# Table of Contents

**Introduction By President Pam Luster** ................................................................. 5

---

**Part One--Overview of Outcomes Assessment** .................................................. 6

- **What is Outcomes Assessment?** ...................................................................... 6
- **Who Benefits from Outcomes Assessment?** .................................................. 7
- **Guiding Principles of Outcomes Assessment at Mesa College** .......................... 7

---

**Roles of Participants in Outcomes and Assessment at Mesa College** .................. 9

- **The Role of the College** .................................................................................. 9
- **The Role of Faculty** ....................................................................................... 9
- **The Role of Students** .................................................................................... 9
- **The Role of Administrators** ........................................................................... 10
- **The Role of COA and the Outcomes Coordinator** ........................................... 10
- **The Role of the Department Assessment Coordinator** .................................... 10

---

**Part Two-- The Outcomes Process and Cycle** .................................................... 11

- **The Organization of Outcomes Assessment at Mesa College** ....................... 11
- **Institutional Learning Outcomes (ILO)** .......................................................... 12
- **Instructional Outcomes (CLO and PLO)** ......................................................... 12
- **Student Services Outcomes (SSO and SSPO)** ............................................... 12
- **Administrative Unit Outcomes (AUO)** ........................................................... 12
- **What Are the Expectations?** ......................................................................... 13
- **COA’s Recommendations** ............................................................................. 13
- **Cross-over Assessment** ............................................................................... 14
The Cycle ......................................................................................................................................................................15

Semester 1--Assess Data, Plan and Implement the Cycle .................................................................15

Semester 2 and 3--First Round of Assessment ..............................................................................16

Semester 4--Assess Data and Plan Second Round of Assessment ................................................16

Semester 5-6--Second Round of Assessment .................................................................................17

Semester 6 -> 1--Closing the Loop, Reporting Out and Planning the Next Cycle.........................17

Part Three--Instructional Outcomes ......................................................................................................................... 19

Course Learning Outcomes ................................................................................................................................. 19

Review Of Course Learning Outcomes ................................................................................................. 19

Writing Course Learning Outcomes ........................................................................................................ 21

Assessing Course Learning Outcomes ........................................................................................................... 23

Methods of Assessment ............................................................................................................................... 24

Evaluating the Data ........................................................................................................................................ 24

Closing the Loop ......................................................................................................................................... 25

What Should Be Entered into Taskstream ................................................................................................. 25

Program Learning Outcomes ......................................................................................................................... 26

Review of Program Mission Statement ................................................................................................. 26

Review Of Program Learning Outcomes ............................................................................................... 27

Writing Program Learning Outcomes ......................................................................................................... 28

Program Learning Outcomes Assessment ................................................................................................. 31

Methods of Program Assessment ................................................................................................................ 32

Evaluating the Data ........................................................................................................................................ 32

Planned Changes and Action Plan .............................................................................................................. 32

Closing the Loop ......................................................................................................................................... 32

What Should Be Entered into Taskstream ................................................................................................. 32
Part Four--Student Services Outcomes .................................................................................................................................. 34

Student Services Outcomes (SSO) and Student Services Program Outcomes (SSPO) ...................................................... 34

Student Services Outcomes .................................................................................................................................................... 34

  Review of Mission Statement ................................................................................................................................................. 34

  Review Of Outcomes ............................................................................................................................................................... 35

  Writing Outcomes ....................................................................................................................................................................... 37

  Service Area Assessments ....................................................................................................................................................... 37

  Methods of Program Assessment ........................................................................................................................................... 38

  Evaluating the Data ..................................................................................................................................................................... 38

  Planned Changes and Action Plan ......................................................................................................................................... 38

  Closing the Loop ......................................................................................................................................................................... 38

  What Should Be Entered into Taskstream ............................................................................................................................ 39

Student Services Program Outcomes & Assessment .................................................................................................................. 39

  Review of Program Mission Statement ................................................................................................................................. 39

  Review Of Program Outcomes ................................................................................................................................................. 39

  Writing Program Outcomes ....................................................................................................................................................... 41

  Program Assessment ................................................................................................................................................................. 42

  Methods of Program Assessment ............................................................................................................................................ 42

