2017-2018 Learning Outcomes Assessment Report **COCONINO COMMUNITY COLLEGE** January 4, 2019

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ASSESSMENT COMMITTEE

Assessment Timelines

2011-2012 10-Year Open Pathways Cycle began August 2016 Assurance Argument was submitted Fall 2016 CTE division submitted Program Reviews documents June 2016 CCC received HLC Response to Assurance Argument Concerns – Assessment and Shared Governance Spring 2016 The Assessment Committee reviewed the CTE Program Review documents ANT, ENG, GLG, MAT and ITS began to develop their Program Review documents 2016-2017 Critical Thinking Assessment data gathered from various sources at CCC Summer 2017 CTE division began to work on revising their program outcomes and identified courses to gather program outcome assessment data Fall 2017 The Assessment Committee reviewed the ANT, ENG, MAT, and ITS Program Review documents. GLG did not submit a program review document. These program review documents were reviewed by the appropriate dean or reporting supervisor, the Provost, and then presented at the Executive Council and the District Governing Board. Hotel & Restaurant Management (HRM), Nursing (NUR), Fine Arts, Physical & Biological Sciences (P&BS), Social & Behavioral Sciences (S&BS), Advising, and the Business Office began to develop their Program Review documents Spring 2018 Quality Initiative Proposal was submitted and accepted by the HLC HRM, NUR, Fine Arts, P&BS, S&BS, Advising and the Business Office are working on the **Program Review documents** CTE division submitted assessment data from the identified program assessment courses and tools (with the exception of AHS, BUS, HRM) Gen Ed programs will submit program outcome assessment data on critical thinking June 2018 Interim report on assessment due to HLC Assessment Academy Results Forum and Impact Report was submitted

Future Assessment Deadlines

Summer 2018 The Liberal Arts programs began to work on revising their program outcomes and identified courses to gather program outcome assessment data

| Fall 2018 | The Assessment Committee will review the NUR, Fine Arts, P&BS, S&BS (possibly), Advising and the Business Office are working on the Program Review documents |
|-------------|--|
| | Bi-Annual Reports will be reported by ANT, ENG, MAT, BUS, CIS, CTM, and ITS |
| | AHS, CNA, HRM, Colorado Plateau Studies, A&H, Tutoring, and Facilities will be beginning their program reviews. |
| | Gen Ed will review the critical thinking data gathered during 2017-2018 |
| | Gen Ed programs will work on collecting course-level and program-level assessment data on communication |
| | CTE division will review assessment data from 2017-2018 |
| Spring 2019 | Gen Ed programs will submit program outcome assessment data on communication |
| | CTE division submit assessment data from the identified program assessment courses and tools |
| | Liberal Arts degrees will submit assessment data from the identified program assessment courses and tools |
| Fall 2021 | Results report on Quality Initiative Project due to HLC |
| 2021-2022 | HLC Comprehensive Evaluation and on-site visit |

ASSESSMENT TIMELINES

2017-2018 Assessment Committee Meeting Summary

09/08/17

The committee voted on meeting days and times as well as co-chairs for the year. A review of the program review documents began.

09/22/17

The committee continued the review of the program review documents.

09/22/17

The program review documents were reviewed and approved for use starting Fall 2017. The Provost provided an overview of the Quality Initiative and enlisted the help of the committee. Subcommittees to review the submitted program review documents were formed: ITS, Math, English, and Anthropology.

10/13/17

There was a review of the Assessment Academy participation and a proposal to form a subcommittee to attend the Results Forum and write the report was approved. A report from the Curriculum Committee was provided. The committee created a list of possible committee educational opportunities. A draft of the Quality Initiative was provided for feedback.

10/27/17

The committee continued to explore possible committee educational opportunities. The committee will be moving all of the committee documents to the intranet and discontinuing the use of the Canvas Shell. A review of the committee's year goals was conducted and some of the goals changed.

12/08/17

The committee agreed to purchase Assessment Essentials to build the committee knowledge about assessment. The goal revisions were approved. The committee agreed to have the assessment coordinator draft an assessment procedure for review in the new year. It was approved to join the AALHE. Revisions to the Program Review Checklist were made and approved. The assessment timelines were reviewed and an update on the Quality Initiative was provided.

01/26/18

The "Course Review Sheet" proposal was reviewed and determined to be an unnecessary step in the program review process. Additionally, a master syllabus proposal was determined to be unnecessary from an assessment standpoint as the PT faculty obtain syllabus samples from the AOCs and should receive training. The committee approved the revised Policy 302-00 Assessment.

02/09/18

The committee heard a summary about co-curricular activities assessment webinar. The committee agreed that it is necessary to align CCC co-curricular activities to the General Education outcomes. The committee reviewed the assessment poster for the HLC Conference and Assessment Academy and suggested some changes. A proposal for Annual Assessment Reviews was discussed and suggestions were made to make it a bi-annual report instead.

02/23/18

An update on the Assessment Academy was given on the faculty who will be attending the Academy: Colleen, Maxie, Sarah S, Sarah R, Aaron Rizzieri. The Arizona Assessment Conference is coming up and three members are interested in attending. The committee began to review the Assessment Procedure.

03/09/18

The committee finished reviewing the Assessment Procedure and approved it to go to College Council. The Bi-Annual Review form was reviewed and suggestions for revisions were made.

04/13/18

The Assessment Committee charter was reviewed and updated. The Assessment Handbook was presented and will be reviewed more in depth beginning next year. Those who went to the HLC Conference shared their takeaways.

04/27/18

Changes were made to the Bi-Annual Review reporting form. The committee approved the Assessment Manual as a living document. A proposal was presented to tie assessment to the budget process. The committee agreed that this was a good idea and will pursue it. Updates for the upcoming year were established along with future goals to follow up on.

HLC ASSESSMENT ACADEMY

HLC Assessment Academy Participation

In June 2014, Coconino Community College (CCC) joined the HLC Assessment Academy. The academy provides a structured, four-year program to assist us in developing our efforts to assess student learning. We were assigned a Primary Mentor Kirstan Neukam and a HLC Scholar Susan Hatfield who provide feedback on our project updates and act as points of contact when we have questions. As part of the academy, we have access to a Collaboration Network of other institutions who either went through the academy or are currently going through the academy.

During Year One, our team attended an Information and Planning Workshop which provided an in-depth view on how the academy works as well as expectations and opportunities offered through participation. This team also attended an academy roundtable where the team began to build the academy project and goals.

At Year Two, there is a midpoint report and roundtable, but our cohort was not required to participate in either.

In Year Three, we had our mentor consultation with our assigned HLC Scholar at the HLC Conference. The consultation was attended by Colleen Carscallen, Interim Dean; Maxie Inigo, Math Faculty and Assessment Committee Chair; and Sarah Southwick, Assessment Coordinator. During this meeting, the CCC team shared what had been accomplished with the General Education Critical Thinking Project, the draft of the Institutional Learning Outcomes, and the forms and processes being developed by the Assessment Committee. Overall, the HLC Scholar stated that we are on the right track, but she emphasized that assessment without having clear outcomes that are understood by the faculty could not be used for program assessment. Additionally, we participated in the HLC Conference Poster Fair. We completed an assessment poster that depicts the process of creating a culture of assessment.

Currently in Year Four, the Assessment Committee approved the formation of a subcommittee to attend the Results Forum in June and create the final Assessment Academy Report. This subcommittee has been formed and consists of Maxie Inigo, Math Faculty who attended the original Assessment Academy Workshop; Aaron Rizzieri, Philosophy Faculty; Sarah Rencher, Computer Information Systems Faculty; Colleen Carscallen, Associate Dean of Curriculum & Assessment who attended the original Assessment Academy; and Sarah Southwick, Assessment, Program & Training Coordinator. This subcommittee met several times and finished writing the first half of the Impact Report before attending the Assessment Academy. During the attendance of the Assessment Academy, the subcommittee created a sustainability plan which was submitted at the second half of the Impact Report. During the summer, the HLC liaison and HLC scholar responded to the Impact Report submission.

ATTACHMENTS

2017 Fall HLC Assessment Academy Submission

2017 Fall HLC Assessment Academy Response

2018 Spring HLC Assessment Academy Impact Report

2018 Spring HLC Assessment Academy Impact Report Response

2017-2018 HLC Assessment Academy Poster

2017-2018 HLC Assessment Academy Brochure

HLC ASSESSMENT ACADEMY ATTACHMENTS

2017 Fall HLC Assessment Academy Submission
2017 Fall HLC Assessment Academy Response
2017-2018 HLC Assessment Academy Poster
2017-2018 HLC Assessment Academy Brochure

HLC Assessment Academy 2017 Submission

In Fall 2017, the Assessment Coordinator submitted the Version 7.0 Project Update. The following is the list of questions asked by the Assessment Academy and responses from the coordinator:

Q: What projects have you been following?

A: Truthfully, the Assessment Coordinator is unsure of which projects to follow and would serve as good models for the CCC project. The University of Jamestown and the Eastern Oklahoma State College seem to have completed similar projects, but we would love it if our liaisons had suggestions for us to review.

Q: Identify and explain any specific changes to your project scope or design since April 2017.

A: Our project scope has not changed. We gathered the spring assessment data through SurveyMonkey and will use the data collected to inform the projects for the fall semester in which the faculty will continue to submit a course-level assessment report, but will also work together to define program-level performance indicators and a shared assessment tool.

Q: Since the last update, what were your goals for the past six months? Did you achieve them? Why or why not?

A: Our goals from the last update were to:

- 1. Develop mechanisms within the LMS (Canvas) tool for class, course, and program-level learning outcome reporting.
 - a. STATUS We have not completed this goal. Canvas rubrics can be used to collect quantitative data, but without shared performance indicators for critical thinking, a shared rubric cannot be developed at this time.
- 2. Develop a simple assessment reporting tool.
 - a. STATUS In the spring semester, SurveyMonkey was used to collect qualitative and quantitative assessment data. It was rolled out to both of FT and PT instructors (143 instructors in total) that were teaching courses that had an identified critical thinking course-level learning outcome. For the 2017 fall semester, this report has been built into a Canvas shell in which all instructors are enrolled. Again, it asks for quantitative data in regards to student learning about critical thinking and qualitative data about how each instructor will use (or used) this inform to structure their students' learning in this course or a future course.
- 3. Develop program review document.
 - a. STATUS This has been developed and piloted. These first program review documents were due September 15th. These five programs provided valuable feedback on the program review document. The Assessment Committee has made some revisions to this document based on the feedback.
- 4. Develop a process and tool to review program documents.

- a. STATUS The process has been developed and will be piloted this academic year. The programs that completed their program review documents by September 15th will be reviewed with a program review checklist and go through an evaluation process. The program review documents will be reviewed by the dean, the Assessment Committee, the Provost, and finally the Executive Council for budgetary and strategic planning consideration. Each evaluation will have a feedback step back to the program.
- 5. Work on long-term communication avenues through various webpages, the LMS, workshops, or other communications not presently considered.
 - a. STATUS This is in progress. A Canvas course has been developed to share information about assessment results and to collect assessment data. In the 2017 fall, a Professional Development Week occurred between the week the faculty came back on contract and the week courses started. Several assessment workshops were offered. The ITS Department has been transitioning the external website to a new software platform over the summer. This should be completed by December. Once done, work on an external assessment website will start.
- 6. Compare this year's results to next year's results.
 - a. STATUS While we have collected data from the 2016-2017 academic year, we will not be able to use it to compare to this year's data on a program-level. The main reason is because there are not standard critical thinking performance indicators across the General Education programs. The data we collected can be used to inform changes on a course-level learning basis and brought to light how much these standard performance indicators and shared assessment tools are needed.
- 7. Use the data gathered last fall and this spring to evaluate the effectiveness of the General Education Program level learning outcomes.
 - a. STATUS This information is being gathered and used to continue to develop the assessment of the General Education Program.

Q: How did you incorporate the feedback that you received on your previous postings in April 2017?

A: The feedback from April 2017 had excellent recommendations and concerns about our project:

- 1. If there is a collection of course-based data over many different faculty, what happens if they all have a very different definition of critical thinking, and thus score the students quite differently on their assessment tools? How this data be reliably used to implement changes?
 - a. The faculty did have somewhat different definitions. This data will be used to encourage the programs to develop standardized performance indicators for critical thinking. There is an overarching definition of critical thinking which is, "Thinking Skills— Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning."
- 2. Will the different definitions identify the common threads to yield a definition of critical thinking?
 - a. The different definitions will be used to identify common performance indicators. The definitions that were shared will be used in the planned faculty conversations to develop shared performance indicators and a shared assessment tool.

- 3. Remember, it isn't just about collecting data, it's collecting the right data. It is important to collect smaller amounts of data that you truly value, conduct in-depth analysis, and reflect on how to make changes based on those analyses to improve student learning. Focus on what your data collection is intended to prove? What is your sample?
 - a. We hope to focus our collection sampling. While we want to encourage our faculty to submit course-level assessment data to help them improve within their courses, we want to have structured conversations with our faculty to help them identify key courses to collect useful and informative program-level assessment data with a shared assessment tool.
- 4. You might want to facilitate a discussion during a faculty development day related to coming up with a campus-wide definition of critical thinking.
 - a. This was an excellent idea, but the fall in-service day is designed and driven by the President's Office. The schedule had already been planned by the President at the point this comment was received. Instead, the Assessment Coordinator and the new Associated Director of Curriculum and Assessment will lead this conversation with the individual programs in hopes to have a structured conversation with the same message.
- 5. Consider creating a rubric with a core set of performance indicators and allow faculty or programs to add additional performance criteria as appropriate to their discipline.
 - a. The Assessment Coordinator and the Associate Director will be using this suggestion to develop a shared rubric to present to the individual programs for consideration.

Q: What are your plans and goals for the next six months – up until February 2018? What challenges do you anticipate?

A: There will be two parts to the plan for the 2017-2018 academic year; there will be a course assessment report which will submitted by all instructors teaching a Gen Ed course, and a program assessment meeting project.

ALL Gen Ed instructors will submit a Course Assessment Report

Submit a Course Assessment Report for one of the instructor's courses. The information for the report will come from an assignment (essay, quiz/text, presentation/speech, skill checklist, lab report, etc. aka "assessment tool") that the instructor has already developed for the course.

This report will be available in Education and Learning Effectiveness Canvas Shell by the second week of September. Otherwise, the instructor can turn a hard copy of this report into the Assessment Coordinator.

The Course Assessment Report contains the following information:

- General Education Block (English, Math, Arts & Humanities, Social & Behavioral Sciences, Physical & Biological Sciences, or Options),
- Term and Year,
- Course Name,
- Course CRN,

- Course Learning Outcome: Write out the course learning outcome evaluated for this Course Assessment Report (NOTE It should be a course outcome 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 to determine how a student Meets versus Not Meets,
- Analysis and Action Taken or Future Action Items (Write a two-three sentence analysis of the
 assessment results. List any actions taken to adjust student learning for the section, possible
 changes to a future section if taught again, or explain why no action was necessary.)

PROGRAM ASSESSMENT PROJECT

Gen Ed Programs for program review and assessment purposes are the Gen Ed blocks: English (with Intensive Writing), Math, Arts & Humanities, Social & Behavioral Sciences, Physical and Biological Sciences, and Options.

For the fall, each program will meet to discuss the following items:

- 1. How students move through the Gen Ed block,
- 2. Create shared critical thinking definitions,
- 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 Assessment Coordinator will reach out to the program's full-time faculty to schedule a two-hour meeting with a representative from the Gen Ed Committee and the Assessment Coordinator. While there is no budget to pay part-time faculty to participate, they will be invited as their voices are valuable in this process.

The goal will be to begin to use the new definitions of critical thinking and gather program-level learning outcomes data in the spring semester.

2017 HLC Assessment Academy Response

The HLC Mentors Kirstan Neukam and Susan Hatfield provided the response. The following are the responses from the mentors:

What are some strengths of this project/Academy work? Why are these strengths?

Kirstan Neukam

It is great to hear that Coconino County Community College (CCC) held a Professional Development week, where they offered several assessment workshops. It is important to continue to expand and develop your faculty and staff's understanding of assessment.

I was also pleased to hear that SCCC has begun the process pilot testing their program review template. Five of their programs completed the template and provided useful information regarding how the form and process could be improved. This fall they will begin pilot testing their overall program review process and how it will be reviewed and evaluated. They have built in a feedback step within this process as well.

Susan Hatfield

In addition, CCC has attended carefully to the feedback provided and has an exceptionally well-managed project.

What remains unclear or what questions do you still have about this work to assess and improve student learning?

Kirstan Neukam

It was mentioned that you were unable to compare assessment data given the lack of agreement and use of common definitions of critical thinking. It was also mentioned that you are continuing to assess general education outcomes and its use to improve the general education program.

I am not sure how you were unable to compare the critical thinking outcome across programs, but you were able to use this information within the General Education outcome/program process..... Were you able to get the general education staff to agree upon a common definition and assessment tool to use within the general education curriculum? From what I saw on your website, you general education outcomes are as follows:

Communication Skills

- Plan, construct, and present logical, coherent, well-supported arguments with consideration of target audience
- Communicate clearly and effectively, orally and in writing, at a college-level

What remains unclear or what questions do you still have about this work to assess and improve student learning?

- Demonstrate listening and comprehension skills for effective communications
- Use appropriate technology for communication and information gathering

Thinking Skills

- Formulate vital questions and problems in a clear and precise manner
- Gather, assess, and interpret information within a theoretical framework
- Develop well-reasoned conclusions and solutions to problems
- Recognize and assess the assumptions, implications, and consequences of various theoretical frameworks

Diversity and Global Awareness

- Analyze the complexity of humanity and its significance for the individual and for society
- Describe the interaction between individuals, their culture, and the physical environment
- Evaluate the continuity of events/issues over time

Ethical and Civil Values

- Recognize the consequences and significance of one's actions
- Understand social values and the implications of those values

Given these outcomes, are your faculty defining and using the similar assessment tools/measures in which to assess student learning in these areas? If they are not, it will always be impossible to compare the information gathered to assess your overall general education program beyond individual courses.

I only ask these types of questions to help guide you in the understanding that it is not how much information you collect with regard to student learning, but rather collecting the right kind of information that can be used in the efforts to improve student learning on your campus. Thus, having an automated collection system within the CANVAS shell is less of a priority than getting agreement among the faculty regarding the actual outcomes, how they are defined, how and where they will be measured. It's only when that aspect occurs will you create an assessment system in which the data is actually being used for something other than creating a report.

Susan Hatfield

Kirstan's point is well taken (as usual). Gen Ed assessment comes down to being able to aggregate data across the outcome -- though as you refine your processes, you might want to consider what data (from which courses) you want to aggregate in order to address the issue of whether or not students have achieved the General Education outcome.

What are some critical things to which the institution should pay attention as it plans its work for the next six months?

Kirstan Neukam

As I mentioned in my last posting, I understand the sense of urgency that CCC must be experiencing after their feedback regarding their assurance argument; but be careful not to rush to implement a lot of assessment collection process across their campus just to have a lot of data. Having measurable assessment data is only valuable if you can actually use it to make changes to student learning. Technology will only help you collect large amounts of data; however, it will not allow you to understand if your students are learning and if not, what changes need to be made in the course, curriculum, and/or college. Additionally, it is more important to collect smaller amounts of data that you truly value, conduct in-depth analyses, and to reflect on how to make changes based on those analyses to improve student learning. Otherwise, you will have a lot of wonderful charts, graphs, and trend lines that really don't lead to significant and meaningful improvements of student learning on your campus.

I also noticed that your assessment report template that you've created for general education as listed the assessment results as the following: # meets, # not meets, and # did not complete the assignment. From a statistical point of view, this scaling is the same as a yes/no question. It also mentioned to list what assignment was used; however, it did not mention what assessment tool was used that would be commonly shared between various courses to ensure that everyone is evaluating the outcome in a similar fashion. Thus, are they using a shared rubrics, common exam questions, etc? It appears that an assessment under this framework would be mainly just a course grade on an assignment rather than a program outcome which could then be compared across courses and academic levels. This is not to say that an assignment used for a course grade cannot be used for a program outcome as well, I am just unclear as to how they are different and again transferable beyond that individual course.

Susan Hatfield

It appears what you are doing now is building infrastructure -- that makes sense for this stage of the process. In order to actually answer your question (which I assume is "To what degree have CCC students achieved the general education outcomes?"), you will probably want to identify specific courses where you have the best chance of answering that question. You probably would not, for instance, want to use assessment date from an assignment required relatively early in a course taken primarily by first semester students. It may also make sense to consider some specific requirements for the assignments from which data is being reported -- there is a lot of information available on "Signature Assignments."

Even though Kirstan and I have identified some specific questions, that in no way takes away from the fact that you are building an infrastructure and making progress! I think we both want to caution you that you may be exerting energy in a few directions that may ultimately prove to not be terribly useful in understanding and improving student learning. Your plans for the next six months should address many of our questions.

What are some other possibilities or resources that might contribute to the success of this project? For instance, can you suggest resources such as books, benchmarks, instruments, models, and processes?

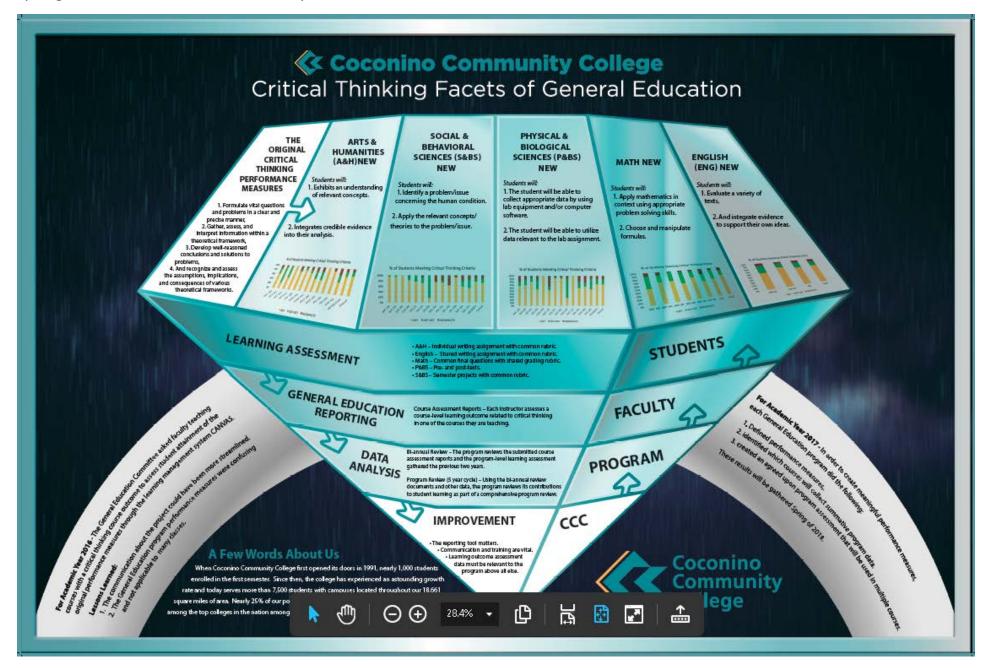
Kirstan Neukam

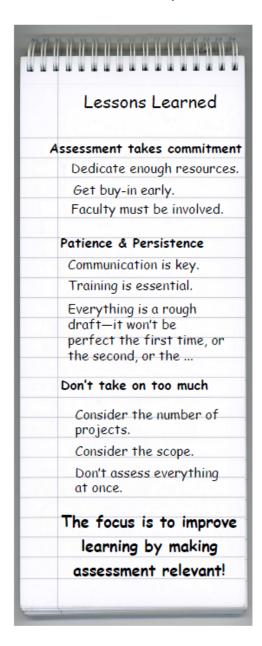
Books to consider while moving forward in your project:

Assessing Academic Programs in Higher Education by Mary J. Allen (2004, Anker Publishing Company)

Assessing General Education Programs by Mary J. Allen (2006, Anker Publishing Company)
Assessing Student Learning: A Common Sense Guide by Linda Suskie (2009, John Wiley & Sons)
Assessment Essentials by Trudy Banta & Catherine Palomba (2015, Jossey- Bass)

Assessment Clear and Simple by Barbara Walvoord (2010, Jossey- Bass)





Our Assessment Journey

2014-2015

- ⇒ Joined HLC Assessment Academy
- ⇒ Evaluated assessment processes
- ⇒ Overall re-education of faculty

2015-2016

- ⇒ Formed Assessment Committee
- ⇒ Developed training and educated faculty groups on teaching critical thinking

2016-2017

- ⇒ Hired Assessment Coordinator
- ⇒ Began to gather course-level critical thinking (CT) data

2017-2018

- ⇒ Created Associate Dean position for curriculum and assessment
- ⇒ Coordinated program-level CT assessment project

CONTACT US

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Don't cry, just say yes!



At CCC, we're making the commitment to assessment.



Critical Thinking Facets of General Education

<u>LEARNING ASSESSMENT:</u> Faculty gather learning assessment data and artifacts generated by students in classroom environments.

<u>GENERAL EDUCATION REPORTING:</u> Faculty document basic student performance and anticipated course changes through the CANVAS LMS.

DATA ANALYSIS: Gen Ed programs evaluate the reported program-level assessment data and document results in program reviews and bi-annual reports.

IMPROVEMENT: The college-wide community uses the information to make changes to program or course offerings, resource allocations, and support services.

P&BS)

Physical & Biological Sciences

Performance Measures:

- Collect appropriate data using lab equipment
- Utilize data relevant to lab assignment

Where collected: Biology, Geology, & Chemistry

Method: Lab report rubric



Mathematics

Performance Measures:

- 1. Use appropriate problem solving skills.
- 2. Choose and manipulate formulas

Where collected: Algebra, Statistics,

& Calculus

<u>Method:</u> Common final questions with shared rubric



Performance Measures:

1. Evaluate a variety of texts

ASSESS

ANALYZE

Integrates evidence to support own ideas

<u>Where collected:</u> Composition II <u>Method:</u> Shared assignment with common rubric

Social & Behavioral Sciences

S&BS

Performance Measures:

- Identify an issue concerning the human condition
- Apply relevant concepts to issue

Where collected: Anthropology, Psychology, & Sociology Method: Common rubric

Arts & Humanities

A&H

Performance Measures:

- Exhibits understanding of relevant concepts
- Integrates credible evidence into analysis

Where collected: Art, Philosophy, & Religion

<u>Method:</u> Writing assignment with common rubric

IMPACT REPORT -PART I

Directions: Please read and fully answer each question below in the Collaboration Network. If you wish to provide supporting information, i.e. tables, graphs, images, etc., please upload it to the Collaboration Network as a **link**. The Collaboration Network does not allow for any materials to be attached or inserted.

