet can be found in Appendix E.

Curriculum Maps

Curriculum mapping is a way to determine alignment within a program and between courses. It can even be used within a single course and the lessons that are offered. Mapping identifies where and how a particular outcome is expected, explicitly taught for, and assessed. It is a method to understand the nature and role of prerequisites as well as electives within a program. Ultimately, mapping is a way of seeing organizational structure.

At a program level, a curriculum map can provide an overview of the structure of the curriculum and the contribution of individual courses to the outcomes of the program. It can identify program strengths by determining where and how learning outcomes are being addressed, or it can identify gaps with those learning outcomes that are only addressed by a few courses. Additionally, a map can show the optimal sequence for taking courses in a program and why some courses should be taken in a particular order.

Questions that can be answered with a curriculum map:

- In core courses, are all outcomes addressed, and in a logical order?
- Do all core courses address at least one outcome?
- Do multiple offerings of the same course address the same outcomes, at the same levels?
- Do some outcomes get more coverage than others?
- Are all outcomes first introduced and then reinforced?
- Are students expected to show high levels of learning too early?
- Do students practice all outcomes before being assessed, e.g., in the capstone?
- Do all students, regardless of which electives they choose, experience a coherent progression and coverage of all outcomes?
- What do the electives, individually and collectively, contribute to the achievement of the student learning outcomes?

There are many different types of curriculum maps:
- Course outcomes to program outcomes (Appendix F)
- K-A-S (Knowledge-Application-Synthesis) maps (Appendix G)
- Assessment tool maps (Appendix H)

PART IX - Types of Assessment

The College is committed to an institution-wide, ongoing assessment process and recognizes that the ultimate purpose of assessment is to enhance student development opportunities; thus, assessment activities must be diverse and occur at various levels.

Levels of Assessment

Institution: At this level, assessment activities will measure institutional success in meeting the goals of the College as stated in the Mission Statement. At the time of the development of this manual, CCC is still developing institutional-level outcomes, and the college currently considers the General Education program outcomes the institutional-level outcomes.

Programs: Assessment of CCC programs will address, on a division and department level, goals that are comprehensive but clearly defined.   In addition, program assessment will evaluate the effectiveness and relevance of courses by continuing to measure student goals, program and degree requirements, and student demand for courses.

Courses: Assessment on this level occurs in the classroom where instructors clearly measure course outcomes.

Formative and Summative Assessment

Formative assessment is taken as students progress through a course and is intended to identify areas of learning that need to be improved before the end of the course.

Newcastle University (2017) in England contends that "Formative assessment provides a useful way of giving students feedback and assessing their existing knowledge without affecting their eventual grades." Monroe County Intermediate School (2018) holds that formative assessment "occurs in the short term, as learners are in the process of making meaning of new content and of integrating it into what they already know. Feedback to the learner is immediate (or nearly so), to enable the learner to change his/her behavior and understandings right away. Formative assessment also enables the teacher to "turn on a dime" and rethink instructional strategies, activities, and content based on student understanding and performance." While Carnegie Mellon University (2016) points out: "The goal of formative assessment is to monitor student learning to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning."

Summative Assessment measures student achievement of course outcomes documenting student learning at the end of the course.

Carnegie Mellon University (2016) points out, "The goal of summative assessment is to evaluate student learning at the end of an instructional unit by comparing it against some standard or benchmark. Summative assessments are often high stakes, which means that they have a high point value. Examples of summative assessments include a midterm exam or a final project." Summative Assessment can show "strengths and weaknesses of curriculum and instruction, with improvements affecting the next year's/term's students" (Monroe County Intermediate School District 2018).

Indirect and Direct Assessment

Indirect assessment of student learning measures students' perceptions of their knowledge or skill gains. Indirect assessment reporting methods include student surveys, self-evaluations, and other self-reporting methods. In other words, "An indirect assessment method is based upon a report of perceived student learning. Indirect measures of assessment provide opportunities for students to reflect on their learning and inform the reviewers their perceptions of their learning experience" (Palomba & Banta, 1999).

Examples of Indirect Assessment Tools*
● Written surveys and questionnaires
● Exit and other interviews
● Focus groups

Direct assessment of student learning is an evaluation of student work designed to test attainment of learning outcomes. Direct assessment reporting methods include pre-/posttests, rubrics, exams, and similar professional evaluations. Another definition of direct assessment methods requires "students to demonstrate knowledge and skills and provide data that directly measure achievement of expected outcomes. That is, students must actively do something observable or measurable using the knowledge and skills" they acquired in their course or program (Lincoln Land Community College 2018). One contention is: "The strength of direct measurement is that

faculty members are capturing a sample of what students can do, which can be very strong evidence of student learning. A possible weakness of direct measurement is that not everything can be demonstrated in a direct way, such as values, perceptions, feelings, and attitudes" (Santa Rosa Junior College 2006).

Examples of Direct Assessment Tools*
- Exit and other interviews
- Standardized exams
- Locally developed assessments
- Portfolios
- Performance appraisals
- External examiner
- Oral exams

*Whether or not a particular assessment method is direct or indirect depends on the nature of what is being measured and how the method is being used.

PART X - Course Assessment

Why Course Assessment?

Each instructor is responsible to ensure their students are not only taught the course content but that the students learn it as well.   Course assessment is done by creating assessment tools that measure the course outcomes. The course outcomes are the overarching, measurable, and essential mastered content or knowledge that should reflect the skills, competencies, and knowledge the students have achieved and can demonstrate upon successful completion of the course. Reporting on course assessments has dual purposes. First, it provides evidence for accreditation that the College's courses are indeed assessing student learning at the course level. Secondly, it provides an opportunity for the instructors to reflect on their teaching and make improvements for future courses. The knowledge of how students learn and process their learning is a powerful teaching tool.

Course assessment can happen in many ways, and it is up to the instructors of that course to decide exactly what outcome and assessment tool they would like to report. There are two suggested approaches that can be taken to conducting course assessment:

1) Individual instructor assessment – An individual instructor could assess a new technique used in the class to accomplish a particular course outcome, such as a specific lesson and activity used that leads up to the outcome.
2) A shared assessment conducted by a set of the same course – A group of instructors who teach the same course can conduct a shared assessment like a pre- and post-test, a shared rubric, or shared questions on an exam.

Course Assessment Timeline

Each semester, each instructor will report on the assessment of one course-level outcome in one of their classes. The report will be due the same day that grades are due for that semester.

DEADLINE	TASK
Same day as semester grades are due (December and May)	Instructor will fill out a Course Assessment Report within Canvas.

Course Assessment Report

The course assessment report is a record of the assessment of student learning at the course level. The Course Assessment Report contains the following information:

- Term and Year;
- Course Information (Subject-Number-Section) and current CRN;
- Course Learning Outcome --- Write out the course learning outcome evaluated for this Course Assessment Report (NOTE – It should be a course outcome stated in the syllabus and that contributes to the General Education program-level outcome of "Critical Thinking.");
- Assignment used (Submitted as an attachment);
- Assessment results (# Meets, #Not Meets, #Did Not Complete Assignment);
- The criteria used in the assignment to determine whether a student met the course outcome;
- Description and justification of any actions taken to adjust student learning for the class, future changes if taught again, or explanation why no action was necessary.

Course Assessment Meetings

The Assessment Coordinator will organize meetings, as needed, to present a how-to on the Course Assessment Report and its purpose. The meetings will allow answers to any outstanding questions from instructors and will gather feedback on the form and process itself.

Course Assessment Evaluation Process

Once the course assessment reports have been submitted, the Assessment Coordinator will begin to report aggregated data to the appropriate committees, such as the Assessment Committee and the General Education Committee. Additionally, the course assessment reports will be available to the individual instructors who submitted them to act as a record of assessment conducted by that individual instructor.

A report of the instructors' participation in completing a course assessment report will be given to the appropriate dean at the beginning of the following semester.

PART XI - Co-Curricular Assessment

<u>Why Co-Curricular Assessment?</u>

In 1994, the American College Personnel Association (ACPA) developed the Student Learning Imperative which called for higher education institutions to create "conditions that motivate and inspire student to devote time and energy to educationally-purposeful activities." This means that colleges should be helping students connect their in-class experiences with out-of-class experiences focusing on the institution-level outcomes. The HLC also has criteria addressing co-curricular activities, 3.E.1. States, "Co-curricular programs ... contribute to the educational experience of its students," then in 4.B.2, "The institution assesses achievement of learning outcomes that it claims for its...co-curricular programs."

At the time of the development of this manual, CCC is still developing institutional-level outcomes, and the college currently considers the General Education program outcomes the institutional-level outcomes:
- Communication Skills - Conveying of ideas using one or more methods of expression (written, oral, signed);
- Thinking Skills - Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning;
- Diversity and Global Awareness - An understanding and appreciation of diverse cultures, values, beliefs, and historical perspectives;
- Ethical and Civil Values - A better understanding of oneself and others in order to clarify individual and societal responsibilities, needs and values.

Co-curricular assessment is important as, unlike the controlled educational environment of the classroom, it can provide essential data that students can and are applying the learning outcomes to their lives, better demonstrating our college's dedication to lifelong learning.

<u>Co-Curricular Assessment Timeline</u>

At the beginning of the academic year, the Assessment Committee will consult with Student Development on which scheduled events could be assessed for the General Education learning outcomes.

Before each of these events, the Assessment, Program, and Training Coordinator will work with the Student Life Coordinator in order to develop proper assessment tools for each event as the events have varying formats and intended audiences.

Co-Curricular Assessment Reporting

The Student Life Coordinator will be responsible for administering the assessment tools to the attendees of the co-curricular events. The Student Life Coordinator will then share the assessment results with the Assessment, Program, and Training Coordinator.

The Assessment, Program, and Training Coordinator will aggregate the co-curricular results and record the results in the yearly assessment update and provide them to the appropriate Student Development programs for the program review and bi-annual assessment reporting.

PART XII - Program Assessment

Why Program Review?

Per HLC Criterion 4.A.1, "the institution maintains a practice of regular program reviews," and while accreditation is the driving force behind program review, it is not the document's ultimate purpose. It is an opportunity to review the history of the program to determine how the program is performing and if the program needs to change its direction due to market or educational trends. The review should be conducted knowing that it will be used to inform budget and financial decisions, increase agility to respond to market and educational trends, and to provide an avenue for discourse within the program and the institution at large.

Program Review Timeline

Each program, as determined by the appropriate council, should conduct a review once every five years or when the program is considering a substantial change to its services.
The timeline will be:

DEADLINE	TASK
Aug-Nov of Review Year	Program will gather data and information - Program Review Data Meeting with Assessment Coordinator and IR
Feb-May of Review Year	Program will write the Program Review document
Jun-Jul of Review Year	Appropriate Dean will review the Program Review document
Sept-Oct of Following Year	Assessment Committee will evaluate program Review

Nov of Following Year	Provost will evaluate program Review
December of Following Year	Program Review will be submitted to Executive Council during budget
Feb-May of non-Review Years	Program will meet to review goals and budget requests - Annual Review Day with Assessment Coordinator
Years 2 and 4 of the Program Review Process	Program will complete a Bi-Annual Review.

Program Review Document

As the purpose of program review is many fold, it also has multiple audiences and will be made publicly available. Currently, a website is being constructed to house the program review documents and the feedback gathered during each review.

There are two program review documents: one has an academic focus and the other has a learning support focus (Appendix I and J respectively). These documents are not static and will change and are adaptable to the needs of the individual program.   All feedback can be submitted to the Associate Dean of Curriculum and Assessment or the Assessment Coordinator.

Program Review and Assessment Meetings

Program Review Data Meeting
This meeting is designed to present the data the program has generated for the previous five academic years. The Assessment Coordinator generates the established data sets. The sets contain the following:

- Overview of program including all of the degrees and the program outcomes;
- A review of required courses and elective courses for each degree and certificate;
- The AZ Transfer table displaying which courses transfer to in-state universities and which do not;
- A list of the instructors for the previous five years and their credentials;
- A breakdown of the FT faculty to PT faculty ratios by year, by section, and by credits,
- The course success rates of individual courses within the program: an overall success summary of the courses with a breakdown of each course by campus, instructional method, session, and session instructional method;
- The information of the sections, enrollment, tuition generated, and fees generated by course and by year;

- An overview of the student majors taking the degree courses with a chart of the average of the top ten majors;
- A chart and table of the age of students taking the degree required courses;
- A chart and table of the ethnicity of the students taking the degree required courses;
- Assessment charts (will be subject to change as programs refine their assessment tools);
- A table overview of how each course contributes to the program outcomes;
- And additional tables of how individual course outcomes measure program outcomes.

These data sets establish the "what" that happened throughout the five years. It is an opportunity for the program to review established data sets, ask for any new data sets they want to review, and begin to brainstorm the "why" of what happened.

Program Outcomes or Performance Measure Review

The purpose behind Program Outcomes/Performance Measures Review is to dedicate time for the faculty of the program to evaluate the following items:

- Disseminate any updates or changes regarding assessment from the Higher Learning Commission (HLC)
- Review and evaluate program outcomes
- Establish performance measures, if necessary
- Create curriculum maps – Knowledge-Application-Synthesis map for program, Course Outcomes to Program Outcomes map
- Determine shared summative assessment for each of the program outcomes/measures

The program faculty should leave with a clear picture of how the courses work together to build the students' knowledge and skills throughout the program. It should also provide them a course(s) that have been identified to contain the highest level of learning for the students. Within this course, a program assessment tool will be used to gather data to determine how the students are learning in the program.

Bi-annual Assessment & Goal Review

As a program has yet to participate in an Bi-annual Assessment & Goal Review meeting, the agenda has not been tested or evaluated for effectiveness. It will be first used in AY19.

Bi-annual Assessment & Goal Review is an opportunity for the programs to meet and review the following items:

- Program assessment gathered to this point and
- Annual goals.

The annual goals should be developed during the program review writing process. The Assessment Coordinator will assist the program in gathering and compiling their program assessment data. This opportunity will give programs time to make any adjustments to assessment or goals for the upcoming years.

Program Review Evaluation Process

Once a program review document has been created, it will go through a review process. This review process will provide multiple opportunities for feedback.

First, the appropriate dean will evaluate the program review document. The dean's role is to evaluate the document for any areas that could be improved and to assent he/ or she agrees with the information presented. If the dean wishes to have changes made, the dean and program will do so in collaboration. Once the dean approves of the document, he or she will give it to the Assessment Coordinator.

Second, the Assessment Coordinator brings the program review document to the Assessment Committee. The Assessment Committee will break into sub-groups dependent on the number of program review documents submitted. Each group will evaluate the document with the "Program Review Checklist" and review the document for any grammatical issues that may be present. Once the checklist and grammatical edit has been completed, these will be returned to the dean to share with the program. After the dean and program have reviewed the checklist and made any necessary changes, the dean will submit the program review document to the Provost for evaluation and the Assessment Coordinator for documentation purposes.

The Provost will evaluate the program's action plan to ensure alignment throughout the Academic Affairs division. If the Provost wishes to have changes made, the Provost and the dean will do so in collaboration. Once the Provost approves of the document, he or she will submit the program review document to the Executive Council for strategic planning and budget consideration. The Provost will also notify the Assessment Coordinator of the approval, and the Assessment Coordinator will post the approved program review document on the website along with any correlating feedback.

PART XIII - Conclusion

This assessment handbook is intended to be a living document, subject to change and adjustment at regular intervals. It is not intended as an end, rather as a beginning for undertaking the challenges set before the College as the institution moves forward.

As established, the College is committed to the assessment of student learning for continually improving institutional effectiveness and the quality of instruction at CCC. Assessment results will invariably lead to curriculum and program review, staff development, and institutional improvement activities.

There remain many opportunities for improvement, as with any plan, and there will indeed be modification. However, this handbook sets the tone for the best possible design and most effective implementation for Coconino Community College.

Student Learning Assessment Glossary

Add-on Assessment: Additional tasks that go beyond the course requirements and are usually given outside of the classroom. Because they are not normally part of the course grading structure, students are often less motivated to perform well (Stanford).

Assessment: The systematic process of determining educational objectives, gathering, using, and analyzing information about student learning outcomes to make decisions about programs, individual student progress, or accountability. Methods used to analyze student learning outcomes or achievement of program objectives.

Assessment Plan: A document used to summarize the relationship between program outcomes and courses, course assignments, or course syllabus objectives to examine congruence and to ensure that all outcomes have been sufficiently structured into the curriculum.

Benchmark: A criterion-referenced objective performance datum that is used for comparative purposes. A program can use its own data as a baseline benchmark against which to compare future performance. It can also use data from another program as a benchmark. In the latter case, the other program often is chosen because it is exemplary, and its data are used as a target to strive for, rather than as a baseline (James Madison University).

Bloom's Taxonomy: The extent and rigor of learning as defined by six levels by Benjamin Bloom: (1- Knowledge; 2- Recall and Comprehension; 3- Application; 4- Analysis; 5- Synthesis; 6- Evaluation); characterized by action verbs.