  Evaluating the Data ..................................................................................................................................................................... 43

  Planned Changes and Action Plan ......................................................................................................................................... 43

  Closing the Loop ......................................................................................................................................................................... 43

  What Should Be Entered into Taskstream ............................................................................................................................ 43

Part Five--Administrative Unit Outcomes ............................................................................................................................. 45

  Administrative Unit Outcomes ................................................................................................................................................... 45

  Review of Administrative Unit Mission Statement ................................................................................................................. 45

  Review Of Administrative Unit Outcomes .............................................................................................................................. 45

  Writing and/or Revising the Unit's Outcomes .......................................................................................................................... 45
Mesa College President, Pam Luster

Student Learning Outcomes have been part of our vernacular for several years now. We have been diligently working to create outcomes and assessments that are meaningful and most importantly, lead to results that improve student learning.

To sharpen our skills and to increase our knowledge, faculty and staff have attended professional development workshops and conferences focused on outcomes assessment. In addition, due to the work of the Learning Assessment Task Force, and now the Committee on Outcomes and Assessment (COA), we are implementing effective practices across the college.

I am pleased that COA is now publishing a handbook to assist faculty and staff in instruction, student services and administrative services to complete this important work. It is the dialog that emerges from setting outcomes, doing the assessments and acting on the results that are most crucial. I will repeat here what I am often heard saying as we approach this, “You don’t have to do it perfectly... you just have to do it.” Hopefully we can do more, but one step at a time.
Part One--Overview of Outcomes Assessment

All of us at Mesa (faculty, staff, management) have our students’ success as our top priority. This principle runs through the classes we teach, the services we provide, and the policies and procedures we adopt as a College. It is our duty to create effective learning opportunities and environments for our students. It is also our duty to question how effectively our programs and services are facilitating the learning and development of our students.

This is what assessment is all about. We assess informally as an integral part of what we do. We learn from experience, from anecdotal information, from conversations we have with students and with each other, and we make changes that we think are needed. A formal assessment process is more intentional, documenting these conversations and making decisions based on empirical data (evidence) rather than intuition (but not completely replacing…). Data-informed dialogue among members of a program or service area then sows the seeds of improvement, which are incorporated into program review and requests for resources. This shows our commitment to our students and to institutional effectiveness.

This is important work. Each program and service area needs to take ownership of it. Good assessment can be meaningful, manageable, and sustainable, but it doesn’t happen effortlessly. This Guide is our roadmap to finding a balance between this vital process and our workload realities, by organizing and streamlining the process and offering support, suggestions, and best practices.

What is Outcomes Assessment?

Outcomes Assessment (OA) is the process of collecting information that will tell the College whether the services, activities, or experiences it offers are having the desired impact on those who partake in them. In other words, is the College making a difference in the lives of the individuals it serves?

In higher education, at its simplest, Outcomes Assessment has three stages:

1. Define the most important goals for students to achieve as a result of participating in an academic experience (outcomes)
2. Evaluate how well students are actually achieving those goals (assessment)
3. Use the results to improve the academic experience (closing the loop)

Continuous assessment will enable us to:

- Devote time to activities that we value most
- Decide how best to improve instruction, strengthen curricula, and create effective academic policies
- Strengthen our ability to show that our graduates are well-prepared for transfer or to succeed in their chosen professions
- Develop policies to allocate funding and/or resources more effectively
- Provide the faculty and staff with feedback they need to strengthen and grow their programs
- Increase the effectiveness of our communications about the value of a Mesa College education to the community and other stakeholders
- Have recent data on hand that will satisfy the requirements of accrediting and funding agencies, without having to engage in a mad scramble to meet deadlines
Who Benefits from Outcomes Assessment?

Everyone! One of the great advantages of Outcomes Assessment is that, when done in a systematic way, it benefits everyone throughout the institution, from our students to the faculty and staff to the administration.