You will have from **Monday, April 23** to **Thursday, May 17** to submit the information in the Collaboration Network. Your assigned Primary Mentor and Scholar <u>will not</u> provide feedback to this report but will provide a consolidate response to the Impact Report that is submitted post-Results Forum.

1. What have been your accomplishments while in the Academy? Consider the range of these accomplishments, from the very specific (e.g., development of a rubric) to the more general (e.g., outcomes-based curriculum approval processes).

Our participation in the Assessment Academy has resulted in a renewed emphasis on assessment at the College through the creation of processes that support a new culture of assessment. This renewed focus includes cooperation and information sharing between committees and a strong commitment from leadership.

- a. We applied to the Assessment Academy with a goal to create sustainable assessment processes. One of our major accomplishments is the establishment of an assessment committee. The Assessment Committee has, in turn, supported and helped build sustainable structures and processes.
- b. The Assessment Committee assisted in creating, vetting, and participating in a new program review process that embeds student learning outcome assessment results within program reviews and in an associated bi-annual review of goals and assessment within a five-year cycle. The program review process includes reviews by the Assessment Committee as well as deans and Provost. The Provost brings recommendations from program reviews to the Executive Council.
- c. To ensure that assessment of student learning is part of CCC culture, we created a College assessment policy that was approved by our District Governing Board in December, 2017. Additionally, accompanying assessment procedures were vetted and approved in the spring of 2018. In spring of 2018, members of the Assessment Committee created an Assessment Manual that includes information and forms related to our current assessment processes and tips related to assessment of student learning outcomes. Available on our College website, this manual is one way we are educating the College community and creating a culture of assessment.

- d. Another accomplishment we've made as a result of our participation in the Assessment Academy is cooperation between committees to achieve institution-wide assessment of student learning. When we first joined the Academy, our team decided to focus our first institution-wide assessment efforts on critical thinking because the General Education Committee had launched a project to create a culture of critical thinking and our mentors advised us to choose one general education learning outcome as our focus. The Assessment Committee worked together with the General Education Committee to turn this effort into a useful process. The General Education Committee focused first on education by conducting critical thinking sessions for faculty and distributing a handout that contained models for critical thinking. Both committees, along with leadership, coordinated efforts to collect critical thinking data at the course-level. These first efforts have resulted in our Course Assessment Reports. Each instructor reports on one course-level student learning outcome related to critical thinking within one course each semester.
- e. The Assessment Committee led an effort to map all the learning outcomes in our general education courses to our four general education program outcomes.
- f. As a result of the curriculum mapping process and the initial critical thinking data reports, we learned that all courses contribute to the program outcome of critical thinking, but our established performance measures didn't fit all general education courses, and therefore wasn't the best way to assess the general education program. In response, the general education program became five general education blocks that act as individual programs for assessment purposes. These blocks are Math, English, Social & Behavioral Sciences, Physical & Biological Sciences, and Arts & Humanities.
- g. In the fall of 2017, the instructors of each general education block met to create shared critical thinking performance measures, identify key courses and assignments/exam questions for assessment and create shared rubrics.
- h. A college-wide recognition for the need of an Assessment Coordinator position occurred. This recognition along with the Provost's advocacy and President's support, led to the coordinator position being created and hired in 2016. Our Assessment Coordinator assists in all aspects of assessment working hand-in-hand with the faculty and staff.
- i. In 2017, the Associate Dean of Curriculum and Assessment was created and hired. This position acts as the chair of the Curriculum Committee and co-chair of the Assessment Committee. The Associate Dean helps to create links between designing strong student learning outcomes and assessing them. As the Associate Dean works directly with leadership, faculty, and students, the Associate Dean is a source for assessment education and continuity throughout the College.
- j. Our accomplishments were made possible through the strong support of College leadership. Coconino Community College works within a limited budget to provide services to its communities. Leadership recognized the importance of assessment in providing quality

education, and found funds to support the creation of the Assessment Coordinator and the Associate Dean positions. College leadership has also demonstrated their support of institution-wide assessment by adding a section on assessment participation to the full-time faculty evaluation rubric and by including a question on assessment participation within the part-time faculty evaluation report. In addition, leadership, from the President to Provost to Deans, recognizes the importance of a strong assessment culture college-wide, and have championed and supported curricular and co-curricular assessment efforts as well as our academic and non-academic program reviews process.

- 2. Looking back, reflect on the evolution of your Academy project. What factors does your team feel most influenced how the project developed and changed?
 - a. The first contributing factor that most influenced our project and continues to influence assessment as a whole is the development of the Assessment Committee. After attending the Academy Roundtable in June 2014, the team came back and formed the Assessment Academy team which later evolved into the Assessment Committee we have today. This committee is largely faculty with two administrative positions and positions from the Business Administration and the Student Development councils. The Provost serves as an ad hoc member as well. The Assessment Committee began the first efforts to provide overall knowledge of assessment throughout the College, recommended the hiring of an Assessment Coordinator, and has contributed to building the infrastructure for assessment college-wide. Due to the Assessment Committee being largely faculty-led, this has assisted with the buy-in of assessment from faculty throughout the College. While the faculty have an Assessment Coordinator and an Associate Dean of Curriculum & Assessment as resources, the ability to ask questions or raise concerns with peers is invaluable and contributes to the building of our culture of assessment because assessment should never be dependent on one position if it is to be sustainable and truly self-evaluative.
 - b. The hiring of the Assessment Coordinator and the Associate Dean of Curriculum & Assessment have been beneficial to assisting the faculty in establishing processes for assessment, providing research on best practices, and engaging in discussions about assessment college-wide. The Assessment Coordinator has been assisting with gathering and compiling data for the faculty and student services areas to use. The position also assists in keeping assessment projects on track. The Associate Dean of Curriculum & Assessment position is providing knowledge of best practices and accrediting agencies to the assessment and curriculum processes. This position has been essential in establishing the link between assessment and curriculum to show that assessment work helps better define curriculum and the education of our students.
 - c. While assessment should not be tied to a single position, changes within the leadership ranks of a College can have large impacts on the level of importance placed on assessment. In 2016, the institution hired a new President Dr. Colleen Smith who has a background in assessment and recognizes the value assessment can have within a College. Along with the new President, an interim Provost Dr. A. Dudley Gardner was hired who also has a strong

commitment to assessment. These positions have influenced other leadership positions to not only find value in assessment, but encourage it, ask for it, and talk about it. Having the leadership's voice constantly advocate for assessment is essential as we continue to build our culture and our processes.

- d. To be able to gather assessment data and then compile and use it in a timely manner is part of making assessment valuable within the College. Throughout this project, the system-wide collection of data is still being developed, but the utilization of our learning management system (LMS) Canvas has led to being able to gather and compile some assessment data in a consistent and timely manner. This reporting mechanism has made it easier to gather data from the faculty, especially the part-time faculty.
- e. A last contributing factor was to let each general education block begin to create assessment and performance measures for themselves instead of continuing to use the same performance measures across all of the general education courses. General education has a single broad program outcome of critical thinking which is that a student will show that they are critically thinking by, "using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning." Originally, the general education program had four performance measures that were to be used by all of the courses. They were:

The student will be able to

- 1. Formulate vital questions and problems in a clear and precise manner,
- 2. Gather, assess, and interpret information within a theoretical framework,
- 3. Develop well-reasoned conclusions and solutions to problems,
- 4. And recognize and assess the assumptions, implications, and consequences of different theoretical frameworks.

In Fall 2016, the faculty created curriculum maps that determined which course-level outcome mapped to the appropriate performance measure within the program outcome. The process of aligning the course-level outcomes to the program-level outcomes prompted many departments to revise their course-level outcomes to be more specific and measurable. Using these maps, all full-time faculty collected assessment data in each of their courses that related to critical thinking. When reviewing the data gathered from this assessment project, many of the faculty felt the four performance measures were difficult to understand and did not apply in their particular courses.

In Spring 2017, the project was altered. The project asked general education faculty, full-time and part-time, to collect critical thinking assessment data and report the student performance, the definition the faculty member used in their classroom, the criteria used to determine whether or not the student met the outcome, and any pedagogical changes that resulted from the data collected. However, none of the faculty were using the same performance measure or assessment tool to gather this information. Therefore, it is

excellent for documenting course-level assessment, but would not work for reviewing it on a program-level. In fact, this reporting has been adapted as a sustainable process and is currently being used to collect course-level assessment data and to continue building our assessment culture of continuous improvement. The faculty are now required to report on one course-level outcome in one of their courses each semester. Additionally, we planned to use the definitions collected to create a unified definition of critical thinking that could be used across all of the general education courses. Instead, the general education blocks used these definitions to create unique performance measures the following fall.

During the Fall of 2017 each block developed performance measures of critical thinking and a way of assessing that is consistent within each block. During the Spring of 2018, the general education blocks are implementing these assessment tools, such as rubrics and/or standardized assignments, which are based on these agreed upon performance measures. Once the results are all submitted, we will check to make sure that we have a body of data that is consistent and useful for helping our instructors and program leaders improve how we teach critical thinking within each block.

3. How has institutional capacity for assessing student learning changed over your time in the Academy?

In one word, we would say, significantly. Prior to the Academy, assessment efforts were sporadic and not focused towards an overall institutional goal. Certain departments would gather information but might not have done anything with it. We struggled to find ways, institution wide, to use the various data gathered to improve our programs. While in the Academy our institution has shifted its focus towards assessment, our knowledge and understanding of assessment has increased, and our overall experience with assessment is more effective.

- a. The efforts that have supported this shift and increased our capacity include the creation of an Assessment Committee. Coconino Community College's Assessment Committee is dedicated to structuring and implementing student assessment across all departments of the institution. To promote knowledge and understanding of assessment at our institution, the committee has contributed to creating a policy and a set of procedures, which were vetted throughout the College. To ensure communication and effectiveness, the committee includes representatives from all areas of the College. This committee prevents the responsibility of assessment from falling upon one individual.
- b. Each general education block is creating a specialized student learning assessment plan for their area and meeting regularly to update each other on their progress. This process has opened up and supported lines of transparent communication throughout the institution. This communication has engaged the entire institution in assessment, thus building the culture.

- c. The institutional commitment has increased monetarily as well. An assessment budget has been developed and new positions have been created to sustain the process. In fiscal year 2015, the budget was \$5,729 which was essentially to ensure that the Institutional Research Director and a few others attended the annual Higher Learning Commission (HLC) Conference. Now, for fiscal year 2019, the budget is \$119,970. This includes the attendance to the annual HLC Conference as well as positions dedicated to assessment, but it also includes a budget to send faculty to various assessment conferences throughout the year. These faculty will then receive a stipend to create and offer workshops about assessment to other faculty and staff in the College.
- d. As stated previously, the increase in the budget included the hiring of the Assessment Coordinator and the Associate Dean of Curriculum & Assessment. These positions are meant to sustain the assessment processes developed throughout the College and provide best practice and accrediting agency information.
- e. Prior to joining the Academy, our LMS Canvas was selected partly due to the fact that it can help with the gathering of assessment data. The investment and research that went into selecting the LMS was considerable. Since joining the Academy, the coordinator has been researching and developing best practices in using the LMS's outcome collection capabilities.

We would say that the entire College is committed to achieving the goals we have set regarding assessment and student success. This can be attributed to our increased institutional capacity for assessing student learning.

- 4. What evidence do you have that your Academy work is improving student learning?
 - a. Part of our project was to work towards building awareness of assessment with the hope of building a culture of assessment for everyone in the College, not just faculty, and not just one or two of the faculty. The processes and structures that have been created with input from the Assessment Committee require that the faculty of the general education block meet, talk, and work together to determine how best to evaluate their teaching consistently and improve the learning of their shared students. This has resulted in anecdotal evidence; some of which is reported here. Quite recently, a faculty member in a discussion with the Assessment Coordinator commented he was "excited about an assessment project" in his general education block as it was going to provide some meaningful data that could be acted on. Previous to this comment, this particular faculty member was not in favor of assessment and felt that grades were sufficient to provide data on learning. Additionally, the Associate Dean of Curriculum & Assessment and the Assessment Coordinator were at a District Governing Board meeting in which President Smith shared a faculty comment about assessment which was that the faculty member had previously thought the College had been engaged in assessment, but now realizes that assessment is a much more comprehensive process. This faculty member now felt they had a deeper understanding of what assessment is and how it improves teaching and learning in the classroom. Finally, a particular block of general education faculty stated that they were enthusiastic about the

conversations the group had been having about the shared performance measures and look forward to meeting again to review the data and the assessment tools together. While this is not quantitative data, these comments go to show that our work towards building awareness of assessment and having it filter into all levels of the College is working.

b. We have been gathering learning assessment data that includes student performance data, performance measures, assignments, and action items to improve learning in the classroom. Most of the data we have gathered has been at the course-level. We are gathering program-level data from the general education blocks using their shared performance measures and assessment tools this semester. Additionally, our proposed process of the bi-annual reviews will begin next year in which the areas of general education will be reviewing all of the collected assessment data to this point to create action items for the program to work on for the next two years until the next bi-annual review.

In Fall 2016, the data was aggregated by course, by general education block, and then by performance measure. Overall, 75-82% of the students met the learning outcome of critical thinking, depending on the performance measure. All of this data was generated by full-time faculty only.

In Spring 2017, this data was also aggregated by course, by general education block, and then by performance measure. Overall, 71% of the students met the learning outcome of critical thinking. Both full-time and part-time faculty submitted this data.

For Fall 2017, 73% of the students met a course-level learning outcome for critical thinking. Both full-time and part-time faculty submitted this data. Additionally, each general education block reviewed the data gathered in 2016-2017 and created shared performance measures and assessment tools to gather program-level assessment data on critical thinking. This data is due by the end of the faculty contracts in May 2018.

From this data, it can be seen that full-time faculty alone have a higher achievement of student performance in critical thinking. However, an increase of 2% can be seen from spring to fall. This increase can be partially attributed to two factors: First, the faculty conversations of critical thinking as an outcome, and second, course-level improvements based on assessment results reported through the Course Assessment Reports. Both of these actions have led to an increased level of understanding of assessment.

- 5. What work still needs to be done?
 - a. We need to build on the progress we've already made with General Education program-level assessment, program review and college-wide education about assessment. Because we are committed to these efforts, we have proposed to focus on assessment as our HLC Quality Initiative. Our proposal has been accepted by the HLC.

- b. Going forward, the Assessment Coordinator and the Associate Dean of Curriculum and Assessment will meet with the President to provide a state of assessment report. This will help establish an assessment feedback loop that operates at all level of the College.
- c. Because we now have critical thinking performance measures that are unique to each general education block, we will need to redo our curriculum maps to accurately match course-level learning outcomes to those new performance measures. In addition, the General Education Committee would like to review and revise the definitions of the program learning outcomes. With the new performance measures and tools, we will be able to easily compare the data that we will collect for our program-level outcomes within our general education blocks beginning Spring of 2018. The process we've used to refine general education assessment of critical thinking will need to be continued as we launch efforts to assess our other general education student learning outcomes on a staggered schedule: communication, ethical and civil values, and diversity and global awareness.
- d. Through the Assessment Committee and the Assessment Coordinator, we have begun to identify co-curricular events and assess their effectiveness. More work needs to be done to refine those assessment efforts.
- e. Complete the program review process and conduct the first bi-annual review.
- f. We need to continue to develop college-wide assessment education efforts. As part of our Quality Initiative proposal, we plan to educate faculty members of the Assessment Committee to conduct workshops on specific assessment topics throughout the next two years. Our plan is to hold these workshops with small groups of faculty, rather than as large, informational sessions. We also need to continue to develop multiple means for assessment education college-wide. Leadership is supportive of the use of professional development funds to attend assessment conferences. The Assessment Committee has committed to devoting some of their meeting times in the next year to education, through book discussions and post-conference information-sharing. We are exploring other means for education through training structures we already have in place, such as professional development week (at the beginning of each semester) and HR days (once a month).
- g. We've made good progress since 2014. When we joined the Assessment Academy, we no longer had a program review process, a uniform process or cycle for collecting and reviewing assessment at the program or institutional level, or a system of shared responsibility to ensure that assessment of student learning was taking place. We are now well on our way to ensuring that assessment of student learning is and remains a viable and vital part of our institution.

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

This Results Report reflects the activity of Coconino County Community College in the Assessment Academy Collaboration Network. It is not an official document of the Higher Learning Commission.

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.

0:

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 | | |
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Collaboration Network Results Report – Coconino County Community College, AZ: Improving Student Learning through a Comprehensive, Systematic, and Sustainable Assessment Practice.

Primary Mentor(s): Kirstan Neukam

QUALITY INITIATIVE ATTACHMENTS

Quality Initiative Proposal

HLC Response to the Quality Initiative





Open Pathway Quality Initiative Proposal

Institutional Template

The enclosed Quality Initiative Proposal represents the work that the institution will undertake to fulfill the Improvement Process of the Open Pathway.

Signature of Institution's President or Chancellor

Colleen A. Smith, PhD, President

Printed/Typed Name and Title

Coconino County Community College

Name of Institution

Flagstaff, Arizona

City and State

The institution completes the Quality Initiative Proposal by responding to the questions in each category of the template. The institution may choose to submit a brief implementation plan or supplemental charts or graphs as appendices to the template. Proposals should be no more than 4,500 words. The Quality Initiative Proposal will be accepted beginning September 1 of Year 5 and is due no later than August 31 of Year 7. Submit the proposal as a PDF file to pathways@hlcommission.org with a file name that follows this format: QI Report No Name University MN. The file name must include the institution's name (or an identifiable portion thereof) and state.

Overview of the Quality Initiative

1. Provide a title and brief description of the Quality Initiative. Explain whether the initiative will begin and be completed during the Quality Initiative period or if it is part of work already in progress or will achieve a key milestone in the work of a longer initiative.

Title: Building solid and sustainable program-level assessment in Academic Affairs

The goal of the Quality Initiative is to develop a more effective and systematic process to analyze student learning and how we measure institutional effectiveness in order to continuously improve learning. We plan to achieve this goal by improving program-level learning outcome assessment processes. Coconino Community College (CCC), had programs in the past that effectively engaged in program-level assessment, however a few programs assessed learning outcomes at the course level. Our aim is to effectively evaluate and build program-level assessment processes in all programs across the College by having each program area develop outcomes and assessment tools that evaluate student learning. Effective assessment at the program level will help us determine if the program's curriculum of required courses, course-level learning outcomes, and teaching methodologies achieve the stated learning outcomes for our graduates.

For nearly 20 years, a debate has revolved around what learning assessment is and means to CCC. This debate has shown that assessment means different things in different courses and in different areas of study on campus. We have confidence in multiple methods of assessment, but believe they are best unified in assessments developed at the program level. Developing strong program-level assessment mechanisms is the key ingredient to improving programs across the College. By engaging faculty in each phase of creating and implementing the process, we hope to create a shared culture of assessment, make the process meaningful for each program, and close the loop by using relevant data to inform program and institutional improvements.

While CCC has been engaged in learning outcomes assessment since 1991, these efforts were often focused individually by discipline and not by program. The processes used were not sustainable through organizational changes, and many faculty felt that data collection did not provide valuable information for improving teaching and learning and some felt it was done solely for administrators and/or accreditation. Between 2011 and 2015 program-level assessment data in some areas was not gathered or provided. We have since created new systems for program-level assessment, collected data on the General Education Thinking Skills outcome, and implemented the phases of a new assessment process with our Career and Technical Education programs. With this initiative, we plan to launch all phases of the assessment process with all programs, provide training and learning opportunities, and evaluate and document the results of our efforts through program reviews and annual reports.

Sufficiency of the Initiative's Scope and Significance

2. Explain why the proposed initiative is relevant and significant for the institution.

This proposed initiative is relevant and significant for CCC because it aligns with the Mission, goals and Strategic Plan of the College. The initiative also supports efforts at renewing program-level assessment launched with our participation in the Higher Learning Commission (HLC) Assessment Academy and informed by the HLC Final Report from the College's 2016 Assurance Argument.

The Mission of CCC is "As a learning-centered college, we enrich lives by embracing diversity and transforming the future through quality education." This Quality Initiative supports our mission since the ultimate goal is to improve student learning by improving the quality of our education. The

assessment tools we develop and the processes and evaluations we set in motion focus on student learning at the program level and will inform us as to the improvements we need to make. In addition, the initiative is learning-centered through its focus on making the assessment process and the value of assessment a learning process for faculty and staff.

Conducting meaningful assessment is a priority for CCC. The College's District Governing Board included "Champion and Assess Student Success" as the first priority in their 2016-2017 goals, and the accompanying President and Administrative Goals supporting this priority were:

- a. Complete the development and carry out the implementation of an Assessment Plan- use assessment to improve learning and learning environment
- b. Continue refining the Program Review process and begin review of non-instructional programs.

These priorities are reflected in the College's 2016-2020 Strategic Plan, and reflected in the following goals:

- Goal 2: CCC will promote a learner-centered environment that incorporates innovative strategies and support structures intended to reduce student attrition and increase retention
- Goal 3: CCC Will empower students to achieve their individual learning goals and implement strategies to increase certificates and degree completion rates.

For the 2017-2018 academic year, the District Governing Board's first priority was "To ensure quality learning opportunities for students." The President and Administration goal to support this goal was "1d. Assessment of learning and program review data will be analyzed for improvement."

The desire to make learning outcomes assessment meaningful at the program level is a key component of our efforts. We had experienced a lapse in program-level assessment and in gathering assessment data for several years, which was noted by the HLC reviewers in their response to our Assurance Argument in the summer of 2016. We had already begun to re-launch assessment through our participation in the HLC Assessment Academy, which began in the spring/summer of 2014. Over the last year, we have gained ground in course level assessment and have developed and tested program-level assessment processes based on best practices. This initiative proposes to expand these program-level assessment processes to all programs. Through participation in the process from revising program-level learning outcomes to making programmatic and institutional changes based on assessment data, faculty will find the assessment process meaningful and will then be able to explain the value to others, including students and the general public.

3. Explain the intended impact of the initiative on the institution and its academic quality.

The purpose and intent of the quality initiative is to improve student learning through informed and sustainable assessment processes. We expect that the initiative will have the following impacts:

- A successful launch of a program-level assessment process that is sustainable and meaningful.
- Improved academic quality through changes made to programs based on assessment data.

- Increased faculty understanding of what is taught in the classroom and how the methods used connect with program-level learning and program-level assessment.
- Increased faculty ownership of program-level learning outcomes and the tools created to assess program-level learning outcomes.
- A culture of assessment throughout the College that is supportive, learning-focused, and inclusive.
- A process to use student learning assessment data to drive institutional changes.
- A critical analysis of learning outcomes assessment that will enable us to answer the four critical questions of:
 - o What are we doing?
 - o What worked?
 - o What did not work?
 - o What did we do to make changes in order to improve what did not work in the classroom?

Clarity of the Initiative's Purpose

4. Describe the purposes and goals for the initiative.

Our desire is to improve academic quality at CCC. While we are currently using assessment to improve education within the classroom, we do not necessarily use that knowledge to inform improvements beyond those individual courses. At this point in our College's evolution, it has become imperative to begin to use student learning assessment data as the foundation to inform quality improvements across the institution. In order to accomplish the goal of using student learning assessment data to inform institutional decisions, assessment must move from course-level assessment to program-level assessment and then be reported and shared through regular program reviews and annual reporting. The faculty are vital to creating relevant program-level assessment as they are the source of knowledge and the experts on how the College's students are performing in the classroom as well as on a program level.

The program faculty will be involved in discussions to determine the best courses in which to conduct program-level assessment, creating shared program-level assessment tools, and reporting the program-level assessment data to the assessment team (which currently consists of an Assessment Coordinator and an Associate Dean of Curriculum and Assessment). During the 2018 Spring semester, the program faculty will review the program-level assessment data and any previously established goals. At this time, the program faculty will document any progress made on previous goals and identify any modifications or new goals that need to be added based on the program-level assessment data.

This documentation and goal establishment will be reviewed by the appropriate Dean of Learning, the Assessment Committee, the Provost, and Executive Council (the President's leadership team). The intention of the review process is to ensure the assessment data is shared across the College, used to inform budget allocations, to inform strategic goal planning, and to begin to "close the loop" with improvements.

In addition to reestablishing ongoing and thorough program review, this initiative is the reinstatement of the College's assessment cycle to make it focused on improvement not only in our courses, but in our programs, and as the driver of institutional change.

| 5. | Select up to three main topics that will be addressed by the initiative. | | | | | | |
|-------------|--|---|---|--|-------------------------|--|--|
| | Advising | | Leadership | | Retention | | |
| \boxtimes | Assessment | | Learning Environment | | Strategic Planning | | |
| | Civic Engagement | | Online Learning | | Student Learning | | |
| | Curriculum | | Persistence and [Completion [Professional Development [| | Student Success | | |
| | Diversity | _ | | | Teaching/Pedagogy | | |
| | Engagement | Ш | | | Underserved Populations | | |
| | Faculty Development | | Program Development | | Workforce | | |
| | First-Year Programs | | Program Evaluation | | Other: | | |
| | General Education | | Quality Improvement | | | | |
| | | | | | | | |
| 6. | 6. Describe how the institution will evaluate progress, make adjustments and determine what has been accomplished. | | | | | | |

The following table describes the expected deliverables and reports from this initiative as well as the responsible parties for evaluating deliverables.

As each deliverable and report is developed and reviewed, it creates an opportunity for the College to evaluate its processes, make adjustments for improvement, and to evaluate the need for training for the College community.