> ***K-A-S (Knowledge-Application-Synthesis):*** A condensed version of Bloom's Taxonomy using one level to represent two levels: K (Levels 1 and 2), A (Levels 3 and 4), and S (Levels 5 and 6). Often used in developing curriculum maps to show progression of student knowledge.

Capstone Course: A course that encompasses educational experience and provides a summative demonstration of competencies.

Closing the Loop: Evaluative steps in the assessment process that lead to program improvement. This is accomplished by reviewing the data collected in course assessment and discussing possible methods of course or program educational improvement or revision.

Co-curricular: Activities, programs, and learning experiences that complement, in some way, what students are learning in school – i.e. experiences that are connected to or mirror the academic curriculum (EdGlossary).

Competency: The demonstration of the ability to perform a specific task or achieve a specified criterion.

Course- level Assessment: Assessment of student- learning outcomes in a specific course. Faculty members engage in course assessment by evaluating student performance on assignments, projects, and exams, and then using that information to improve student learning. The focus is on understanding the performance of an entire class or the effectiveness of the course across multiple sections.

Course Learning Outcomes: A demonstrable competency at a certain level of proficiency (what does the student know; what can the student do); outcomes must be measurable for the sake of assessment. Measurement can be both objective (quantifiable) and/or subjective (qualitative).

Course Objectives: Detailed aspects of the course that are accomplished by the successful completion of the course outcomes. Refers to the specific knowledge, skills, or attitudes that students are expected to achieve through their college experience.

Curriculum Mapping: Curriculum mapping is a process for collecting and recording curriculum-related data to identify core skills and content taught, processes employed, and assessments used for each course and level in a degree program. The purpose of a curriculum map is to document the relationship among the components in the curriculum, and ultimately, to create a more coherent curriculum. A curriculum map can be used for analysis, communication, and planning.

Direct Assessment Methods: Direct measures of student leaning require student to display their knowledge and skills as they respond to the instrument itself. Objective tests, essays, presentations, and classroom assignments all meet this criterion (James Madison University).

Embedded Assessment: Tasks that are integrated into the course curriculum. They usually involve classroom assessment techniques but are designed to collect specific information on program learning outcomes. These assessments are typically graded by course instructors and then pooled across sections to evaluate student learning at the discipline or program level. Embedded assessments are tied to the grading structure in the course (Stanford).

Evaluation: One or more processes for interpreting the data and evidence accumulated through assessment processes. Evaluation determines the extent to which student outcomes are being attained. Evaluation results in decisions and actions regarding program improvement.

Formative Assessment: The gathering of information about student learning—during the progression of a course or program which is usually repeated—to improve the learning of those students. Example: reading the first lab reports of a class to assess whether some or all students in the group need a lesson on how to make them succinct and informative (Leskes 2002).

General Education: A philosophy of education that empowers individuals with broad knowledge, transferrable skills, and a strong sense of values, ethics, and civic engagement. The specific choice of major matters far less than the knowledge and skills gained through all studies and experiences in college (AAC&U).

Higher Learning Commission: The review commission for accreditation within NCA (North Central Association of Colleges and Schools).

Indirect Assessment Methods: Methods such as surveys and interviews that ask students to reflect on their learning rather than to demonstrate it (James Madison University). Reflection by students and others on learning experiences, adequacy of a program, etc.; may be administered by surveys, course embedded activities (such as minute papers), focus groups, job placement rates, transfer studies success, etc.

Information Literacy: The ability to acquire, evaluate, organize, maintain, interpret, and communicate knowledge.

Institutional Assessment: A process of assessing institutional outcomes in relationship to mission, values, and strategic planning.

Institutional Learning Outcomes: Broad- based learning outcomes reflecting common educational knowledge and skills from all programs that all graduates of the institution will acquire. Outcomes should align with the institution's mission.

Inter-rater reliability: The degree to which different raters/observers give consistent estimates of the same phenomenon.

Outcomes-Based Assessment: Measures of performance against defined, measurable outcomes. Faculty and administrators purposefully plan the program to support student achievement of the outcomes, implement methods to systematically identify whether the end results have been achieved, and use the results to plan improvements or make recommendations for resource reallocation or requests. Assessment often conveys the same meaning.

Performance Measures: Specific, measurable statements identifying student performance(s) required to meet the outcome; confirmable through evidence.

Portfolios: A portfolio is a collection of work developed across varied contexts over time. The portfolio can advance learning by providing students and/or faculty with a way to organize, archive and display pieces of work (Regis University). An e-portfolio is an electronic format of a collection of work developed across varied contexts over time. The electronic format allows faculty and other professionals to evaluate student portfolios using technology, which may include the Internet, CD- ROM, video, animation, or audio.

Program Learning Outcomes: The knowledge, skills, and abilities students should possess when they complete a program. Educational or degree programs are more than a collection of random courses. Educational programs prepare students for a range of particular outcomes that can be stated in measurable terms. Program assessment seeks to determine the extent to which students in the program can demonstrate these outcomes.

Program Review: The administrative and peer review of academic programs conducted on a six- year cycle, the results of which are reported to the CMU Board of Trustees. This review includes a comprehensive analysis of the structure, processes, and outcomes of the program. The outcomes reported in the program reviews include program outcomes (e.g. costs, degrees awarded) as well as student learning outcomes (i.e. what students know and can do at the completion of the program) (Northern Illinois University).

Qualitative Data: Data in which the values of a variable differ in kind (quality) rather than in amount.

Quantitative Data: Data in which the values of a variable differ in amount rather than in kind.

Reliability: The characteristic of a measuring instrument to obtain similar results with repeated administrations.

Rubrics: Specific sets of criteria that clearly define for both student and teacher what a range of acceptable and unacceptable performance look like. Criteria define descriptors of ability at each level of performance and assign values to each level. Levels referred to are proficiency levels which describe a continuum from excellent to unacceptable product. (SABES) A scoring tool that lists the criteria for a piece of work, or "what counts" (for example, purpose, organization, and mechanics are often what count in a piece of writing); it also articulates gradations of quality for each criterion, from excellent to poor.

> **Analytic Rubrics:** Two-dimensional rubrics with defined levels of achievements as columns and assessment criteria as rows. Allows instructors to assess students' achievements based on multiple criteria using a single rubric. It appears in table form. (Queen's; Depaul)

> **Holistic Rubrics:** One-dimensional rubrics used to assess students' overall achievement on an activity or item based on the predefined achievements levels. The performance descriptions are written in paragraphs and in full sentences.   (Queen's; Depaul)

Standardized Assessment: A standard- based assessment of learner achievement in relation to set standards.

Student Artifacts: A collection of papers, projects, documents, etc., which represent your knowledge, competency, understanding, and achievement of identified goals and learning incomes.

Student Learning Outcomes: Demonstration of what students will be able to know, do, and value at the end of their degree program. An expression of what a student will demonstrate on the successful completion of a module, course, or program of study.

Summative Assessment: Evaluation at the end of a unit or units of instruction or an activity or plan to determine or judge student skills and knowledge or effectiveness of a plan or activity (Leskes 2002). The gathering of learning information at the conclusion of a course or program. When used for improvement, impacts the next cohort of students taking the course or program. Example: examining student final exams in a course to see if certain specific areas of the curriculum were understood less well than others.

Validity: The degree to which a test or other assessment measure measures what it is designed to measure. The extent to which inferences and actions made based on test scores are appropriate and accurate.

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Appendix A – List of current CCC Programs

ACADEMIC AFFAIRS DIVISION

CTE		
Program Proposed	**Degrees/Certs to be Reviewed**	**Core Courses**
Admin of Justice	AA- Admin of Justice AAS- Admin of Justice CERT-Basic Detention Academy CERT- Forensics Investigations	AJS, BIO, FOR, ENG
Business	AA- Business AAS- Business ABUS - Associate of Business CERT - Accounting	ACC, BUS, ECN, MAT, CIS, ENG, LDR
HRM	AAS- Hospitality Management AA- Hotel & Restaurant Management	ACC, CIS, HRM, BUS, LDR, SPC
Construction Tech Management	AA- Construction Technology Management AA - Vocational Technology Education AAS - Construction Technology AAS - Environmental Technology AAS - Sustainable Green Building CERT - Construction Technology CERT - Environmental Technology	CTM, MAT, ACC, ECN, ENV
CIS	AAS - Computer Software Technology AAS - Network Engineering CERT - Computer Technician CERT - Graphics and Web Design CERT - Network Engineering	BUS, CIS, LDR, ART
Fire Science	AAS - Fire Science CERT - Fire Science	FS
Allied Health	AAS - Medical Office Management CERT - Medical Assistant CERT - Phlebotomy	AHS, CIS, BIO
Nursing	AAS - Nursing	NUR
CN.A	AAS - Pre-Health Careers CERT - Pre-Health Careers	NUR, NTR, AHS, BIO, CHM
EMS	AAS - Paramedic Studies	EMS

Liberal Arts & Sciences		
Program Proposed	**Degrees/Certs to be Reviewed**	**Core Courses**

ASL	AAS - ASL CERT- ASL Interpreting	ASL
Anthropology	AA-Anthropology	ANT
Colorado Plateau Studies	AA- Colorado Plateau Studies	ANT, CPS, GLG
Environmental Studies	AA-Environmental Studies	ANT, CPS, GLG, BIO, CTM, ENV, GEO
Psychology	AA- Psychology	PSY
Sociology	AA - Sociology	SOC
Fine Arts	AFA - Visual Arts	ART
GEN ED - English	AA - General Studies AGS - Associate of General Studies AS - General Studies CERT - AGEC A, B, S	ENG
GEN ED - Intensive Writing	AA - General Studies AGS - Associate of General Studies AS - General Studies CERT - AGEC A, B, S	ENG, HUM, ANT, POS, PSY, SOC, BIO, BUS
GEN ED - Math	AA - General Studies AGS - Associate of General Studies AS - General Studies CERT - AGEC A, B, S	MAT
GEN ED - Arts & Humanities	AA - General Studies AGS - Associate of General Studies AS - General Studies CERT - AGEC A, B, S	ANT, ART, COL, CPS, DAN, ENG, HUM, MUS, PHI, REL, THR
GEN ED - Social & Behavioral Sciences	AA - General Studies AGS - Associate of General Studies AS - General Studies CERT - AGEC A, B, S	AJS, ANT, ASL, BUS, CPS, ECN, GEO, HIS, POS, PSY, SOC
GEN ED - Physical & Biological Sciences	AA - General Studies AGS - Associate of General Studies AS - General Studies CERT - AGEC A, B, S	ANT, BIO, CHM, GEO, GLG, PHY
GEN ED - Options	AA - General Studies AGS - Associate of General Studies AS - General Studies CERT - AGEC A, B, S	ASL, BUS, CIS, FRE, GER, ITA, JPN, NAV, SPA, SPC

STUDENT DEVELOPMENT
Advising & Career Advising
Tutoring, Disability Resources, TRiO, Early Alert

Recruitment
Student Activities & Community Engagement
Testing, New Student Orientation, START
BUSINESS & ADMINISTRATION
Finance
Auxiliary Services
Purchasing
Facilities
Security
ITS
Financial Aid
Registration

Appendix B – Assessment Committee Charter

Date Originated:	October 2015 (Updated May 2017)
Title of Group:	Assessment Committee / STANDING COMMITTEE
Titles of Members:	1-Director, Institutional Research and Assessment, 1- Assessment Program and Faculty Development Coordinator 1-Student Development and Community Engagement Representative (2 year commitment) * 1-Staff Representative (2 year commitment) * 2- Full-time faculty Members: (1 year commitment) * 2- Full-time faculty Members: (2 year commitment) * 2- Full-time faculty Members: (3 year commitment) * 2-Part-time Faculty Members (1 year commitment)* * Identify successors by May of the rotation year
Chair/Co-chair:	A chairperson will be nominated and elected at the end of the academic year. (2 year commitment) *
Purpose:	To support the College's commitment to educational achievement and improvement through ongoing assessment of student learning. To review Program Review documents for the College.
Goals of Group:	To provide leadership regarding CCC assessment practices and coordination; to share information and provide feedback; to oversee faculty assessment of student learning outcomes and monitor progress; to organize and implement HLC and strategic planning assessment process; to conduct annual review of assessment plan; to appraise, revise and/or edit annual Program Review documents.
Term Limit of Group:	Ongoing
Product from Group's Work:	Manages and documents assessment activities and practices in regard to HLC Standards. Provides direction, oversight of curricular assessment activities, training, Information sharing, and recommendations. Editorial board for Program Review documents.
Sponsor or Budget:	Academic Affairs
Frequency of Meetings:	Semi-Monthly (To be determined with additional meetings as needed) with an annual hiatus in June and July, unless otherwise needed.
Meeting Norms:	Show up on time, informed and prepared to discuss agenda items. Don't text during the meeting. Discussions are respectful, ethical, truthful, well-reasoned, and positive.
Communication/Information Dissemination Vehicle:	Agenda and minutes are posted electronically
Evaluation:	Annual written report to College Council, Deans, faculty and staff.

Appendix C – General Education Committee Charter

Date Originated:	March 2011 (updated May 2017)
Title of Group:	General Education Committee / STANDING COMMITTEE
Titles of Members:	Six (6) Faculty Representatives Dean of Learning Services (3) Assistant Registrar and Curriculum and Articulation Services Coordinator Student Representative Assessment Program and Faculty Development Coordinator
Chair/Co-chair:	A chairperson may be nominated and elected at the end of each academic year.
Purpose:	The purpose of the General Education Committee is to review, discuss, and evaluate all issues affecting General Education Curriculum at CCC.
Goals of Group:	The Committee is tasked with maintaining the integrity of the General Education Curriculum while ensuring it remains aligned with the mission of the College and conforms to all applicable standards in accordance with College policy and procedure.
Term Limit of Group:	Ongoing
Product from Group's Work:	Develop/review assessment plan for General Education, update and continually review General Education criteria and special requirements, develop General Education statements, and maintain currency regarding updates to General Education Curriculum at the state level.
Sponsor or Budget:	Academic Affairs
Frequency of Meetings:	Twice per academic month
Meeting Norms:	Show up on time and come prepared as well-informed, accountable participants. Engage in reasoned, respectful, and efficient debate and discussion. Make decisions with best interest of College in mind. Be open to diverse outcomes, but not attached to outcome. Function as a team. Respect different learning styles. Do what you agree to do.
Communication/Information Dissemination Vehicle:	Agenda and minutes are posted on Intranet.
Evaluation:	Annual written report to College Council, deans, and faculty.

Appendix D – Coconino Community College's Draft Procedure for Assessment

302-01 ASSESSMENT OF STUDENT LEARNING PROCEDURE

1. PURPOSE
To create an organized and systematic method of assessment at CCC, the College assesses its programs, services, and student academic achievement for the purpose of continuous improvement and to guide strategic planning and decision making. We strive to implement this procedure with broad-based participation to assure that assessment at CCC is an integral part of all college activities.

2. PROCEDURE
This procedure contains three components: the assessment of student learning, the maintenance of an assessment handbook, and the creation of assessment plans and reports.

1. Assessment of Student Learning
   Student learning outcomes represent the measurable knowledge and skills that serve as the foundation for success in society and one's discipline, vocation, and life. Student learning outcomes are designed at the course-level and program-level and posted on the College website. The course-level outcomes are included in course syllabi. Classroom and co-curricular data are collected and analyzed across the college to determine whether or not students are meeting the expectations described by these outcomes.
   a. Validation of Student Learning Outcomes in Academic Affairs
       Student learning outcomes on course outlines are reviewed and updated by designated faculty as needed and is ensured during the Program Review process. Changes to student learning outcomes at the course- and program-level must follow Curriculum Development Procedure 301-01.
   b. Assessment of Credit Education
       All credit programs are required to assess their student learning outcomes. Assessment of student learning outcomes is conducted by the program/department faculty and then documented during the program review process. The entire assessment process can be found in the College's Student Learning Assessment Handbook.
   c. Assessment of Non-Credit Education
       Non-credit courses/workshops may be offered for continuing education units, professional development, or personal enrichment. Assessment of these courses/workshops is dictated by the funding source and will be followed by the program coordinator, staff, and faculty.
   d. Assessment of Co-Curricular Activities
       Co-Curricular activities are defined as learning activities that occur outside the regular learning environment. Co-curricular assessment is developed

in coordination with Student Development and faculty with student learning outcomes in mind.

2. Student Learning Assessment Handbook

    This handbook provides a comprehensive outline of the college assessment of student learning processes and procedures. This handbook reflects the collaborative work of faculty and staff across all divisions. Changes to the handbook will be completed by the Assessment Committee in consultation with college faculty, staff, and leadership. The Assessment, Program, and Training Coordinator will maintain an updated version of the handbook on the Assessment website.