For students, Outcomes Assessment will:
- Communicate clear expectations about what is important in a course or program
- Reassure them that there is foundational content across all sections of a course
- Allow them to make better decisions about programs based on outcomes results

For faculty and staff, participating in Outcomes Assessment will:
- Provide data to determine what's working and what's not working in their courses, programs and service area
- Provide reassurance that all faculty teaching a particular course agree to address foundational content (Course Outline)
- Facilitate valuable interdisciplinary and intercampus discussions
- Provide powerful evidence to justify needed resources to maintain or to improve programs
- Allow them to tell their story to individuals outside their area (e.g. administrators, employers, prospective students, transfer institutions, elected officials)

For administrators, implementing college-wide Outcomes Assessment will:
- Demonstrate an institutional commitment to continually improving the academic programs and services offered by the College
- Provide informative data to support requests for funds from state and local government and private donors
- Inform academic planning and decision-making
- Enable administrators to inform elected officials, local businesses, and potential donors about the College's impact on our students and our community in a very compelling and convincing way.

Finally, systematic Outcomes Assessment is now a requirement for accreditation by all higher education accrediting organizations. Accrediting Commission for Community and Junior College's (ACCJC) Standards of Excellence in higher education speak directly to the importance of creating a culture in which institutional effectiveness and student learning are highly valued by the College community.

Guiding Principles for Outcomes Assessment at Mesa College

Why isn't grading the same as Outcomes Assessment?
In Outcomes Assessment, the terms “scoring” and “grading” have different meanings. Scoring refers to the process of marking an assessment instrument to get data about how the course has done at achieving its outcomes. Grading is the process of marking an assessment instrument for the purpose of assigning a student a grade for the course. Scoring needs to be done consistently across all sections; grading can be done differently in each section if instructors desire. In no way does the Outcomes
Assessment scoring process infringe on an instructor’s grading; final grades are an aggregate assessment of a student’s entire body of work for the course, often including attendance and class participation. Grades do not provide:

- Specific information about students’ performance on core learning outcomes
- Detailed data across sections
- Objective student data which can be used for improvement of student learning

**Does this affect my Academic Freedom?**

Nothing inherent in the Mesa College Outcomes Assessment process interferes or violates the academic freedom of the instructor. Assessing outcomes is simply about faculty determining whether students are learning those things they deem most important, and then using the information to make changes where appropriate. Nothing in the College process dictates in any way how faculty choose to deliver the course content or how they grade their students.

**Will the results have complete statistical validity and will they be useful?**

The short answers are yes and no. While the results will not have the kind of statistical validity or reliability that would make a statistics professor happy, they will most certainly be useful in the way this process intends – to give faculty members meaningful information about how their courses are doing at achieving the goals they themselves defined. Achieving greater validity and reliability would require that a carefully selected random sample of papers be scored by a team of trained evaluators, thus minimizing the direct participation in the process by the vast majority of faculty. The College’s assessment process makes a trade-off between complete statistical reliability and faculty involvement.

**Isn’t this just a slippery slope leading to standardized testing?**

Absolutely, and unequivocally, not!! Such a direction has never even been contemplated by anyone, including administrators, involved with Outcomes Assessment at Mesa College. For further reassurance, know that the ACCJC, strong advocates of Outcomes Assessment, do not advocate standardized testing.

**Is this just another academic fad that will be gone in a couple of years?**

Not likely. The Outcomes Assessment movement has been in existence since the early 1990’s, and its momentum is growing, not waning. Every higher education accreditation agency across the country now includes the assessment of learning outcomes as one of their highest priority criteria. ACCJC, just like WASC, Middle States, Higher Learning Commission, and Southern Association of Colleges and Schools, emphasizes and requires the importance of creating a culture of Outcomes Assessment within the institutions it oversees.

**Can the results of assessment will be used to evaluate faculty performance on merit or tenure and promotion evaluations?**

No, outcomes assessment results are not a component of faculty evaluation and serve solely to provide data about the quality of academic programs that will help faculty improve them where necessary. Results from individual courses will remain in a Departmental file with only the aggregate data from all courses assessed being submitted.

**Our program/service area/admin area is working well, the students are successful, and therefore we don’t need to bother with assessment.**

No matter how well a program/service area/admin area is working, there is always room for improvement. Our students are constantly evolving and, therefore, our teaching or service to students needs to evolve as well. Continuous assessment to determine how best to improve the educational
experience of our students must be an integral part of all our activities. Rather than trusting unsubstantiated claims by programs that they do what they say they do, external stakeholders now require data that provide evidence for those claims. To retain our institutional accreditation, carefully assessing all our programs/service areas/admin areas is the only option.