TABLE 1: DELIVERABLES AND EVALUATION

| DELIVERABLE | RESPONSIBLE FOR CREATION OF DELIVERABLE | EVALUATION COMPLETED BY | DELIVERABLE EVALUATION |
|--|---|----------------------------------|--|
| Knowledge- Analysis-Synthesis (K-A-S) Maps | Program faculty | Program faculty, assessment team | Review of core or elective coursework to determine progression of knowledge built and assessed through a program. Evaluation of core or elective coursework as it contributes to the program. Ensure that program outcomes are measurable. |

| DELIVERABLE | RESPONSIBLE FOR CREATION OF DELIVERABLE | EVALUATION COMPLETED BY | DELIVERABLE EVALUATION |
|-------------------------------------|---|--|--|
| Performance Measures | Program faculty | Program faculty, assessment team, Assessment Committee | Ensure performance measures are measurable and relevant. |
| Shared Assessment Tools | Program faculty | Program faculty, assessment team, Assessment Committee | Determine of the assessment tool can appropriately measure the defined performance measures. |
| Data from Shared Assessment Tool | Program faculty, Assessment Coordinator | Program faculty, assessment team, Assessment Committee | Verify that the data gathered is relevant, can inform the program, and then use the data to make changes to increase college performance measures and program-level improvements. |
| Annual Assessment & Goal Review | Program faculty, assessment team | Program faculty, assessment team, appropriate Dean of Learning, Assessment Committee, Provost, Executive Council | Encompasses data from shared assessment tool, and document any changes the program intends to make based on the data for student learning improvement. |
| Program Review | Program faculty, assessment team | Program faculty, assessment team, appropriate Dean of Learning, Assessment Committee, Provost, Executive Council | Five year review of program that will encompass annual shared assessment data, K-A-S maps, and documented annual improvements. This document will use the previous five years of the program's history to project the future of the program. |

| DELIVERABLE | RESPONSIBLE FOR CREATION OF DELIVERABLE | EVALUATION COMPLETED BY | DELIVERABLE EVALUATION |
|--|---|---|--|
| Course-level outcomes to Program-level outcomes curriculum map | Program faculty | Program faculty, assessment team, Assessment Committee | These maps will be created (or reviewed) after the performance measures are agreed upon by the program faculty. These maps will review how much of the course is contributing to the overall program and assess whether or not this is adequate. |

TABLE 2: REPORTS AND PURPOSE

| REPORT | RESPONSIBLE FOR REPORT CREATION | AUDIENCE | PURPOSE |
|---|---|---|---|
| Program Assessment Planning Guide | Assessment team, Curriculum Committee | Faculty, Students | This guide will act as a how- to manual for creating programs from the initial idea to a stable program within the College. |
| Assessment Interim Report | Assessment team, Assessment Committee | HLC, College-wide | Interim monitoring report required in the final review of the College's 2016 Assurance Argument which expressed concerns about the College's assessment program. |
| Assessment Academy Impact Report | Assessment team, Assessment Committee | HLC, faculty, Assessment Committee, Gen Ed Committee | The Impact Report will chronicle the College's work from participation in the HLC Assessment Academy and improvements made to the assessment of student learning. |
| Annual Student Learning Assessment Report | Assessment team | Assessment Committee, College Council, District Governing Board (DBG) | An annual report chronicling the work done in student learning assessment during the academic year. |

| REPORT | RESPONSIBLE FOR REPORT CREATION | AUDIENCE | PURPOSE |
|--|--|--|--|
| Bi-Annual Student Learning Assessment Report | Assessment team | Assessment Committee, College Council, DBG | A bi-annual report summarizing changes and assessment from the summer and fall of each academic year. |
| Quality Initiative Report | Provost, Assessment team, Assessment Committee | HLC, College-wide | Due in August of Year 9 of the accreditation process, the Quality Initiative Report will be a reflection on what was accomplished throughout the entire two- year project. |

Evidence of Commitment to and Capacity for Accomplishing the Initiative

7. Describe the level of support for the initiative by internal or external stakeholders.

CCC is committed to generating a sound evaluation of our assessment practices. To accomplish this, the College's District Governing Board, the office of the President, the Chief Financial Officer, and the Provost's office will ensure resources are committed to this initiative. The Assessment team, Dean of Learning Arts and Sciences, Dean of Learning Career and Technical Education, faculty, and the Assessment Committee will work to complete this project and develop a quality undertaking. Students will help shape the process by participating in graduate surveys and focus groups that will give valuable perspectives on program-level learning.

The College has demonstrated a renewed focus on program-level assessment through participation in the Higher Learning Commission's Assessment Academy, beginning in the Spring of 2014. This initiative has the support of faculty, Institutional Research, and all of Academic Affairs including the Provost. The focus of CCC's Assessment Academy project was to create sustainable program-assessment processes by targeting General Education Critical Thinking outcomes. The project supported a General Education Committee project to create a culture of critical thinking throughout the College. One important outcome of our participation in the Assessment Academy was the creation of the faculty-led Assessment Committee that now plays a key role in program-level assessment and program reviews.

The College committed resources to ensuring that our assessment efforts are successful through the creation of a Training, Development, and Assessment Coordinator position in Fiscal Year (FY) 2017, and the creation of the Associate Dean of Curriculum and Assessment position in FY 2018.

8. Identify the groups and individuals that will lead or be directly involved in implementing the initiative.

The initiative will be led by the Assessment Coordinator, the Associate Dean for Curriculum and Assessment, the Assessment Committee, and the Provost. Faculty from across the College will be involved in implementing the initiative.

The Assessment Coordinator's role in this initiative includes coordinating planning meetings with faculty groups throughout all phases of the initiative and providing information and coaching through each phase. Together the Associate Dean and the Assessment Coordinator compile the comprehensive yearly Assessment Report and draft the bi-annual assessment report. In addition, the Coordinator will play an integral role in creating the upcoming Assessment Academy Impact Report, the HLC Interim Monitoring Report, and the final Quality Initiative Report. The Assessment Coordinator, along with The Associate Dean and the Curriculum Committee representatives, will create the Program Assessment Planning Guide.

In addition to the responsibilities previously mentioned, the Associate Dean ensures communication and coordination of efforts between the Assessment Committee, the General Education Committee, and the Curriculum Committee. In this initiative, the Associate Dean will also provide information and coaching through each phase.

The Assessment Committee's role in this initiative includes evaluating program reviews, data gathered from program-level assessment, and program-level assessment instruments, including learning outcomes curriculum maps, performance measures, and the shared assessment tools used to assess programs. The committee offers suggestions and guidance to the program faculty, acts as a resource for faculty regarding assessment questions, and members of the Assessment Committee will conduct assessment workshops.

As the Chief Academic Officer, the Provost oversees the scope and implementation of this initiative and ensures that the resources needed to complete this initiative are allocated.

Faculty in all program areas create performance measures, program assessment tools, maps, and reports. They conduct program-level assessment, evaluate data, and make plans for improvement based on that data.

Students' voices are an important part of program-level assessment. We will gather indirect assessment of student learning, as well as assessment of students' program experiences, through graduation surveys and focus groups.

9. List the human, financial, technological and other resources that the institution has committed to this initiative.

Human Resources: The Assessment team consists of the Assessment Coordinator; Associate Dean of Curriculum and Assessment; the Assessment Committee, which is composed of six faculty, a representative from the Business Council, and two representatives from the Student Development Council; two Deans of Learning, who will champion the proposed plan and act as knowledgeable

resources for planning; the Provost, who will participate in the evaluation process; and the College President. Four Lead Faculty from the Assessment Committee will volunteer to lead one assessment workshop per semester for faculty interested in participating.

Financial Resources have been set aside to initiate this project starting in 2017. From 2018 to 2021, the financial resources listed in Table 3 have been allocated to the budget.

TABLE 3: FINANCIAL RESOURCES

| Title | Total per Year | |
|---|-----------------------------|--|
| Assessment Coordinator | \$67,300 (100% of position) | |
| Associate Dean of Curriculum and Assessment | \$27,300 (25% of position) | |
| Lead Faculty | \$900 | |
| Executive Assistant | \$3,300 (5% of position) | |
| Academic Operations Coordinator | \$3,600 (5% of position) | |
| Total per Year | \$105,100 | |

Technological and Other Resources are currently being considered and will be implemented as needed.

Appropriateness of the Timeline for the Initiative

(The institution may include a brief implementation or action plan.)

10. Describe the primary activities of the initiative and timeline for implementing them.



TABLE 4: PRIMARY ACTIVITIES AND TIMELINES

| PHASE DESCRIPTIONS | DELIVERABLES | RESPONSIBLE PARTY | DUE DATE |
|--|--|---|--|
| Phase I – Revisit current program- level learning outcomes and determine if relevant to coursework. | K-A-S Maps | Career & Technical Education (CTE) Programs Liberal Arts Programs General Education (Gen Ed) Committee | August 1, 2017 August 31, 2018 May 15, 2018 |
| Phase II — Define program-level learning outcomes in terms of performance measures for each program, identify key courses to assess program-level outcomes in, and develop a shared assessment tool. | Performance measures Shared assessment tool | CTE Programs Liberal Arts Programs Gen Ed Programs (Focus on Critical Thinking (CT) Program-Level Outcome) Gen Ed Programs (Focus on Communication (C) Program-Level Outcome) Gen Ed Programs (Focus on Ethical & Civil Values (EC) Program-Level Outcome) Gen Ed Programs (Focus on Diversity & Global Awareness (DGA) Program-Level Outcome) | August 1, 2017 August 31, 2018 Mid-December 2017 Mid-October 2018 Mid-October 2019 |
| Phase III — Conduct pilot of shared assessment tool. | Data from shared assessment tool | CTE Programs Liberal Arts Programs Gen Ed Programs (Focus on CT Program-Level Outcome) Gen Ed Programs (Focus on C Program-Level Outcome) Gen Ed Programs (Focus on EC Program-Level Outcome) Gen Ed Programs (Focus on DGA Program-Level Outcome) | May 2018 May 2019 May 2019 May 2019 May 2020 May 2021 |

| PHASE DESCRIPTIONS | DELIVERABLES | RESPONSIBLE PARTY | DUE DATE |
|--|--|--|--|
| Phase IV — Evaluate results to determine if shared assessment tool is providing valid, usable, relevant information. | Annual Assessment & Goal Review Program Review | CTE Programs Liberal Arts Programs Gen Ed Programs (Focus on CT Program-Level Outcome) Gen Ed Programs (Focus on C Program-Level Outcome) Gen Ed Programs (Focus on EC Program-Level Outcome) Gen Ed Programs (Focus on EC Program-Level Outcome) Gen Ed Programs (Focus on DGA Program-Level Outcome) | May 2018 May 2019 May 2018/May 2019 May 2019/May 2020 May 2020/May 2021 May 2021/May 2022 |
| Phase V – Develop a plan based on the program-level assessment data to improve learning at the course-level. | Annual Assessment & Goal Review Program Review | CTE Programs Liberal Arts Programs Gen Ed Programs (Focus on CT Program-Level Outcome) Gen Ed Programs (Focus on C Program-Level Outcome) Gen Ed Programs (Focus on EC Program-Level Outcome) Gen Ed Programs (Focus on EC Program-Level Outcome) Gen Ed Programs (Focus on DGA Program-Level Outcome) | May 2018-December 2019 May 2019-December 2020 December 2018 December 2019 December 2020 December 2021 |
| Phase VI — Revisit current course- level learning outcomes and determine if relevant to program-level outcomes. | Course-level outcomes to program-level outcome curriculum maps | CTE Programs Liberal Arts Programs Gen Ed Programs (Focus on CT Program-Level Outcome) Gen Ed Programs (Focus on C Program-Level Outcome) Gen Ed Programs (Focus on EC Program-Level Outcome) Gen Ed Programs (Focus on EC Program-Level Outcome) Gen Ed Programs (Focus on DGA Program-Level Outcome) | December 2018 December 2019 December 2019 December 2020 December 2021 December 2022 |

Table 5: TRAINING AND REPORTS TIMELINES

| ACTIONS | RESPONSIBLE PARTIES | AUDIENCE | DUE DATE |
|--|---|---|-----------------------------------|
| Assessment Committee Training | TR Assessment Committee | AINING Assessment Committee | Beginning Spring 2018 and ongoing |
| Assessment Conference Attendance: Higher Learning Commission Conference Arizona Assessment Conference Association for the Assessment of Learning in Higher Education Conference Assessment Institute in Indianapolis Association of American Colleges & Universities Conference | FT Faculty | Faculty | Begin Spring 2018 and ongoing |
| In-house Assessment Workshops | Lead Faculty from Assessment Committee | Faculty | Fall 2018-Spring 2020 |
| HR Days Participation | Conference Attendees | College-wide | April 2018 and ongoing |
| | RE | PORTS | |
| Program Assessment Planning Guide | Assessment team, Curriculum Committee | Faculty, students | June 2018 |
| Assessment Interim Report | Assessment team, Assessment Committee | HLC, College-wide | June 2018 |
| Assessment Academy Impact Report | Assessment team, Assessment Committee | HLC, Faculty, Assessment Committee, Gen Ed Committee | June 2018 |

| ACTIONS | RESPONSIBLE PARTIES | AUDIENCE | DUE DATE |
|--|--|---|-------------------|
| | RE | PORTS | |
| Annual Student Learning Assessment Report | Assessment team | Assessment Committee, College Council, District Governing Board (DBG) | Yearly in July |
| Bi-Annual Student Learning Assessment Report | Assessment team | Assessment Committee, College Council, DBG | Yearly in January |
| Quality Initiative Report | Provost, Assessment team, Assessment Committee | HLC, College-wide | August 31, 2020 |

Institutional Contact for Quality Initiative Proposal

Include the name(s) of the primary contact(s) for the Quality Initiative.

Name and Title: Dudley Gardner, Interim Provost

Phone: 928-226-4224 Email: dudley.gardner@coconino.edu



February 6, 2018

Dr. Colleen Smith President Coconino County Community College 2800 South Lone Tree Road Flagstaff, AZ 86005-2701

Dear President Smith:

This letter is accompanied by the Quality Initiative Proposal (QIP) Review form completed by a peer review panel. Coconino County Community College's QIP is approved.

Within the QIP Review form, you will find comments from the panel for your consideration as you proceed with your Quality Initiative. The panel reviewed the QIP for four areas:

- Sufficiency of initiative's scope and significance
- Clarity of initiative's purpose
- Evidence of commitment to and capacity for accomplishing the initiative
- Appropriateness of the timeline for the initiative

If you have questions about the panel's review, please contact either Kathy Bijak (kbijak@hlcommission.org) or Pat Newton-Curran (pnewton@hlcommission.org). For any questions about your Quality Initiative contact Jeff Rosen at jrosen@hlcommission.org.

The Higher Learning Commission





Open Pathway Quality Initiative Proposal Review Form

Date of Review: February 13, 2018

Name of Institution: Coconinio Community College State: Arizona

Institutional ID: 2087

Reviewers (names, titles, institutions): Dr. David Wendler, Vice President for Academic, Emeritus, Martin

Luther College

Dr. Kelly Tzoumis, Professor, DePaul University

Review Categories and Findings

1. Sufficiency of the Initiative's Scope and Significance

- Potential for significant impact on the institution and its academic quality
- Alignment with the institution's mission and vision
- Connection with the institution's planning processes
- Evidence of significance and relevance at this time

Finding:

| $oxed{oxed}$ The Qualit | ty Initiative | proposal | demonst | rates acce | ptable so | ope an | d signifi | cance. | |
|-------------------------|---------------|----------|----------|------------|-----------|----------|-----------|---------|-----------|
| ☐ The Quali | ty Initiative | proposal | does not | demonstr | ate accep | otable s | cope an | d signi | ificance. |

Rationale and Comments: (Provide two to three statements justifying the finding and recommending minor modifications, if applicable. Provide any comments, such as highlighting strong points, raising minor concerns or cautions, or identifying questions.)

The proposal demonstrates a project of acceptable scope and signficance. Program asssessment will contribute to the assessment activities already taking place at Coconino County Community College. This initiative will not only fulfill an HLC Interim report function, but will also inform the quality of programs.

2. Clarity of the Initiative's Purpose

Audience: Peer Reviewers

Form

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Process: Open Pathway Quality Initiative Proposal Contact: 800.621.7440

Page 3

- Clear purposes and goals reflective of the scope and significance of the initiative
- Defined milestones and intended goals
- Clear processes for evaluating progress

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| • | • | | | · | • | | • | 9 | |

| ☐ The Quality Initiative proposal demonstrates clarity of purpose. |
|--|
| ☐ The Quality Initiative proposal does not demonstrate clarity of purpose. |

Rationale and Comments:

The purpose of the initiative is clear. One suggestion is to identify how program assessment will interact with course and disciplinary assessments. This linkage or "crosswalk" between program assessment with the other types of assessment taking place at the institution would better clarify the purpose.

3. Evidence of Commitment to and Capacity for Accomplishing the Initiative

- · Commitment of senior leadership
- Commitment and involvement of key people and groups
- Sufficiency of the human, financial, technological, and other resources
- Defined plan for integrating the initiative into the ongoing work of the institution and sustaining its results
- Clear understanding of and capacity to address potential obstacles

Finding:

| \times | The Quality | Initiative proposal | demonstrates evi | dence of commi | tment and capacity | / . |
|----------|-------------|---------------------|------------------|------------------|--------------------|------------|
| | The Quality | Initiative proposal | does not demons | trate evidence c | of commitment and | capacity. |

Rationale and Comments:

The initiative outlines in sufficient detail the commitment and capacity by the institution. The institution is adding two new positions - Training, Development & Assessment Coordinator added in 2017 and Associate Dean of Curriculum & Assessment at 25% time to be added in 2018.

4. Appropriateness of the Timeline for the Initiative

- Consistency with intended purposes and goals
- Alignment with the implementation of other institutional priorities

Audience: Peer Reviewers

Form

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Page 4

| | Reasonable implementation plan for the time period |
|----|---|
| | Finding: |
| | ☐ The Quality Initiative proposal demonstrates an appropriate timeline. |
| | ☐ The Quality Initiative proposal does not demonstrate an appropriate timeline. |
| | Rationale and Comments: |
| | The timeline appears to be reasonable and appropriate. |
| | |
| 5. | General Observations and Recommended Modifications: (Panel members may provide considerations and suggested modifications that the institution should note related to its proposed Quality Initiative.) |
| | One observation is the reliance on faculty for implementing program assessment. Implementation might be benefitted from providing training of faculty on program assessment, particularly in regards to part time or adjunct faculty who might have higher turnover rates. |
| | |
| 6. | Conclusion: |
| | \boxtimes Approve the proposed Quality Initiative with or without recommended minor modifications. No further review required. |
| | Request resubmission of the proposed Quality Initiative |
| | Rationale and Expectations if Requesting Resubmission |
| | The reviewers find that this is a significant initiative that has been planned by the institution. The support of faculty is critical in this initiative. Conveying the importance of program evaluation as an additional task to course and disciplinary assessment activities will be critical for successful implementation. |
| | Timeline and Process for Resubmission (the Commission staff will add this section if the recommendation is for resubmission) |
| | |
| | |

Audience: Peer Reviewers

Form
Published: 2015 © Higher Learning Commission

COURSE-LEVEL ASSESSMENT REPORTING

Course Assessment Reporting

The College is accredited through the Higher Learning Commission (HLC), and to maintain accreditation, the College adheres to various criteria for accreditation and core components. Criterion Four Teaching and Learning: Evaluation and Improvement directly applies to our assessment program and reporting. The criterion states, "The institution demonstrates responsibility for the quality of its educational programs, learning environments, and support services, and it evaluates their effectiveness for student learning through processes designed to promote continuous improvement."

As part of the "continuous improvement," the College asks the faculty who are teaching a General Education course during each semester to complete a course assessment report. For one class that instructor is teaching (regardless of how many classes the instructor has), the instructor should assess a course outcome in the syllabus and submit a Course Report on the results. It is preferable the instructor submits a Course Assessment report on a class the instructor plans to teach again in a future semester.

The intention of this report is to help the faculty answer the question, "How do I know the required learning has taken place?" The instructor can report on any course-level tool used to measure the course outcome of the instructor's choice: homework, quizzes, prelims and exams, reports and term papers, research projects, case study analysis, or other tools used and the instructor would like to report on.

This report is for the faculty to help provide documentation as they continuously work to improve. It should focus on informing their pedagogical processes. Examples of changes that could come from this process include revising course content in terms of breadth and depth, realignment of objectives and teaching methods, employment of more appropriate assessment methods, or effective incorporation of technology.

The goal of the Assessment Team is to create an aggregate report of results to share with faculty at the beginning of the following year, and maintain an electronic record of the individual faculty results for referral purposes as he or she grows as an instructor.

The reporting form is in the Education and Learning Effectiveness (ELE) Canvas shell under "quizzes" and is maintained by the Assessment Coordinator.

The Course Assessment Report reporting form requires the following information:

- General Education Block (English, Math, Arts & Humanities, Social & Behavioral Sciences, Physical & Biological Sciences, or Options),
- 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 course outcome in your syllabus 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 or not a student met the course outcome.

• Descriptions and justifications for any actions taken to adjust student learning for the class, future changes if taught again, or explain why no action was necessary.

These reporting forms are supposed to be submitted along with the students' grades. In the Fall, 103 instructors were asked to submit a Course Assessment Report and 60% responded. In the Spring, 96 instructors were asked to submit a Course Assessment Report and 72% responded.

This data will be sent to the instructors in the beginning of the fall semester in order to share the data and for the instructors to see how their own courses compared to courses with similar outcomes.

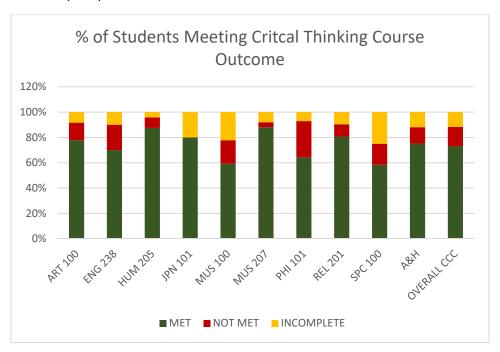
ATTACHMENTS:

Fall 2017 and Spring 2018 Course Assessment Report Overviews

FALL 2017 GENERAL EDUCATION CRITICAL THINKING

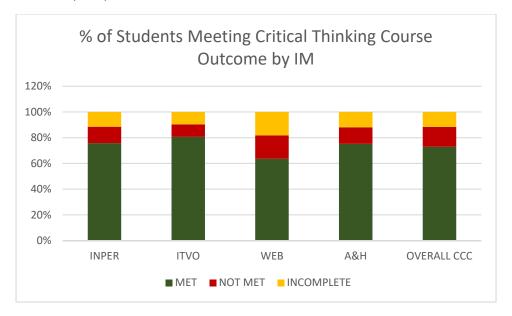
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

ARTS & HUMANITIES (A&H) BY COURSE



| 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 | 59% | 19% | 22% | 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 |

ARTS & HUMANITIES (A&H) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| INPER | 76% | 13% | 12% | 7 | 165 |
| ITVO | 81% | 10% | 10% | 1 | 31 |
| WEB | 64% | 18% | 18% | 2 | 22 |
| A&H | 75% | 13% | 12% | 10 | 218 |
| OVERALL CCC | 73% | 15% | 12% | 68 | 1438 |

A&H COURSE-LEVEL OUTCOMES MEASURED

- ART 100 Identify the many ways the art of today relates to the art of the past

 Describe the interaction between individuals, their culture, and the physical environment.
- ENG 238 * analyze rhetorical, historical, and cultural aspects of the works;
- HUM 205 2. develop skills in analyzing and synthesizing information;
 - 4. develop skills which will enable them to become aware of faulty reasoning;
- JPN 101 Derive meaning from written material where context and/or extralinguistic background knowledge are supportive.
- MUS 100 3. Write formal analysis of musical works.
- MUS 207 * Identify various styles of American popular music
 - * Analyze and discuss the evolution of musical styles in America, their sources and influences
 - * Analyze and discuss the broad range of cultural and historical influences on the music of

America, and the contributions of various ethnic groups and women

- * Analyze and discuss recurring themes and contemporary trends in American Popular music.
- PHI 101 Demonstrate an ability to formulate philosophical arguments with an awareness of key components and principles.
- REL 201 Recognize both globally and locally the impact of diverse religious traditions upon each other and their respective cultures.
- SPC 100 1, 7, 10

A&H COURSE CHANGES

ART 100 I think that the students completed this project admirably well and, at this time, I don't think any changes are necessary.

No action was necessary because all students who engaged in completing the project understood and carried out the assignment specifications.

- ENG 238 Although at first glance it seems my students did well, this was a high-achieving class. Based on the depth of analysis I had seen in discussions, I expected more students to exceed the minimum expectations. The next time I teach the course, I plan to tie practice analyses (through discussions) back to the directions, make samples easily clickable from the essay directions, focus on the structure of analysis in the peer workshop, and ensure my directions are clear.
- HUM 205 No action is necessary because the teaching methodology is time tested
- JPN 101 Students were given 3 tries to realize their mistakes and correct them on their own. Thinking critically to make the corrections on their own was a beneficial learning approach for the students who completed the assignment.
- MUS 100 Reflecting back on this assessment/assignment and the last two semesters I have had my students do this critical thinking assignment, I have been impressed by how sincerely and thoughtfully the students have approached this assignment. In light of how the assignment pushes them to focus and think intently on pieces and utilize the listening and critical thinking skills we have worked on throughout the semester, I am hoping to develop similar assignments (not used for this assessment) that push the students to listen and critically evaluate music. I hope to make this assignment (in varied forms) a tool I utilize more than once a semester.
- MUS 207 I did change a few things for this semester. I used to require 3 papers and 6 quizzes, but this semester I changed it to 2 papers and 8 quizzes. I also gave them an option to substitute an oral presentation for a paper, if they wished. I hoped to increase student involvement in the class. The more frequent quizzes help me to better assess progress and give the students more leeway to do well even if they have an off day. Furthermore, for a music class, I felt that

more listening quizzes and questions about those examples better reflect what we're trying to learn. The papers give them a chance to delve deeper into and do some critical thinking about a particular topic. Still, I don't want MUS 207 to be a writing class, so I wanted to lessen the emphasis on writing assignments. I also increased the percentage of the quizzes to 30% of their grade and reduced the papers to 20% (instead of vice versa, as in previous semesters).

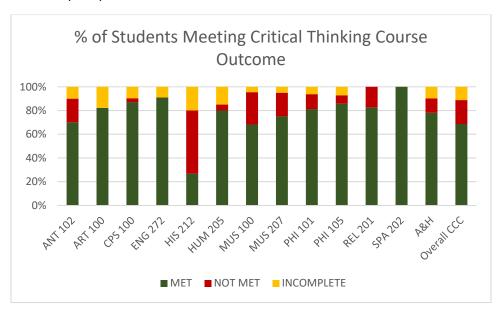
Another change I made this semester was to give the students a study guide for their final exam. I had not done this for past semesters, and felt that perhaps I was being unclear about what they should expect on their final exam. Having graded their final exams, I think this was helpful to many students.

- PHI 101 I want to spend more time next semester systematically diagramming the views of the authors who are under discussion and I also want to spend more time breaking down the texts in the classroom together so as to model the skills of critical interpretation. At present, the discussions we have are based on the relevant texts but I do not dedicate a large amount of class time to digging through the texts together. Given the inability of many students to perform well on these interpretive tasks, tasks which are fundamental to the more advanced skills of responding to the text, I realize I need to devote more time here.
- REL 201 This paper was a vast improvement over their earlier paper. Students knew what was expected and how they would be graded and we definitely went over the assignment criteria in class to help explain it in great detail before the assignment was given.
- SPC 100 This exercise went as planned. I do not believe it needs to be adjusted.