3. Assessment Plans and Reports

    College assessment plans and reports of student learning processes are explained in detail in the College's Student Learning Assessment Handbook. Assessment reports include

    a. Course Assessment Reporting: The course assessment reporting is a record of the assessment of student learning at the course-level. Faculty and/or disciplines are required to report course assessment each semester. The reported data is aggregated and sent to relevant stakeholders.

    b. Program Review: Programs are required to conduct program review to examine the history of the program, to determine how the program is performing, and to evaluate whether changes are necessary due to market or educational trends. Program reviews are conducted on a five-year cycle, as detailed in the Student Learning Assessment Handbook. Program reviews are created by the appropriate program. The Assessment, Program, and Training Coordinator assists the program in gathering and compiling program assessment data. Program reviews are evaluated according to the reporting structure within the program, the Assessment Committee, and the Provost/division Vice President. Recommendations are then reviewed by the appropriate councils and the decisions/recommendations are communicated back to the programs for implementation.

    As part of the program review process, programs are required to conduct a bi-annual assessment & goal review to review program assessment gathered to that point and update or create new program goals/recommendations. Bi-annual reviews will be shared with the supervisor of the program. The Assessment, Program, and Training Coordinator assists the program in gathering and compiling their program assessment data.

3. BACKGROUND
1. References: Policy 300-00 Academic Processes, Policy 302-00 Assessment of Student Learning, and Assessment Manual
2. Revision history: 03/2018
3. Legal review: none
4. Sponsor: Academic Affairs

Adopted by College Council: XX/XX/XXXX (added after College Council approves the policy)

COCONINO COMMUNITY COLLEGE

Appendix E – Bloom's Taxonomy Reference Sheet

The Student Will...   The Student Will...

KNOWLEDGE (Remembering)	COMPREHENSION (Understanding)	APPLICATION (Applying)
Learn specific facts, ideas vocabulary; remembering/recalling information or specific facts	Ability to grasp the meaning of material; communicate knowledge; understanding information without relating it to other material	Ability to use learned material in new and concrete situations; use learned knowledge and interpret previous situations
Introduction of knowledge		Practice know
by doing...		by doing...
collect, copy, define, describe, examine, find, group, identify, indicate, label, list, locate, match, name, omit, observe, point, provide, quote, read, recall, recite, recognize, repeat, reproduce, say, select, sort, spell, state, tabulate, tell, touch, underline, who, when, where, what	alter, associate, calculate, categorize, change, communicate, convert, distinguish, expand, explain, inform, name alternatives, outline, paraphrase, rearrange, reconstruct, relate, restate (own words), summarize, tell meaning of, translate, understand, verbalize, write	acquire, adopt, apply, assemble, capitalize, construct, consume, demonstrate, develop, discuss, experiment, formulate, manipulate, organize, relate, report, search, show, solve novel problems, tell consequences, try, use, utilize
Skills Demonstrated:	Skills Demonstrated:	Skills Demonstrated:
•Observation and recall of information •Knowledge of dates, events, places •Knowledge of major ideas •Master of subject matter	•Understanding information •Grasp meaning •Translate knowledge into new context •Interpret facts, compare, contrast •Order, group, infer causes, •Predict consequences	•Use information •Use methods, concepts, theories in new situations •Solve problems using required skills or knowledge
What is...? How is...? Where is...? When did ___ happen? How did ___? Why did...? How would you describe...? When did...? Can you recall...? How would you show...? Can you select...? Who were the main...? Can you list three...? Which one...? Who was...?	How would you classify the type of ...? How would you compare/contrast...? Will you state or interpret in your own words...? How would you rephrase the meaning...? What facts or ideas show...? What is the main idea of...? Which statements support...? Can you explain what is happening...what is meant...? What can you say about...? Which is the best answer...? How would you summarize...?	How would you use...? What examples can you find to...? How would you solve ___ using what you have learned...? How would you organize ___ to show ...? How would you show your understanding...? What approach would you use to...? How would you apply what you have learned to develop...? What other way would you plan to...? What would result if...? Can you make use of the facts to...? What elements would you choose to change...? What facts would you select to show...? What questions would you ask in an interview with...?

KNOWLEDGE (Remembering)	COMPREHENSION (Understanding)	APPLICATION (Applying)
Learn specific facts, ideas vocabulary; remembering/recalling information or specific facts	Ability to grasp the meaning of material; communicate knowledge; understanding information without relating it to other material	Ability to use learned material in new and concrete situations; use learned knowledge and interpret previous situations
Assessment		Assessment
Events People Recordings Newspapers Magazine articles Television shows Radio Text readings Films/videos Plays Film strips	Drama Skit Cartoon Story Tape recording Speech Photograph Diagram Graph Own statement Model Conclusion Implication based on idea Casual relationships Summary Analogy Outline Compare	Map Project Forecast Diagram Illustration Paper which follows an outline Solution Question List Project Drama Painting Sculpture
Multiple-choice question Fill-in blank True/false Matching Short answer Flashcards Quizzes Student recitations Exams - Define, label, list, reproduce	tutorials Q&A (oral, one-minute papers) Student presentations or demonstrations within small groups (peer reviews) Exam - Describe, explain, summarize, identify or select	Multiple choice Short answer Essay Tutorials Simulations Case Studies Text problems Student presentation Exam - Apply, use, solve, demonstrate, employ Problems sets

The Student Will...

ANALYSIS (Analyzing)	SYNTHESIS (Creating)	EVALUATION (Evaluating)
Ability to break down material into its component parts and perceive interrelationships	Ability to put parts together to form a new whole; use elements in new patterns and relationships	Ability to judge the value of material (statement, novel, poem, report, etc.) for a given purpose; judgement is based on given criteria.

...wledge learned	Demonstrates mastery of knowledge learned	
	by doing...	
analyze, arrange, break down, categorize, classify, compare, contrast, deduce, determine, diagram, differentiate, discuss causes, dissect, distinguish, give reasons, order, separate, sequence, survey, take apart, test for, why	alter, build, compose, construct, create, develop, estimate, form a new..., generate, hypothesize, imagine, improve, infer, invent, modify, plan, predict, produce, propose, reorganize, rewrite, revise, simplify, synthesize	appraise, argue, assess, challenge, choose, conclude, criticize, critique, debate, decide, defend, discriminate, discuss, document, draw conclusions, editorialize, evaluate, grade, interpret, judge, justify, prioritize, rank, rate, recommend, reject, support, validate, weigh

	Skills Demonstrated:	
•Seeing patterns •Organization of parts •Recognition of hidden meanings •Identification of components	•Use old ideas to create new ones •Generalize from given facts •Relate knowledge from several areas •Predict, draw conclusions	•Compare and discriminate between ideas •Assess value of theories, presentations •Make choices based on reasoned arguments
What are the parts of...? How is ___ related to...? Why do you think...? What is the theme...? What motive is there...? Can you list the parts...? What inference can you make...? What conclusions can you draw...? How would you classify...? How would you categorize...? Can you identify the different parts...? What evidence can you find...? What is the relationship between...? Can you make a distinction between...? What is the function of...? What ideas justify...? How would you estimate the results for...? What facts can you compile...? Can you construct a model that would change...? Can you think of an original way for the...?	Do you agree with the actions...? With the outcomes...? What is your opinion of...? How would you prove...? Disprove...? Can you assess the value or importance of...? Would it be better if...? Why did they (the character) choose...? What would you recommend...? How would you rate the...? What would you cite to defend the actions...? How would you evaluate...? How could you determine...? What choice would you have?	Do you agree with the actions...? With the outcomes...? What is your opinion of...? How would you prove...? Disprove...? Can you assess the value or importance of...? Would it be better if...? Why did they (the character) choose...? What would you recommend...? How would you evaluate...? How could you determine...? What choice would you have made...? What would you select...? How would you prioritize...? What judgment would you make about...? Based on what you know, how would you explain...? What information would you use to support the view...? How would you justify...? What data was used to make the conclusion...? Why was it better that...? How would you prioritize the facts...?

ANALYSIS (Analyzing)	SYNTHESIS (Creating)	EVALUATION (Evaluating)
Ability to break down material into its component parts and perceive interrelationships	Ability to put parts together to form a new whole; use elements in new patterns and relationships	Ability to judge the value of material (statement, novel, poem, report, etc.) for a given purpose; judgement is based on given criteria.
	Assessment	
Questionnaire Argument Parts of propaganda Word defined Statement identified Conclusion checked Syllogism broken down Report Survey Graph	Article Invention Report Set of rules Set of standards Game Machine Experiment Play Book Alternative course of action Question Song Formulation of hypothesis	Conclusion Self-evaluation Recommendation Valuing Court trial Survey Evaluation Standard compared Standard established Group discussion
Multiple choice Essay Project Portfolio (on analyzing case studies or clinical experiences) Simulation (computer-based, mannequins, part task trainers, role play) Presentation Paper Virtual labs case studies Discussion labs graphic organizers Exam - Analyze, compare, distinguish, examine (Take home, online, or face-to-face	Multiple choice Essay Project Portfolio Simulation Presentation Paper Virtual labs case studies (Class or small group discussions assemble relevant info to produce a hypothesis, plan to address recurring problems) Interviews with experts Exam - Develop, plan, prepare, propose, construct, design, formulate, create Portfolio Design and build a model Create a work of art Develop a unique plan to serve some purpose Student presentations	Multiple choice Essay Project Portfolio Simulation Presentation Paper Virtual labs case studies - Small groups discussions on appropriateness of procedures, results Debates Exams - Evaluate, argue, assess, defend, judge, predict, rate, support Student presentations

Appendix F – Course-to-Program Outcomes Map

COURSE TO PROGRAM OUTCOMES MAP (GENERAL EDUCATION)

TITLE OF COURSE

Ethical and Civil Values (EC) - A better understanding of oneself and others in order to clarify individual and societal responsibilities, needs, and values

LIST OF PROGRAM PERFORMANCE MEASURES FOR EC

Diversity and Global Awareness (DGA) - An understanding and appreciation of diverse cultures, values, beliefs, and historical perspectives

LIST OF PROGRAM PERFORMANCE MEASURES FOR DGA

Thinking Skills (TS) - Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning

LIST OF PROGRAM PERFORMANCE MEASURES FOR TS

Communication Skills (CS) - Conveying of ideas using one or more methods of expression (written, oral, signed)

LIST OF PROGRAM PERFORMANCE MEASURES FOR CS

LIST OF COURSE OUTCOMES

Appendix G – Knowledge-Application-Synthesis (K-A-S) Map

KNOWLEDGE-APPLICATION-SKILLS MAP

Degree/Certificate Name

Program Outcomes	REQUIRED										ELECTIVE					
	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO
Program Outcome Description	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S
Program Outcome Description	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S
Program Outcome Description	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S
Program Outcome Description	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S
Program Outcome Description	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S
Program Outcome Description	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S	K-A-S

*Use a * to indicate which course will be used to measure program-level assessment*

Appendix H – Assessment Map

ASSESSMENT MAP

Degree/Certificate Name

Program Outcomes	REQUIRED						ELECTIVE					
	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO	CRSE-NO
Program Outcome Description	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool
Program Outcome Description	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool
Program Outcome Description	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool
Program Outcome Description	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool
Program Outcome Description	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool
Program Outcome Description	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool	Assessment Tool

Use a * to indicate which course will be used to measure program-level assessment

Appendix I – 2017-2018 Academic Program Review

2017-2018 Academic Program Review

In section I, provide a brief description of the program for someone who may not have direct interactions with the program. A more detailed explanation of the program will be included throughout the review document.

I. <u>Overview</u>
   a. Narrative
      - *State the purpose of the program and its contributions to the community.*
      - *Define what sets this program apart from other programs in the college.*
      - *How does the program gather input and/or respond to community needs?*
      - *How long has the program existed?*
      - *When was the last program review?*

   b. Program goals
      - *Define the program goals.*
      - *Describe how the program goals are tied to the institutional mission statement.*

   c. Decision making
      - *Describe how decisions are made within the program.*
      - *Describe the communication process within the program.*
      - *Define any outside agencies that inform decision making and their scope.*

   d. A statement of the program's accomplishments in support of the College's current strategic plan
      - *Provide the goals from the strategic plan that the program contributes to.*
      - *Provide evidence on how the program has been contributing to the strategic plan.*

In the following sections II-IV, provide a detailed description and provide evidence and data to support the claims.

II. <u>Teaching and Learning</u>
   a. Program requirements and course offerings
      i. Degrees and Certificates
         - *Discuss any changes to the degree and certificate outcomes within the program.* (A curriculum map with the degrees and certifications will be provided by the assessment team to be included in the Appendix.)
         - *Discuss any opportunities and impacts to the program from changes to degrees and certificates at the college.* (A list of degree and certifications that the program contributes to will be provided by the assessment team to be included in the Appendix.)
      ii. Course Offerings

- *Discuss course offerings, types of courses, modalities, scheduling of courses and frequency of offerings.* (A list of course offerings will be provided by the assessment team to be included in the Appendix.)
    iii. Enrollment and student success information for the previous five years
- *Elaborate on any patterns or outlying data contained within provided tables.* (Data tables will be provided by the assessment team to be included in the Appendix. The first set of data tables will contain a breakdown by course of student success rates overall, by campus, by instructional method, and by session. The second set of data tables will contain an overview of the number of courses, sections, enrollments, and potential tuition earned for the previous five years.)
- *Discuss other data collected by the program if desired.*

b. Licensure/certifications of students
- *Discuss what licensures/certifications students may be able to obtain upon completion of the program.*
- *Outline the requirements for each licensure/certification.*
- *Describe how the program contributes to the student's ability to achieve the current licensures/certifications.*
- *Discuss any impediments to the student obtaining the licensures/certifications.*

c. Curriculum
    i. Course outline reviews and updates
- *Define how often course outlines are reviewed and updated.*
- *Discuss changes made to the course outcomes since the last program review.*
- *Discuss the effects these changes have had on the program.*
    ii. Other curriculum changes
- *Describe any curricular changes since the last program review such as program outcome changes, pedagogy, software updates, different delivery methods, or different time offerings.*
- *Note any impending course changes.*
- *Discuss the effects these changes have had on the program.*

d. Articulation
- *Describe the program's participation in Articulation Tasks Forces.*
- *Discuss changes in transferable courses.*
- *Provide elaboration on any courses that are only transferable as electives or non-transferable.* (A transfer table of the courses will be provided by the assessment team to be included in the Appendix.)

e. Is the program accredited by a programmatic accrediting agency? If so, name the agency and include the status of the most recent accreditation.

f. Teaching loads
- *Provide a description of the responsibilities and loads of the full-time faculty.*
- *Provide a description of the responsibilities and loads of the part-time faculty.*
- *Discuss the delivery methods of the courses.*
- *Discuss any release time of the full-time faculty.* (Charts and tables detailing the number of courses and sections taught by full-time and part-time faculty will be provided by the assessment team to be included in the Appendix.)

g. Faculty credentials
- *Describe minimum credentials needed to teach in the program.*
- *Discuss any specializations or achievements of the current faculty.* (A table listing the program faculty for the last five years with the faculty members' degrees will be provided by the assessment team to be included in the Appendix.)

h. Student Learning Assessment
- *Provide detailed descriptions on types of assessment used to measure student learning.*
- *Describe any course-level assessments that were conducted and the results since the last program review.*
- *Report any shared assessments within the program and data gathered from those assessments.*
- *Record any observations or trends found within the student learning assessment data.*

III. **Facilities and Resources**
a. Specify any designated space that is primarily for the program's use since the last program review.
- *Describe how the designated facilities contribute to the program's overall student success.*

b. Specify any designated equipment purchased primarily for the program's use since the last program review.
- *Describe how the designated equipment contributes to the program's overall student success.*

c. Specify any designated budget and differential tuition that is primarily for the program's use. (The assessment team will provide A program budget.)

IV. **Analysis and Reflection**
a. Strengths, Weakness, and Challenges Analysis
- What do you see as internal strengths of the program?
  - *Provide evidence and data to support answers.*
- What do you see as internal weaknesses of the program?
  - *Provide evidence and data to support answers.*
- What do you see as opportunities for the program?

- What do you see as challenges of the program?
  - *Provide any challenges that the program has faced since the last program review and the results.*
  - *Provide any challenges the program is facing now internally and externally.*
  - *Discuss any challenges for the students completing a certificate or degree.*

b. Previous Recommendations and Results
  i. List recommendations that were received at the last program review.
     - *Elaborate on actions taken on recommendations and effects on the programs.*
  ii. List any recommendations from Program Advisory Committees/Councils (if applicable).
     - *Elaborate on any actions take on recommendations and effect on the program.*

V. **Recommendations**
Provide recommendations for specific actions for continuous improvement of the program.
  a. Five Year Plan
     - *Where will this program be in five years?*

  b. Action Plan/Recommendations (To be completed in the next five years). List action items in order of priority of completion.
     i. Action Item #
     ii. Anticipated date for completion
     iii. List of the potential benefits to student success
     iv. Status update (Only update at Annual Review Meeting)
     v. Last reviewed date

Appendix
- *Documents mentioned throughout program review above*
- *Other documents as needed to support program review*

Appendix J – 2017-2018 Non-Academic Program Review

2017-2018 Non-Academic Program Review

Executive Summary

    A short summary of the program review that readers can rapidly become acquainted with the material without having to read all of it. This section is written last.