_We will just assign a single faculty or staff member to plan and conduct the assessment._

It is important that everyone is involved at all stages of the process. Each person in the department/service area/admin unit contributes different perspectives and ideas for improving the academic program, and combining that wealth of ideas creates a much stronger end product.

_Administration will use the results to eliminate programs._

This is a formative assessment process that will provide substantive feedback to help improve programs through assessment by the respective faculty/staff/administrators of the program/service area/admin area. Program assessment is not a summative evaluation aimed at eliminating programs or services; at Mesa we aim to grow our programs and services, not to eliminate them.

**Guiding Principles of Outcomes Assessment at Mesa College**

1. Outcomes Assessment is intended to improve student learning by systematically evaluating student performance on specific outcomes.
2. The Mesa College Outcomes Assessment process is based in college-wide institutional learning outcomes.
3. In instruction, Outcomes Assessment at Mesa College is faculty-driven and course-embedded.
4. Outcomes Assessment is an on-going, not episodic, process.
5. Outcomes assessment is about evaluating the effectiveness of programs, courses, and services, not individuals.

**Roles of Participants in Outcomes and Assessment at Mesa College**

**The Role of the College**

A successful Outcomes Assessment requires the participation of many people throughout the College. While discipline faculty are the heart and soul of the process, others, including the Outcomes Assessment Coordinator(s), Faculty Coordinators, administrators, staff and students all have important roles to play.

**The Role of Faculty and Staff**

The Assessment process involves and impacts all faculty and staff. A critical expectation of any assessment workgroup is that they will communicate with and solicit feedback from their colleagues during all phases of the cycle. Additionally, faculty and staff are expected to engage in a discussion of the assessment results, and how they may be used to improve student learning.

**The Role of Students**

Students are expected to be aware of the Student Learning Outcomes for services and courses, including the relevant general education competencies. Students should also understand and be familiar with how they will be evaluated on these outcomes and competencies, including any rubrics used to score the assessments.
The Role of Administrators
All administrative units fully participate in the outcomes assessment process. Administrators, from the campus Deans to the Vice President and President, help to convey the importance of Outcomes Assessment to the College community. They provide guidance and support for the process and for any recommendations to improve student learning that may result from the assessments.

The Role of COA and the College Outcomes Coordinator
The Committee on Outcomes and Assessment (COA) is a Participatory Governance Committee responsible for overseeing and supporting Outcomes Assessment efforts at Mesa College. The committee is co-chaired by the Dean of Institutional Effectiveness and the College Outcomes Coordinator. The Committee additionally comprises a representative from each academic school, from student services, classified staff, and the VPI. The College President and the VPAS are advisory to the committee. The Committee works with Academic Senate leadership, Classified Senate leadership, faculty and staff to facilitate and to promote Outcomes Assessment.

The College Outcomes Coordinator is a faculty member who serves as the primary spokesperson for Outcomes Assessment. The Coordinator provides direct oversight and coordination of Outcomes Assessment on the campus, provides support to faculty and staff responsible for Program or Course Outcomes, communicates Outcomes information to the college-wide population, coordinates and facilitates Outcomes-based workshops, and meets with Coordinators from sister campuses to coordinate efforts District-wide.

The Role of the Departmental Outcomes Coordinators
Learning Outcomes Coordinators are assigned from each department or program and are directly responsible for fostering discussion of outcomes and assessment within their department or program. Coordinators may be responsible for coordinating assessment practices, facilitating discussion of the results, identifying the next steps, and entering data, but the specific responsibilities should be determined by each department or program.
Part Two--The Outcomes Assessment Process and Cycle

The Organization for Outcomes Assessment at Mesa College

The structure of outcomes at Mesa is fluid. There are three sectors of outcomes which flow into the Institutional Learning Outcomes (ILO), Program Learning Outcomes (PLO) and Course Learning Outcomes (CLO) which comprise the outcomes for Instruction. Student Services Outcomes (SSO) and Student Service Program Outcomes (SSPO) comprise the outcomes for Student Services. Administrative Unit Outcomes include all Administrative areas.