SPRING 2018 GENERAL EDUCATION CRITICAL THINKING

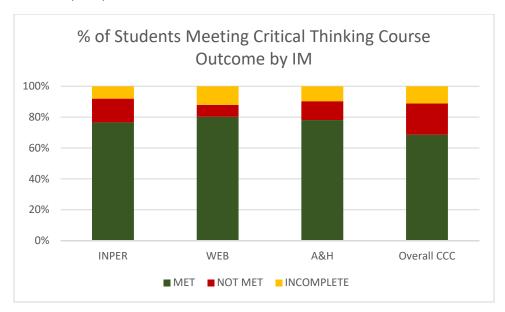
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

ARTS & HUMANITIES (A&H) BY COURSE



| 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 |

ARTS & HUMANITIES (A&H) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| INPER | 77% | 15% | 8% | 9 | 162 |
| WEB | 80% | 8% | 12% | 5 | 116 |
| A&H | 78% | 12% | 10% | 14 | 278 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

A&H COURSE-LEVEL OUTCOMES MEASURED

| ANT 102 | Investigate the diversity of human expression in the areas of belief systems language, and art |
|---------|--|
| ART 100 | Discuss the nature of art, aesthetics, creativity, purposes, style, and critical evaluation |
| ART 100 | Communicate clearly and effectively orally and in writing at a College level. |
| ART 100 | * Write a review of a gallery or museum exhibition |
| CPS 100 | There are two outcomes this assignment most closely pertains to - * Analyze and discuss historical, geographical, and cultural aspects of the Colorado Plateau. |
| | |

* Examine, discuss and summarize contemporary issues affecting the Colorado Plateau.

ENG 272 COURSE OUTCOME: integrate evidence to support students' own ideas, using quoting, paraphrasing, and summarizing;

Two Tier Rubric

Performance Measures

Does the student exhibit an understanding of relevant concepts? Does the student integrate credible evidence into their analysis?

Does the student derive a well-reasoned conclusion from their analysis?

HIS 212 Students will: 1. Develop an awareness of the processes of historical change. 2. Recognize the common characteristics behind civilization's development. 3. Apply inter-disciplinary methods to the study of civilizations. 4. Develop comparative criteria for cross-civilizational analysis from a global perspective. 5. Explore cross-cultural interactions as a source of historical change. 6. Demonstrate an ability to critically evaluate and cogently synthesize diverse information. 7. Connect contemporary political, social, religious, and cultural conditions with the past.

HUM 205 Outcomes 1, 2, 4

MUS 100 Course Outcome 2: Identify and discuss historical styles and forms of music from ancient Greece through the twentieth century.

MUS 207 Analyze and discuss the evolution of musical styles in America, their sources and influences

* Evaluate central philosophical ideas and apply these ideas to your own perspectives and assumptions.

- * Examine your world view via philosophical dimensions.
- * Apply philosophical theories to contemporary issues.
- * Evaluate and explain selected philosophers writings.
- PHI 105 2. Critically evaluate their own views and those of various thinkers.
- REL 201 Recognize major religious figures for each tradition and ideas and themes associated with them.
- SPA 202 Critically analyze and evaluate texts which have a clear, underlying internal structure.

A&H COURSE CHANGES

PHI 105 On this essay assignment, students needed to choose three out of five possible topics to discuss in their body paragraphs. In order to answer any of the questions well they needed to exhibit a working knowledge of utilitarian thought. However, given that some of the students did not choose the question option which entails dedicating an entire paragraph to definitional matters before proceeding, some of the students found themselves trying to accomplish too much in a body paragraph which had more to do with applying than characterizing utilitarian thought.

In the future I will necessitate that they spend a paragraph of definitional matters alone as the papers of students who went this route were generally superior. I will also dedicate more class time to explaining why this is necessary for a philosophy paper.

The student submissions for this paper were remarkably successful. At this time I wouldn't plan to make any changes to this particular curriculum or assignment.

wouldn't plan to make any changes to this particular curriculum or assignment

Changed topic of 2nd paper to the following: Discuss the music and culture of
America anytime from 1900 up to the 1970s. Some good topics would be the Blues,
Broadway, Jazz, Swing, Hillbilly, Country music, Rock and Roll, Folk Revival, or any
particular performer, group, or phenomenon from this time period. Feel free to
discuss a topic that we have not covered in class, as long as it falls in this time period.
I used to permit more current topics, but think the students have to think more and
do more research if they cover a topic with which they are less familiar.

HUM 205 No action is necessary because the course has been carefully restructured over the years and is currently working quite well.

PHI 101 This topic got the students powerfully engaged. The philosophical article presented to them challenged how they normally think, and as a result, got them motivated to consider the concepts and relate them to their own lives, as well as to foundational causes of larger social problems. When I teach this class again, I will be more careful and emphatic about requesting they get their emotions out of the way. The article was seen as inflammatory by some, and they were challenged in maintaining clear thinking.

ART 100 I have gotten great results using this format and rubric for testing critical thinking as it pertains to the course outcomes. I don't feel any need to adjust the assignment as the only negative results i've found are for those students that do not turn in an assignment.

REL 201 I can look at the Quiz Statistics and see if there are questions that students are consistently missing and then either alter the question (if it's confusingly worded) or change the method by which I am conveying the information and see if that has an effect on their passing of the exam.

MUS 100 I tried and will continue to try to incorporate a condensed version of this assignments on quizzes. The only issue I have encountered so far is how to leave enough time for the students to be able for them to address the question properly. I am still thinking through this and will attempt a version of this on a quiz next semester. The assignment is very effective in pushing the students to utilize course knowledge.

SPA 202 No actions were necessary to take to adjust student learning for this assignment due to the fact that it was the third summary that students wrote for this class and section. After writing the first summary, I did have to make adjustments to instruction after reading through their submissions only to review and clarify that a summary does not include personal opinion but rather observations that can be evidenced from the reading.

HIS 212 None at this time.

CPS 100

After nearly a decade of participating in this survey, there has been absolutely NO feedback or further development related to this process. This is a process which generates numbers devoid of value or significance.

ANT 102 The assignment was the first of 2 writing assignments that used the same observation site in different ways. The first assignment was the one assessed. After this

assignment, students were given very specific feedback on what they needed to successfully complete the next step. This feedback helped 5 additional students pass the second assignment.

ART 100

To make this assignment more effective I am going to require students to respond to the posts of two other students using critical criteria for other student responses.

ART 100

All students did well in their descriptions of the the artwork that they reviewed. Two points I clarified were:

- 1. The artwork they choose to review should be original pieces. Pictures of art, whether in books, on the internet, or as printed copies are not considered original. An actual painting, sculpture, or craft is what should be written about.
- 2. One question that students should ask themselves about a piece of art is what they think the intention of the artist is in creating the piece, and whether or not the artist succeeded. There is a point where all artwork begins, and it can change as it is made. When the decision is made that art gives more than its physical presence, it starts to have value. Students can put themselves in the shoes of the artist, and include what they see in their review.

ENG 272

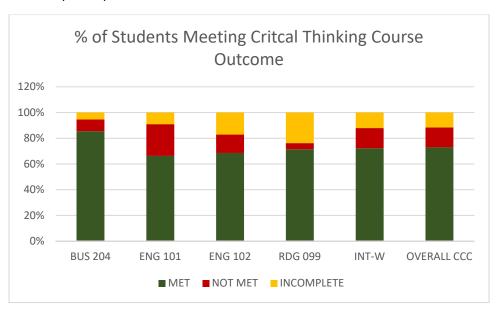
This was a new assignment used to afford students the opportunity to interview their family members in order to retell a story from two or more perspectives. The family stories, then, were integrated into the writer's own memory of the event to reveal the various ways we recall memories.

I plan on using this same assignment next semester, but I will provide additional examples to facilitate a better understanding of the expectations at the beginning of the assignment.

FALL 2017 GENERAL EDUCATION CRITICAL THINKING

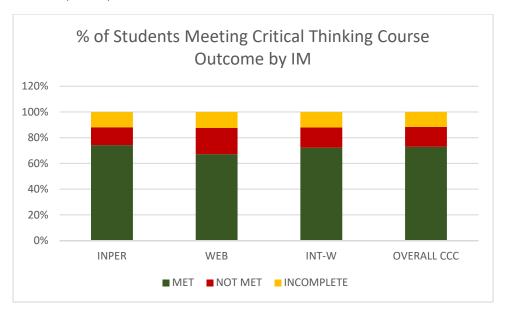
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

INTENSIVE WRITING (INT-W) BY COURSE



| COURSE | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| BUS 204 | 85% | 9% | 5% | 2 | 55 |
| ENG 101 | 66% | 25% | 9% | 4 | 77 |
| ENG 102 | 69% | 14% | 17% | 3 | 70 |
| RDG 099 | 71% | 5% | 24% | 1 | 21 |
| INT-W | 72% | 16% | 12% | 10 | 223 |
| OVERALL CCC | 73% | 15% | 12% | 68 | 1438 |

INTENSIVE WRITING (INT-W) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| INPER | 74% | 14% | 12% | 7 | 159 |
| WEB | 67% | 20% | 13% | 3 | 64 |
| INT-W | 72% | 16% | 12% | 10 | 223 |
| OVERALL CCC | 73% | 15% | 12% | 68 | 1438 |

INTENSIVE WRITING (INT-W) COURSE-LEVEL OUTCOMES MEASURED

BUS 204 Write clearly, concisely, and correctly.

- To provide students with communication skills for the workplace necessary to generate and organize ideas, draft and review various business.
- To identify ways in which the complex process of communication deals with perceptional and other problems.
- Compose and revise business documents
- Write effective memos, business letters, resumes, and reports clearly, concisely, and correctly
- Research, summarize and document information, producing a written report and presentations
- Develop professional speaking and listening skills
- Understand the influence of electronic communication on management and organizational processes
- Recognize communication challenges in a global business environment

ENG 101 1. analyze and evaluate academic and other non-fictional print and electronic texts;

- ENG 101 Analyze and evaluate academic and other non-fictional print and electronic texts.
- ENG 101 compose writing in non-fiction genres, making rhetorical choices appropriate to context, purpose, and audience;

planning, constructing, and presenting logical, coherent, well-supported arguments with consideration of target audience; using appropriate technology for communication and information gathering

This is a difficult question to address, as it is unclear which of the many definitions of "critical thinking" we are utilizing for the purpose of this report. Colleges have struggled to define this concept for a long while. Pascarella et al. offered: While there are various definitions of critical thinking, a constituent set of intellectual skills would appear to involve all or some of the following: identifying central issues or assumptions in an argument, making correct inferences from data, deducing conclusions from information or data provided, interpreting whether conclusions are warranted on the basis of data given, and evaluating the validity of an argument." I would argue that all course outcomes for English 101 are addressed in the attached assignment, and most are related to critical thinking as defined above. However, if it is necessary to choose one course outcome, I will select: 7. research, evaluate, analyze, and document sources; Pascarella, Ernest T., et al. "Is differential exposure to college linked to the development of critical thinking?." Research in Higher Education 37.2 (1996): 159-174.

- * integrate evidence to support their own ideas, using quoting, paraphrasing, and summarizing
 - * Analyze, synthesize, and evaluate a variety of print and electronic texts
 - * Formulate vital guestions and problems in a clear and precise manner
 - * Develop well-reasoned conclusions and solutions to problems

Students must score and 89 or higher and must have made use of argumentive and/or critical inquiry of some kind in order to be considered successful for this assessment.

RDG 099 10. Choose appropriate critical thinking strategies for different types of tests and assignments.

INTENSIVE WRITING (INT-W) COURSE CHANGES

BUS 204 no actions were taken because the students met the criteria of the assignment well.

The majority of students had few problems with this assignment. Perhaps I will provide a little more specific information on the need to address pros and cons with emails. This may help students identify more reasons some people would find this communication method more comfortable.

l'm not sure what you are looking for here when you say actions taken to adjust student learning for the class. I would say this means what was changed during instruction to help students struggling with this outcome achieve it. For this course then, one thing that was adjusted for was additional one on one instruction. For example, as is usual for a rhetorical analysis assignment, several students have trouble understanding the difference between writing about the issue brought up by a text, and the way the writer of a text uses rhetorical tools to persuade an audience. While working on thesis development for our Rhetorical analysis, I modified the schedule and assignments for a portion of the class period and taught one on one rotating small groups to promote learning of this difficult concept, while students continued with the previously assigned group work assignment for the day.

I am pleased with the results of this class, especially since they were my best-performing composition class. In future iterations of this assignment, I might spend more class time covering how to write more cohesive evaluations of a text after it was analyzed. That seemed to be the skill that many students struggled with, particularly the ones who did not meet the criteria for the assessed course outcome.

In future semesters, I would like to have students bring several sources to class to analyze how the sources are related, how they are interpreting the data and what conclusions they are coming to. This could be done in peer groups so individuals could gain the perspectives of their peers on the sources.

For my next section of this course, I will spend more time discussing and explaining the differences between scholarly and popular sources, and why these differences are important. I also plan to construct additional opportunities for students to discuss these issues in more depth with their peers and to analyze specific sources collaboratively, prior to applying these skills independently. While I have been pleased overall with the student outcomes for this assignment, critical evaluation and utilization of source material is a key component of research skills. Therefore, it is a major focus of my constant revision and improvement of this course.

This semester, I believed I scaffolded the learning opportunities in a way that supports students in meeting this outcome, however, it's clear that I need to be more intentional in my approach when I teach this course next semester. Though I provided feedback to these students in their formative assessments, which indicated how they could improve their outcomes, I'm thinking that I will use a different formative/low stakes assignment to help students hone these skills. I'm going to incorporate even more structure into the reading responses that students compose each week. Specifically, I'm looking to incorporate a regular assignment called a rhetorical precis, which requires students to compose a highly structured paragraph. The following example, which I will use as a model for creating the weekly assignment, is drawn directly from Oregon State University's website (http://oregonstate.edu/instruct/phl201/modules/rhetorical-precis/sample/peirce_sample_precis_click.html):

In a single coherent sentence give the following:
-name of the author, title of the work, date in parenthesis;
-a rhetorically accurate verb (such as "assert," "argue," "deny," "refute," "prove," disprove, "explain," etc.);

- -a that clause containing the major claim (thesis statement) of the work.
- b) In a single coherent sentence give an explanation of how the author develops and supports the major claim (thesis statement).
- c) In a single coherent sentence give a statement of the author's purpose, followed by an "in order" phrase.
- d) In a single coherent sentence give a description of the intended audience and/or the relationship the author establishes with the audience.

I believe that I'll be able to provide even more meaningful focused feedback to students through the rhetorical precis assignment. Furthermore, I think the rhetorical precis is a really great teaching tool to get students to analyze mentor texts while producing their own strong paragraphs that are well-developed and well-supported with evidence. In addition to using the rhetorical precis, I plan to be more intentional about how I teach students when to quote, paraphrase, or summarize. Most often, it seems that students default to using direct quotes when summarizing or paraphrasing would better serve their argument. Through the rhetorical precis, I can provide feedback which will help students be more agile in how they integrate evidence into their own writing.

This assignment was used as part of a larger assignment. The idea was to permit students opportunities to create concepts for games to solicit social awareness with the persuasive appeals in mind. The second part of the assignment was to analyze the appeals for effectiveness in a rhetorical analysis.Based on student feedback and nearly 100% critical thinking outcome success in the class, I will use this assignment again.

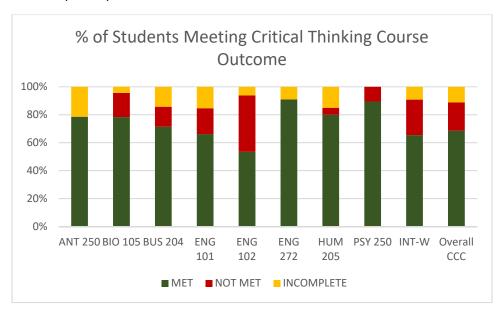
I use words such as logic, analysis, assertions, proof, insight, and critical questioning. Every semester most students find that this is something they understand right away or after some discussion. However, every semester there are a few who write something that is only an informational recitation or a winding summary. Each semester I have tried to reach out to everyone, especially those who missed the point. My thoughts now center around finding a brilliant but accessible example of critical thinking and analysis in writing and having the class read it and explain why it is useful in understanding our task.

RDG 099 No action was necessary as most students who turned in the assignment demonstrated the ability to analyze, evaluate, and synthesize their thoughts regarding what they learned in the course.

SPRING 2018 GENERAL EDUCATION CRITICAL THINKING

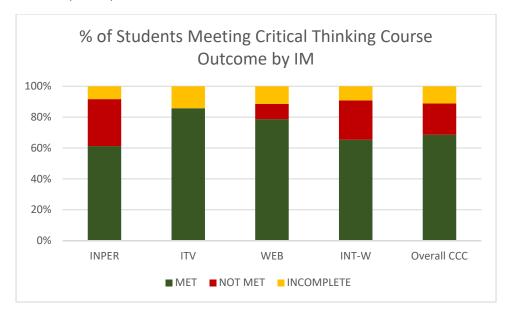
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

INTENSIVE WRITING (INT-W) BY COURSE



| COURSE | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| ANT 250 | 79% | 0% | 21% | 1 | 14 |
| BIO 105 | 78% | 17% | 4% | 1 | 23 |
| BUS 204 | 71% | 14% | 14% | 2 | 14 |
| ENG 101 | 66% | 18% | 15% | 4 | 65 |
| ENG 102 | 53% | 40% | 6% | 5 | 161 |
| ENG 272 | 91% | 0% | 9% | 1 | 22 |
| HUM 205 | 80% | 5% | 15% | 1 | 20 |
| PSY 250 | 89% | 11% | 0% | 1 | 19 |
| INT-W | 65% | 25% | 9% | 16 | 338 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

INTENSIVE WRITING (INT-W) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| INPER | 61% | 30% | 8% | 10 | 263 |
| ITV | 86% | 0% | 14% | 1 | 14 |
| WEB | 79% | 10% | 11% | 5 | 61 |
| INT-W | 65% | 25% | 9% | 16 | 338 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

INTENSIVE WRITING (INT-W) COURSE-LEVEL OUTCOMES MEASURED

- ANT 250 Demonstrate an understanding of various theoretical and methodological approaches utilized by anthropologists when working with communities worldwide.
- BIO 105 Course Outcome: 2. Communicate clearly and effectively, orally and in writing at a college level.
- * Write effective memos, business letters, resumes, and reports, clearly, concisely, and correctly.
 - * Research, summarize, and document information, producing a written report, and presentations.
- BUS 204 The ability to compose, revise and develop professional skills in business communication.
- ENG 101 7. research, evaluate, analyze, and document sources
- ENG 101 Integrate evidence to support their own ideas, using quoting, paraphrasing, and summarizing;

ENG 101 Analyze and evaluate academic and other non-fictional print and electronic texts

ENG 101 Outcomes 1, 2, 3, 7, 8, 9

ENG 102 2. engage in the writing and research processes to compose academic texts

* analyze, synthesize, and evaluate a variety of print and electronic texts;

* Critical thinking, reading, composing strategies in:

- a.) comprehension;
- b.) application;
- c.) analysis;
- d.) interpretation;
- e.) synthesis;
- f.) and evaluation;

Gen. Ed. Thinking Skills

- * Formulate vital questions and problems in a clear and precise manner
- * Develop well-reasoned conclusions and solutions to problems
- ENG 102 1. analyze, synthesize, and evaluate a variety of print and electronic texts;
 - 2. engage in the writing and research processes to compose academic texts;
- ENG 102 In English 102-5

19 students wrote critically about their chosen subject. 4 merely summarized the plot of their subject.

ENG 272 COURSE OUTCOME: integrate evidence to support students' own ideas, using quoting, paraphrasing, and summarizing;

Two Tier Rubric

Performance Measures

Does the student exhibit an understanding of relevant concepts? Does the student integrate credible evidence into their analysis?

Does the student derive a well-reasoned conclusion from their analysis?

HUM 205 Outcomes 1, 2, 4

PSY 250 write a research paper using APA format

INTENSIVE WRITING (INT-W) COURSE CHANGES

ANT 250 No action is necessary at this time. While one student got stuck defending a particular stance over the broader picture, he demonstrated the ability to understand the two concepts. A couple of others ended up defending the opposite side but they did well arguing it. They all demonstrated critical thinking and engagement, though in varying degrees which seem to be more subjective than taught.

BIO 105 This assignment worked very well- will use again next semester.

BUS 204 n/a

ENG 102

BUS 204 This assignment was recently revised and provided better responses from students.

ENG 101 Enhancing student learning for this course would involve additional lessons on the evaluation of academic source material, application of the source material in supporting an argument, and correctly documenting these sources in an essay.

ENG 101 My threshold for determining whether or not students met the learning outcome was high because I took the idea of support seriously. The student essays that did not meet my threshold failed mainly in the area of using specific evidence to support their ideas. The majority of evidence used came from broad statements from experts, for example, or generalized or hypothetical examples. Reasoning was strong, but the evidence was weak.

I think enhanced instruction/practice in how to find and use specific evidence - and the difference between specific evidence and general statements might help. I also may require the SEE structure for this assignment, as that paragraph structure includes evidence as a built-in component.

ENG 101 For future classes I would also spend some time teaching more logical fallacies since many students were able to spot errors or deceptions in reasoning, but they didn't have the terms to name and analyze them.

ENG 101 No action was necessary. The students who did not meet the requirements did not actively participate in learning.

It's clear that I need to make adjustments to support student learning for this outcome. Ideas for improvement include expanding the lessons I teach on summarizing, paraphrasing, and quoting to integrate evidence into arguments; revisiting paragraph structure to show students how to craft topic sentences and then support them clearly; and perhaps even taking a more formulaic approach to paragraph construction in the first few weeks of the semester to help students get comfortable with integrating evidence more smoothly into their writing. Especially for online classes, I can find or make video tutorials that show students how to write a paragraph and integrate evidence effectively.

Another idea I have is that after moving away from using the Three Thoughts assignment (a reading response tool I developed and used in previous semesters to help students learn how to integrate readings), I think I can bring it back and improve upon it to further focus attention on integrating evidence to support conclusions. If I've learned anything in assessing my courses this year, it seems certain this growth process will be ongoing.

- For the most part, the instructions and subsequent interactions with students on their analysis papers (abundant comments on what is working well and what isn't, with opportunity for multiple revisions for learning the material) gives students multiple opportunities, examples, and one-on-one instruction to learn the material for this essay and outcome. One thing that might be improved is a better link between the listed outcome in the syllabus and the Essay 1 assignment.
- ENG 102 I would not change any student learning because the students who completed the assignment, did very well. The other two simply did not do the work.
- ENG 102 This assignment was followed up on in class, as a group, in order to chart our collective research strategies, which I thought was a necessary follow-up -- a collective action to what began as an individual assignment. I would do something similar in the future.
- I've used this assignment for 2 years and I'm always a bit confused that there are 4 or 5 students in any given class who simply aren't ready to grasp thinking critically and deeply about a subject. I am most baffled by the student who doesn't even want to try and would rather stay in a comfort zone rather than use the challenge to excel. For instance, this semester I graded a paper called "The Art of Smoking." The men sometimes write about professional athletes. I let them try because I want them to expand that way they think about rhetoric, but they may benefit from limits in the future.
- ENG 272 This was a new assignment used to afford students the opportunity to interview their family members in order to retell a story from two or more perspectives. The family stories, then, were integrated into the writer's own memory of the event to reveal the various ways we recall memories.

I plan on using this same assignment next semester, but I will provide additional examples to facilitate a better understanding of the expectations at the beginning of the assignment.

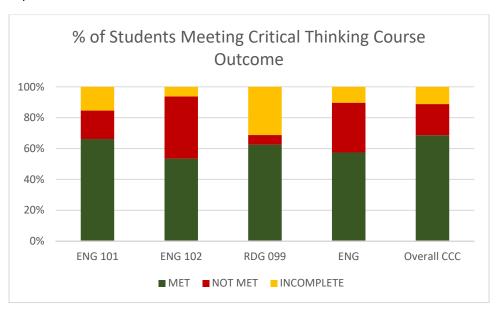
- HUM 205 No action is necessary because the course has been carefully restructured over the years and is currently working quite well.
- PSY 250

 I'll continue to emphasize the need to rely on facts to support one's views and to provide such feedback on the rough drafts. However, I might incorporate activities whereby students argue the opposite of their held belief or have them challenge the premise of their own thesis statement. The purpose of such an activity would be to illustrate that there are differing views on social issues to help avoid sweeping statements and the confirmation bias. I'd rather have students challenge themselves because when others challenge their views they might adhere to these beliefs even more strongly.

SPRING 2018 GENERAL EDUCATION CRITICAL THINKING

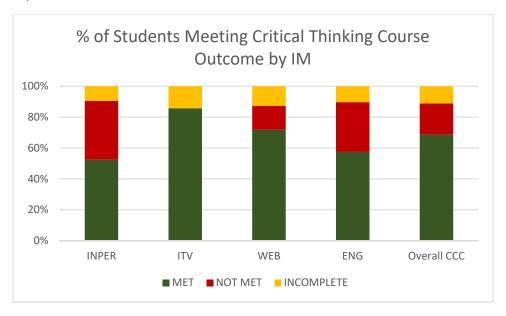
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

ENGLISH (ENG) BY COURSE



| COURSE | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| ENG 101 | 66% | 18% | 15% | 4 | 65 |
| ENG 102 | 53% | 40% | 6% | 5 | 161 |
| RDG 099 | 63% | 6% | 31% | 1 | 16 |
| ENG | 57% | 32% | 10% | 10 | 242 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

ENGLISH (ENG) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| INPER | 52% | 38% | 10% | 6 | 189 |
| ITV | 86% | 0% | 14% | 1 | 14 |
| WEB | 72% | 15% | 13% | 3 | 39 |
| ENG | 57% | 32% | 10% | 10 | 242 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

ENGLISH (ENG) COURSE-LEVEL OUTCOMES MEASURED

| ENG 101 | 7. research, evaluate, analyze, and document sources |
|---------|--|
| ENG 101 | Integrate evidence to support their own ideas, using quoting, paraphrasing, and summarizing; |
| ENG 101 | Analyze and evaluate academic and other non-fictional print and electronic texts |
| ENG 101 | Outcomes 1, 2, 3, 7, 8, 9 |
| ENG 102 | 2. engage in the writing and research processes to compose academic texts |
| ENG 102 | * analyze, synthesize, and evaluate a variety of print and electronic texts; |

- * Critical thinking, reading, composing strategies in:
 - a.) comprehension;
 - b.) application;
 - c.) analysis;
 - d.) interpretation;
 - e.) synthesis;
 - f.) and evaluation;

Gen. Ed. Thinking Skills

- * Formulate vital questions and problems in a clear and precise manner
- * Develop well-reasoned conclusions and solutions to problems
- ENG 102 1. analyze, synthesize, and evaluate a variety of print and electronic texts;
 - 2. engage in the writing and research processes to compose academic texts;
- ENG 102 In English 102-5
 - 19 students wrote critically about their chosen subject. 4 merely summarized the plot of their subject.
- RDG 099 ENG Outcome # 1- Analyze and evaluate nonfictional print and electronic texts

ENGLISH (ENG) COURSE CHANGES

- ENG 101 Enhancing student learning for this course would involve additional lessons on the evaluation of academic source material, application of the source material in supporting an argument, and correctly documenting these sources in an essay.
- ENG 101 My threshold for determining whether or not students met the learning outcome was high because I took the idea of support seriously. The student essays that did not meet my threshold failed mainly in the area of using specific evidence to support their ideas. The majority of evidence used came from broad statements from experts, for example, or generalized or hypothetical examples. Reasoning was strong, but the evidence was weak.