Program Overview (Narrative)

    A brief description of the program explaining why it exists, what its function is within the college, and the services the program provides.

Program Mission, Goals, and Objectives

    Program Mission, if applicable

        Provide a clear and concise statement of the program's mission and how that mission ties into the overall mission of the college.

    Goals and Objectives

        Provide a list of the goals, objectives, and outcomes of the program. When applicable, define how these goals align with the current strategic plan and provide evidence on how the program has been working to accomplish these goals.

Changes/Improvements Since Last Review (if applicable)

    Recommendations from most recent program review and/or advisory

        committee(s)

        List recommendations that were received given during the last program review and any that have occurred within the previous five years. Elaborate on actions taken on the recommendations and the effects these actions had on the program. If no action was taken on a recommendation, describe why no action was taken.

Personnel, Facilities, Resources and Funds

    Personnel

        Provide an overall description of the staffing and organization of the program. Provide a description of the distribution of responsibilities between the positions within the program. Detail the professional development opportunities offered and utilized by staff.

    Facilities and Resources

        Describe any designated space that is provided to support the program. Describe any designated equipment purchased to support the program. Provide observations on how the facilities and equipment contribute to the mission of the program. Provide observations/data on how the facilities and equipment contribute the quality/quantity of services provided by the program. Elaborate on future trends or needs of the program detailing how this will lead to student success.

Finances

Align revenues and expenditures within the budget, and outline what revenues are generated through program activities. Any applicable trends and impacts on the budget should also be discussed.

Partnerships and Collaborations, if exist

Internal

List any internal committee(s), advisory groups, or other collaborations in which the program participates. Detail the composition, information on meetings, other functions or activates of involvement.

External

Identify advisory councils, high school connections, community agency connections, or other forms of connections which pertain to the mission and objectives of the program. Detail the composition, information on meetings, other functions, or activities of involvement.

Customer and Services Review

Review of Provided Services

Provide a detailed review of the services provided by the program. Explain how the services support teaching and learning within the college.

Support of Students

1. Provide the program's definition of student success.
2. Analyze the demographics of the participants of the program, and identify any populations not being served. Identify trends and patterns and compare to other Arizona programs. Use results of qualitative measures aimed at how best the program provides services or support students.

C. Support of Faculty and Staff

Analyze the demographics of the participants of the program, and identify any populations not being served. Identify trends and patterns and compare to other Arizona programs. Use results of qualitative measures aimed at how best the program provides services or support faculty and staff.

Analysis

SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis and description using the following definitions:

Strengths – The programs capabilities, resources, assets, people (experience/knowledge) processes/systems. Strengths should be realistic and not modest.

- What are the advantages of the program?
- What does the program do well?
- What relevant resources do you have access to?
- What do other people see as the program's strengths?

- What would the program boast about to someone who knows nothing about this organization and its work?

Weaknesses – The disadvantages, gaps in capabilities, reputation, financial, deadlines, moral/leadership, processes/systems that could serve as a barrier. Weaknesses should be truthful so that they may be overcome as quickly as possible.
- What can be improved?
- What is done poorly?
- What should be avoided?
- What is the program doing that could be done more effectively/efficiently?
- What is the program not doing that it should be doing?
- List one thing that could be changed to help the program function more effectively.

Opportunities – Any market developments, industry/lifestyle trends or geographical partnerships that create favorable situations now or in the future.

- Where are the good opportunities for the program?
- What are the interesting trends that the program is aware of?

Threats – External forces that are potentially damaging now or in the future.

- What obstacles does the program face?
- Are there required specifications for your program changing?
- Is changing technology threatening the program?
- Are there financial issues?
- Are any of the weaknesses a serious threat to the program?

Internal Factors

What do you see as the internal strengths of the program? What are the internal challenges?

STRENGTHS	WEAKNESSES
OPPORTUNITIES	THREATS

External Factors

What are the external opportunities of the program? What are the external weaknesses?

STRENGTHS	WEAKNESSES
OPPORTUNITIES	THREATS

Recommendations and Future Directions

    1- to 3-Year Recommendations

        Provide the goal, objective, timeframe, responsible party(ies), and resources implications. Devise plans to help improve student success.

    Revision of Current Goals, if applicable

    Future Direction (5-year view)

        Where will this program be in five years? What evolutions needs to occur for the program to continue to meet its purpose and objectives.

302-00 ASSESSMENT OF STUDENT LEARNING—POLICY

Assessment of student learning is an ongoing, systematic approach to establishing clear and measurable goals of learning. Coconino Community College supports student learning assessment as a means of understanding and improving student learning. Information on student learning will be gathered, analyzed, and interpreted for continuous improvement of teaching and learning. The assessment of student learning may be at the course, program, or institutional level. Assessment fosters effective student learning, curriculum enhancement, and program development, and contributes to resource allocation decisions. While assessment of student learning is a college-wide responsibility, the College is committed to the central role of Academic Affairs in the assessment processes.

Revision history: 05/24/2011 (reformatted), 02/21/2018
Legal review: none
Sponsor: Academic Affairs

Adopted by District Governing Board: 09/15/1995, 02/21/2018

312-00—ACADEMIC COMMITTEES- POLICY

Coconino Community College strives to achieve excellence in all methods of instruction. To accomplish this, the College establishes organizational structures that provide recommendations for the advancement and sustainability of educational excellence. This structure will be supported by the following committees: Academic Standards, Assessment, Curriculum, Faculty Credentials, and Online Education.

The College ensures that committee meetings are productive and effective by providing required training and support and outlining standards and expectations for all committee members. The committee members are responsible for attending committee training and actively participating as a member of their committee(s).

Revision history: NEW
Legal review: none
Sponsor: Academic Affairs

Adopted by District Governing Board: 09/15/1995

COCONINO COMMUNITY COLLEGE

COCONINO COMMUNITY COLLEGE

302-01 ASSESSMENT OF STUDENT LEARNING PROCEDURE

1. PURPOSE

To create an organized and systematic method of assessment at CCC, the College assesses its programs, services, and student academic achievement for the purpose of continuous improvement and to guide strategic planning and decision making. We strive to implement this procedure with broad-based participation to assure that assessment at CCC is an integral part of all college activities.

2. PROCEDURE

This procedure contains three components: the assessment of student learning, the maintenance of an assessment handbook, and the creation of assessment plans and reports.

1. Assessment of Student Learning
    Student learning outcomes represent the measurable knowledge and skills that serve as the foundation for success in society and one's discipline, vocation, and life. Student learning outcomes are designed at the course-level and program-level and posted on the College website. The course-level outcomes are included in course syllabi. Classroom and co-curricular data are collected and analyzed across the college to determine whether or not students are meeting the expectations described by these outcomes.
    a. Validation of Student Learning Outcomes in Academic Affairs: Student learning outcomes on course outlines are reviewed and updated by designated faculty as needed and is ensured during the Program Review process. Changes to student learning outcomes at the course- and program-level must follow Curriculum Development Procedure 301-01.
    b. Assessment of Credit Education: All credit programs are required to assess their student learning outcomes. Assessment of student learning outcomes is conducted by the program/department faculty and then documented during the program review process. The entire assessment process can be found in the College's Student Learning Assessment Handbook.
    c. Assessment of Non-Credit Education: Non-credit courses/workshops may be offered for continuing education units, professional development, or personal enrichment. Assessment of these courses/workshops is dictated by the funding source and will be followed by the program coordinator, staff, and faculty.
    d. Assessment of Co-Curricular Activities: Co-Curricular activities are defined as learning activities that occur outside the regular learning environment. Co-

curricular assessment is developed in coordination with Student Development and faculty with student learning outcomes in mind.

2. Student Learning Assessment Handbook
   a. This handbook provides a comprehensive outline of the college assessment of student learning processes and procedures. This handbook reflects the collaborative work of faculty and staff across all divisions. Changes to the handbook will be completed by the Assessment Committee in consultation with college faculty, staff, and leadership. The Assessment, Program, and Training Coordinator will maintain an updated version of the handbook on the Assessment website.

3. Assessment Plans and Reports
   College assessment plans and reports of student learning processes are explained in detail in the College's Student Learning Assessment Handbook. Assessment reports include

   a. Course Assessment Reporting: The course assessment reporting is a record of the assessment of student learning at the course-level. Faculty and/or disciplines are required to report course assessment each semester. The reported data is aggregated and sent to relevant stakeholders.
   b. Program Review: Programs are required to conduct program review to examine the history of the program, to determine how the program is performing, and to evaluate whether changes are necessary due to market or educational trends. Program reviews are conducted on a five-year cycle, as detailed in the Student Learning Assessment Handbook. Program reviews are created by the appropriate program. The Assessment, Program, and Training Coordinator assists the program in gathering and compiling program assessment data. Program reviews are evaluated according to the reporting structure within the program, the Assessment Committee, and the Provost/division Vice President. Recommendations are then reviewed by the appropriate councils and the decisions/recommendations are communicated back to the programs for implementation.

   As part of the program review process, programs are required to conduct a bi-annual assessment & goal review to review program assessment gathered to that point and update or create new program goals/recommendations. Bi-annual reviews will be shared with the supervisor of the program. The Assessment, Program, and Training Coordinator assists the program in gathering and compiling their program assessment data.

3. BACKGROUND
1. References: Policy 300-00 Academic Processes, Policy 302-00 Assessment of Student Learning, and Assessment Manual
2. Revision history: 04/07/2018 (new)
3. Legal review: none
4. Sponsor: Academic Affairs

Adopted by College Council: 04/07/2018

COCONINO COMMUNITY COLLEGE

Attachment M

Academic Bi-Annual Review Form

Academic Bi-Annual Review Form

Years Two and Four of the Program Review Cycle

The Coconino Community College bi-annual review will consist of two areas: an update to the Program Review Action Plans/Recommendations and a review of program student learning outcomes, results, actions taken, and future actions since either the last program review or bi-annual review.

Prior to completing the Bi-Annual Review form, the Assessment Coordinator will provide the program with the most recently completed Program Review Actions Plans/Recommendations, Program Assessment Reports with associated assignments and rubrics, and a summary of related Course Assessment Reports. In Year Four, the previous Bi-Annual Review information will be provided as well.

Provide a status update to any of the recommendations. Then analyze the attached student learning assessment data and provide any future actions to be taken based on that data. In Year Four, provide an update on previously stated future actions from the previous bi-annual report. Attach any department/program minutes or other appropriate documentation that recorded discussion of updates to recommendations or of student learning assessment.

I. ACTION PLAN/RECOMMENDATION UPDATE *Repeat 1-5 for each Action Item list below.*
1. **Action Item # (# as indicated on last completed program review):**
2. **Anticipated date for completion:**
3. **List potential benefits to student success:**
4. **Status Update (Only Update during Bi-annual Review Reporting):**
5. **Last reviewed date:**

II. ASSESSMENT OF STUDENT LEARNING *Repeat 1-5 for each outcome/measure evaluated. If only one outcome is evaluated, answer 1-5 once.*

1. **Program Outcome/Measure:**
2. **Course(s) Assessment Gathered:**
3. **Method of Assessment:**
3. **Semester Information Gathered:**
4. **Results of Assessment:**
5. **Associated Benchmarks:**

III. ANALYSIS (Examine the results for evidence of learning, trends, and whether the results inform quality improvement efforts)**:**

IV. UPDATE ON ANY PREVIOUS ACTIONS:

V. FUTURE ACTIONS:

Attachment N

2018-2019 Academic Bi-Annual Review Form for Math

Academic Bi-Annual Review Form – Mathematics (MAT)

Years Two and Four of the Program Review Cycle

The Coconino Community College bi-annual review will consist of two areas: an update to the Program Review Action Plans/Recommendations and a review of program student learning outcomes, results, actions taken, and future actions since either the last program review or bi-annual review.

Prior to completing the Bi-Annual Review form, the Assessment Coordinator will provide the program with a variety of data: the most recently completed Program Review Actions Plans/Recommendations, Program Assessment Reports with associated assignments and rubrics, and a summary of related Course Assessment Reports. If Year Four, the previous Bi-Annual Review information will be provided as well.

Provide a status update to any of the recommendations. Then analyze the attached student learning assessment data and provide any future actions to be taken based on that data. If Year Four, provide an update on previously stated future actions from the previous bi-annual report. Attach any department/program minutes or other appropriate documentation that recorded discussion of updates to recommendations or of student learning assessment.

I. ACTION PLAN/RECOMMENDATION UPDATE

Action Item #: 1 – Hire one additional FT Math Faculty
Anticipated date for completion: unknown
List potential benefits to student success: Full-time faculty have a greater knowledge of the scope and sequence of the courses, and can better assist the students in their progress through the program.
Status Update (Only Update during Bi-annual Review Reporting) There was a temporary one-year full time math position during the 2018-2019 academic year. We hope to have this position become permanent in the future.
Last reviewed date: September 2017

Action Item #: 2 – Continue and expand the Supplemental Instructor (SI) program.
Anticipated date for completion: ongoing
List potential benefits to student success: Students who utilize the program have experienced greater success in their math classes. ***SI survey versus tutoring results from Spring 2018 shown below. NAU and CCC have a collaboration on a NOYCE grant. As part of this grant, NAU provides some SI tutors who help students at CCC. The data showing success of this program is not available yet. This grant will end in 2022. At that point we will lose this extra funding for SI tutors. If this extra SI tutoring has proven to be beneficial and should continue, then funding will need to be provided to continue this program.
Status Update (Only Update during Bi-annual Review Reporting) Continue the program.
Last reviewed date: April 2018

Action Item #: 3 – Build platform in front of board in Room 107.
Anticipated date for completion: Withdraw the goal.
List potential benefits to student success:
Status Update (Only Update during Bi-annual Review Reporting)
Last reviewed date: September 2017

Action Item #: 4 – Purchase and install more up-to-date SmartBoard in Room 107.
Anticipated date for completion: unknown
List potential benefits to student success: The ease of use will facilitate instructors having more time for classroom instruction.
Status Update (Only Update during Bi-annual Review Reporting) Requested STEM funds fall 2017 and math department funds in fall 2018. Status unknown.
Last reviewed date: October 2017

Action Item #: 5 – Keep dedicated math classrooms with department technology, materials, and layout.
Anticipated date for completion: Ongoing
List potential benefits to student success: Math instruction requires extensive use of whiteboards and smartboards. Math classrooms should not have the screens covering whiteboards. Smarboards allow instructors to save their instruction for students to use. Math classrooms should be arranged to allow for easy movement around the classroom for group activities.
Status Update (Only Update during Bi-annual Review Reporting) There was a discussion that math stop using 509 and use 459 instead. To make this change, 459 would need to be reoriented to be useful as a math classroom and move the SmartBoard and extra white boards from 509 into 459. Room 527 has been designated as not a math classroom in future years. Room 504 has been requested as an overflow math classroom if one is needed. Room C3 at the 4th Street campus should have the screen moved so that is not covering the whiteboard. Room C5 on 4th Street that has a pole in the student seating. This room is not conducive to math classes and scheduling in this room should be avoided.
Last reviewed date: Fall 2018

Action Item #: 6 – Build additional computer classroom with required software installed such as MATLAB and R
Anticipated date for completion: Ongoing
List potential benefits to student success: A former COW (Computers on Wheels) cart is being retired and will be put into a math classroom. At least that is what we were told. This will allow more students to utilize the computers for classes such as developmental.
Status Update (Only Update during Bi-annual Review Reporting) Math classes that should always be scheduled in a computer classroom: Statistics (MAT 160), Differential Equations (MAT 261). Math classes that would be nice to have scheduled in a computer classroom: College Math (MAT 140), Calculus III (MAT 241), and developmental math classes. The math department would like to see laptop computer carts or Chromebook carts in all math classrooms.
Last reviewed date: Fall 2018

Action Item #: 7 – Investigate mobile chair/desks for active classrooms
Anticipated date for completion: Withdraw this goal.
List potential benefits to student success:
Status Update (Only Update during Bi-annual Review Reporting)
Last reviewed date: September 2017

Action Item #: 8 – Adequate tools such as tablet pens, dual monitors, etc in FT faculty offices
Anticipated date for completion: ongoing

List potential benefits to student success: Having adequate materials allow math faculty to create videos for their classes, and grading of materials.
Status Update (Only Update during Bi-annual Review Reporting) Some technology still needs to be updated for full time math faculty. Tablets to be used for grading in Canvas will be ordered in Spring 2019. SmartBoard pens will be ordered in Spring 2019. MathType will need to be renewed when the college updates Microsoft Word because it creates equations that are able to be read by screen readers.
Last reviewed date: Fall 2018