Mesa College 2016 Proposed Institutional Learning Outcomes

Institutional Learning Outcomes are developed and systematically evaluated each cycle by the Committee on Outcomes and Assessment (COA), then vetted through the Participatory Governance organization of the College. ILOs are assessed through the Campus Research Office.

Communication
- Respond confidently to incoming information in a variety of ways, including written, oral, visual, auditory, and kinesthetic
- Present ideas with tolerance for multiple perspectives
- Converse with civility and appropriateness for situational context

Critical Thinking
- Collect, analyze, evaluate, and synthesize relevant information from multiple perspectives
- Apply problem-solving methods in appropriate context
- Think independently, creatively, logically, and effectively
- Come to rational conclusions based on evidence
- Demonstrate quantitative competency
Information Literacy
• Gather and analyze information using appropriate modalities
• Utilize technology effectively and responsibly in information acquisition and distribution
• Cultivate the skills necessary for life-long learning

Professional & Ethical Behavior
• Practice responsible and professional conduct in the classroom, workplace, community, environment, and digital world
• Demonstrate the ability to work independently and collaboratively
• Exhibit awareness, appreciation, and respect for the diversity of individuals in one’s immediate environment as well as in the global community
• Develop skills of cultural proficiency for resolving conflicts and building alliances

Instructional Outcomes

Program Learning Outcomes (PLO)
Program Learning Outcomes for each cycle are developed and assessed by faculty within Instructional Programs.

Course Learning Outcomes (CLO)
Course Learning Outcomes for each cycle are developed and assessed for each course taught within a Program. CLO should be developed and assessed in consultation with all faculty who are teaching the course.

Student Services Outcomes

Student Services Program Outcomes (SSPO)
Student Services Program Outcomes for each cycle are developed and assessed by staff, faculty and administrators for each Program in Student Services (i.e., ASG, Puente, EOPS).

Student Services Outcomes (SSO)
Student Services Outcomes for each cycle are developed and assessed by staff, faculty and administrators for all areas of Student Services (i.e., Admissions and Records, Transfer, Financial Aid).

Administrative Unit Outcomes

Administrative Unit Outcomes (AUO) for each cycle are developed and assessed by staff and administrators in all areas of college administration. (i.e., Instructional Deans and offices, offices of Student Services deans, Business office, Vice-Presidents' and President's offices).
What Are the Expectations?

In designing this process, we tried to balance making it as easy as possible while making it valid, reliable, and meaningful. To that end, below are the suggested recommendations for Outcomes Assessment at Mesa College.

COA’s Recommendations for the Assessment Process:

- Three-year cycle
- All Course Learning Outcomes (CLO), Program Learning Outcomes (PLO), Student Service Program Outcomes (SSPO), Student Service Area Outcomes (SSO), and Administrative Unit Outcomes (AUO) are assessed in the three-year period.
- Instruction
  - Three to five Outcomes be developed and assessed for each Program
  - Two to four Outcomes be developed and assessed for each Course
  - For Course Outcomes, 5 sections or 30% of all sections (whichever is greater) are assessed. If a course has fewer than 5 sections, assess them all.
  - Faculty consensus on the outcome and the assessment tool
- Student Services
  - Two to five Outcomes be developed and assessed for each Service Area
  - Two to five Outcomes be developed and assessed for each Program
  - Staff consensus on the outcome and the assessment tool
- Administrative Services
  - Two to five Outcomes be developed and assessed for each Administrative Unit
  - Staff consensus on the outcome and the assessment tool
- Student involvement in the assessment review is encouraged.
- Data that have been collected and analyzed should be discussed among faculty/staff/administrators at the conclusion of the assessment period.
- Data reporting which should include the results, the ensuing discussion, and plan of action will be systemized to ease the burden on faculty/staff/administrators.
- Cross-over assessments are encouraged.
Cross-Over Assessment
COA strongly suggests the development of assessment tools that evaluate multiple outcomes.