I think enhanced instruction/practice in how to find and use specific evidence - and the difference between specific evidence and general statements might help. I also may require the SEE structure for this assignment, as that paragraph structure includes evidence as a built-in component.

- ENG 101 For future classes I would also spend some time teaching more logical fallacies since many students were able to spot errors or deceptions in reasoning, but they didn't have the terms to name and analyze them.
- ENG 101 No action was necessary. The students who did not meet the requirements did not actively participate in learning.

It's clear that I need to make adjustments to support student learning for this outcome. Ideas for improvement include expanding the lessons I teach on summarizing, paraphrasing, and quoting to integrate evidence into arguments; revisiting paragraph structure to show students how to craft topic sentences and then support them clearly; and perhaps even taking a more formulaic approach to paragraph construction in the first few weeks of the semester to help students get comfortable with integrating evidence more smoothly into their writing. Especially for online classes, I can find or make video tutorials that show students how to write a paragraph and integrate evidence effectively.

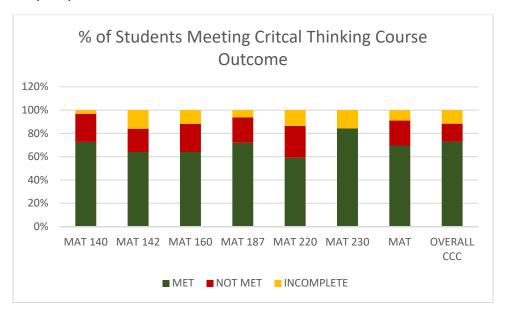
Another idea I have is that after moving away from using the Three Thoughts assignment (a reading response tool I developed and used in previous semesters to help students learn how to integrate readings), I think I can bring it back and improve upon it to further focus attention on integrating evidence to support conclusions. If I've learned anything in assessing my courses this year, it seems certain this growth process will be ongoing.

- For the most part, the instructions and subsequent interactions with students on their analysis papers (abundant comments on what is working well and what isn't, with opportunity for multiple revisions for learning the material) gives students multiple opportunities, examples, and one-on-one instruction to learn the material for this essay and outcome. One thing that might be improved is a better link between the listed outcome in the syllabus and the Essay 1 assignment.
- ENG 102 I would not change any student learning because the students who completed the assignment, did very well. The other two simply did not do the work.
- ENG 102 This assignment was followed up on in class, as a group, in order to chart our collective research strategies, which I thought was a necessary follow-up -- a collective action to what began as an individual assignment. I would do something similar in the future.
- I've used this assignment for 2 years and I'm always a bit confused that there are 4 or 5 students in any given class who simply aren't ready to grasp thinking critically and deeply about a subject. I am most baffled by the student who doesn't even want to try and would rather stay in a comfort zone rather than use the challenge to excel. For instance, this semester I graded a paper called "The Art of Smoking." The men sometimes write about professional athletes. I let them try because I want them to expand that way they think about rhetoric, but they may benefit from limits in the future.
- RDG 099 One student thought she had turned in the assignment, but I didn't have it. I messaged her in Canvas and asked her please send a file via Canvas or turn in by May 14, but I didn't her back from her. I excused her from the assignment, but counted her in the not turned in group.

FALL 2017 GENERAL EDUCATION CRITICAL THINKING

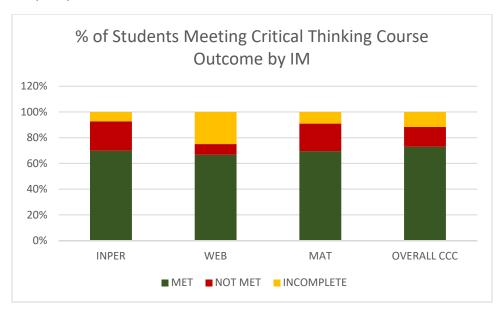
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

MATHEMATICS (MAT) BY COURSE



| COURSE | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| MAT 140 | 73% | 24% | 3% | 4 | 95 |
| MAT 142 | 64% | 20% | 16% | 2 | 50 |
| MAT 160 | 64% | 24% | 12% | 1 | 25 |
| MAT 187 | 72% | 22% | 6% | 3 | 32 |
| MAT 220 | 59% | 27% | 14% | 1 | 22 |
| MAT 230 | 84% | 0% | 16% | 1 | 19 |
| MAT | 70% | 21% | 9% | 12 | 243 |
| OVERALL CCC | 73% | 15% | 12% | 68 | 1438 |

MATHEMATICS (MAT) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| INPER | 70% | 23% | 7% | 11 | 219 |
| WEB | 67% | 8% | 25% | 1 | 24 |
| MAT | 70% | 21% | 9% | 12 | 243 |
| OVERALL CCC | 73% | 15% | 12% | 68 | 1438 |

MATHEMATICS (MAT) COURSE-LEVEL OUTCOMES MEASURED

MAT 140 Gather, assess, and interpret information within a theoretical framework

Develop well-reasoned conclusions and solutions to problems

Recognize and assess the assumptions, implications, and consequences of different theoretical frameworks

MAT 140 Gather, assess, and interpret information within a theoretical framework

Develop well-reasoned conclusions and solutions to problems

Recognize and assess the assumptions, implications, and consequences of different theoretical frameworks

MAT 140 The critical thinking tool given to me from the math department specified numbered "course" outcomes related to the MAT 140 course actual outcomes. The numbered outcomes were similar to the actual outcomes of MAT 140. The course outcomes that were specified on the assessment tool (underlined) had differences in the wording of the actual outcomes defined for the course (parentheses).

Course Outcome 3: Solve various types of growth problems (Missing "including exponential")

Course Outcome 1: Solve applied financial problems (Reworded from "calculate annuities and loan schedules")

Course Outcome 6: Create and interpret statistical graphs (Reworded from "use normal distributions to describe data sets and calculate probabilities)

Course Outcome 4: Utilize probability theory to solve applied probability problems (Reworded from "solve various application problems")

Course Outcome 7: Calculate and interpret numerical descriptive statistics (Reworded from "calculate descriptive statistics")

MAT 140 Problem 1:

Course Outcome 3: Solve various types of growth problems

Performance Measure 1: Apply mathematics in context using appropriate problem solving skills

Problem 2:

Course Outcome 1: Solve applied financial problems

Performance Measure 2: Choose and manipulate formulas

Problem 3:

Course Outcome 6: Create and interpret statistical graphs

Performance Measure 3: Create and interpret graphical representation

Problem 4:

Course Outcome 4: Utilize probability theory to solve applied probability problems Performance Measure 7: Gain appreciation of the nature and uses of mathematics

Problem 5:

Course Outcome 7: Calculate and interpret numerical descriptive statistics Performance Measure 8: Communicate using the language of mathematics

MAT 142 Course Learning Outcome:

1.solve applied financial problems;

2.understand the differences between linear, exponential, and logistic growth;

3. solve various types of growth problems;

4.utilize probability theory to solve applied probability problems;

5.understand the basic elements of the normal distribution;

6.create and interpret statistical graphs;

7.calculate and interpret numerical descriptive statistics;

MAT 142 Problem 1:

Course Outcome 3: Solve various types of growth problems

Performance Measure 1: Apply mathematics in context using appropriate problem solving skills

Problem 2:

Course Outcome 1: Solve applied financial problems
Performance Measure 2: Choose and manipulate formulas

Problem 3:

Course Outcome 6: Create and interpret statistical graphs

Performance Measure 3: Create and interpret graphical representation

Problem 4:

Course Outcome 4: Utilize probability theory to solve applied probability problems Performance Measure 7: Gain appreciation of the nature and uses of mathematics

Problem 5:

Course Outcome 7: Calculate and interpret numerical descriptive statistics Performance Measure 8: Communicate using the language of mathematics

- MAT 160 1. use statistical methods to collect, organize, analyze and interpret numerical data;
 - 2. create and interpret graphs of data;
 - 7. estimate population parameters;
 - 9. interpret confidence intervals;
 - 10. test hypotheses
- MAT 187 Utilize logarithmic and exponential properties to solve related equations.
- MAT 187 Graph equations and functions using various methods including technology.

Solve linear, quadratic, rational, absolute value, polynomial, and radical equations.

Utilize logarithmic and exponential properties to solve related equations.

Solve right and oblique triangles.

Work with vectors and vector quantities.

Solve application situations related to methods presented in this course.

MAT 187 Utilize logarithmic and exponential properties to solve related equations.

Solve application situations related to methods presented in this course.

MAT 220 Problem 1:

Course Outcomes 3: Analyze and evaluate limits.

Performance Measure 6: Apply and interpret limits and limit definitions

Problem 2:

Course Outcome 8: Analyze and interpret the concept of continuity of functions. Performance Measures 3: Create and interpret graphical representation

- 8: Communicate using the language of mathematics
- MAT 230 Identify differential equations and their solutions graphically, numerically and analytically.

MATHEMATICS (MAT) COURSE CHANGES

- MAT 140 Students were struggling more with probability and some other later materials, so more discussion was encouraged for those sections to help clarify any misconceptions students had. More examples than what I have done previously were also given to help reinforce the methods for solving such problems.
- MAT 140 Having only taught this course once, I would like to ensure that students have a deeper understanding of the content and do more cooperative and formative assessment.
- MAT 140 I was blown away by the specific requirement that students would need to state some specifics about comparing the mean and the median by assessment item 5. It felt like an all or nothing approach to grading when it was specified

"If they did not mention that the mean is affected by extreme values while the median is not, then no points."

This specific statement literally instructed me to subtract an average of 13% from my class average scores. I believe the assessment item could be better defined so that students would be more likely to provide the desired response. At the same time, criteria was weighed so much more strongly than other criteria, that I felt it necessary to add it to my curriculum as a specifically memorized concept. I wish it was stressed in the course outline I was given for the course.

I realized after using the tool to measure my students, that the need for a pre-assessment would be wise that would prepare my students for what is expected of them. The tool, interestingly, corresponded with student final performance in the class in one direction. Students who were designated with "PASS" with the critical thinking tool also performed higher than 60% in the course. There were students who performed higher than 60% in the course but did not receive the critical thinking designation "PASS."

I reflected further during my assessment of the student's performances and drew the following conclusions:

- 1.) My students will be expected to write more responses out in complete sentences through out the course.
- 2.) My students will be given specific vocabulary lists in some activities by which they are expected to utilize terminology for complete credit.
- 3.) My students will be given more compare and contrast items for practice in the course.

- 4.) My students are in need of greater enrichment while they participate in collaborative discussions and activities.
- 4a.) My students could use some improved rubrics while they collaborate so they can better hold themselves accountable for practicing and improving arguments.
- 4b.) My students can have more elaborate feedback in the form of expectations printed out ahead of class activities.
- 5.) My students can have more specific assignments assigned at the beginning of the course that will allow for student preparations as they dedicate their time to the course early on.
- MAT 140 I am going to continue to incorporate more active learning into the class.
- MAT 142 Write a two-three sentence analysis of the assessment results.

16 students meet the 60 % threshold and 8 students did not. Two students did not take the final.

Out of the 24 students who did not meet the criteria, all but two will receive Cs in the class.

List any actions taken to adjust student learning for the section, possible changes to a future section if taught again, or explain why no action was necessary.

I will place more emphasis on formula calculation and calculator use to improve the student's scores.

- MAT 142 I will continue to incorporate more active learning into the course.
- MAT 160 I will spend more time explaining the concept of types of errors and what a decision from a hypothesis test means.
- MAT 187 There was a continuing strong correlation between students passing the class and passing the assessment. The students who make it to the final typically are students who are passing the class. Since this assessment can be used as a tool to look at if the above (desired) pattern is present in all sections of MAT 187 (it is a common assessment), I do not feel any changes to the assessment are necessary. If an instructor has significant dissonance or lack of correlation between students passing the class and passing the assessment, then it could be used by them to adjust their focus.

To really get a feel for the skill students have coming into 187, or how their skills have developed along the way would require a different assessment.

- MAT 187 I rewrote my class notes for attempt to improve student learning and confidence. I also revised the practice problems to try to help students grasp the material in smaller increments and gain mastery.
- MAT 187 Based on results, increase time spent on application problems.

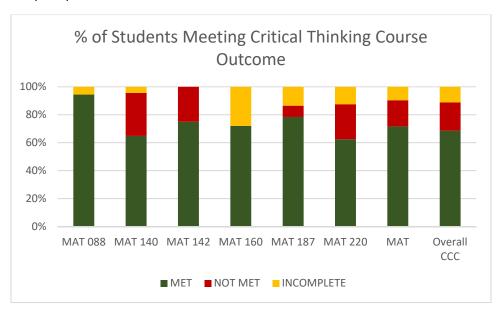
- MAT 220 I will continue to incorporate more active learning into the course.
- MAT 230 The results above do not match the overall understanding of Euler's Method the students had. While all the students could eventually successfully complete the activity getting to see visually and algebraically what Euler's method is and were able to generate the formula for Euler's method, many students struggled with this concept on the homework and on the exam. There was a disconnect between using critical thinking to discover Euler's method and then being able to apply it.

I am not teaching this class again in the spring, but if I was I would follow the IBL activity with practice on Euler's Method

SPRING 2018 GENERAL EDUCATION CRITICAL THINKING

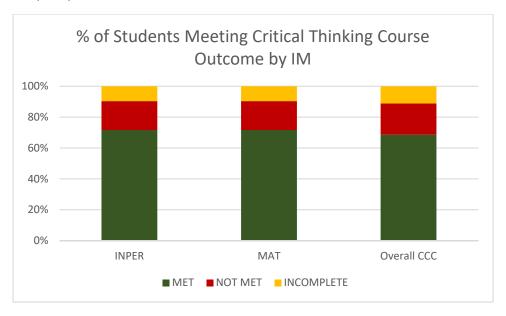
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

MATHEMATICS (MAT) BY COURSE



| COURSE | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| MAT 088 | 94% | 0% | 6% | 1 | 18 |
| MAT 140 | 65% | 31% | 4% | 5 | 91 |
| MAT 142 | 75% | 25% | 0% | 1 | 8 |
| MAT 160 | 72% | 0% | 28% | 1 | 25 |
| MAT 187 | 78% | 8% | 14% | 2 | 37 |
| MAT 220 | 63% | 25% | 13% | 1 | 8 |
| MAT | 72% | 19% | 10% | 11 | 187 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

MATHEMATICS (MAT) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| INPER | 72% | 19% | 10% | 11 | 187 |
| MAT | 72% | 19% | 10% | 11 | 187 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

MATHEMATICS (MAT) COURSE-LEVEL OUTCOMES MEASURED

MAT 088 I believe that this activity falls under the Communication Skills: 2 of the Mathematics

curriculum maps. "Communicate clearly and effectively, orally and in writing at a

college level."

MAT 140 Problem 1:

Course Outcome 3: Solve various types of growth problems

Program Outcome 1: Apply mathematics in context using appropriate problem solving

skills

Problem 2:

Course Outcome 1: Solve applied financial problems Program Outcome 2: Choose and manipulate formulas

Problem 3:

Course Outcome 6: Create and interpret statistical graphs

Program Outcome 3: Create and interpret graphical representation

Problem 4:

Course Outcome 4: Utilize probability theory to solve applied probability problems

Program Outcome 7: Gain appreciation of the nature and uses of mathematics

Problem 5:

Course Outcome 7: Calculate and interpret numerical descriptive statistics Program Outcome 8: Communicate using the language of mathematics

MAT 140 All of the problems listed below assess the following General Education Critical Thinking Skills:

Gather, assess, and interpret information within a theoretical framework
Develop well-reasoned conclusions and solutions to problems
Recognize and assess the assumptions, implications, and consequences of different theoretical frameworks

Problem 1:

Course Outcome 3: Solve various types of growth problems Program Performance indicator 1: Apply mathematics in context using appropriate problem solving skills

Problem 2:

Course Outcome 1: Solve applied financial problems
Program Performance indicator 2: Choose and manipulate formulas

Problem 3:

Course Outcome 6: Create and interpret statistical graphs
Program Performance indicator 3: Create and interpret graphical representation

Problem 4:

Course Outcome 4: Utilize probability theory to solve applied probability problems Program Performance indicator 7: Gain appreciation of the nature and uses of mathematics

Problem 5:

MAT 140

Course Outcome 7: Calculate and interpret numerical descriptive statistics
Program Performance indicator 8: Communicate using the language of mathematics
3: Solve various types of growth problems

- 1: Solve applied financial problems
- 6: Create and interpret statistical graphs
- 4: Utilize probability theory to solve applied probability problems
- 7: Calculate and interpret numerical descriptive statistics
- MAT 140 3: Solve various types of growth problems
 - 1: Solve applied financial problems
 - 6: Create and interpret statistical graphs

4: Utilize probability theory to solve applied probability problems

| | 7: Calculate and interpret numerical descriptive statistics |
|---------|--|
| MAT 140 | Recognize and assess the assumptions, implications, and consequences of different |
| | theoretical frameworks |
| MAT 142 | Course Outcome: Solve applied financial problems. |
| MAT 160 | 1. use statistical methods to collect, organize, analyze and interpret numerical data; |
| | 7. estimate population parameters; |
| | 9. interpret confidence intervals; |
| | 10. test hypotheses; |
| MAT 187 | Utilize logarithmic and exponential properties to solve related equations. |
| MAT 187 | Prove trigonometric identities and equations through the use of various methods. |
| MAT 220 | Analyze and interpret the concept of continuity of functions. |

MATHEMATICS (MAT) COURSE CHANGES

| MAT 088 | In the past, when I have used this assignment, I have gone back to try to clarify my directions for each of the problems. This time, it worked pretty well, with only a little clarification. I will continue to use this assignment as a review for ratios in MAT088. It compares like amounts, requires simplification of those ratios, and leads to other questions, some of which the students themselves bring up. (Such as: There appear to be fewer red M & M's, perhaps because of the red dye being represented as dangerous in the past.) The students have a great time with this assignment, and ask me "When are we going to do M & M's again?" |
|---------|--|
| | assignment, and ask me "When are we going to do M & M's again?" |

- MAT 140 Continue to utilize flipped classroom and inquiry based learning techniques in the class.
- MAT 140 Similar questions were asked on chapter tests and on the final exam. This class did poorly overall and next time I teach the class, I will place more emphasis on these questions. I will also be more mindful of students during the semester.
- MAT 140 I will continue my work on working on mean and median interpretation. This was the toughest item for my students to earn acceptable scores for.
- MAT 140 I will continue my work on working on mean and median interpretation. This was the toughest item for my students to earn acceptable scores for.
- I was originally not going to use this activity in my class. However, when we were talking about what it means to take a random sample, the students seemed quite interested, so I mentioned this activity I have used in the past to demonstrate how our idea of "random" is not always as random as we liked. The students asked me if I would be willing to do the activity with them, so I did. In the future, I will keep this activity in my original lesson since students seemed to leave with a better understanding on how true randomness can be achieved.

- MAT 142 For next semester, I will have students practice more explaining their thinking verbally and in writing. As well as giving more feedback in class as to how they are writing up there answers. Also, during class I used group assignments for them to practice problems like these. Next year I can share the rubric with the students while they work on the group projects so they are familiar with what I expect when grading.
- MAT 160 The results were very positive so not action is necessary. Always thinking of better ways to help students succeed though. Will incorporate more inquiry based learning into my course in the fall.
- MAT 187 The changes I made to the class notes and practice problems seemed to help, but I think some of the students need more help. I plan to revise at least one class example to include a more meaningful subject matter to more of the students.

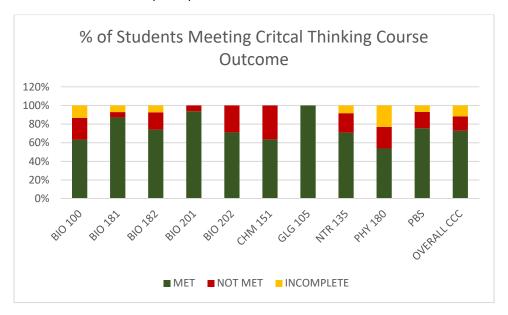
I think I will also choose to do a problem of this type when I do the review. I think some students did not remember how to do the problem even though they had mastered it earlier in the semester.

- MAT 187 This section is really the first time students are asked to "prove something" in a math class. I want the students to be risk takers and feel confident delving into a problem that might take a few tries to get right. In the future, I might want to make this a two day lesson and give more time for inquiry based learning on the boards.
- MAT 220 We (the math department) need a far better assessment tool for MAT 220. There are only two common questions.

FALL 2017 GENERAL EDUCATION CRITICAL THINKING

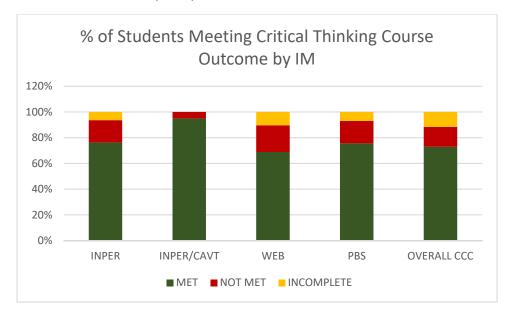
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

PHYSICAL & BIOLOGICAL SCIENCES (P&BS) BY COURSE



| COURSE | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|------|---------|------------|----------|-------------|
| BIO 100 | 63% | 23% | 13% | 2 | 30 |
| BIO 181 | 87% | 6% | 7% | 4 | 70 |
| BIO 182 | 74% | 19% | 7% | 1 | 27 |
| BIO 201 | 94% | 6% | 0% | 1 | 16 |
| BIO 202 | 71% | 29% | 0% | 2 | 38 |
| CHM 151 | 64% | 36% | 0% | 1 | 22 |
| GLG 105 | 100% | 0% | 0% | 1 | 17 |
| NTR 135 | 71% | 21% | 8% | 1 | 27 |
| PHY 180 | 54% | 23% | 23% | 1 | 26 |
| PBS | 76% | 17% | 7% | 14 | 270 |
| OVERALL CCC | 73% | 15% | 12% | 68 | 1438 |

PHYSICAL & BIOLOGICAL SCIENCES (P&BS) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| INPER | 76% | 17% | 6% | 9 | 173 |
| INPER/CAVT | 95% | 5% | 0% | 1 | 20 |
| WEB | 69% | 21% | 10% | 4 | 77 |
| PBS | 76% | 17% | 7% | 14 | 270 |
| OVERALL CCC | 73% | 15% | 12% | 68 | 1438 |

PHYSICAL & BIOLOGICAL SCIENCES (P&BS) COURSE-LEVEL OUTCOMES MEASURED

- BIO 100 Present examples of significant current events in science and explain their significance.
- BIO 100 Discuss the main biotechnologies and explain the implications of genetic engineering from both a societal and individual point of view.
- BIO 181 Describe in writing several different mechanisms by which genes and the encrypted code are altered in the natural world

Describe how humans have manipulated DNA through biotechnology and apply these research findings to agriculture, medicine, cloning and ethics

BIO 181 Describe in writing several different mechanisms by which genes and the encrypted code are altered in the natural world.

Describe how humans have manipulated DNA through biotechnology and apply these research

findings to agriculture, medicine, cloning and ethics.

- BIO 181 2. Use of the scientific method from making careful observations, designing good experiments, recognizing assumptions and the presentation of results
 - 2. Apply the scientific method to previous research and in their lab studies
- BIO 181 19) Describe how humans have manipulated DNA through biotechnology and apply these research findings to agriculture, medicine, cloning and ethics
- BIO 182 describe the origin and diversification of eukaryotes
 - describe trends in plant evolution
 - describe the structural changes necessary for plants to successfully transition to land (vascular tissue, flowers, and seeds) and the evolutionary advantage of each
- ***Please note: the critical thinking assignment for this class is split into two parts. The Final Practical and the Final Lecture Exam. The final practical is a visual test, and thus the questions are not submitted. The final exam is available on CANVAS. It is called "final exam" under "exams" in the quiz section.
 - * identify in anatomical models, diagrams, photos or other media, the major anatomical features of the skeletal, muscular, nervous, and integumentary systems;
 - * describe the physiological processes involved in the contraction of muscle, the generation of a nerve impulse and the propagation of nerve impulses in the nervous system;
 - * list and construct in models the basic organic molecules present in the human body;
 - * state in written form the relationships between physiological dysfunction and homeostatic response citing examples from the nervous systems;
 - * recognize in histological section selected samples of human body;
 - * demonstrate the function of the articulations in human body;
 - * identify in anatomical models the major features of the human nervous system;
 - * describe reflexive behavior; and
 - * explain how the human nervous system integrates sensory information and provides appropriate output.
- BIO 202 Explain the processes by which nutrient materials enter the body, are digested or otherwise manipulated and ultimately are converted into either body components or energy-rich molecules for body use.
- BIO 202 Demonstrate an understanding of the homeostatic regulation of blood chemistry by citing examples from endocrine, cardiovascular, respiratory and renal physiology

- CHM 151 All course outcomes as mentioned in the course outline of CHM151 are used to assess the critical thinking.
- There are multiple labs and in-class exercises (mostly on individual planets) that require critical thinking. However, in my opinion none is more important that Lab No. 1 Scales, since it sets the stage for subsequent discussion and materials. (This lab, with answers, is included in Question 5). The distances, sizes, and ages for bodies in Astronomy and more specifically Planetary Science are outside most people's every day reality. We deal mostly in mundane things like miles driving, the span of a lifetime (70-80 years), etc. In Planetary Science we can deal in bodies that are thousands to a million (plus) km in diameter, distances in billions of km or light years, and ages in the billions of year. Conceptually, it is difficult for people to comprehend the concepts. Although Lab No. 1 Scales, along with class lectures, go a long way to help students understand this, it is work that extends for several lectures and labs. We complete the lab in class, I review individual student results, and then jointly review in class. In my experience understanding these concepts take longer than I would like.
- NTR 135 Utilize a nutritional intake assessment inventory.
- PHY 180 Gaining a better understanding of Science

PHYSICAL & BIOLOGICAL SCIENCES (P&BS) COURSE CHANGES

- BIO 100 This is the first time I've offered this project, so have not yet refined for future semesters.
- BIO 100 I'm not teaching for CCC again after this semester, so I will not be taking any action to adjust my instruction.