Action Item #: 9 – A way to offer office hours to web students so that faculty can help multiple classes at the same time
Anticipated date for completion: Goal completed
List potential benefits to student success: This helps students have greater access to their instructors, especially for online courses.
Status Update (Only Update during Bi-annual Review Reporting) The college is using Zoom for this type of meeting.
Last reviewed date: Fall 2018

Action Item #: 10 – Revitalize the MAT 010 course
Anticipated date for completion: Revisit this goal in 2019 or 2020.
List potential benefits to student success: This course could be helpful for developmental students that are in classes that are not currently covered by the SI program. It could be reconfigured with SI's helping the instructor. MAT 010 also provides a curriculum of study skills.
Status Update (Only Update during Bi-annual Review Reporting) The math department wants to think about bringing this class back as needed in the future.
Last reviewed date: September 2017

II. ASSESSMENT OF STUDENT LEARNING

PROGRAM OUTCOME/MEASURE	COURSE(S) ASSESSMENT GATHERED	METHOD OF ASSESSMENT
1. Course outcomes from MAT 088, 091, 097 2. Critical thinking general education outcome and communication general education outcome 3. Communication general education outcome 4. The math department has provided grading requirement documents to all instructors which mandate all classes have a final exam and mandate grading structure.	1.MAT 088, 091, 097 (Developmental Math Courses) 2. MAT 160/BUS 232 (Statistics) 3. MAT 220 (Calculus I), 2 sections 4. All math courses 5. Spring 2017: MAT 140, 142, 151, 187, 220 Fall 2017: MAT 140, 142, 187, 220, 230 Spring 2018: MAT 088, 140, 142, 187, 220 6. Fall 2017: MAT 140, 142, 187, 220, 230	1.Common final exams 2.Common project (**shown below) 3.Individual test question: "Your roommate who is not good at math sees your homework and asks you about derivatives. Write a paragraph (using your best grammar and punctuation) explaining the meaning of a derivative and how it can be used in real life." 4.Following up with instructors and checking syllabi

5. Critical thinking general education outcome 6. Critical thinking general education outcome by teaching modality (in-person versus on-line)		5. Common final exam questions given on final exams across sections 6. Common final exam questions given on final exams across sections
SEMESTER INFORMATION GATHERED	**RESULTS OF ASSESSMENT**	**ASSOCIATED BENCHMARKS**
1. Spring 2018, Fall 2018, Spring 2019 2. Fall 2017 and Spring 2018 for critical thinking and Fall 2018 and Spring 2019 for communication 3. Spring 2019 4. Future semesters 5. Spring 2017, Fall 2017, Spring 2018 6. Fall 2017	1.The Spring 2018 Common Final Exam for MAT 097 was edited for the Fall 2018 semester based on feedback from instructors and results of the individual questions. The instructors will be given data and a graph (*example shown below) that lets them know how their students did in their class and another graph that shows how they did compared to all classes of that same course. The department is working on determining how students are doing on individual course outcomes across sections. 2. Statistics project results: In Spring 2017, the average score on the statistics project was 84%, and 96% of the students met the benchmark for success in critical thinking. In Fall 2017, the average score on the statistics project was 78% and 82% of the students met the benchmark for success in critical thinking. In Spring 2018, the average score on the statistics project was 81% and 89% of the students met the benchmark for success in critical thinking. In Fall 2018, the average score on the statistics project was 80%, and 92% of the students met the benchmark for success in communication. Spring 2019 data will be gathered and	1.The department will work on using the data from common final exams to address the deficiencies in course outcomes that our students are demonstrating. At this time there is not a particular benchmark level of success that we are expecting from our students. 2.60% or better on the statistics project is successful. 3.75% or better on the question is successful. 4. Instructors comply with grading requirements. 5. 60% or better on the five common final exam questions is successful. 6. 60% or better on the five common final exam questions is successful.

	compiled at a later date for the communication general education outcome. 3. MAT 220 test question results: In Spring 2019, 66% of the students met the benchmark for success in communication. 4. Unknown at this time 5. Spring 2017: In MAT 140, 142, 187, and 220 60% or more of the students showed success in critical thinking. The results for MAT 151 showed that only 40% of the students had success in critical thinking. Therefore, more work needs to be done to help support critical thinking in students in MAT 151. However, due to problems with the way the data was collected and reported (***see below), the department does not have information as to what math performance measures are the most in need of support. Fall 2017: In MAT 140, 142, 87, 220, and 230 60% or more of the students showed success in critical thinking. Spring 2018: In MAT 088, 140, 142, 187, and 220 60% or more of the students showed success in critical thinking. 6. In Fall 2017, the percentage of students who met the benchmark for the critical thinking outcome were 70% for in-person and 67% for on-line across all math courses.	

*Example Graph and Data for Developmental Courses

Question by question two point
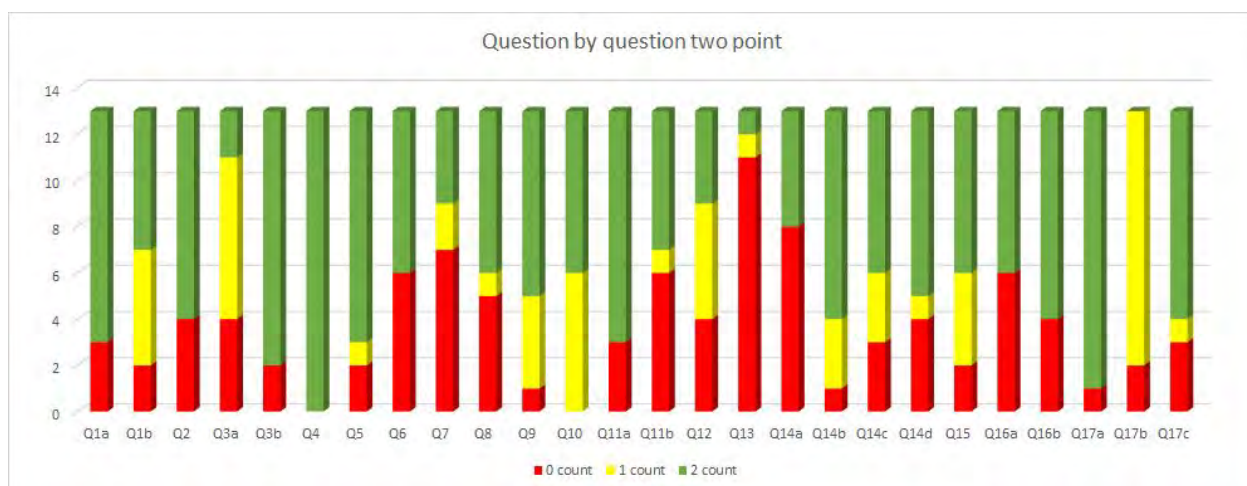
Course Outcome	1	2	3	4	5	6	7	8	9	10
Insufficient	27	N/A	21	29	46	N/A	29	19	15	41
Emerging	4	N/A	10	20	19	N/A	23	13	31	21
Proficient	69	N/A	69	51	35	N/A	48	67	54	38

Course outcomes:

1. graph radical, quadratic, exponential, logarithmic, and absolute value functions;

2. solve quadratic and rational inequalities;

3. simplify rational expressions and solve rational equations;

4. simplify radical expressions and solve radical equations;

5. solve quadratic equations using the Zero-Product Property, completing the square, and the quadratic formula;

6. analyze exponential and logarithmic expressions and functions;

7. solve logarithmic and exponential equations;

8. perform function evaluation and identify domain and range;

9. perform operations on functions including finding the inverse;

10. and solve application problems involving concepts taught in the course.

**Common Project for Statistics Classes

This is an individual project.
1.Think up a hypothesis for a two-sample independent or a paired testfor the difference in means. The test needs to be one-tailed. See Project Ideas page on Canvas home page for ideas.

2.State in words your random variables, populations, samples, and means.

3.Choose an α level for your test. Justify your choice.

4. Collect the data. You need to have exactly 25 data points in each sample if independent test, or exactly 25 pairs if it is a paired test. If that is not possible, please contact me.

5. State the hypotheses, and do all calculations for the hypothesis test, using the technology R. Give both your test statistic and your p-value.
Give the R commands.

6. Interpret the results of the hypothesis test both statistically and in terms of the real world.

7. Make sure you state the assumptions in terms of the problem and check the assumptions. To do the check, what I mean is that for the paired test explain how you took your sample to make sure it was the right type of sample, and perform the assessing normality from chapter 6. For the independent test, explain how you took your samples to make sure they were the right type of samples and perform all parts of the assessing normality from chapter 6.

8. Estimate the difference in means using a confidence interval using technology.
Give the R commands.

9. Interpret the confidence interval both statistically and in terms of real world.

***SI versus Tutoring Survey Results

Tutoring Data:

Frequency of attending *student services* tutoring	0-5	6-10	11-15	16-20	21-25	>25
	102	14	7	6	2	4

Satisfaction rating of **SS**	Very unsatisfied	Unsatisfied	Neutral	Satisfied	Very satisfied
	1	11	73	30	16

SS tutors knowledgeable?	**Never**	**Rarely**	**Sometimes**	**Mostly**	**Always**
	4	**5**	**28**	**47**	**21**

Why did you not utilize SS?	**Didn't know**	**Didn't fit schedule**	**Didn't think useful**	**Other**
	7	**58**	**11**	**See below**

Students' "Other" reasons for not utilizing SS include:

1. Preferred SI (expressed by 6 students)
2. **Too Busy**
3. **Tutors helped others first.**
4. **Need more Tutors and more hours**
5. **They couldn't help me**
6. **Couldn't figure out how to find someone to help me.**

Frequency of Attending Student Services Tutoring

Satisfaction Rating of SS Tutoring

Were the SS Tutors Knowledgeable?

Why Did You Not Utilize SS Tutoring?
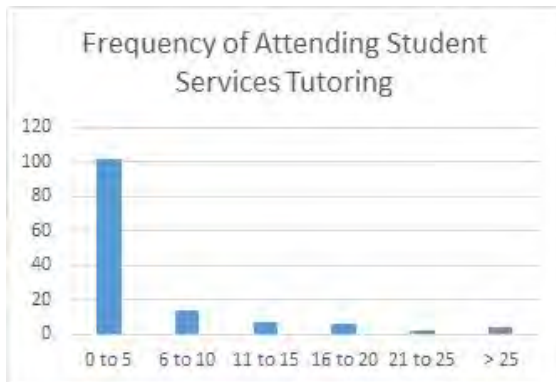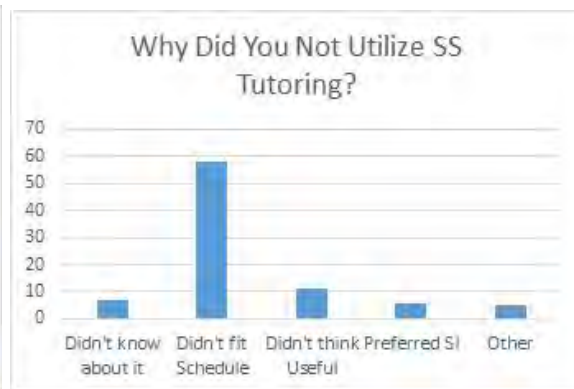
SI Data:

Frequency of attending *Supplemental Instruction* tutoring	0-5	6-10	11-15	16-20	21-25	>25
	104	12	3	5	2	10

Satisfaction rating of *SI*	Very unsatisfied	Unsatisfied	Neutral	Satisfied	Very satisfied
	0	1	64	30	29

SI tutors knowledgeable?	Never	Rarely	Sometimes	Mostly	Always
	3	0	35	2	64

Why did you not utilize *SI*?	Didn't know	Didn't fit schedule	Didn't think useful	Other
	12	72	8	See below

Students' "Other" reasons for not utilizing SI include:

1. Would like to see morning or more hours (expressed by 9 students)
2. Need more tutors (Expressed by 5 students)
3. Too proud to go
4. Used TRIO tutors instead
5. Make it more inviting
6. Hard to get there during offered hours
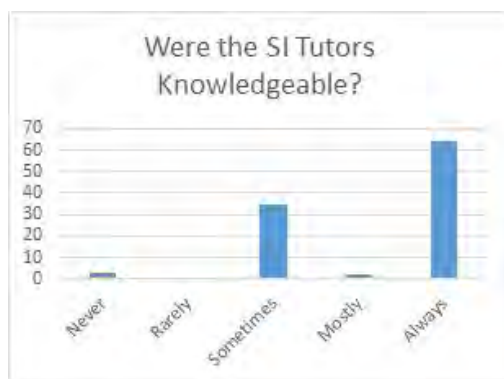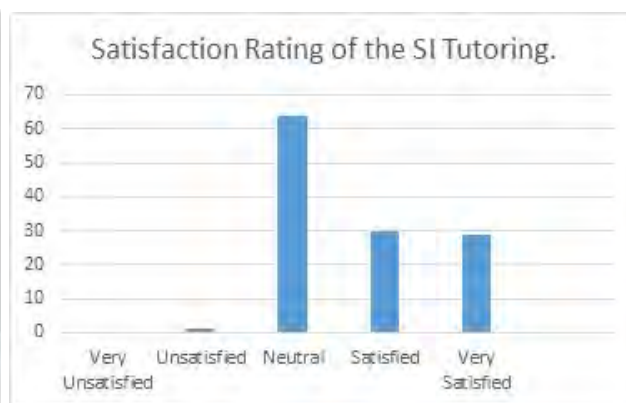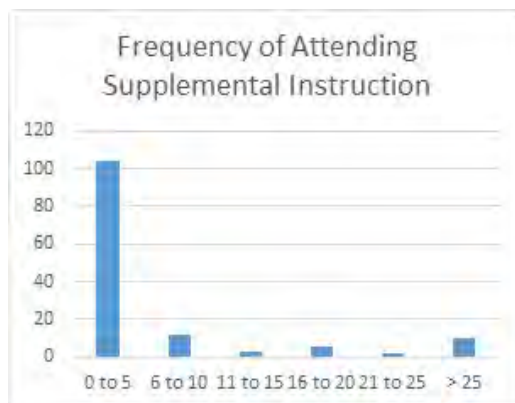
Frequency of Attending Supplemental Instruction

Satisfaction Rating of the SI Tutoring.

Were the SI Tutors Knowledgeable?

Reason for not Utilizing SI.

ANALYSIS (Examine the results for evidence of learning, trends, and whether the results inform quality improvement efforts): Analysis will be done in future semesters.

ALREADY TAKEN/FUTURE ACTIONS: The department wants to work on the following items:

1. Updating grading requirements for all classes
2. Develop sample grading procedures for developmental classes and possibly MAT 140/142
3. Develop master course shells for all classes taught by part-time faculty
4. Placement testing
5. Collaboration with tutoring

UPDATE ON PREVIOUS ACTIONS: See grid above.

***The mathematics department was given results from the general education assessment done during Spring 2017 for the Critical Thinking general education outcome. However, due to the reporting

structure of this data, the department cannot further use the data to comment on the math department performance measures because the same exact data from the critical thinking outcome was reported as results for for each math performance measure. The department needs more detailed reporting such as instructors reporting the results of each common final exam question in Canvas rather than the aggregate success rate on all five common final exam questions. In the future, we would like to see the reporting rubric to break out each question so that individual math performance measure can be analyzed.