Examples of Cross-Over Assessment
Examples extracted from assessments completed in the last cycle of assessment, except for AUO which is not drawn from an existing Administrative Unit.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Maps to:</th>
<th>CLO</th>
<th>PLO</th>
<th>ILO</th>
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<td><strong>Instruction:</strong></td>
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<td><strong>Dramatic Arts</strong></td>
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<td>Students should</td>
<td>Students should:</td>
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<td></td>
<td>• Be able to recognize and to articulate central ideas and</td>
<td>• Expand their knowledge of the world &amp; society through the</td>
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<td></td>
<td>dominant themes present in performing arts mediums.</td>
<td>drama.</td>
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<td>• Be able to articulate informed responses to the messages</td>
<td>• Understand plays and performance in terms of the questions</td>
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<td></td>
<td>and ideas communicated in a given play or performance</td>
<td>they pose about themselves and their world.</td>
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<td><strong>Statistics</strong></td>
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<td>Students should:</td>
<td>Students should:</td>
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<td></td>
<td>• Identify the Appropriate Hypothesis Test</td>
<td>• Incorporate the lessons learned through Dramatic Arts classes</td>
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<td></td>
<td>• Utilize the correct procedure for conducting the test</td>
<td>into their own lives, in whatever capacity it serves them.</td>
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<td></td>
<td>• State a Statistical Conclusion</td>
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<td><strong>Student Service Areas</strong></td>
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<td><strong>Financial Aid</strong></td>
<td>SSO</td>
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<td>Students will demonstrate basic knowledge of financial aid</td>
<td>Students will demonstrate basic knowledge of financial aid</td>
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<td>principles, rules, and regulations.</td>
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<td><strong>EOPS</strong></td>
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<td>Aggregate data will be collected on all first-semester students</td>
<td>Students will be able to understand and to navigate the</td>
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<td>who meet with a counselor and develop an educational plan.</td>
<td>transfer process.</td>
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<td>• Critical Thinking</td>
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<td>A mid-semester questionnaire will be distributed that ask students</td>
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<td>to reflect on their academic progress.</td>
<td>• Communication</td>
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<td>• Professional and Ethical Behavior</td>
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<td><strong>Administrative Unit</strong></td>
<td>AUO</td>
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<td></td>
<td>A survey administered to faculty and staff in an instructional</td>
<td>• Increase communication between the instructional school staff,</td>
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<td>school to identify successful forms of communication and identify</td>
<td>faculty and staff.</td>
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<td>workshops and events of interest to faculty and staff.</td>
<td>• Increase communication between administrator and faculty and</td>
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<td>staff.</td>
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<td>• Increase participation in instructional school events.</td>
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Faculty/staff consensus

COA advises that there be consensus regarding the outcomes and the plan to assess them. All faculty teaching the course should share the same definition for the outcomes, regardless of who teaches it or where. All faculty/staff should come to consensus regarding evaluation of a Student Service’s Outcome Assessment. Administrators/staff should come to consensus regarding an Administrative Unit Outcome’s assessment. Without common understanding of the outcome and the assessment process, results cannot be meaningful.

Share course learning outcomes with students

Course learning outcomes should be identified in your syllabus, and students should be aware of the expected learning outcomes for the course and how their performance on these will be assessed. If a rubric will be used to score the assessment, students should receive the rubric before they participate in the assessment. Post-assessment discussion with the students may help to clarify and to refine the assessment process as well as the resulting data.

The Cycle

The Outcomes Assessment cycle will take three years to complete, from planning to implementing recommendations.

For Instruction, both Program Learning Assessments and Course Learning Assessments should be completed within a cycle. For Student Services, both Student Service Programs and Student Service Area assessments should be completed within a cycle. For Administrative Services, Administrative Unit assessments should be completed within a cycle.

Semester 1--Assess Data, Plan and Implement the Cycle

Faculty/staff/administrators involved in the assessment process for their course/program/service area/administrative unit should meet to define the assessment plan, to discuss the assessment process and
timeline, and to make plans to review the assessment once complete. Course/Service Area outcomes assessment should align to your Program Outcomes Assessment. In the first year of the cycle, COA suggests that you revisit all Course/Service Area Outcomes to make sure that they are still aligned to the principles of your Program/Service Area/Admin Unit. Programs may do this more frequently, but COA suggest doing so, at a minimum, at the beginning of each three-year cycle.