If I were to make a suggestion, the course outcomes are in desperate need of rewriting. The current outcomes are written to only require very low-level thinking skills. Generality is appreciated as it fosters academic freedom, but if you want students' critical thinking to be assessed, put that in the course outcomes, if for nothing else, then so that they are aware of that. I literally had a student tell me that I shouldn't be assessing critical thinking because she was learning that in another class.

If I were to make another suggestion, it would be to include an actual education expert in decisions regarding course assessment and writing of outcomes. As in, someone who has formally studied education, pedagogy, and assessment, not just someone who has been at the college for 20 years and read a book about critical thinking once.

- BIO 181 This next semester I will be incorporating a weekly writing assignment to prepare students for their critical thinking GMO essay at the end of the semester.
- BIO 181 This next semester I will be incorporating a weekly writing assignment to prepare students for their critical thinking GMO essay at the end of the semester.
- BIO 181 No action take at this time as success rate for Fall 2017 (I am defining as proficient or mastery as described in Question 7) was greater than 95 %

- BIO 181 I will need to update the material to ensure it is topical, as current research is constantly changing the nature of the field.
- BIO 182 In this case this was the first time using this discussion post. Based on the feedback and high percentage of successful completion no change will be made.
- BIO 201 I am satisfied with the student's knowledge based at the end of this course. It seems that they understand the basic principals of Anatomy and Physiology, and are generally competent in identifying anatomical features from the required organ systems.

I would love students to perform better on practical assessments. This is tricky because the most effective way to achieve higher scores in this area is to spend time with the models and microscopes. In my experience, about 4 additional hours of model time are needed a week to properly learn the models et al. Open labs were offered this year on Fridays. Some of my students attended, but others worked during the hours offered. The open labs were operated by a student who previously took the class and did very well. I suggested expanding this program next semester.

For me, I find that many students learn the concepts better when I supplement YouTube videos that cover the topics in a fun, interactive way (I.E. Crash Course). Outside of the relevance of the material, this is often the first time they learn that there are great resources available for them, for free, on stream sites like YouTube. Next semester, I will make some of these videos mandatory, with a couple quiz points dedicated to an event that occurred in the videos (to keep them honest).

- BIO 202 Most students met the criteria. I used a quiz to measure this. In the future I will use a specific essay question to measure to get a better feel for the students ability to explain what they learned.
- BIO 202 No action was necessary at this time as a large majority mastered the exercise and the other 5 earned 9 or 9.5 points out of 10.
- CHM 151 Many students are new to the standardized testing and find these tests are comparatively tricky than rest of the assignments of the class. This kind of standardized test is comprehensive and demands an overall understanding of the subject. It requires the ability to think critically and develop the interdisciplinary knowledge of the science as a whole.

To improve the success rate in this type of assessment, the student needs adequate exposure early in the class. Students should be exposed to ACS practice test and can be included in the course content. However, it will involve additional cost to the student. It may be a challenge to the student who is financially challenged

GLG 105 This was my first time teaching this class, and my starting point was the material left by my predecessor. I would say that about a third of the material used in the class was from the previous professor - I built the rest. As the semester progressed, I modified the class structure to include more hands-on exercises and less lecture. This has worked best for the fellow geology professors I consulted. Multiple activities keep the students more focused.

Next time I will add more hands-on exercises and make sure that students understand concepts before moving forward. Â Also, in addition to the three exams I give, I plan to add quizzes to further gauge progress and understanding. Short movies will continue to be part of the class, followed by discussion periods.

One comment I heard several times is that there was a lot of material. Unfortunately, that is the nature of the subject. There is a lot of factual information. Hopefully, with the changes implemented, it will enhance the learning experience.

NTR 135 In analyzing why 5 students did not meet criteria for the assignment I found that: 2 of them submitted the assignment after the due date.

3 did not respond to the self analysis questions completely or at all.

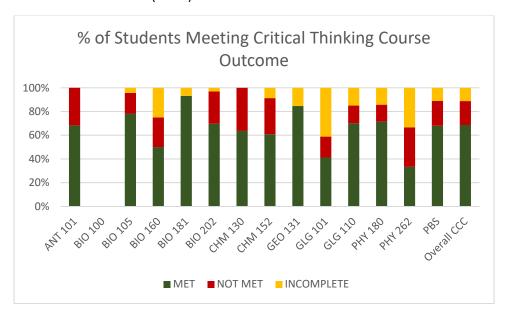
I did start to send out reminders of upcoming assignments, criteria and due dates. I also send out reminders that students could submit late written assignments with points deducted for late submission.

PHY 180 Students who attempted the exercise were quite successful. Since this is an intro course with no pre-reqs there tends to be a large proportion of unfocused students. The best action would be to add some pre-reqs for the course.

SPRING 2018 GENERAL EDUCATION CRITICAL THINKING

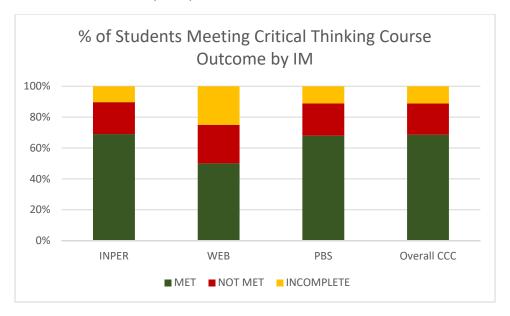
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

PHYSICAL & BIOLOGICAL SCIENCES (P&BS) BY COURSE



| COURSE | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| ANT 101 | 68% | 32% | 0% | 1 | 41 |
| BIO 100 | | | | 1 | 0 |
| BIO 105 | 78% | 17% | 4% | 1 | 23 |
| BIO 160 | 50% | 25% | 25% | 1 | 16 |
| BIO 181 | 93% | 0% | 7% | 2 | 44 |
| BIO 202 | 70% | 27% | 3% | 2 | 33 |
| CHM 130 | 64% | 36% | 0% | 1 | 22 |
| CHM 152 | 61% | 30% | 9% | 1 | 23 |
| GEO 131 | 85% | 0% | 15% | 1 | 13 |
| GLG 101 | 41% | 18% | 41% | 1 | 17 |
| GLG 110 | 70% | 15% | 15% | 1 | 20 |
| PHY 180 | 71% | 14% | 14% | 1 | 14 |
| PHY 262 | 33% | 33% | 33% | 1 | 21 |
| PBS | 68% | 21% | 11% | 15 | 287 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

PHYSICAL & BIOLOGICAL SCIENCES (P&BS) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| INPER | 69% | 21% | 10% | 14 | 271 |
| WEB | 50% | 25% | 25% | 1 | 16 |
| PBS | 68% | 21% | 11% | 15 | 287 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

PHYSICAL & BIOLOGICAL SCIENCES (P&BS) COURSE-LEVEL OUTCOMES MEASURED

ANT 101

Outline the significant physical and behavioral adaptations of hominids through time. [This isn't really a critical thinking outcome, but it was suggested that I use this one until we create outcomes that are better aligned to the Liberal Studies program] BIO 100 Source: Single Gene Inheritance Lab Activity:

BIO 100

Not all alleles produce visible traits such as skin color or height. Most alleles control physiological traits, such as production of digestive enzymes, hormones, and antibodies. Alleles are responsible for invisible traits like blood type, storing blood sugar, color vision, and others. One example of a physiological trait controlled by a single gene is the ability to taste a harmless chemical, PTC (phenylthiocarbamide).

The ability to taste PTC comes from a dominant allele (T). Using this information, fill in

^{*} Acquire a strip of control paper and a strip of PTC paper.

^{*} First taste the control paper (to establish the taste of the paper itself). Then taste the PTC paper. If you're a taster, you'll detect a somewhat unpleasant, bitter taste. If there's little to no difference between the taste of the control paper and the PTC paper, then you're not a taster.

the appropriate genotypes for tasters and nontasters.

Possible genotypes for tasters:

Genotype for non-tasters:

What is the phenotype for a Tt genotype:

What is the phenotype for a tt genotype:

Make a Punnett square for two individuals who want to have children. The mother is heterozygous for the PTC tasting gene and the father is homozygous recessive.

Will add the following questions next semester:

How many students in class are tasters?

How many students in class are non-tasters?

Does the ratio of tasters to non-tasters in this class seem reasonable given that the ability to taste PTC is determined by a dominant allele? Explain why or why not. Given what you've just learned about just one gene that affects taste perception, how does this affect your understanding of what might cause someone to be a "picky taster".

- BIO 105 Course Outcome: 2. Communicate clearly and effectively, orally and in writing at a college level.
- BIO 160

 1. relate the structural organization of the body; 2. discuss homeostasis and homeostatic control mechanisms and what arises when homeostasis is not maintained; 3. analyze specific chemical concepts as they pertain to the body; 4. and describe structure and function of the: integumentary system and body membrane, skeletal system and joints, muscular system, nervous system, endocrine system, cardiovascular system, lymphatic system and immunity, respiratory system, digestive system, urinary system, and reproductive system.
- BIO 181 Describe how humans have manipulated DNA through biotechnology and apply these research findings to agriculture, medicine, cloning and ethics.
- BIO 181 Course Outcome
 - 2. Apply the scientific method to previous research and in their lab gather, assess and interpret information within a theoretical framework
- BIO 202 Recognize in histological section selected tissues from the reproductive, digestive, respiratory and cardiovascular systems
- BIO 202 Demonstrate an understanding of the homeostatic regulation of blood chemistry by citing examples from endocrine, cardiovascular, respiratory and renal physiology.
- CHM 130 1. Develop a working knowledge of scientific methods
 - 2. Develop an understanding of various forms of stoichiometry
 - 3. Utilize basic laboratory techniques
- CHM 152 Course outcomes no#1-6, 7 related to critical thinking are used in this course assessment report.
- GEO 131 5. Apply the theories and concepts of physical geography to local and global issues
- GLG 101 6. Explain basic processes that operate on Earth's surface and sub-surface.
- GLG 110 Outcome for Q63:

Evaluate the underlying processes and human influences that can lead to natural disasters.

Outcome for Q64:

Examine and interpret the integration or relationships between different types of natural disasters.

PHY 180 Successful completion of a lab activity to measure Earth's gravity

PHY 262 In the course outcome "participate in laboratory investigations, utilizing scientific methods and equipment", students were required to, first examine the questions regarding physical phenomena, then think about how the equipment and procedures of the lab were going to bring about an understanding of the phenomena. They were given schematics, but had to think critically about the equipment before them to determine how to perform the experiment, and get valid results, using said equipment. The concept of "valid results" brings about another aspect of critical thinking. Were the results they saw consistent with what they should expect theoretically? What should they expect theoretically? Finally, their analysis and conclusions of what they had done, and the results they obtained depended completely on their ability to critically think about what they had done, and the results their actions had produced.

PHYSICAL & BIOLOGICAL SCIENCES (P&BS) COURSE CHANGES

| ANT 101 BIO 100 | N/A Find ways for students to receive immediate feedback and then revisit the concept in a future class to reinforce understanding. |
|--------------------|---|
| BIO 105 BIO 160 | This assignment worked very well- will use again next semester. N/A |
| BIO 181 | Next semester I will focus only on the ethics portion of the Course Outcome and have students specifically write whether they believe the creation and use of GMOs is ethical. |
| | I think this is important because this semester some students described the ethics of creating and using GMOs but did not state their own personal beliefs support by facts. I believe to gauge their critical thinking students need to clearly state their personal belief and use evidence to support their statement. |
| BIO 181 | When I teach the scientific process and graphing again in Bio 181, I will make sure to give students a practice scenario with feedback during the final week of class prior to the final exam. This spring, despite demonstrating greater than 95 % proficiency, I felt that they left out the statement that they supported or rejected the hypothesis that they developed and did not put their figure captions below the figures because they hadn't had recent practice with the process. |
| BIO 202 | No action is necessary at this point. All 7 students mastered the project and were able to then identify various tissue slides at the time of the exam. Also, this project initiates both left and right brain stimuli to aide in truly learning rather than regurgitating. |
| BIO 202 | I will analyze the following lab exam questions that pertain to this topic and see how they correlate to the results of this worksheet. |
| CHM 130 | This was the first time giving this assignment. A powerpoint was shown to give the students a graphic representation of titration beforehand. Two complete examples of finding the concentration of other acidic solutions were gone over on the whiteboard after the experiment to demonstrate the steps needed to complete the assignment. Students who were having a hard time with the concepts were met with on an individual basis. |

In the future the assignment could be made longer and certain questions could be used as examples, the chance to earn "free points" giving the students more incentive to follow along instead of trusting that they take accurate notes from the whiteboard.

The students performed the experiment in groups of three, and it was obvious that many of them also completed the assignment while working in groups. An in-class quiz on the same subject matter could be given and handed in with the assignment to better evaluate which students have mastered the concept and which students are still having problems.

- CHM 152 Previously we have assessed the critical thinking in my CHM151 classes based on the result of the standardized final exam. The students for this class came back and enrolled in the CHM152 class this semester. We are trying to see whether students have made progress being enrolled in a sequential class of the same subject.
- GEO 131 Students meet or exceeded expectations of assignment, no changes necessary.

 GLG 101 The biggest problem with this assessment is getting the students to turn in the assignment. I have tried it as an extra credit assignment (with a significant number of points) and as a lab assignment (we watch the movie together in class). In the future I may try this as a "write down your answers" assignment instead of a mini-paper...
- GLG 110 I struggle to get students to discuss processes when answering questions like Q63 rather than just surface-level concepts or outcomes. I'm going to continue to work on that in lab activities.

I actually think Q64 may need to be tweaked to help understand what I'm asking a little more clearly, and therefore become a more useful assessment of how well students grasp the relevant concepts.

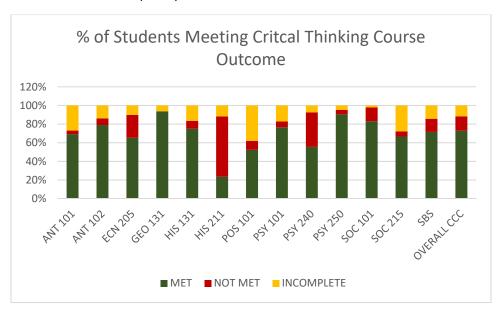
- PHY 180 Those students who participated in the lab activity were successful and so no further adjustment is necessary.
- PHY 262

 It was necessary to assist students with the construction of the circuits examined in the experiments. This should be expected, as it is the first exposure to circuits for many students. It may be better for the students for the instructor to create lab groups for the second experiment, after observing behaviors on the first experiment. Some students understand the material better than others, and they should be dispersed throughout the groups so they can assist their fellow students. All of the students can learn better that way. The students assisting their fellows learn by teaching. The students being assisted learn by hearing the material delivered in a different way. This would not reduce the instructors responsibility. It would still be necessary to keep all students on track, and verify the information being spread.

FALL 2017 GENERAL EDUCATION CRITICAL THINKING

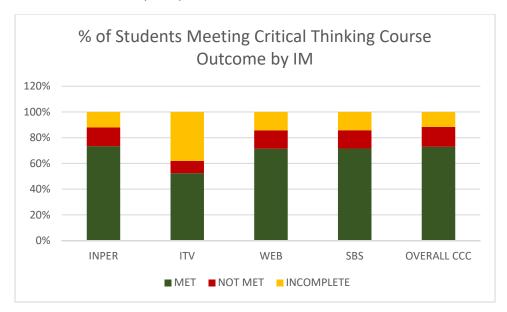
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

SOCIAL & BEHAVIORAL SCIENCES (S&BS) BY COURSE



| COURSE | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| ANT 101 | 69% | 4% | 27% | 1 | 26 |
| ANT 102 | 79% | 7% | 14% | 2 | 57 |
| ECN 205 | 65% | 24% | 10% | 2 | 49 |
| GEO 131 | 94% | 0% | 6% | 1 | 16 |
| HIS 131 | 75% | 8% | 17% | 1 | 24 |
| HIS 211 | 24% | 65% | 12% | 1 | 17 |
| POS 101 | 52% | 10% | 38% | 1 | 21 |
| PSY 101 | 77% | 6% | 17% | 3 | 64 |
| PSY 240 | 56% | 37% | 7% | 1 | 27 |
| PSY 250 | 90% | 5% | 5% | 1 | 21 |
| SOC 101 | 83% | 15% | 2% | 2 | 47 |
| SOC 215 | 67% | 6% | 28% | 1 | 18 |
| SBS | 72% | 14% | 14% | 17 | 387 |
| OVERALL CCC | 73% | 15% | 12% | 68 | 1438 |

SOCIAL & BEHAVIORAL SCIENCES (S&BS) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| INPER | 73% | 15% | 12% | 10 | 233 |
| ITV | 52% | 10% | 38% | 1 | 21 |
| WEB | 71% | 14% | 14% | 6 | 133 |
| SBS | 72% | 14% | 14% | 17 | 387 |
| OVERALL CCC | 73% | 15% | 12% | 68 | 1438 |

SOCIAL & BEHAVIORAL SCIENCES (S&BS) COURSE-LEVEL OUTCOMES MEASURED

ANT 101 There are no course outcomes that specifically cite critical thinking.

ANT 102 Investigate the concept of culture and the diversity between and within communities with an understanding of ethnocentrism, relativism, and reflexivity;

Explore and apply the various theoretical and methodological perspectives used in cultural anthropology, including applied anthropology

Investigate the concept of culture and the diversity between and within communities with an understanding of ethnocentrism, relativism, and reflexivity

ECN 205 examine and explain the structure of the American economic system; Summarize market influences and theories.

GEO 131 5. Apply the theories and concepts of physical geography to local and global issues.

- HIS 131 Explain and analyze the colonial process and the motivation behind the process.
- HIS 211 Course Outcomes: Students will: 1. Develop an awareness of the processes of historical change. 2. Recognize the common characteristics behind civilization's development. 3. Apply inter-disciplinary methods to the study of civilizations. 4. Develop comparative criteria for cross-civilizational analysis from a global perspective 5. Explore cross-cultural interactions as a source of historical change. 6. Demonstrate an ability to critically evaluate and cogently synthesize diverse information. 7. Connect contemporary political, social, religious, and cultural conditions with the past.
- POS 101 Describe and explain the nature of politics and political power:
 - 1. Identifies the problem, question or issue
 - 2. Presents own perspective
 - 3. Employs data and evidence
 - 4. Recognition of perspectives and positions
 - 5. Has conclusion and discussion of implications, consequences and/or significance
 - 6. Effectively Communicates (written)
 - 7. Effectively Communicates (verbally)
- PSY 101 Be able to use Critical Thinking skills to produce a 6 page Empirical paper in APA format. Then be able to present the class in a logical order
 - * Define the vocabulary and concepts used in the field.
 - * Describe the scientific method and the research methodologies used in the field of psychology.
 - * Demonstrate an understanding of the historical and current theoretical frameworks that influence the field of psychology.
 - * Describe the relationship between the brain and behavior.
 - * Discuss the role of nature and nurture and their influences on human behavior.
 - * Discuss biological, behavioral, cognitive, and social development across the lifespan.
 - * Describe the role of psychology in contemporary society and apply relevant concepts and theories to student's own experiences.

Discuss the role of nature and nurture and their influences on human behavior (concerning diet and brain development and function, specifically).

- PSY 240 Recognize and assess the assumptions, implications, and consequences of different theoretical frameworks.
- PSY 250 write a research paper using APA format.
- SOC 101 Recognize the link between culture and society as it relates to values, beliefs, and norms

Demonstrate how social structure is interconnected to social groups, status and roles.

SOC 215 Students will be able to discuss the social construction of race in America

SOCIAL & BEHAVIORAL SCIENCES (S&BS) COURSE CHANGES

ANT 101 A total of 18 students participated in all three activities for this assessment. The highest preseminar score was a 15 with a low score of 5 (Table 1). The average pre-seminar score was 11.5. The highest post-seminar score was a 20 with a low score of 6. The average gain was 2.9. Consequently, the discussion activity resulted in a positive gain in critical thinking skills for this particular activity.

Overall, I was pleased with the gain -- given this was just the second week of the course. I think I could improve these gains by providing better instructions that discuss critical thinking. Since I didn't know that I would be assessing this assignment using the Critical Thinking VALUE rubric, I assessed this activity using different criteria. Now that I know this is a college-wide expectation, I can better communicate the instructions with my students.

ANT 102 This is about what I expect to see at the end of the semester and about the same for my other 2 classes that I looked at this in. Those particular students were also less engaged with the material than others throughout the semester, one student has not been to DR for evaluation but should be (per her grandmother). I will continue reiterate the relationships between each chapter. I won't change the format of the questions as these relationships effect the lives of our students too.

The students have an earlier discussion on the concept of race, for which they watch one of the videos in the assignment. Any student who does not perform well in these discussions or who does not display an understanding of the topics is addressed at that time. The assignment is their final paper and is a culmination of many weeks of learning/discussing the required concepts. The majority of students who complete the paper do not have any issues with the topic.

ECN 205 Focus on actions to describe how to do the assignment better.

No action necessary.

GEO 131 All students that attempted the project demonstrated understanding of the assignment, were able to construct a proposal based upon concepts learned in class, and showed the ability to apply concepts and theory to real world problems.

- HIS 131 No action or adjustment is necessary at this time because present methods are effective.
- HIS 211 No action taken.
- POS 101 Students have to submit four individual critical analyses and two group analyses, as a result by the end of the semester students are able to complete this assignment.

Re-work rubric given to students to make the expectations of what a passing paper looks like. Re-work rubric given to students to help them better understand how to show Critical Thinking in a research paper.

PSY 101 No action was necessary, as the only people who did not meet criteria were the two who did not turn in a paper.

No action was necessary because all students who attempted the assignment understood the connection between malnutrition and brain development and later brain functioning.

- PSY 240 I will likely focus a couple more assignments on critical thinking specifically.
- PSY 250 Some students didn't make changes from the rough draft and had their final papers returned so that appropriate changes could be made. Therefore, I'm considering adding an additional step or checklist for students to complete prior to turning in their final draft to help ensure students have addressed the criteria by which the paper will be graded.
- SOC 101 Course Outcome 3. recognize the link between culture and society as it relates to values, beliefs, and norms;

Sociology requires critical thinking! Throughout the semester, I implore my students to use critical thinking skills not only in the classroom, but in their day to day lives. I urge them to explore their own beliefs about the world, and challenge them to determine WHY they hold these opinions to be true. I encourage them to research all "sides" of a point of view and reflect at all times. I require statements based in factual research to support their own assessments. I remind my students that everyone is entitled to their own points of view, but for those opinions to be considered noteworthy they must be supported by well researched facts. Sociology is about asking "why?" and looking for connections as to why certain phenomenon take place in society.

With that said, I feel that all of my assignments include components of use of critical thinking skills. This assignment is in three parts; Part One deals with the terms Ethnocentrism and Cultural Relativism, Part Two with how Media impacts our society, and Part Three with the rather sensitive topic of Rape Culture. All three parts ask my students to examine these concepts through the use of their critical thinking skills by; defining the terms in their own words, applying these terms to their own examples, and defending their own points of view through the use of statements based on factual research as well as reflecting on how their own experiences impact their opinions. I feel that this is a solid assessment and plan on using it again in future semesters without much change to Part One. I would like to change Parts Two and Three slightly to incorporate more of the recent news coverage of the topic's of

"fake news" in regards to Media, as well as the topic of sexual harassment in regards to Rape Culture. My goal is to teach my students how imperative it is to utilize their critical thinking skills in every aspect of their lives, but especially in our current climate of Media saturation.

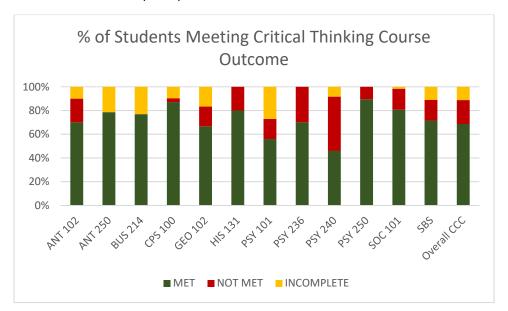
After reviewing student work, I saw that the students who did not meet the criteria had also missed early work/assignments. Since this assignment built on previous work, I will make sure to stress the importance of the earlier work in future courses. Also, the students who did not meet the criteria spent very little time on the assignment. While earlier essay questions were similar, I will be sure to note how much time is expected to prepare for and complete the assignment in the instructions in the future.

SOC 215 I would warn students via email that they will be watching three hours at minimum for this one assignment, it can be overwhelming information.

SPRING 2018 GENERAL EDUCATION CRITICAL THINKING

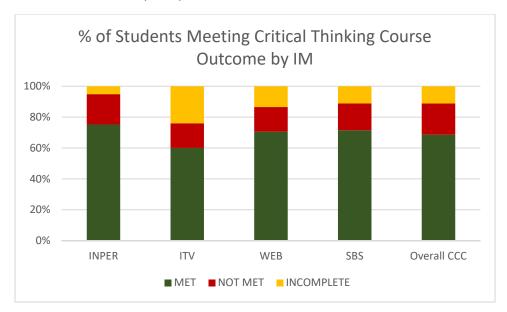
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

SOCIAL & BEHAVIORAL SCIENCES (S&BS) BY COURSE



| COURSE | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| ANT 102 | 70% | 20% | 10% | 1 | 30 |
| ANT 250 | 79% | 0% | 21% | 1 | 14 |
| BUS 214 | 77% | 0% | 23% | 1 | 13 |
| CPS 100 | 87% | 3% | 10% | 1 | 31 |
| GEO 102 | 67% | 17% | 17% | 1 | 18 |
| HIS 131 | 80% | 20% | 0% | 1 | 15 |
| PSY 101 | 56% | 17% | 27% | 3 | 59 |
| PSY 236 | 70% | 30% | 0% | 1 | 20 |
| PSY 240 | 46% | 46% | 8% | 1 | 24 |
| PSY 250 | 89% | 11% | 0% | 1 | 19 |
| SOC 101 | 81% | 18% | 2% | 2 | 62 |
| SBS | 71% | 17% | 11% | 14 | 305 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

SOCIAL & BEHAVIORAL SCIENCES (S&BS) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| INPER | 75% | 20% | 5% | 6 | 117 |
| ITV | 60% | 16% | 24% | 1 | 25 |
| WEB | 71% | 16% | 13% | 7 | 163 |
| SBS | 71% | 17% | 11% | 14 | 305 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

SOCIAL & BEHAVIORAL SCIENCES (S&BS) COURSE-LEVEL OUTCOMES MEASURED

- 5. Investigate the diversity of human expression in the areas of belief systems language, and art
- ANT 250 Demonstrate an understanding of various theoretical and methodological approaches utilized by anthropologists when working with communities worldwide.
- BUS 214 3. Recognize and interpret business law vocabulary.
 - 4. Explain the structure of the American business legal system.
- CPS 100 There are two outcomes this assignment most closely pertains to -
 - * Analyze and discuss historical, geographical, and cultural aspects of the Colorado Plateau.
 - * Examine, discuss and summarize contemporary issues affecting the Colorado Plateau.
- GEO 102 Understand social values and the implications of those values.