Main Idea or Thesis and Support

Course Section	Accomplished	Developing	Did not Complete	Total Students
3	19%	52%	29%	21
4	65%	22%	13%	23
5	75%	19%	0%	16
6	55%	20%	25%	20
7	57%	43%	0%	14
8	71%	29%	0%	7
9	53%	11%	37%	19
10	52%	17%	30%	23
11	50%	32%	18%	22
12	40%	45%	15%	20
13				
14				
15	95%	0%	5%	22
16				
A-01				
A-02				
ENG 101	**57%**	**26%**	**17%**	**207**

% of Student Level using "Main Idea or Thesis and Support" in ENG 101/ENG 101A by Section
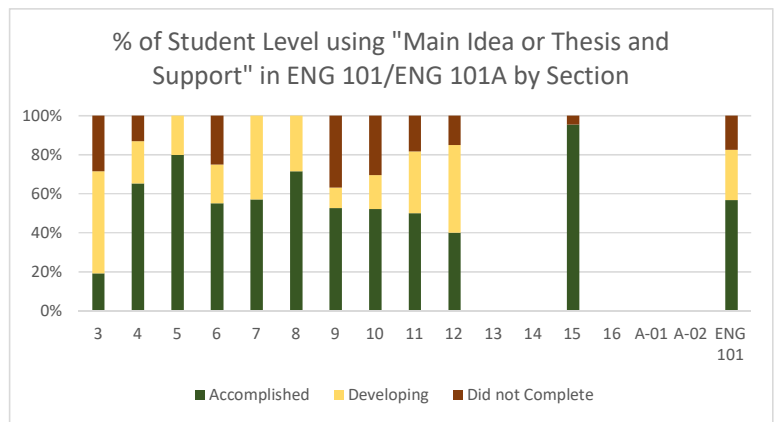
Organization

Course Section	Accomplished	Developing	Did not Complete	Total Students
3	33%	38%	29%	21
4	83%	4%	13%	23
5	69%	25%	0%	16
6	50%	25%	25%	20
7	50%	50%	0%	14
8	86%	14%	0%	7
9	58%	5%	37%	19
10	65%	4%	30%	23
11	36%	45%	18%	22
12	40%	45%	15%	20
13				
14				
15	95%	0%	5%	22
16				
A-01				
A-02				
ENG 101	**59%**	**23%**	**17%**	**207**

% of Student Level using "Organization" in ENG 101/ENG 101A by Section

Style

Course Section	Accomplished	Developing	Did not Complete	Total Students
3	71%	0%	29%	21
4	87%	0%	13%	23
5	88%	13%	0%	16
6	45%	30%	25%	20
7	64%	36%	0%	14
8	71%	29%	0%	7
9	58%	11%	37%	19
10	65%	4%	30%	23
11	45%	36%	18%	22
12	45%	40%	15%	20
13				
14				
15	95%	0%	5%	22
16				
A-01				

% of Students Level using "Style" in ENG 101/ENG 101A by Section
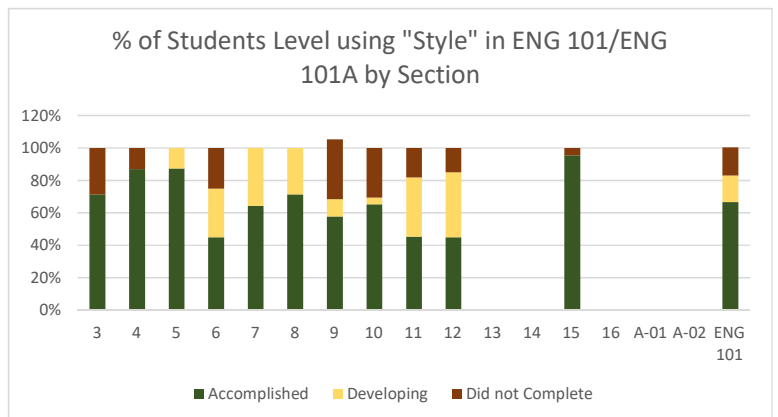
A-02				
ENG 101	**67%**	**16%**	**17%**	**207**

Syntax/Grammar

Course Section	Accomplished	Developing	Did not Complete	Total Students
3	38%	33%	29%	21
4	74%	13%	13%	23
5	88%	13%	0%	16
6	50%	25%	25%	20
7	71%	29%	0%	14
8	71%	29%	0%	7
9	53%	11%	37%	19
10	57%	13%	30%	23
11	36%	45%	18%	22
12	45%	40%	15%	20
13				
14				
15	86%	9%	5%	22
16				
A-01				
A-02				
ENG 101	**59%**	**23%**	**17%**	**207**

% of Students Level using "Syntax/Grammar" in ENG 101/ENG 101A by Section
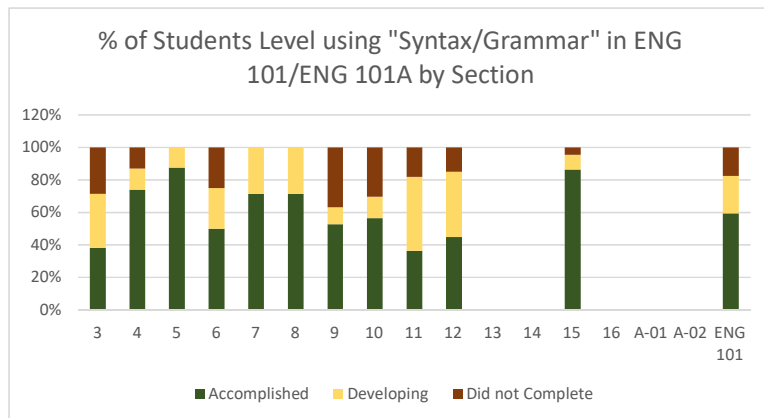
Attachment P

Fall 2019 Section-Level Assessment with Shared Assessment Tool for Math

Assessment Data Collection

Semester /Year of Collection: Fall 2019
Collection for Course: MAT-**140/142-All Sections**
Assignment Name: Final Exam (Common Problems)
Instructor Name: **All Instructors**

Rubric Content	Course Outcome*	Performance Indicator*	Total Available Points	TOTAL STUDENTS	2 Full Points	%	1 Missed Points	%	0 No Points	%
Problem 1: World Health Org - Exponential Growth	3. Solve various types of growth problems	1. Apply mathematics in context using appropriate problem solving skills	5	183	53	29%	72	39%	57	31%
Problem 2: Home Mortgage Loan	1. Solve applied financial problems	2. Choose and manipulate formulas	5	183	40	22%	76	42%	67	37%
Problem 3: Health Care - Graph understanding	6. Create and interpret statistical graphs	3. Create and interpret graphical representation	5	183	101	55%	45	25%	37	20%
Problem 4: Defective TVs - Probability	4. Utilize probability theory to solve applied probability problems	7. Gain appreciation of the nature and uses of mathematics	5	183	45	25%	95	52%	43	23%
Problem 5: Median vs Mean	7. Calculate and interpret numerical descriptive statistics	8. Communicate using the language of mathematics	5	183	36	20%	83	45%	64	35%

Rubric Content	Total Available Points	TOTAL STUDENTS	2 Full Points %	1 Missed Point %	0 No Points %
Problem 1: World Health Org - Exponential Growth	5	183	29%	39%	31%
Problem 2: Home Mortgage Loan	5	183	22%	42%	37%
Problem 3: Health Care - Graph understanding	5	183	55%	25%	20%
Problem 4: Defective TVs - Probability	5	183	25%	52%	23%
Problem 5: Median vs Mean	5	183	20%	45%	35%

Fall 2019 MAT 140/142 Common Final Results
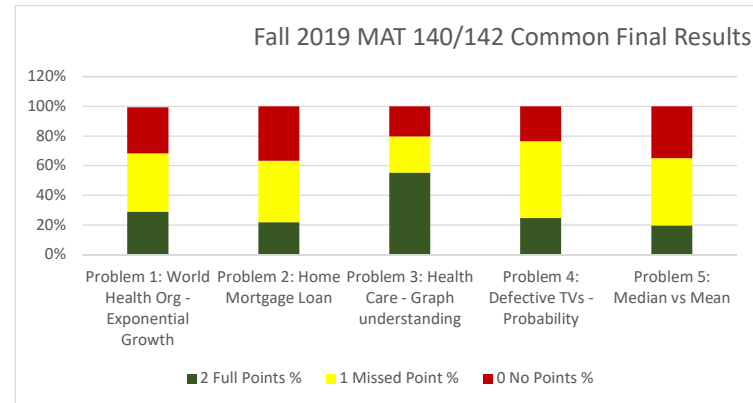
Attachment Q

Interim Report on Assessment of Student Learning

Institution: Coconino County Community College (HLC ID 2087)

Chief Executive Officer: Colleen A. Smith PhD, President

Date Submitted: May 9, 2018

Action: Interim Report on Assessment in response to the Open Pathway: Assurance Review Report for Coconino County Community College and letter sent by the Higher Learning Commission (HLC) June 27, 2016. We appreciated the constructive feedback the Review Team provided in the area of Assessment of Student Learning. In our response to the Assurance Review Report, the College agreed that the following "Interim Report on Assessment of Student Learning" would be submitted prior to June 29, 2018.

Core Components 4.B: The institution demonstrates a commitment to educational achievement and improvement through ongoing assessment of student learning.

Areas of Focus: In the Open Pathway: Assurance Review Report and subsequent letter the College was asked to demonstrate progress in the areas of collecting and analyzing assessment data. We were specifically requested to provide evidence of progress including preliminary reports of assessment activity that would address:

- Performance on general education outcomes,
- Assessment of learning outcomes across different modes of instruction,
- Revisions/modifications to the assessment plan as a result of the initial implementation and, if possible,
- Demonstrate that the assessment results have been used to improve teaching and learning at the institution.

We were also encouraged to map co-curricular activities and organizations to institutional learning outcomes as an exercise to demonstrate how these activities and organizations support student learning.

INTRODUCTION

Coconino Community College (CCC), in Northern Arizona, serves the second largest county in the continental United States. As a comprehensive community college, we pride ourselves on being a college that serves at-risk students. Depending on the semester, approximately 60% to 80% of our IPEDS First Time, Full Time, Degree Seeking cohort place into either Developmental English, Math, Reading or all of the above. In addition, we are a minority-serving institution and federally recognized as a Title IV college. This is reflected in our Fall 2016 IPEDS report, where our student population consisted of 19% Native Americans, 18% Hispanics, and 7% Two or More – Unknown Race/Ethnicity. Our goal is to be a self-evaluative educational institution that critically looks at how we improve student learning so that our students can improve their lives (Appendix A). We look at this Interim Report on assessment as an opportunity to provide evidence of ongoing efforts in assessment of student learning, and as a self-analysis of the College as a learning institution that values the education of all who enroll.

ASSESSMENT EFFORTS SINCE THE 2016 ASSURANCE ARGUMENT

Coconino Community College has conducted various types of learning assessment on an intermittent basis since the college was formed. After receiving the HLC response to our 2016 Assurance Argument we began an in-depth analysis of our assessment practices. We found that, although on the surface it appeared that CCC was assessing learning, we did not have a consistent culture of assessment throughout the institution (Appendices B, C, D).

In February 2016, a new president started at the College and focused on assessment of student learning and collaboration to ensure institutional effectiveness. The priority for decision making at CCC is now student success through effective learning assessment and overall institutional effectiveness. The college is approaching our future with the understanding that the structure of the college should inspire collaboration and encourage the philosophy of putting students first. As part of this initiative, Student Development was moved into Academic Affairs. With representatives from Student Development now serving on the newly formed Academic and Student Development Council and on the Assessment Committee, communication concerning overall learning outcomes and the assessment of co-curricular activities is greatly improving.

In addition to discouraging the silos that often develop in higher education, this process helped us recognize that consistent and systematic assessment of student learning and evaluation of institutional effectiveness was not occurring throughout the entire college. This led to developing processes to synchronize efforts and develop new strategies to analyze what we are doing and then make consistent efforts to close the loop and use the information collected for improvement (Appendices E and F).

Finally, as part of these synchronization efforts, we realized CCC did not have a thorough and effective process for conducting program-level review to analyze learning assessment data and data collected to review and make improvements in all non-instructional programs across the college. Previously, our assessment practices were dependent on a handful of people within Institutional Research or at the department chair level. Because of this dependency, assessment had not been consistently valued and meaningfully used; therefore, those processes started to collapse when positions became vacant or when the organizational structure of the College changed.

For assessment to have meaning, it must be relevant and improve student learning and services, and it must be a sustainable process. To this end, the Assessment Committee, in collaboration with the Provost,

developed policies and procedures (Appendices E and F) vetted throughout the college using our shared governance model and approved by the District Government Board.

Coconino Community College has now embedded assessment within our culture by creating a sustainable assessment process (Appendices E, I, H, I, J, and K).

During our participation in the HLC Assessment Academy, we realized that each area of General Education needs to define similar performance measures using the language of their discipline. Now each General Education area has developed performance measures within their discipline while still measuring the overall program level outcome (Appendix L).

Ultimately, through the analysis of our assessment process, we have established sound and sustainable processes involving different committees, councils, and departments across the college (Appendices E, K, M, N, and O). We believe these efforts will impact student learning and overall College effectiveness, which will, in turn, lead to increased student success.

ASSESSMENT PLAN AND PROCESSES

History
Prior to 2016, CCC embarked on a journey to redesign assessment across the College. We enrolled in the HLC Assessment Academy in 2014 with the goal of creating sustainable processes through an initial focus on assessing critical thinking in General Education courses. Discussions with faculty began in Spring 2015, and we formed our Assessment Committee in Fall 2015. Initial efforts for collecting critical thinking assessment data began through our General Education committee in Spring 2016. Additionally, we began a new format for conducting Program Reviews in Spring 2016. While assessment efforts had begun, the assessment process was still scattered and not cohesive.

Unification Efforts
Currently, assessment at CCC is an active process that takes into consideration building on past successes and learning from our past missteps, with a constant focus on improvement of student learning. Beginning in 2016, CCC made coordinated efforts to improve the structure and processes that lead to a healthy assessment culture.

An assessment budget was developed, and new positions were created to sustain the assessment process. With the new organizational structure for assessment, the budget for assessment increased from $5,729 in Fiscal Year 2015 to $119,970 for Fiscal Year 2019. In the summer of 2016 we hired an Assessment Coordinator and in Summer 2017, we hired an Associate Dean of Curriculum and Assessment. This structure was designed to support students, faculty, and staff in a unified collaborative assessment program focused on the improvement of learning.

The work done in the Assessment Academy aligned with our ultimate goal to unify academics and College services around a common goal of enhancing student success via improvement of student learning. The Assessment Academy provided a structured, four-year program to assist us in developing our efforts as we were assigned a primary mentor and an HLC Scholar who provided feedback and acted as a primary contact for questions (Appendix L).

In February 2016, a faculty workgroup developed a faculty evaluation plan that required each professor to include learning assessment as part of their annual goal setting and performance review. (Appendix F).

Our Academic Standards Committee created a model syllabus for all classes that all faculty are required to use when developing their courses. This model syllabus includes assessment of student learning as a core component (Appendix I). Using the model syllabus reinforces the alignment between outcomes, content, and assessment tools (Appendix I). All new and modified course outlines brought to the Curriculum Committee must include these requirements. This process was improved in 2017-18 with the addition of an assessment check by the Associate Dean of Curriculum and Assessment as part of the curriculum approval process.

We've also improved the program review process. The Assessment Committee created a timeline, checklist/rubric, and process for Academic and Non-Instructional Program Reviews that were used in Spring 2017. Based on feedback from program areas and committee analysis, we revised requirements to improve clarity in the Spring 2018 program reviews. (Appendix D). In Spring 2018, the Assessment Committee made further improvements by drafting a bi-annual review document for use beginning Fall 2018.

A clear data collection process for assessment of student learning outcomes is now a part of the integrated assessment system. We first began collecting data using Course Assessment Reports in Fall 2016 and Program Assessment Reports in Spring of 2018. (Appendix C). These processes are detailed in the Consistency of Student Learning Assessment section below.

With college-wide input at all levels, we created and/or revised assessment and academic policies that were approved by the District Governing Board in December 2017. Procedures to support policies were then vetted and approved throughout the College (Appendix D). Our commitment to long-term improvement in student learning outcomes was designed to be sustainable.

CONSISTENCY OF STUDENT LEARNING ASSESSMENT

Consistent engagement in learning assessment and evaluation of institutional effectiveness is critical to the health of teaching, learning, and all College services at CCC. The creation of an integrated assessment process through dialogue and training had to take place simultaneously, engaging a college-wide audience.

General Education Assessment
Development of an assessment culture
General Education at CCC has multiple measurable learning outcomes that are based on program goals: communicate effectively, demonstrate an appreciation of cultural diversity, and apply critical thinking skills. The General Education Committee developed a critical thinking project to engage all instructors in a dialogue to define and use critical thinking in the classroom. It was this project that led to the Fall 2016 assessment activities in which all courses taught by full-time faculty collected critical thinking assessment data.

Fall 2016-Spring 2017
The purpose of the Fall 2016 assessment project was to engage all full-time faculty in a well-defined project to assess critical thinking. The advantages of this approach were that we could switch focus to a singular directive and work together to understand how to measure critical thinking and use it to improve learning. Although the performance measures for critical thinking were shared with all faculty, many of the faculty decided that the measures did not apply to their courses, and this was reflected in the data

collected (Appendix C). As a result, we made improvements and continued our assessment work in the area of critical thinking.

During Spring 2017, all General Education courses that had critical thinking course-level outcomes assessed one critical thinking assignment. This collection happened across all modalities for both full-time and part-time faculty. In addition to this collection, we asked each instructor to provide the assignment used to collect the data and the definition of critical thinking used in their courses. This project provided a way to review the assignments being assessed. In addition, the result was the generation of raw data on course-level assessment of critical thinking; at this point, we saw the need to focus our efforts on the collection of program-level data. As a result, we found it necessary to use performance measures of critical thinking that should be developed by faculty for assessment in specific disciplines (Appendix C).

Revisions and modifications 2017-2018
In Fall 2017, the General Education Committee helped to revise performance measures defining the program-level outcome of critical thinking in each General Education area. The General Education areas were asked to define shared performance measures, identify key courses in which to collect assessment data and use a shared program assessment tool (Appendix D).