Semesters 2 and 3--First Round of Assessment
The first round of assessments should be run and plans to review these assessments put into action. Discussion of outcomes of the first set of assessments should include all faculty/staff/administrators in the program/service area/unit.

Some Things to Consider

Analyzing the Data

The power of Outcomes Assessment is in the discussion and revision process that follows the analysis of the data collected. The assessment itself is only valuable if the department/service area/administrative unit discusses the results and use them to celebrate and to build on its strengths and to discuss and to remediate its weaknesses. Consider your Outcomes Assessment Process as a springboard to discussion and a pathway to departmental improvement and growth.

How data are analyzed and results are reported depends on the type of data collected (qualitative vs. quantitative, direct vs. indirect, summative vs. formative) and the audience. Regardless of how you analyze the data, the results should be reported in a clear, easy to understand manner, so that it facilitates optimal evaluation. Patterns, problems, and questions should become apparent while summarizing and evaluating the data. Discussion of the data should be the key requirement in your post-assessment process.

Semester 4--Assess Data and Plan Second Round of Assessment
Faculty/staff/administrators should meet at the beginning of Semester 4 to discuss the results of the first round of assessment, make observations, implement recommendations, and make plans for the second round. New assessment tools may be discussed to address outcomes not yet assessed, and plans for review of the assessments should be established. Data from the first round of assessment may be utilized to determine and to support Program needs as established in Program Review including, but not limited to: curriculum changes, faculty hiring, classified hiring, facility needs, and equipment.
Some Things to Consider

Organizing Your Results

The simplest method is most likely a narrative that explains your course and program learning outcomes, how and when they were assessed, what the minimum performance criteria were, whether improvements were deemed necessary, what types of improvements were planned, and what resources were necessary to achieve your goals.

A matrix or rubric could also be utilized to record results.

Ultimately, results will need to be entered into Taskstream, the accountability management system of the college including a summative report at the end of the three-year cycle that explains what happened, why it happened that way, what the faculty learned from it, and what it intends to do to improve student learning.

Semester 5-6--Second Round of Assessment

Second round of assessments should be run and plans to review these assessments put into action. Discussion of outcomes of the second set of assessments should include all faculty/staff/administrators in the program/service area/unit.

Semester 6  ➡️  Semester 1

Closing the Loop--Reporting Out and Planning the Next Cycle

Using the Evaluation Results

Evaluation and a determination of how well the course/program/service area/unit outcomes were achieved can only occur when you are able to compare the actual data to determine how well the course/program/service area/unit achieved its goals. If the results were below expectations on an outcome, you should be able to “drill down” into the measurement process and tools to determine where improvements could be introduced.

Evaluation could lead to changes in many aspects of a course/program/service area/unit. Consequently, it is important that the tools and methods used provide the capability to identify accurately the practices that need improvement. Don’t forget to ask the students or those benefiting from the service you provide; they experienced the assessment plan and can give the “inside out” point of view that those assessing may not be able to see.

Upon implementation of changes, the entire assessment cycle starts again. A carefully developed assessment plan can likely be used to measure the impact of the changes. However, for a number of different reasons, it may be necessary to make modifications in the plan. The end of the cycle is a perfect time to design changes for implementation in the next cycle. A well-designed assessment plan and careful evaluation of the results enables faculty/staff/administrators to make targeted improvements or affirm current practices efficiently and effectively.
Closing the Loop
This is the exciting part: using your data to effect change. Closing the Loop is part of the continuous cycle of collecting assessment results, evaluating them, using the evaluations to identify actions that will improve student learning, implementing those actions, and then cycling back to collecting assessment results. This is where reflection and robust discussion translate into program and course enrichment, and the potential for outcomes assessment is realized.

Examples of changes made in response to assessment data may include:

- Curriculum changes such as a new course, pre-requisites for a course, or course sequencing.
- Creation of a universal rubric to address inconsistencies in grading students’ writing
- Adoption of a new textbook to better address course level outcomes
- Revision of an oral assessment instrument to lower students’ stress level
- Increased peer to peer interaction to promote communicative competency
- Implementation of end of semester faculty/student interviews with students in a degree or certificate program to gauge their progress and set goals
- The development of a 360 evaluation process for student work (self, peer, faculty)

Communicate Conclusions
Communicating your results to the campus community is critical in creating trust and confidence that the course/program/service area/unit has been developed with the best interest of the students or those it serves in mind. The accrediting bodies, future employers of your students, high school seniors and other prospective students, as well as the community at large may also find your results informative. The final reporting out at the end of the three-year cycle on course outcomes needs to tell what happened, why it happened that way, what the faculty learned from it, and what it intends to do differently to improve student learning.