HIS 131 Explain the complexity and diversity of American society during this period.

PSY 101 Gather, assess, and interpret information within a theoretical framework

PSY 101 Course Outcome #6: Discuss biological, behavioral, cognitive, and social development across the Lifespan.

Critical Thinking Assignment: To prepare students for doing research, and to satisfy a requirement of the college, there will be a critical thinking assignment, where students will be reading a journal article, and discussing particular questions that will be provided. Based on this article and the questions, students will summarize major theories related to issues and concepts dealing with age-related behaviors and developmental stages that occur during the human life span. There is a rubric that will provide grading information.

PSY 101 The written assignment allows the student to choose one of three course outcomes and requires them to gather, assess, and interpret information. The three course outcome options:

- 1. Demonstrate an understanding of the historical and current theoretical frameworks that influence the field of psychology.
- 2. Describe the relationship between the brain and behavior
- 3. Discuss the role of nature and nurture and their influences on human
- PSY 236 Plan, construct, and present logical, coherent, well-supported arguments with consideration of a target audience.
- PSY 240 Describe the theoretical frameworks used to understand the development of humans from conception until death.

This was an assessment designed specifically to assess critical thinking. It is in the Canvas course and titled "Critical Thinking Quiz.

- PSY 250 write a research paper using APA format
- SOC 101 Outcome 3 recognize the link between culture and society as it relates to values, beliefs, and norms

Linked to Gen. Ed. Critical Thinking skill #1) "Recognize and asses the assumptions, implications, and consequences of various theoretical frameworks".

And

Critical Thinking and writing skills Gen. Ed. #4) by "formulating vital questions and problems in a clear and precise manner."

SOC 101 Demonstrate how social structure is interconnected to social groups, status and roles.

SOCIAL & BEHAVIORAL SCIENCES (S&BS) COURSE CHANGES

CPS 100 The student submissions for this paper were remarkably successful. At this time I wouldn't plan to make any changes to this particular curriculum or assignment **PSY 236** The only action needed to adjust for student learning included attempting to gauge presenter-audience interaction and facilitate discussion when needed. **PSY 101** Review and possibly adjust rubric to be clearer. May adjust discussion of the requirement of the assignment. I have instituted a midsemester peer review of assignment. PSY 101 I continually attempt to help students learn how to read and understand research, as well as understand the various perspectives of how nature and nurture interact during development. I will continue to fine-tune my approach to these desired outcomes. Also, I believe assigning a higher point value for the assignment might encourage more submissions. PSY 101 Adjustments that were made and will continue to be made in the future include encouraging students to use critical thought throughout the semester during class discussion. Reflection papers were also used throughout the semester to help students think about the material in a way that relates it to their own lives outside of the textbook and classroom setting. GEO 102 I believe this assignment went very well and was an eye-opener for most of the class. I had numerous students respond stating they enjoyed the lesson. **PSY 240** The activity was scheduled for the end of the semester. I believe it would work better, enhance critical thinking ability, if a pre-test was scheduled at the beginning of the semester and follow up activities scheduled over the course of the semester. At that point, I believe students would perform much better on this specific critical thinking exercise. **BUS 214** I feel that this particular assignment could be used again without adjustment. I like to have the students read about and think about concepts they read about in the textbook as they apply in their home state. SOC 101 Discussing complicated and nuanced topic's such as ethnocentrism, the influence of the media, and rape culture, encourage critical thinking skills as well as implore the student to reflect on how to "recognize the link between culture and society as it relates to values, beliefs, and norms." (Outcome #3) By requiring the students to not only define, but to actually apply these concepts to real world issues promotes critical thinking as well as contemplation on how to "recognize the link between culture and society as it relates to values, beliefs, and norms." This assignment was updated slightly from Fall of 2017, by including the examples of "fake news" and the #MeToo social movement. These examples were included to help clarify and strengthen the goals of critical thinking and to "recognize the link between culture and society as it relates to values, beliefs, and norms," by inspiring the students to make connections of the concepts to real world applications. This assignment will continue to be updated as new topics come to light in our society that can be used as teaching

tools.

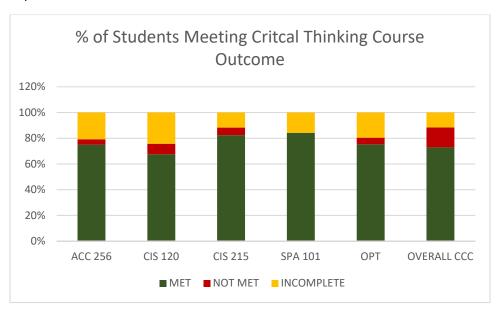
- SOC 101 Last semester I found that students who did not meet the criteria had missed other assignments leading up to this one. So this time I made sure students knew that earlier assignments prepared them for this one and to use those assignments to help them complete this one.
- HIS 131 No such action is necessary, since the essay directs students to take into account several other analytical factors, including geography, topography, and climate. Further elaboration could be distracting and unproductive.
- ANT 102 The assignment was the first of 2 writing assignments that used the same observation site in different ways. The first assignment was the one assessed. After this assignment, students were given very specific feedback on what they needed to successfully complete the next step. This feedback helped 5 additional students pass the second assignment.
- ANT 250 No action is necessary at this time. While one student got stuck defending a particular stance over the broader picture, he demonstrated the ability to understand the two concepts. A couple of others ended up defending the opposite side but they did well arguing it. They all demonstrated critical thinking and engagement, though in varying degrees which seem to be more subjective than taught.
- PSY 250

 I'll continue to emphasize the need to rely on facts to support one's views and to provide such feedback on the rough drafts. However, I might incorporate activities whereby students argue the opposite of their held belief or have them challenge the premise of their own thesis statement. The purpose of such an activity would be to illustrate that there are differing views on social issues to help avoid sweeping statements and the confirmation bias. I'd rather have students challenge themselves because when others challenge their views they might adhere to these beliefs even more strongly.

FALL 2017 GENERAL EDUCATION CRITICAL THINKING

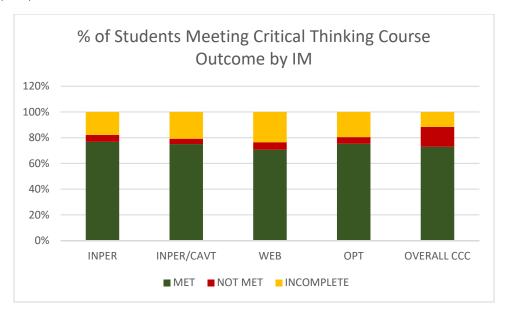
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

OPTIONS (OPT) BY COURSE



| COURSE | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| ACC 256 | 75% | 4% | 21% | 1 | 24 |
| CIS 120 | 68% | 8% | 24% | 2 | 37 |
| CIS 215 | 82% | 6% | 12% | 1 | 17 |
| SPA 101 | 84% | 0% | 16% | 1 | 19 |
| ОРТ | 75% | 5% | 20% | 5 | 97 |
| OVERALL CCC | 73% | 15% | 12% | 68 | 1438 |

OPTIONS (OPT) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|-----|---------|------------|----------|-------------|
| INPER | 77% | 5% | 18% | 3 | 56 |
| INPER/CAVT | 75% | 4% | 21% | 1 | 24 |
| WEB | 71% | 6% | 24% | 1 | 17 |
| ОРТ | 75% | 5% | 20% | 5 | 97 |
| OVERALL CCC | 73% | 15% | 12% | 68 | 1438 |

OPTIONS (OPT) COURSE-LEVEL OUTCOMES MEASURED

- ACC 256 Demonstrate problem solving techniques through accounting problem analysis.
- CIS 120 7. Identify issues related to security, ethics, and privacy when using a computer.
- CIS 120 Course Outcome: #7 Identify issues related to security, ethics, and privacy when using a computer.
- CIS 215 Generate functioning code using fundamental structured programming concepts
- SPA 101 Students will derive meaning from written material where context and/or extralinguistic background knowledge are supportive.

OPTIONS (OPT) COURSE CHANGES

- ACC 256 No action necessary. The majority of students understood how to apply the ratio. The one student who received a 50%, did not answer the question fully, and in fact, did not read the directions carefully in completing the problem.
- CIS 120 For this specific question, no action is required at this time. We would like to see if future courses show similar results for the question.
- CIS 120 For this specific question, no action is required at this time. I would like to see if future courses show similar results for this question.
- CIS 215 The project was to combine five program modules together. A main module determines when and how to invoke the other modules.

Two of the four subordinate modules were already done as previous homework assignments. The other two had to be created new for this project.

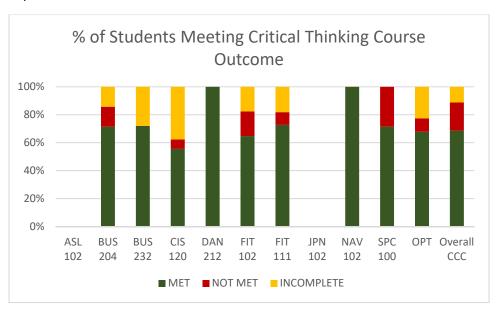
When I do this again, I will assign all four subordinate modules from previously completed homework. The objective of this was how to put the single programs into a larger combined program. The "how to" and methods to do this are what requires the critical thinking.

SPA 101 After hearing the responses and examples from the various small groups, we came to a conclusion that many times the meaning of a word can be derived from contextual cues found within the written text or spoken language. Students had to deduce the meaning on their own first to arrive at this realization.

SPRING 2018 GENERAL EDUCATION CRITICAL THINKING

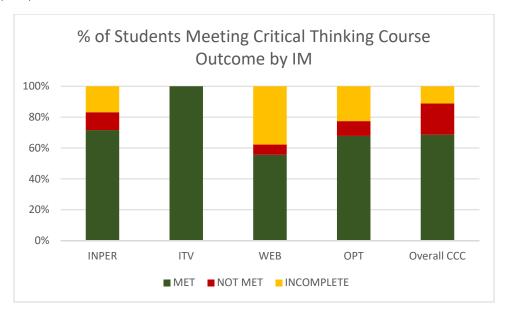
Program-Level Outcome: Using a variety of inquiry methods, resources, and reasoning skills that support and promote lifelong learning.

OPTIONS (OPT) BY COURSE



| COURSE | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|------|---------|------------|----------|-------------|
| ASL 102 | | | | 1 | 0 |
| BUS 204 | 71% | 14% | 14% | 2 | 14 |
| BUS 232 | 72% | 0% | 28% | 1 | 25 |
| CIS 120 | 56% | 7% | 38% | 2 | 45 |
| DAN 212 | 100% | 0% | 0% | 1 | 3 |
| FIT 102 | 65% | 18% | 18% | 1 | 17 |
| FIT 111 | 73% | 9% | 18% | 1 | 22 |
| JPN 102 | | | | 1 | 0 |
| NAV 102 | 100% | 0% | 0% | 1 | 6 |
| SPC 100 | 71% | 29% | 0% | 1 | 14 |
| OPT | 68% | 10% | 23% | 12 | 146 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

OPTIONS (OPT) BY INSTRUCTIONAL METHOD



| IM | MET | NOT MET | INCOMPLETE | CRSE N = | STUDENT N = |
|-------------|------|---------|------------|----------|-------------|
| INPER | 72% | 12% | 17% | 8 | 95 |
| ITV | 100% | 0% | 0% | 1 | 6 |
| WEB | 56% | 7% | 38% | 3 | 45 |
| ОРТ | 68% | 10% | 23% | 12 | 146 |
| Overall CCC | 69% | 20% | 11% | 92 | 1783 |

OPTIONS (OPT) COURSE-LEVEL OUTCOMES MEASURED

| Δςι | 102 | Not | SHIP |
|-----|-----|-----|------|

* Write effective memos, business letters, resumes, and reports, clearly, concisely, and correctly.

* Research, summarize, and document information, producing a written report, and presentations.

BUS 204 The ability to compose, revise and develop professional skills in business communication.

BUS 232 1. use statistical methods to collect, organize, analyze and interpret numerical data;

7. estimate population parameters;

9. interpret confidence intervals;

10. test hypotheses;

CIS 120 Question # 5

Course Outcome: #7 Identify issues related to security, ethics, and privacy when using a computer.

CIS 120 Outcome: Describe current and future uses of and careers in computers.

DAN 212 Increased knowledge of ballet terminology

FIT 102 Upon successful completion of the course students will:

Utilize the terminology of the Basic Pilates Technique

Demonstrate the correct form when executing the exercise

Execute proper breathing during the exercise

Improve posture, strength and balance

Assessment will include participation and attendance records

FIT 111 Upon successful completion of this course, student will:

1. demonstrate increased flexibility, improved coordination and balance

JPN 102 As I understand it, the College is currently working on the inclusion of the Japanese map. I filled out and handed in a hard copy last year, but I did not retain a copy of it for myself.

In Japanese 101, 102, and 201 I have used a variety of methods and resources to instruct students at each level in order to promote lifelong learning and prepare students for their future goals which may have a connection with the language. Furthermore, many of the CCC students are preparing to transfer to NAU; therefore, for the sake of consistency, the courses correspond to the NAU courses. The same textbook is used. Thus, similar listening and comprehension skills are practiced to ensure communication skills are learned. Speaking and writing all three syllabaries are essential in the learning process of "critical thinking".

NAV 102

Use appropriate technology for communication and information gathering Demonstrate listening and comprehension skills for effective communications Communicate clearly and effectively, orally and in writing, at a college-level Plan, construct, and present logical, coherent, well-supported arguments with consideration of target audience

SPC 100 Final Project

intended to persuade the class to your viewpoint

You many choose any topic.

- * 10 minutes long.
- * Points will be deducted for too short or too long. (10-second leeway granted either direction)
- * Persuade us to do or think something (your Call to Action (CTA))
- * Begin strong. "Today, I am going to talk to you about ..." or "OK, so..." are weak

ways to begin a presentation.

- * Clearly, state your thesis and three supporting points in your introduction
- * Provide at least three points to support your thesis (why should we think or do what you want us to)
- * Each point must have at least one credible source supporting that point. (Wikipedia is not considered credible in academia.)
- * This is the "why should we believe you" support.
- * Provide a credible and compelling argument. (Not just your opinion.)
- * Restate your thesis and three points in your conclusion
- * End with a strong statement. ("So, yeah, that's it." is not a strong statement.)
- * Must have presentation aid / visual aid (suggestions below)
- * PowerPoint slides
- * Flip Chart
- * Live demo
- * Others -- clear with me the week prior

Your audience is the actual class. Base your presentation on the class size, age range, and interest levels.

Grading

- * You will be graded by myself and your peers.
- * I will take peer comments into account combined with my appraisal of your presentation.
- * Your grade will encompass length, your presence, did you appear prepared, and if the audience felt swayed by your talk, along with other criteria. Please see the grading forms below for details.
- * It is not required to actually change the audience's mind; just that you have provided enough well-reasoned information to make the audience think seriously about your viewpoint.
- * The class may provide immediate feedback as well as completion of Peer Review sheets.
- * Two Grading Forms
- * [Peer Grading Form
- * [Instructor Grading Form

OPTIONS (OPT) COURSE CHANGES

ASL 102 Na BUS 204 n/a

BUS 204 This assignment was recently revised and provided better responses from students.

- BUS 232 The results were very positive so not action is necessary. Always thinking of better ways to help students succeed though. Will incorporate more inquiry based learning into my course in the fall.
- CIS 120 For this specific question, no action is required at this time. I would like to see if future courses show similar results for this question.
- CIS 120 This assignment was completed in week 15 when multiple other assignments were being completed. Those that did complete the assignment seemed to grasp the concepts covered throughout the semester. A large % of students did not complete the assignment. I am unsure how to encourage students not to bypass the assignment.
 - *No action is necessary to adjust student learning. I will re-analyze this again in future semesters.
- DAN 212 The vocabulary and Ballet terminology would be reinforced and demonstrated on a as needed basis.
- FIT 102 I develope a continuing dialogue with students. During the semester they are allowed three excused absences which must be emailed to me directly. Any Disability Wavers are honored.

All students must exercise to the best of their ability.

Generally, They look forward to doing so during the academic day. Many say that they look forward to the class and enjoy our time together. I try to make it challenging and fun.

- FIT 111 I have realized that I need to employ more formal assessment methods for this course and plan to implement the following tools next semester:
 - * detailed checklist for each student to assess physical progress at beginning and end of semester.
 - * Test on yoga history and philosophy as more significant part of grade.
 - * Individual observation days for assessment.
- JPN 102 Students need to study every day, as stated in the syllabus. Student-run study groups, in which they are given 10 points, allows them to gather more often and learn from each other.

I would highly recommend a Japanese tutor for each level of Japanese. I already spoke to Mitch about this possibility and hope that students sign up to be tutors in the Fall. I have two students in mind, if they are available.

I need to improve my technological side of the class. Last year I used more technology, but I felt that it was too time consuming. The end of 102 always seems too rushed. I need to figure out a way to make it less stressful for all of us.

| NAV 102 | This is the first time teaching this section. If taught again there will be more reliance on the rehearsals due to the heavy learning environment it presents. |
|---------|--|
| SPC 100 | No adjustments to the assignment. Students were aware of the requirement and some chose not to follow the assignment requirements. |

PROGRAM-LEVEL ASSESSMENT REPORTING

2017-2018 Program Review Update

Originally five programs were supposed to submit program review documents in Spring 2016: Math, English, Anthropology, Geology, and Information Technology Services (ITS). These program review documents were reviewed by the appropriate dean or reporting supervisor before being reviewed by the Assessment Committee which divided into smaller groups in order to have two or three people review each program review document with the "Program Review Checklist." These checklists and any comments on the program review document were provided back to the originating program and the appropriate dean or supervisor. The programs were then given time to make revisions, if desired, based on the feedback. A final copy from the program was submitted to the Provost for review. Only four submitted their final reports as Geology was incorporated into the Physical & Biological Sciences program review that began Fall 2017. The Provost then submitted the program review documents to the Executive Council for evaluation. These program reviews have been posted to the external Assessment website.

Four academic programs wrote their program review documents during the 2017-2018 year. They are Fine Arts, Nursing, Physical & Biological Sciences, and Social & Behavioral Sciences. Hotel & Restaurant Management was supposed to have written a program review, but there are no full-time faculty in that area to take the lead. The CTE Dean and the Assessment Coordinator plan to write the program review during 2018-2019 year to have it reviewed by the part-time faculty in the area.

The Fine Arts program review document was completed by the beginning of the spring semester. The Physical & Biological Sciences and Social & Behavioral Sciences program actively worked on their document throughout the spring and submitted them for review in the fall.

Two non-academic programs wrote their program review documents this year. They are the Business Office, which encompasses the Finance Department and the Purchasing Department, and the Student Development's Advising Department.

Both of the non-academic program reviews wrote their documents without any input from the Assessment Coordinator. Each program was given the ITS 2016-2017 program review document as an example. Both programs have requested having until June 30, 2018 to submit their reports.

Changes to the original Program Review timeline

There have been a few adjustments made to the original program review process timeline. Originally, the Assessment Committee had thought to implement a yearly assessment check-in beginning in the year following the program review document being written. After experiencing exactly how long the review process for the program reviews actually is, the Assessment Committee decided that bi-annual reviews would work better and allow for a year of gathering assessment data and an evaluation period to make changes.

Current Opportunities for Improvement

Overview

- Create a Program Review Best Practices document.
- Determine the best way to review course syllabi to determine if they are current, all faculty have upgraded to the model syllabi.

Program Review Documents

- Add an overview of the process to the Academic Program Review Outline. (COMPLETED)
- Include the checklist criteria under the appropriate headings on the Academic Program Review Outline. (COMPLETED)
- Include only one syllabus per course to be provided as an example on the Academic Program Review.
- Define where the data provided in the Program Review Data Meeting should be provided.
 (Consider adding to Best Practices document)
- Have definitions of the initials of SWOT on the Non-Academic Program Review Outline.
 (COMPLETED)
- Add an Action Plan and Budget Request sheet to both program review documents.

Program Review Data

- Define which instructors are dual enrollment and separate them into their own heading on the credentialing information,
- Include graphs along with the course success tables. (COMPLETED The decision was to conditional format these charts of ease of use and understanding)

Program Review Checklist

- Consider including a brief summary of the program as criteria under the "Narrative."
- Consider adding a section about staffing needs with associated timelines, and needs data that could be provided by the Assessment Coordinator under the "Analysis and Recommendations" area.
- Create a Non-Academic Program Review Checklist. (COMPLETED)

Program Review Evaluation Process

 At the Provost stage for evaluation, there may need to be a form or a formalized meeting to provide Provost feedback for the program.

ATTACHMENTS:

Meeting Minutes from Executive Council

Executive Council Notes – February 2, 2018

Title IX - Colleen

- Everything from the employee angle, Dietrich handles. Veronica handles student issues.
- Dietrich is the official Title IX officer.
- Will list Dietrich as employee focused on Title IX website, Veronica as student focused. Will also
 include a statement that anyone can help. Will add a link to the REACH program to the website
 as well.
- All Title IX complaints should come to Security, Security notifies Jami and Dietrich immediately, and will notify Veronica if the incident involves a student.

Program Reviews – Dudley

- Have developed a five-year cycle and have created documentation to know when Program Review will be completed.
- Dudley reviewed a presentation on the results of the English Program Review and gave out handouts summarizing the other programs that were reviewed last year.
- Suggested that Dudley share a report similar to this for the next board meeting.
- Suggested creating an assessment website or page on the intranet to allow everyone to know when their program is scheduled for review.

Outside Access - Colleen

• If someone needs outside access to the College, they will need approval from a Vice President (Provost, Executive Vice President, Chief Innovation Officer/Vice President) or the President.

Legislative Update - Colleen

Colleen updated everyone on the College related activities at the Legislature this week.

Standard Email Signature – Ali

- Working to get consistency on logos and overall look of the College PR materials.
- Presented the group with two options for a standardized signature. The group preferred option 1.
- Ali is willing to work with groups that have special logos to find the best way to incorporate those.

Dual Enrollment Expansion – Gonzalo

- Dual Enrollment numbers are increasing greatly and enrollment has increased by about 25% over the past year.
- The program is looking for more assistance because they are predicting that numbers will continue to increase. Also considering a summer bridge program to help students be better prepared for college level courses and also increase dual enrollment numbers.

Project Updates - Colleen

• Everyone gave updates on the projects they are working on this semester.

DEGREE/CERTIFICATE ASSESSMENT PLANS

Degree/Certificate Assessment Plans

Over the summer of 2017, the Assessment Coordinator and the various programs of the Career and Technical Education (CTE) Division met and reviewed their program outcomes and worked to identify key courses and assessment tools to collect program-level assessment data. The result of this work will be collected and reported this year.

The CTE programs will be working to establish baseline assessment for all of their program outcomes. The goal is to identify program outcomes that may need to be focused on and addressed. This baseline should help in establishing a program-level assessment plan moving forward.

Each program area reported on the assessment tool identified from the course selected by the end of Spring 2018.

The Assessment Coordinator has been working with the CTE programs throughout the year and has collected some data from Pre-Health, Nursing, Fire Science, Paramedic Studies, and Construction Technology Management already.

The following is a list of the program areas within the CTE Division and the selected course and reporting assessment tool from which baseline data will be established.

Allied Health

Medical Office Management (AAS & CERT)

- AHS 149 Skills Checklist
- AHS 289 Employer Evaluation

Phlebotomy (CERT)

- AHS 160 Comprehensive Exam
- AHS 161 Skills Checklist

UPDATE: Allied Health has not submitted any program-level assessment data as of September 2018.

Administration of Justice

AA & AAS

AJS 280 Essay & Presentation

Forensic (CERT)

AJS 250 Mock Trial

UPDATE: AJS did not offer AJS 250 during the 2017-2018 year and therefore did not collect any assessment data. In AJS 280, the essays were determined not to be of significant value for program-level assessment purposes. Instead, a comprehensive final exam from AJS 280 was used to collect program-level assessment information. This information will be shared with the faculty during the fall semester for evaluation.

Business

AA & A-Bus -

- ACC 256 Comprehensive Exam, Memo and Case Scenarios
- ECN 204 Quiz

AAS -

- ACC 206 TBD
- BUS 213 Business Plan

CERT -

ACC 206 TBD

UPDATE: As of September 2018, only ECN 204 had submitted any program-level assessment data.

Computer Information Systems

Computer Software Technology (AAS – Graphics & Web Design Track and Graphics & Web Design CERT)

• CIS 117 Quiz, Project, and Capstone Project

Computer Software Technology (AAS – PC Technician Track & Computer Technician CERT)

CIS 230 (TBD)

UPDATE: In CIS 117, it was determined to use the project only to collect program-level assessment. This information will be shared with the faculty during the fall semester for evaluation.

Construction Technology Management

Construction Technology (AA) -

• CTM 224 Comprehensive Exam and Practicum

Construction Technology (AAS) -

CTM 124 Comprehensive Exam and CTM 288 Exam and Practicum (SPRING)

Construction Technology (CERT) -

• CTM 124 Comprehensive Exam (SPRING)

Environmental Technology (AAS) -

- CTM 235 Comprehensive Exam and Design Project (SPRING)
- CTM 250 Comprehensive Exam and Design Project

Sustainable Green Building (AAS) -

CTM 260 Comprehensive Exam, Design Project and Practicum (SPRING)

Paramedic Studies

• EMS 131 Comprehensive Exam and Skills Checklist

UPDATE: Data was collected in three sections of the course and combined with data from the National Registry of Emergency Medical Technicians based on past year data and Coconino Community College's results over the last five years. This information will be shared with the faculty during the fall semester for evaluation.

Fire Science

AAS

• FSC 239 Comprehensive Written Exam

CERT-Int

FSC 180 Comprehensive Written Exam & Skills Practicum

CERT - Adv

• FSC 239 Comprehensive Written Exam

UPDATE: Data was collected, and this information will be shared with the faculty during the fall semester for evaluation.

Hotel & Restaurant Management

<u>AA</u>

- HRM 240 Final Dinner
- HRM 270 Spreadsheet and quiz

<u>AAS</u>

- HRM 210 Spreadsheet and quiz
- HRM 240 Final Dinner

UPDATE: As of September 2018, HRM has not submitted any program-level assessment data.

Nursing

Nursing (AAS)

• NUR 220 ATI Comprehensive Predictor and Skills Checklist

• NUR 222 ATI Comprehensive Predictor and Skills Checklist

UPDATE: Data was collected, and this information will be shared with the faculty during the fall semester for evaluation.