In Spring 2018, the General Education areas have been using this shared assessment tool for collecting critical thinking data that will then be reported at the end of the semester. Examples of shared assessment tools are attached (Appendices C and D).

Incorporation of assessment in the Program Review Process
We found that the learning assessment data we generate can and should be used to make our programs and College relevant. During 2016-2017, the English and Math programs, as well as others, participated in Program Review Data meetings and wrote program-review documents which incorporated the critical thinking learning assessment data. The attached program reviews for Math and English have sections in them that demonstrate how the assessment data is used to improve student learning (Appendices G and H). Figure 1 and the corresponding explanation from the Math Program Review provide an example of this.

From the Math Program Review document: Developing well-reasoned conclusions and solutions to problems is a critical thinking outcome that is measured in mathematics as shown in Figure 1. "The courses that show the lowest levels of proficiency or mastery on this critical thinking outcome are MAT 096 and MAT 241." Changes were made to MAT 096, Intermediate Algebra in order to approve learning. "MAT 172, Finite Mathematics, and MAT 241, Differential Equations, are both difficult courses with limited enrollment which are not taught in great abundance at CCC. Thus, the sample sizes for these results are quite a bit smaller than for many other courses. MyMathLab online homework is being used in MAT 172 to try to improve these outcomes. The courses that show the highest levels of proficiency and mastery on this outcome are MAT 230, MAT 187, and MAT 151."

Figure 1 From the Math Program Review showing data results and offering suggestions on how to improve student learning from data gathered in Fall 2016.
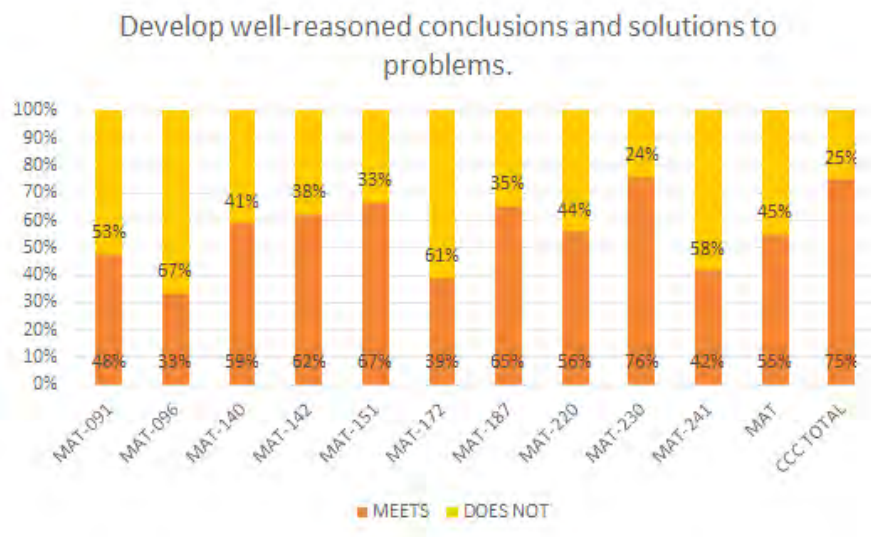
Career and Technical Assessment

Previous Program Reviews

The Career and Technical Education (CTE) Division assisted in re-establishing the program review process by completing program review documents during Spring 2016. The Assessment Committee reviewed these documents in Fall 2016, and they were used to create the 2016-2017 program-review document template (Appendix C).

Program Outcome Review and Curriculum

During Summer 2017, the CTE programs met with the Assessment Coordinator and reviewed information on assessment gathered by the Assessment Coordinator at the Higher Learning Commission (HLC) conferences; reviewed and evaluated current program-level outcomes; reviewed and established performance measures; and created two types of curriculum maps: knowledge-application-synthesis maps and assessment maps (Appendix C).

From these discussions and curriculum maps, programs identified many curriculum changes that needed to occur to streamline and improve learning for their students. The programs also identified courses in which assessment data would be collected and the specific assessment tool that would be used. Since these meetings, the CTE programs have been submitting their students' results to the Assessment Coordinator for compilation of learning assessment data.

Inclusion of Different Modes of Learning

Assessment across different learning modalities is critical to ensure students demonstrate the same level of rigor and learning outcomes regardless of the method of delivery.

Course Assessment Reporting

Beginning Spring 2017, all General Education faculty submitted critical thinking data across all modes of instruction (Appendix C). In 2017-2018, we continued the data collection on course-level outcomes mapped to critical thinking. This collection established a process that we are currently using to gather

consistent course-level assessment data where each instructor is required to report on assessment of one course-level outcome in one of their courses each semester (Appendix D).

Distance Learning Evaluation

In 2017, we contracted with Instructure's Canvas, our learning management system, to evaluate 66 of our online courses (the majority of our online courses at that time). This comprehensive evaluation helped to determine where we could improve student learning in our online courses. To illustrate this comprehensive evaluation, the contractor's assessment for BIO 100-01 Biological Concepts is attached (Appendix J). The evaluators considered the quality of assessment and made recommendations on how to improve assessment in each course. This procedure was repeated for all courses evaluated.

The assessment findings were reviewed by each instructor. Faculty, staff, and administrators worked together applying the information collected to improve student learning and engagement. As a result of this process, when requested by faculty members, administrators provided guidance on how to improve learning outcomes in online courses.

To close the loop, distance education instructors took part in a quality review to improve their courses and most have now analyzed how assessment of their online course helps them improve student learning. While more analysis needs to be done, we are working to stop failed practices and strengthen interaction among faculty in terms of improving student learning online. By sharing these results during the Online Learning Committee meetings (Appendix O), we will continue to improve student learning. The collection of data for online learning assessment will be a collaborative effort between the Assessment and Online Committees.

Dual Enrollment

At the beginning of Fall 2017, the Dual Enrollment Coordinator, the Associate Vice President of Innovative Learning Solutions, and the Assessment Coordinator met to create a plan to gather assessment information from courses taught by dual enrollment instructors.

CCC ensures that the same College-level outcomes are taught in dual enrollment courses as all other courses. We are now assisting dual enrollment faculty with the assessment process. The Dual Enrollment Coordinator reaches out to the dual enrollment instructors to gather a summative assessment of student results by the end of the academic year. This information will then be shared with the appropriate assessment area for evaluation and recommendations for improving learning. This process will also establish a baseline of assessment for the dual instructors' courses.

Co-Curricular Assessment

CCC is a commuter college and does not have a residential student population or athletic programs. Co-curricular activities are planned by the student activities coordinator, in alignment with College learning outcomes and priorities. The assessment process for co-curricular activities began with developing a definition of what co-curricular means at the College. After discussing in several areas and committee meetings, we agreed on the definition supplied in our Assessment Handbook. (Appendix B). Our efforts to identify co-curricular activities, devise assessment tools, and collect, analyze, and use data for improvement are all in their formative stages.

Several organizational changes are aiding our co-curricular assessment efforts. Because our Dean of Student Development now reports to the Provost, we've developed a heightened understanding of the connections across the College and the possibilities for new collaborations. Adding a member from

Student Development to our Assessment Committee provided a needed voice for co-curricular assessment and non-instructional program review. This addition also helped Student Development realize a stronger understanding of learning assessment and how to incorporate our General Education learning outcomes to plan and assess co-curricular activities. This structure has resulted in the College participating in the Community College Survey of Student Engagement (CCSSE) for the first time in Spring 2018. Once the results of that survey have been received, it will be shared across the College to encourage continued improvement. The assessment of co-curricular activities during the past academic year has been focused on the appreciation of cultural diversity and is largely qualitative (Appendix N). In 2017-2018, we held five co-curricular events at which we gathered assessment data.

SUMMARY

This report, along with the corresponding documentation in the appendices, demonstrates the commitment Coconino Community College has to assessment. This is a commitment to change and to improving student learning and the overall effectiveness of our College. In summation, we hired an Assessment Coordinator and Associate Dean of Curriculum & Assessment to create a stable, energized, and sustainable assessment program. We created policies and procedures to help ensure sustainability at all levels of the college. We reinstated the program-review process with a new focus on student learning. We evaluated and assessed the majority of our online courses. After analysis of our current state of assessment at CCC, we developed our Quality Initiative project to improve program-level assessment and focus on a culture of assessment through collaboration among faculty and staff (Appendix A). We see the need and have created professional development opportunities that are critical to improvement. During this time, we created an Assessment Manual to aid in defining core elements of assessment. This was a substantial undertaking by a college that values assessment and has been a key focus for those individuals in leadership roles for assessment. We continue to improve assessment in all modalities of instruction.

The sustainable system we are developing is supported by policies, procedures, and shared governance. The culture of assessment that we are developing is not dependent upon a singular position or entity within the college. We are proud of our progress and will continue to refine and use the assessment processes to improve learning and overall Student Success.

September 20, 2018

President Colleen Smith
Coconino County Community College
2800 S. Lone Tree Rd.
Flagstaff, AZ 86005-2701

Dear President Smith:

The interim report you submitted to our office has now been reviewed. The staff analysis of the report is attached.

On behalf of the Higher Learning Commission staff received the report on assessment of student learning. No further reports are required.

The institution's next reaffirmation of accreditation is scheduled for 2021 – 2022.

For more information on the interim report process contact Lil Nakutis, Accreditation Processes Manager, at lnakutis@hlcommission.org. Your HLC staff liaison is Gigi Fansler (lgfansler@hlcommission.org); (800) 621-7440 x 168.

                              Thank you.

                              HIGHER LEARNING COMMISSION

STAFF ANALYSIS OF INSTITUTIONAL REPORT
DATE: September 20, 2018
STAFF LIAISON: Gigi Fansler
REVIEWED BY: Steven Kapelke

INSTITUTION: Coconino County Community College, Flagstaff, AZ

EXECUTIVE OFFICER: Dr. Colleen Smith, President

PREVIOUS COMMISSION ACTION AND SOURCES: An interim report is required by 6/28/2018 on assessment of student learning.

This interim report derives from the Team Report of the institution's 2016 Assurance Review. At the time of the Review the College was in the process of finalizing an assessment plan and appeared to be on track to begin collecting data in the 2017-18 academic year. Submitting an interim report in June 2018 should provide sufficient time for the college to complete the pilot and demonstrate commitment to the plan.

Evidence of progress should include preliminary reports of assessment activity that would address:
- performance on general education outcomes,
- assessment of learning outcomes across different modes of instruction,
- revisions/modifications to the assessment plan as a result of initial implementation and, if possible,
- demonstrate how assessment results have been used to improve teaching and learning at the institution.

REPORT PRESENTATION AND QUALITY: The Coconino County Community College interim report is presented in a narrative that is, generally, clear as to intent, and supported with extensive appendices containing a vast range of pertinent material. This documentation includes the institution's 2018 Quality Initiative Proposal, its Assessment Manual, and two Learning Outcomes Assessment Reports, among many other documents. Indications are that the report is candid and thorough.

REPORT SUMMARY: Following the report's Introduction, which provides background and context for the body of the report, the document's content is presented in three major parts:

- *Assessment Efforts Since the 2016 Assurance Argument*
- *Assessment Plan and Processes*
- *Consistency of Student Learning*

The first of these gives an overview of the institution's efforts to create a more collaborative and consistent culture of assessment within the College. The report cites, among other factors, the appointment of a new president in 2016, who has emphasized assessment of student learning and institutional effectiveness. Also, structural changes, such as resituating Student Development to within Academic Affairs, have enabled representatives from that area to serve on the Assessment Committee, which has, according to the report, enhanced communication pertaining to learning outcomes and co-curricular assessment.

Here the report also indicates that the institution has focused its efforts on an assessment system that is "*relevant and [must] improve student learning and services,*" noting the work of the Assessment Committee, "*in collaboration with the Provost*" in the creation of policies and procedures that have now "*embedded assessment*" within the College's culture. This has resulted in improved assessment activity in General Education and the establishment of "*sound and sustainable processes involving different committees, councils and departments across the college.*"

The second major part of the interim report describes the institution's "*Assessment Plan and Processes,*" and contains two sections—"*History*" and "*Unification Efforts.*" The first of these notes in particular the institution's "*journey*" in revising its assessment system, citing its participation in the HLC Assessment Academy, the formation of its Assessment Committee in Fall 2015, and the "*new format*" for academic program review as notable steps in the process.

In terms of "*Unification,*" the report acknowledges that, even with the initial changes "*the assessment process was still scattered and not cohesive.*" To address this situation, the College instituted a number of significant improvements. These include, but are not limited to, the following:

- The development of an assessment budget and the creation of new positions that focus on assessment. The assessment budget increased from $5,729 in FY2015 to more than $119,000 for FY2019, and the College appointed an Assessment Coordinator and an Associate Dean of Curriculum and Assessment.
- The crafting of a faculty evaluation plan that includes mandatory reporting on learning outcomes assessment by each faculty member.
- The creation of a syllabus template *("model syllabus")* that faculty members are required to use when developing courses. The template includes assessment of student learning as a required component.

- The revised version of the Academic and Non-Instructional Program review Process includes a timeline, a checklist/rubric, and a clear delineation of the process. The Assessment Committee has recently "*made further improvements by drafting a bi-annual review document for use beginning Fall 2018*."
- The current assessment system now includes a "*clear data collection process*." This data collection began with Course Assessment Reports in 2016 and has since been extended to include Program Assessment Reports.

The final "content" section of the report centers on consistency within the assessment system. This section of the document contains several subsections, each addressing one aspect of what the report terms "*Assessment across different modalities*." For example, the first subsection, "*General Education Assessment,*" identifies the program goals and notes that the General Education Committee developed a critical thinking project that led to a comprehensive collection of assessment data on critical thinking in Fall 2016. The report provides an account of how this took place during AY2016-2017, and an overview of the 2017-2018 revisions

At this point, the report moves into a description of the College's efforts to incorporate assessment data into academic program review, citing the work in AY2016-2017 of the English and Math programs—among others—which submitted program review documents that included the critical thinking assessment data noted above. The report supplies a brief narrative summary of the assessment results from the Math program.

The other two subsections describe the institution's assessment activities with regard to Career and Technical Education (CTE) and "*Different Modes of Learning*," which take in distance learning ("*Distance Learning Education*"), Dual Enrollment, and the Co-Curricular. Key points within CTE include the completion of program review documents in Spring 2016, the development of curriculum maps, and, subsequently, the collection and submission of assessment data to the Assessment Coordinator.

Assessment within different modes of learning "*is critical to ensure students demonstrated the same level of rigor and learning outcomes regardless of the method of deliver.*" In that regard, the College undertook a study to evaluate a range of its online courses "*to determine where we could improve student learning in [these] courses.*" The report describes this initiative in some detail, noting that, ultimately, the "*collection of data for online learning assessment will be a collaborative effort between the Assessment and Online Committees*."

The document gives similar attention to Dual Enrollment and Co-Curricular learning. According to the report, the institution makes concerted efforts to ascertain that "*the same College-level outcomes are taught in dual enrollment courses as all other courses,*" and is making progress with respect to learning outcomes assessment. In the area of Co-Curricular Assessment, the report notes that the College's initial efforts have focused on identifying co-curricular activities, developing assessment mechanisms, and collecting and analyzing assessment data with the ultimate purpose of improving educational programs. To support this work, the institution has made several

organizational/structural changes cited in the report, and the College's first administration of the Community College Survey of Student Engagement (CCSSE) in Spring 2018.

STAFF FINDING:

Note the relevant Criterion, Core Component(s) or Assumed Practice(s): <u>Core Component 4.B</u>

Statements of Analysis (check one below)
_ Evidence demonstrates adequate progress in the area of focus.
X Evidence demonstrates that further organizational attention is required in the area of focus.
_ Evidence demonstrates that further organizational attention and HLC follow-up are required.
_ Evidence is insufficient and a HLC focused visit is warranted.

REPORT ANALYSIS: The Coconino County Community College interim report provides extensive documentation that shows the institution's progress in the development of its procedures for learning outcomes assessment. It is evident that the College has invested energy and resources in these efforts.

The materials presented in the institution's report indicate that the College has worked to create a system that is effective and sustainable. As noted in the Report Summary section above, funds allocated specifically for assessment have increased dramatically in the past three years, and, further, new staff appointments directly related to assessment—an Assessment Coordinator and an Associate Dean for Curriculum and Assessment—provide an advanced level of administrative support that should prove especially salutary as the institution moves forward with its assessment activities.

Other "systemic" additions include the development of a syllabus template ("*model syllabus*") that all faculty members are required to use when creating their course syllabi—with learning outcomes assessment as a required component of the syllabus. The report also notes the important work of the Assessment Committee in having undertaken numerous tasks, including the revision of the program review process for both Academic and Non-Instructional Programs.

It is apparent from the materials presented in the report that the Assessment Committee's work is central to the College's progress to date. Equally important is what appears to be a concerted effort on the part of the institution to ascertain that faculty and staff members are committed to its assessment efforts, and that the institution's governance systems are appropriately engaged in decision making with regard to assessment—all key features of a viable assessment culture.

The College has also begun concerted efforts in General Education assessment, focusing initially on one specific institutional outcome—critical thinking—which was then assessed in all General Education courses that identified critical thinking among its course-level outcomes. From these assessments, the institution derived raw data on the outcome though it isn't clear in the report how these data were gathered and analyzed. With regard to General Education assessment, the report notes the incorporation into academic program review of the critical thinking data, citing in particular the results from the English and Math programs.

Significantly, these program reviews, which are contained in the appendices, indicate clearly how English and Math intend to use the assessment data to improve their programs—thus closing the assessment loop. The assessment and program review materials contained in the appendices are, generally, thorough and well constructed and include a section specific to student learning within each review. Examination of the completed program reviews situated in the appendices indicates that the "authors" of the reviews have approached their responsibility seriously.

Also, evidence supplied in the report shows that the institution has given—or begun to give—appropriate attention to assessment in co-curricular learning and its various modalities and instructional delivery systems. In both distance learning and dual enrollment programs these efforts are in early stages, though the activities undertaken to date have been carried out thoughtfully and thoroughly—as in, for example, the extensive evaluation of online courses that resulted in recommendations for improving assessment in each course.

Analysis Concluding Statement: Coconino County Community College has made substantive progress with regard to learning outcomes assessment. This progress is apparent in both the "input" to assessment—that is, the time, energy and material/human resources invested in the process—and the "output," which is, so far, not extensive with regard to assessment data—but clear nonetheless. It can also be inferred from the materials presented in the report that the leadership of the current president has played a key role in this progress.

However, there is still considerable work to be done before the College's assessment procedures are fully integrated into all areas of student learning. This is particularly true in the area of co-curricular learning, which is in early stages of development. Also, it isn't clear from the report's narrative the extent to which program level outcomes have been finalized across the institution and are being assessed. It is apparent that assessment data is being gathered and analyzed but less evident that this is taking place in a systemic manner and centralized within the College.

These are not intended as criticisms. Obviously the institution has made significant progress in assessment and has demonstrated a commitment to the evaluation of student learning through assessment. Consequently, the HLC will not require additional reporting on this topic.

Nonetheless, learning outcomes assessment will need sustained attention on the part of the institution, as noted in the Staff Finding section above. The College should assume that the HLC Peer Review Team that conducts the institution's next evaluation will examine closely its continued progress in assessment.

STAFF ACTION: Receive the report on assessment of student learning. No further reports are required.

The institution's next reaffirmation of accreditation is scheduled for 2021 – 2022.

Attachment R

HLC Assessment Academy Impact Report

Coconino County Community College, AZ

Improving Student Learning through a Comprehensive, Systematic, and Sustainable Assessment Practice.

Participation Start: 06-25-2014   **Participation End**: 06-07-2018

Date Completed: 07-13-2018

Scholar(s):   Susan Hatfield

Primary Mentor(s):   Kirstan Neukam

Team Lead: Michael Merica

Team Member(s):   Dave Bowman
                        Doug Friedman
                        Colleen Carscallen
                        Maxie Inigo
                        Kim Khatibi
                        Sarah Southwick

Context

Q: **Describe your plan for creating shared responsibility for assessing and improving student learning. (100 - 200 words)**

A: Shared responsibility will occur through the organization of the assessment process. The practice will rely on the office of Institutional Research (IR), Student Services (SS), and Faculty Representatives (FR) from the colleges' primary academic discipline areas forming an organized assessment committee. The assessment committee members will have staggering terms, with the intent of establishing redundancy, continuity, and involvement in assessment practices. The IR office will be responsible for coordinating data collection and compilation, while FR/SS will coordinate assessment and reporting strategies with stakeholders across the institution. The formal Assessment Committee will write the annual assessment report collaboratively.

Q: **What is the broader impact of your Academy work on the institution, faculty and staff, students, or other stakeholders? How will this work influence the culture of your organization, build institutional capacity, advance teaching and learning...etc.? (100 - 200 words)**

A: Coconino Community College is going through several transitions which make Assessment Academy work particularly valuable at this point in time. Specifically, the institution is enacting a financial austerity plan, while beginning a new strategic planning cycle. In addition, the Academic Affairs division is undergoing significant organizational changes, which has eliminated the positions of department chairs; individuals that had been responsible for compiling student learning assessment data into annual reports. Given this context, establishing a sustainable assessment practice is essential.

Our Academy project has far reaching potential within this climate. In essence, we believe that enacting a comprehensive, systematic, and sustainable assessment process that yields actionable information that is directly related to student learning will improve curriculum, programs, and instruction. This project will also pull in various splintered groups across the college, forming a more cohesive whole that is re-focused on the common goal of student success.

Q: **Optional: What else is important to know about your work on assessing and improving student learning? (100 - 200 words)**

A: CCC is a small institution. A few individuals, in the recent past, were responsible for initiating, coordinating and directing assessment of student learning. This foundational process has been difficult to keep up when those that are primarily responsible are no longer with the institution. Therefore, a primary emphasis of our project is to develop an integrated assessment process that is inherently more sustainable.

This integration takes the form of involving primary stakeholders, while not burdening them with excessive responsibility. Those individuals include: faculty, student services, Deans, Vice Presidents, President, and ultimately, District Governing Board Members. Obviously each role is invested differently, and would be interested in different levels of information. The objective is to compile program review and assessment of student learning data in a manner that it can be collected fairly easily, and translated into actionable information for various stakeholders.

Impact Report

Q:

What do you see as the next logical steps for continuing the work that you have begun in the Academy?

A: We have five large objectives we see as our next logical steps. Each one has multiple strategies and tasks associated with it. We hope that our timelines are reasonable. Most of our challenges apply to all of our steps moving forward.

Our objectives are as follows:

1. Continuation of current processes.

a. Have Arts & Sciences complete Program Outcomes Review meetings. In these meetings we review the programs previously created program outcomes and create an assessment plan. The areas that still need to complete this meeting are PSY, ANT, ASL, CPS, ENV, SOC.

b. Redo the General Education Curriculum Maps with the newly defined critical thinking performance measures. We created curriculum maps with the General Education groups, but now each group has new performance measures that were created in the last year. We need to refine our maps to help guide our assessment plan for General Education.

c. Review previously gathered critical thinking data in actionable groups and create plans based on the data. We have gathered data for the last two years. It is now time to give the data back to the General Education groups for review and to plan for changes in the area of critical thinking for the future.

d. Complete upcoming Bi-Annual Reviews. These reviews are part of the Program Review cycle. During these reviews, each program will update any progress on goals previously stated in the Program Review and review assessment data gathered up to this point to see if any goals or action items need to be added to their plan based on the data.

e. Continue the Program Review Process.

2. Improve communication about assessment. We see that there is improvement and a growth of understanding is happening in pockets across the college. We would like to continue to grow this momentum.

a. Create a marketing plan for the next three to five years. How do we talk about assessment? How do our faculty learn about assessment? How do our students learn about assessment? These are all items we want to address in our marketing plan.

b. Share common assessment terminology throughout the college established in the Assessment Manual.

c. Clarify and evolve the Assessment Committee's role. We would like to continue to

educate our Assessment Committee about assessment and continue to be the peer support for assessment.

d. Clarify and strengthen the dean's role in assessment and assessment communication.

3. Define General Education Learning Outcomes.

a. Define performance measures, shared tools, and identify key courses for the communication outcome. We would like to continue the process we start with the critical thinking program outcome with the communication outcome.

b. Then use the same process with our other two program level outcomes: Ethical & Civil Values and Diversity & Global Awareness.

3. Tie assessment of student learning outcomes to strategic planning and budget decisions.

a. Conduct a meeting to explore ideas on how to link assessment to strategic planning and budget decisions with deans and provost.

b. Conduct meeting with budget to discuss possibility of adding "assessment" or "program Review" to increment requests, STEM requests, and other possible ties to budget.

4. Student Engagement with the assessment of student learning outcomes.

a. Work with Institutional Research to add assessment to Graduation Survey.

b. Explore possibility of adding the assessment of learning outcomes to the student orientation or first year experience.

c. Explore the possibility of adding discussion of learning outcomes to introductory courses.

d. Conduct a pre-survey of students inquiring what skills and knowledge they should be leaving with by the end of academic goals.

e. Train faculty and students on the Learning Mastery Gradebook in Canvas.

As previously stated, many of our challenges are the same for each of these objectives. Our identified challenges are

1. Time - constraints of, other commitments.

2. Commitment of faculty.

3. Understanding the process and the purpose as a college.

4. Understanding and interpreting the data.

5. Creation and follow-through from the faculty.

6. Documentation of processes and changes from data.

7. Logistical issues.

8. Competing priorities.

9. Vetting processes.

10. Maintain optimism.

11. Maintaining momentum.

12. Turn-around on time on data.

Q:

What steps will you take to keep faculty and staff engaged in ongoing assessment of student learning?

A: Our team discussed this at length during the Results Forum. Ultimately, assessment needs to be relevant, timely, and help aid in making decisions. By ensuring the data gathered is meaningful and using it to make progress within the college, the faculty and staff will be engaged.

Many of our next logical steps are to continue to build the knowledge and awareness of assessment throughout the college. By creating a marketing plan and being aware of the challenges of assessment, we will engage the faculty and staff. We plan to continue to build our faculty champions and highlight their stories. We want to acknowledge our accomplishments and changes made due to assessment. We will work with our leadership to continue to make assessment a priority and bring voice to assessment around the campus.

One of our main steps to keep the faculty and staff engaged is to improve our professional development opportunities in regards to assessment. We will be building an assessment workshop for our Assessment Committee, General Education Committee, and Curriculum Committee that will explain the ties of assessment and curriculum more clearly. We are planning on sending our assessment faculty and staff champions to assessment conferences throughout the next year and having them build workshops to share what the champions learned with their peers. Finally, we want to begin a reflection day towards the end of the semester or the academic year in which everyone is encouraged to share what they learned at the conferences they attended or assessment practices that they implemented in their classrooms or in their areas.

Response to Impact Report

Q:

Please describe your general impression of the institution's progress in the Academy. Include recognition of significant accomplishments, progress, and/or practices.

A: Both mentors agree that Coconino County Community College (CCCC) has made significant progress over the last four years improving its culture of assessment within their college. They have increased their corporation and information sharing among the various assessment committees, they have strong leadership support in their assessment efforts (e.g., leadership has increased their assessment budget, they have hired key staff to support their assessment efforts, and they have created an institutional assessment manual), and CCCC has increased their faculty involvement in the assessment process. All of these factors have significantly changed their campus' understanding and embracement of the assessment process.

Kirstan Neukam

To highlight CCCC's accomplishment in the creation of an assessment manual, it is important to highlight a few aspects of their manual. For example, I was very impressed by how they clearly defined the concept of assessment, the roles of various committees and individuals, how one is to conduct proper assessment, but it also contains clearly defined processes, timelines, and the required documentation/use of assessment results. I would, however, suggest including examples of the forms and/or examples of completed reports for better understanding by the reader when available in the future.

I would also like to mention how when reviewing their Fall 2016-Fall 2014 Assessment Reports, I found the development of insights and understanding by the faculty in how their assessment efforts could be used to increase student learning in their various courses as insightful. It was great to read how different faculty over the course of the three semesters not only changed their assessment tools but also how they instructed their class over the semesters. It really highlights how their understanding of assessment has evolved over the last few years. This truly emphasizes how the culture of assessment has changed on your campus. Good job!

Susan Hatfield

I was most impressed with the effort to build the infrastructure that will support this initiative beyond the Academy. As I talked about at the very beginning of the academy, you can't change a culture without changing the structure that supports the current culture. CCCC has developed the groundwork that will promote and support a new approach to assessment.

Q:

Do you have any particular concerns about the work they have done?

A: Kirstan Neukam

One minor issue I have regarding CCCC's assessment efforts pertains to their Fall 1016-Fall 2017 Assessment Report. All of the graphs submitted within the report has an N of 1-3. I am assuming this refers to the number of sections assessed that term in the stated course rather than the total number of students assessed. It would be more useful to stated the course by name and section and have the N value represent the total number of students assessed to better interpret the percentages reported. However, this is a minor issue coming from someone who looks for statistical understanding and interpretation of the results.

I am also concerned that there appears to be a 1-2 year gap between the various committees get the assessment results and when they provide feedback to the faculty. This delay is a bit extreme for any feedback to be considered useful. CCCC really needs to find a way to reduce this to a maximum of 6 months if they expect any of their conclusions to be useful to the improvement in student learning. Given they are a community college, the students that were assessed in those reports would have already graduated before faculty were told to make any changes, thus a large group of students would be lost.

Another concerning issue pertains to the lack of clear examples of how the information being collected would effect changes at the course, program, or institutional level of the college. At the moment, despite talk of program outcomes, it appears that most of the work that has been done thus far only affects student learning at the course level. I understand that you have only just begun conducting assessment on one of your general education outcome (critical thinking); however, when moving forward, it will be important for CCCC to clearly state how the outcomes collected in the canvas system impacts student learning at the various levels so the college vs just assuming that the average reader will understand.

Susan Hatfield

Kirstan brings up an important point to consider as CCCC moves forward beyond the Academy and on to different learning outcomes. While engaging a lot of faculty and collecting a lot of data made sense in this early iteration of the project, as CCCC moves forward, considering carefully the question that they are trying to answer would help identify the specific sample of students best positioned to provide the answer.

Q:

In your judgment, is the institution prepared to sustain its assessment efforts after it leaves the Academy? Do you have any specific recommendations to help it sustain its efforts?

A: Both Kirstan and Susan believe that CCCC will be able to sustain their assessment efforts in the future. By making assessment the focus of their quality initiative project, they have ensured that assessment of student learning will be on the forefront for the next few years. Additionally, they have created a strong assessment foundation in which to build their future initiatives.

Kirstan Neukam

My only concerns would pertain to their timelines and to their Dependance on key people/committees in their assessment efforts.

With regards to their timeline, CCCC has a history of underestimating how long it takes for variously activities to occur on their campus. Items they assume they can complete in 2-3 months often take 6 months to a year. This could be due to having the workload spread among various committees and thus takes a long time to get all groups on the same page. The other would be more concerning if the delay is a result of work

overload/burnout given the large assessment reporting demands placed on faculty, staff, and committees. Regardless, as long as CCCC keeps this timeline delay in mind when implementing future progress it does not need to be a factor that would greatly affect their sustainability efforts in the future.

The larger concern has to do with the heavy reliance on key people/committees in their assessment processes. I did see CCCC reference in their sustainability plan that they plan to hold future assessment workshops and training for faculty and staff; however, there has been no mention of a committee rotation schedule, training of newly hired faculty or adjuncts in the assessment process, etc. Basically, for CCCC's assessment efforts to be truly sustainable, they need to develop a on-boarding/training schedule plan for new faculty and/or committee members in the future. The more people that understand the bigger assessment picture on campus, the more likely they will have people available to step in when someone leaves or retires

Susan Hatfield

I completely agree with Kirstan that training new faculty in assessment will sustain the new culture that CCCC is working to establish. It is important to develop the next group of assessment committee members / mentors / experts that will be able to share the burden now, and merge into key leadership positions as the project continues to expand. Some schools are incorporated language related to assessment responsibilities into position descriptions.... others have asked questions about experience with assessment in interviews. Some have semester-long new faculty orientation programs that address assessment issues (among other topics). Lots of possibilities. But with new faculty coming in each year, CCCC will need to keep up on development efforts.

Q:

Please note any other observations or recommendations that you wish to share.

A: Kirstan Neukam

On the surface, it seems unremarkable that they only completed a pilot run of one student learning outcome (critical thinking) over the last four years; however, despite appearances, the work has lead to a major culture shift on their campus. Thier pilot project has lead to the implementation of using Canvas as their central data collection tool, allowing the different general education blocks the freedom to develop and define the outcome to better assess student learning in their focus area has lead to signifIcantly more meaningful assessment as well as changes in student learning on their campus. Additionally, they have as a result created strong processes, committee cooperation and communication. I have been vary critical of them over the years, pushing them with the idea of keeping their focus on how their assessment is used to improve student learning vs creating a lot of assessment process; however, despite what is stated in most of their posts, they have actually made impacts on student learning even if on a small scale at this point of time. Thus, CCCC is on the right tract and are moving at a pace that appears to work for them. They have the tools to have a significant impact on student learning in the future if they can hold the course.

Susan Hatfield

This is a good project that has accomplished a lot. While there is always more infrastructure that can be developed, it's time to move forward to start assessing their outcomes. CCCC seems well positioned to do just that.

Scholar(s): Susan Hatfield

Primary Mentor(s): Kirstan Neukam