Pre-Health Careers

AAS & CERT -

• NUR 111 Practicum and Comprehensive Exam

UPDATE: Data was collected, and this information will be shared with the faculty during the fall semester for evaluation.

GENERAL EDUCATION ASSESSMENT

Spring 2018 Critical Thinking Program Learning Outcomes Assessment

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,
- 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 programlevel 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:

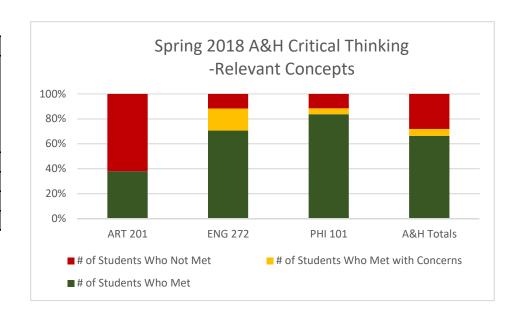
The student will:

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

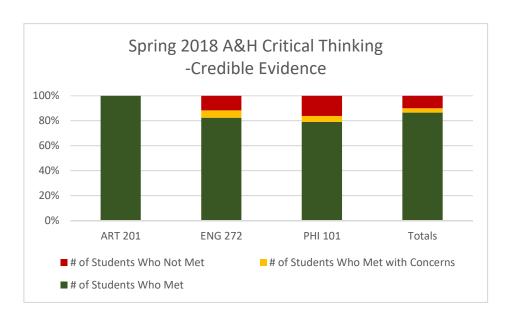
| The S&BS program created a two tier rubric to be used for shared assessing. ECN 205, ANT 250, PSY 250 and SOC 210. | This rubric will be used in |
|--|-----------------------------|
| | |
| | |
| | |
| | |

Spring 2018 Arts & Humanities Critical Thinking Assessment

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

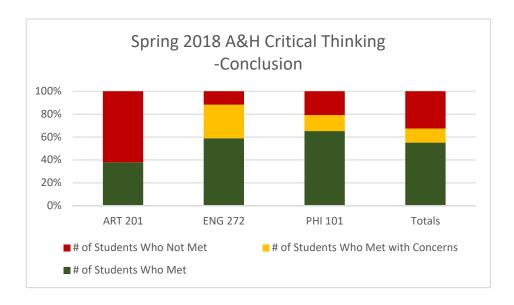


| | Credible Evidence | | | | | |
|---------|-------------------|---------------------|----------|----------|--|--|
| | # of | # of # of # of # of | | | | |
| | Sections | Students | Students | Students | | |
| | Reporting | Who Met | Who Met | Who Not | | |
| | | | with | Met | | |
| | | | Concerns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



Spring 2018 Arts & Humanities Critical Thinking Assessment

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

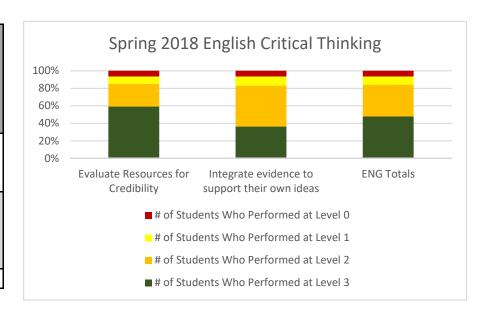


Relevant Concepts: The student exhibits an understanding of relevant concepts. **Credible Evidence:** The student integrates credible evidence into their analysis. **Conclusions:** The student derives a well-reasoned conclusion from their analysis.

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

Spring 2018 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 |



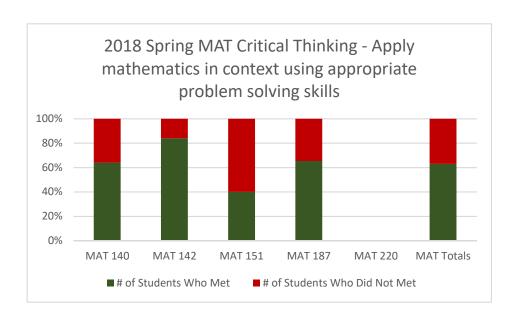
Evaluate Resources for Credibility - Levels

- 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

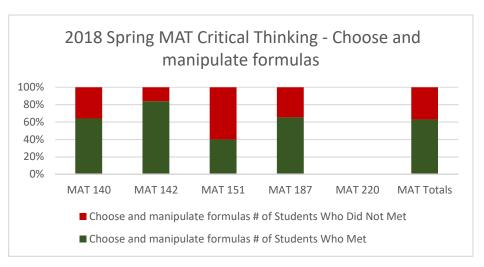
Integrate evidence to support their own ideas - Levels

- 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

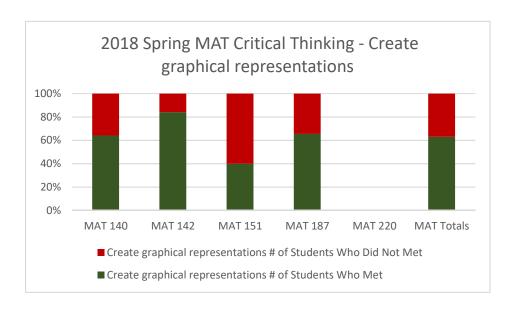
| | Apply mathematics in context using | | | |
|------------|------------------------------------|-------------------|---------------|--|
| | appro | priate problem so | lving skills | |
| | # of | # of Students | # of Students | |
| | Sections | Who Met | Who Did Not | |
| | Reporting | | Met | |
| 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 | |



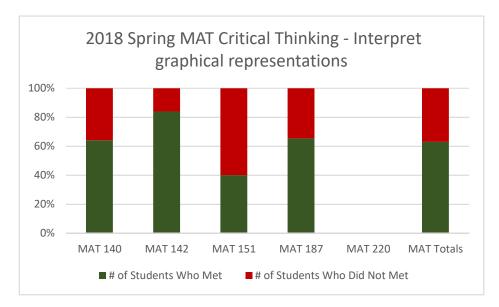
| | Choose and manipulate formulas | | | | | |
|------------|--------------------------------|----------------------------------|-------------|--|--|--|
| | # of | # of # of Students # of Students | | | | |
| | Sections | Who Met | Who Did Not | | | |
| | Reporting | | Met | | | |
| MAT 140 | 5 | 57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



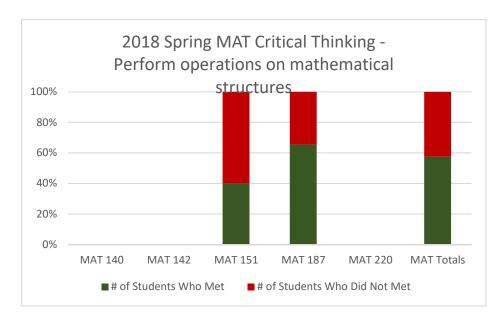
| | Create graphical representations | | | | | |
|------------|----------------------------------|---------------------------------|-------------|--|--|--|
| | # of | # of # of Students # of Student | | | | |
| | Sections | Who Met | Who Did Not | | | |
| | Reporting | | Met | | | |
| MAT 140 | 5 | 57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



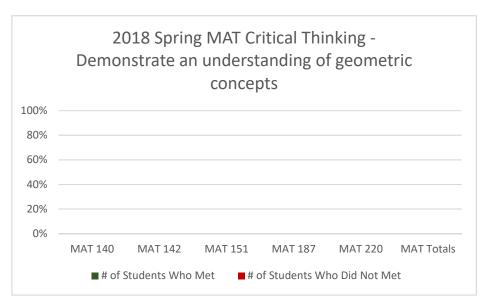
| | Interpret graphical representations | | | |
|------------|-------------------------------------|---------------|---------------|--|
| | # of | # of Students | # of Students | |
| | Sections | Who Met | Who Did Not | |
| | Reporting | | Met | |
| MAT 140 | 5 | 57 | 32 | |
| MAT 142 | 2 | 21 | 4 |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



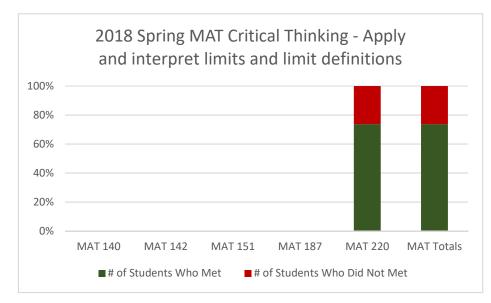
| | Perform operations on mathematical structures, which may include real, complex, matrix, function space | | | | |
|------------|--|---------------|---------------|--|--|
| | # of | # of Students | # of Students | | |
| | Sections Who Met Who Did Not | | | | |
| | Reporting Met | | | | |
| MAT 140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



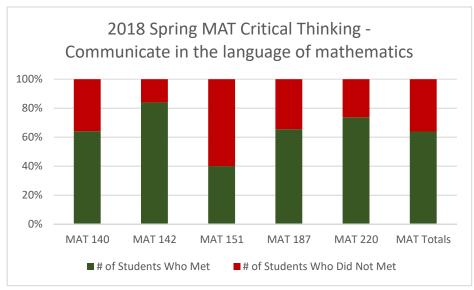
| | Demonstrate an understanding of geometric | | | | | |
|------------|---|----------------------------------|-------------|--|--|--|
| | | concepts | | | | |
| | # of | # of # of Students # of Students | | | | |
| | Sections | Who Met | Who Did Not | | | |
| | Reporting | | Met | | | |
| MAT 140 | | | | | | |
| MAT 142 | | | | | | |
| MAT 151 | | | | | | |
| MAT 187 | | | | | | |
| MAT 220 | | | | | | |
| MAT Totals | 0 | 0 | 0 | | | |



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



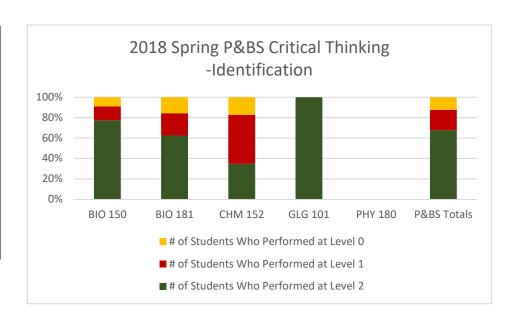
| | Communicate in the language of mathematics | | | |
|------------|--|---------------|---------------|--|
| | | | | |
| | # of | # of Students | # of Students | |
| | Sections | Who Met | Who Did Not | |
| | Reporting | | Met | |
| MAT 140 | 5 | 57 | 32 | |
| MAT 142 | 2 | 21 | 4 | |
| MAT 151 | 2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



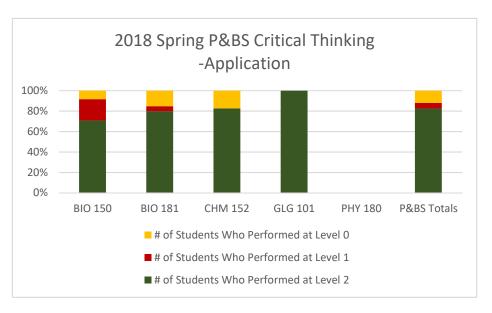
^{*5} out of 21 selected Mathematics sections did not report any assessment data.

Spring 2018 Physical & Biological Sciences Critical Thinking Assessment

| | Identification | | | |
|-------------|----------------|------------|------------|------------|
| | # of | # of | # of | # of |
| | Sections | Students | Students | Students |
| | | Who | Who | Who |
| | | Performed | Performed | Performed |
| | | at Level 2 | at Level 1 | 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 |

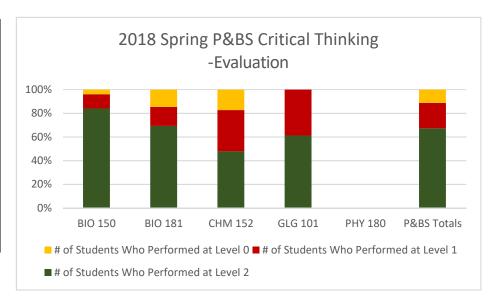


| | Application | | | |
|-------------|-------------|---------------------|------------|------------|
| | # of | # of # of # of # of | | |
| | Sections | Students | Students | Students |
| | | Who | Who | Who |
| | | Performed | Performed | Performed |
| | | at Level 2 | at Level 1 | at Level 0 |
| BIO 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 2018 Physical & Biological Sciences Critical Thinking Assessment

| | Evaluation | | | |
|-------------|------------|------------|------------|------------|
| | # of | # of | # of | # of |
| | Sections | Students | Students | Students |
| | | Who | Who | Who |
| | | Performed | Performed | Performed |
| | | at Level 2 | at Level 1 | 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 |



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

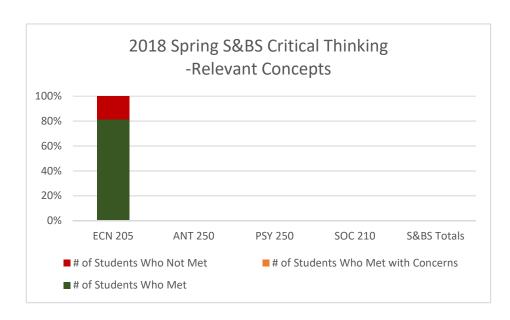
Level 1 - Completed the assessment - didn't demonstrate critical thinking

Level 0 - Did not complete the assessment

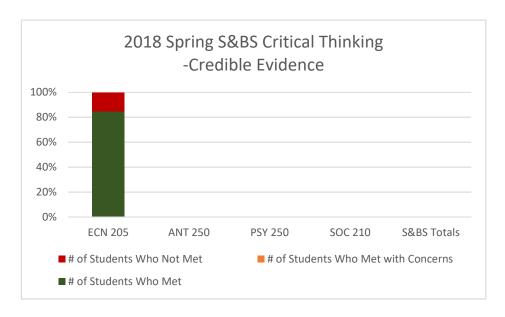
^{*2} out of 13 selected Physical & Biological Sciences sections did not report any assessment data.

Spring 2018 Social & Behavioral Sciences Critical Thinking Assessment

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

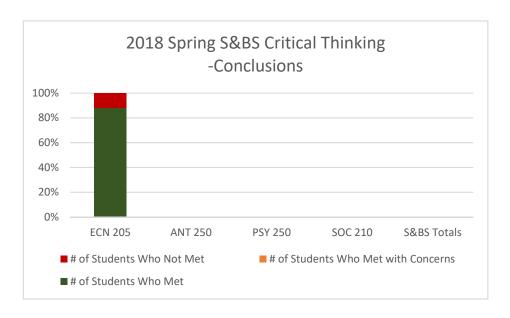


| | Credible Evidence | | | |
|-------------|-------------------|----------|----------|----------|
| | # of Sections | # of | # of | # of |
| | Reporting | Students | Students | Students |
| | | Who Met | Who Met | Who Not |
| | | | with | Met |
| | | | Concerns | |
| ECN 205 | 3 | 50 | | 9 |
| ANT 250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



Spring 2018 Social & Behavioral Sciences Critical Thinking Assessment

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



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.

CO-CURRICULAR ASSESSMENT

Co-Curricular Assessment

In the academic year of 2017-2018, the Student Life Coordinator and the Assessment Coordinator began to work together to gather assessment data for some of the events that the Student Development department host throughout the year. In the fall, there were two events where qualitative assessment data was gathered.

On 09/18/17, we held Constitution Day. The event featured a display of the Constitution with a playact of its signing. There was an intense knowledge building session followed by a Jeopardy game testing the students' knowledge retention.

This event addressed the two General Education outcomes of Diversity & Global Awareness and Ethical & Civil Values. The qualitative assessment consisted of two questions:

- 1. What is something new you learned about the Constitution?
- 2. How could we improve this event for next year?

There were 14 responses received.

Common responses to Question #1 were:

- George Washington was the first to sign the Constitution.
- There are 27 amendments.
- Rhode Island was the last state to sign the Constitution.
- Thomas Jefferson was not there.
- The 18th amendment was repealed.

On 11/16/17, there was a Native American Heritage Celebration. The event had Native American information tables, a frybread and taco sale, a Hopi Dance Performance, two speakers who were Ms. Southwestern Navajo Jaden Williams and Alvina Begay, and a Hoop Dance lead by Moontee Sinquah.

This event addressed the two General Education outcomes of Ethical & Civil Values and Diversity & Global Awareness. The qualitative assessment consisted of three questions:

- 1. List one to three new facts about Native American heritage that you learned from and of the presenters.
- 2. Write a brief sentence on your understanding of the performances by Moontee Singuah.
- 3. How would you rate this event in terms of adding to your appreciation of the Native American heritage and culture?

There were eight responses received.

Common responses to Question #1 were:

- Flutes and drums are common all over the world.
- The Hopi Butterfly Dance is for all living things, performed with unwed girls.
- Language is vital to keeping the culture alive. Only 15% of the younger generations can speak their native language.

• The war dances were outlawed in the late 1800-1900s.

Common responses to Question #2 were:

- Using your imagination to see all of creation through the dance.
- The Hoop Dance is for prayers and gives new life every time the hoop passes over him.

The average response to Question #3 was "10" representing that all responders felt the event added to their appreciation of the Native American heritage and culture.

On 02/21/18, there was a Black History Month Celebration. The event had a theme of "Honoring the Past and Inspiring the Future" which focused on unity and inclusion. Speakers included several current CCC students and Dr. Frederick W. Gooding Jr., a singing performance by a CCC student, and a keynote speech by Flagstaff's mayor, Coral Evans.

This event addressed the two General Education outcomes of Ethical & Civil Values and Diversity & Global Awareness. The qualitative assessment consisted of three questions:

- 1. List one to three "fact" or "fictions" that were new to you from Dr. Federick W. Gooding Jr.'s talk.
- 2. Describe an "expression" that stands out to you from the poetry readings. Explain why it resonates with you.
- 3. How would you rate this event in terms of adding to your appreciation of Black history and culture?

There were twenty responses received.

Common responses to Question #1 were:

- 13th Amendment
- "3/5" in the Constitution
- White privilege
- The ignorance of racism
- The history and evolution of slavery
- White women benefited from anti-workplace discrimination

Common responses to Question #2 were:

- Passion without anger
- #metoo movement
- Not being accepted as you are until another person exploits it
- More awareness of oppression
- Hip-hop/rap passion and craft

The average response to Question #3 was "9.5" representing that all responders felt the event added to their appreciation of the Black history and culture.

On 03/12/18, CCC hosted an ED Talk on "Stories of the Diné." Derik Yellowhair shared stories from the Diné. The audience members were exposed to traditional stories that can be applied to everyday life.

This event addressed the General Education outcome of Diversity & Global Awareness. The qualitative assessment consisted of two questions:

- 1. What new perspective based on the stories about any of the talking points (leadership, conflict resolution, happiness and growth) can you apply to your own life moving forward?
- 2. Please provide any feedback/comments for the presenter on the event.

There were eighteen responses received.

Common responses to Question #1 were:

- Conflicts lead to destruction. We have to find a better way to live together.
- The four elements sustain life. Balance is needed.
- Share knowledge that could be helpful to others.
- When stressed or anxious, center with the light in the blackness.
- Try your best to be positive and a good person.
- You are unique and precious in all of the world. Choose to do something good with your unique life.
- An excellent reminder of the stories.
- The connection to the Hogan.

Common responses to Question #2 were:

- The presentation was good, but could have been longer.
- Future session on Diné would be appreciated.
- Like the present day examples in the stories.

On 03/27/18, there was a Woman's History Month celebration, where CCC hosted the presentation called "The Hopi Harvey Project: When I worked for Fred Harvey." The presentation focused on the hidden legacy of Hopi workers and their contributions to the Fred Harvey Company in the Southwest. The presentation covered extraordinary details of Hopi people who left the reservation seeking work with the Fred Harvey houses from 1930-65.

This event addressed the two General Education outcomes of Ethical & Civil Values and Diversity & Global Awareness. The quantitative assessment consisted of a pre- and post-assessment of the participants awareness of the following items:

- 1. The Hopi Harvey Project
- 2. The Hopi Reservation
- 3. Fred Harvey
- 4. Harvey Houses
- 5. Railroad impacts on the Southwest Native Americans
- 6. Laguna Boxcar Company

There were twenty-seven responses received.

The overall results were:

| | PRIOR TO EVENT | AFTER THE EVENT |
|----------------------------|----------------------------------|-----------------------------------|
| The Hopi Harvey Project | 16 - had no knowledge, | 1 - had no knowledge, |
| | 11 - had some level of knowledge | 26 - increased level of knowledge |
| The Hopi Reservation | 4 - had no knowledge, | 1 - had no knowledge, |
| | 23 - had some level of knowledge | 26 - increased level of knowledge |
| Fred Harvey | 6 - had no knowledge, | 1 - had no knowledge, |
| | 21 - had some level of knowledge | 26 - increased level of knowledge |
| Harvey Houses | 8 - had no knowledge, | 2 - had no knowledge, |
| | 19 - had some level of knowledge | 25 - increased level of knowledge |
| Railroad impacts on the | 12 - had no knowledge, | 1 - had no knowledge, |
| Southwest Native Americans | 15 - had some level of knowledge | 26 - increased level of knowledge |
| Laguna Boxcar Company | 19 - had no knowledge, | 1 - had no knowledge, |
| | 8 - had some level of knowledge | 26 - increased level of knowledge |

Overall, there was an increase in the knowledge in these areas during the event.

Current Opportunities for Improvement

The Student Life Coordinator and the Assessment Coordinator have continued to work together into the spring semester to assess various activities and plan to expand and formalize a plan to expand co-curricular activities for next year.

DUAL ENROLLMENT ASSESSMENT

Dual Enrollment Assessment

At the beginning of Fall 2017, the Dual Enrollment Coordinator, Associate Vice President of Innovative Learning Solutions, and the Assessment Coordinator met to create a plan to gather assessment information from the dual enrollment instructors.

The proposed plan is simple. The Dual Enrollment Coordinator would reach out to the dual enrollment instructors to gather a summative assignment and student results by the end of the academic year. This information will then be shared with the appropriate assessment program for evaluation and recommendations.

This process will also establish a baseline of assessment for the dual instructors' courses.

The Dual Enrollment Coordinator and the Assessment Coordinator collaborated to create an email to send out to the dual enrollment instructors asking for the assignment and the student data. The Dual Enrollment Coordinator sent this communication out before the end of Fall 2017 semester and multiple times in the Spring 2018 semester. The deadline for the dual enrollment instructors to send in this information is May 15th, 2018.

In addition, the Assessment Coordinator was invited to a Dual Enrollment Meeting between our dual enrollment coordinating staff in the college and from the high schools. At this meeting, it was discussed that assessment and the reporting of assessment from the dual enrollment instructors should be included in the IGA. The Dual Enrollment Coordinator vetted wording to include fro the Dual Enrollment Academic Year 18-19 IGA regarding student learning assessment:

Coconino Community College (CCC) is undergoing a multi-year project to make assessment relevant in all of our programs including Dual Enrollment. Student learning outcomes articulate what a student should know or can do after completing a course. The assessment of student learning outcomes provides information that puts student learning at the forefront of academic planning processes. In order to accomplish this, CCC is requesting that each Dual Enrollment instructor provide CCC with a copy of the summative assignment used for their course that measures the course-level learning outcomes as indicated in the course outline. The expectation is that each Dual Enrollment instructor provide CCC with this summative assessment by the end of AY 18-19 academic year.

Also during this meeting, the coordinators of the high schools stated that they could provide assessment data based on year-end tests from all of their Career and Technical students. The Dual Enrollment Coordinator and Assessment Coordinator worked together to try to ensure that Coconino Community College received this data as well as obtain as many summative assignments and student results from our dual enrollment instructors as possible.

We endeavor to refine the process of gathering dual enrollment instructors as we proceed in our assessment efforts.

At the end of the 2017-2018 academic year, we did not receive any assessment results from our dual enrollment instructors in the high schools. The Assessment Coordinator, Associate Dean of Curriculum

DISTANCE LEARNING ASSESSMENT

Distance Learning Assessment

There was much effort put into the assessment of online learning as the enrollment in our online learning courses continue to see a steady rise in enrollment.

In 2017, we contracted with "Infrastructure," the company of our learning management system Canvas, to evaluate 66 of our online courses which encompassed most of our online courses. An external evaluator from Infrastructure conducted a comprehensive evaluation to determine where we could improve student learning in our online courses. The evaluator consider the quality of the assessment tools in each course and made recommendations for improvement.

Each report contained many sections, but two specifically applied to the assessment of learning:

Learning Objectives (Competencies)

- 1.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable.
- 1.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.
- 1.3 All learning objectives or competencies are stated clearly and written from the learner's perspective.
- 1.4 The relationship between learning objectives or competencies and course activities is clearly stated.
- 1.5 The learning objectives or competencies are suited to the level of the course.

Assessment and Measurement

- 1.1 The assessment measures the stated learning objectives or competencies.
- 1.2 The course grading policy is stated clearly.
- 1.3 Specific and descriptive criteria are provided for the evaluation of learners' work and are tied to the course grading policy.
- 1.4 The assessment instruments selected are sequenced, varied, and suited to the learner work being assessed.
- 1.5 The course provided learners with multiple opportunities to track their learning progress.

The Online Learning Committee, which is comprised primarily of faculty, looked at the reports and an administrator went over the findings with each online instructor. Each instructor was asked, "How can you use the information provided to improve student learning in your course?" From these findings, it was shown that improving student engagement was something that could be improved across all of the online courses.

Future actions will include de-aggregating the results to focus on the two sections focused on assessment of student learning and creating actions plans from that specific information for all courses.

and Assessment, and the Dual Enrollment Coordinator will work together to build relationships with the dual enrollment instructors during the 2018-2019 academic year in order to begin to achieve assessment data collection.

FUTURE PROJECTS

Future Projects

Assessment Website and Canvas Shell

The Associate Dean of Assessment & Curriculum and the Assessment Coordinator will work with the Assessment Committee to develop the Assessment Website using guidelines from the National Institute for Learning Outcomes Assessment. Currently the external website contains generic assessment information, and the goal would be to make it more relevant to the college's assessment processes.

The Assessment Coordinator will continue to build the Education and Learning Effectiveness Canvas Shell. Currently it has information on the Gen Ed Critical Thinking Project and parts of the Program Review Process.

Revision of Assessment Plan from 1995/2000

During the compilation of the assessment history of CCC, the Assessment Coordinator found the college's "Assessment Plan for Student Academic Achievement" from 1995 as well as the "Academic Assessment Program Plan" from 2000. Using both these resources along with the processes that had been developed by the Assessment Committee in the past year, the Assessment Coordinator will create a current "Assessment Plan" for the college to be reviewed by the Dean of Curriculum & Assessment and the Assessment Committee. Part of this plan will be best practices handouts that could be used outside of the plan for information about the college's assessment.