Consider the following when communicating the results:

- Celebrate and publicize your successes. We tend to forget to let people know what we do well; post it to social media, put it on your website, a banner behind a plane over OB! Promote the program vigorously, but use accurate data and evidence to do so.
- Identify the shortcomings and don’t try to hide or minimize them, but present the actions you will take to improve these weaknesses and explain what you expect of these improvements.
- Consider whether the results should be presented differently to different audiences such as prospective students, the Dean and other administrators, the rest of the Mesa community, and beyond.
- Avoid “data dumps,” especially to the lay people. Ask for assistance from the Research Office to format your outcomes data in an effective manner, especially if you are, for instance, placing the final report on your program’s website.
Part 3--Instructional Outcomes
Academic Programs and Departments

Review of Course Learning Outcomes
When reviewing or developing new course outcomes, keep in mind:

- Course learning outcomes are the “big ideas” students should be able to articulate, to put into action, or to utilize (theoretically or pragmatically) after their course experience.
- As a general institutional practice at Mesa, COA recommends that faculty construct two to four outcomes per course.
- Faculty should establish clearly written learning outcomes that define expectations for students enrolled in the course.
- Creation and modification of Learning Outcomes is the responsibility of all discipline faculty.
  - Full-time faculty should construct and agree on the Outcomes for the courses they offer and teach.
  - Adjunct faculty should be part of the conversation, as they will also be assessing the outcomes for their classes.

Some key components and tools useful in modifying or creating course learning outcomes:

The ASCCC in their Student Learning Outcomes Terminology Glossary (see appendix at end of Guide) defines the difference between objectives and outcomes as follows:

- Objectives are small steps that lead toward a goal; for instance, the discrete course content that faculty cover within a discipline. Objectives are usually more numerous and create a framework for the overarching Student Learning Outcomes (SLO) which address synthesizing, evaluating and analyzing many of the objectives.

- Outcomes are the specific observable or measurable results that are expected subsequent to a learning experience. These outcomes may involve knowledge (cognitive), skills (behavioral), or attitudes (affective) that provide evidence that learning has occurred as a result of a specified course, program activity, or process. An SLO refers to an overarching outcome for a course, program, degree or certificate, or student service area. Student Learning Outcomes describe a student’s ability to synthesize many discreet skills using higher-level thinking skills and to produce something that asks them to apply what they’ve learned.
### Examples of Outcomes and Objectives

<table>
<thead>
<tr>
<th>Objectives--Art History</th>
<th>Outcome--Art History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compare and contrast various definitions of art.</td>
<td>Analyze the complexity and contributions of Art to the people of the world.</td>
</tr>
<tr>
<td>Assess the ways that artists find an expression of the self in the world.</td>
<td></td>
</tr>
<tr>
<td>Construct a theory to assist in identifying art in a society.</td>
<td></td>
</tr>
<tr>
<td>Explain how art can be generated by a people as they provide shelter and survival.</td>
<td></td>
</tr>
<tr>
<td>Explain how art helps to meet political ends.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objectives--Athletics</th>
<th>Outcomes--Athletics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examine the origin of the game.</td>
<td>Apply the rules used and the nature of team play in the game of soccer.</td>
</tr>
<tr>
<td>Demonstrate individual skills while emphasizing team play.</td>
<td></td>
</tr>
<tr>
<td>Break down basic defensive techniques and concepts.</td>
<td></td>
</tr>
</tbody>
</table>

**Make them measurable**

Course learning outcomes need to be measurable: they should be able to be assessed in a way that provides qualitative and quantitative data. Faculty should be able to report how many students assessed were successful (quantitative data), and they should be able to provide a narrative of the results, including a description of the assessment context (qualitative data). Discussion of both the qualitative data and the quantitative data within the Program or Department will provide valuable information for curriculum and pedagogical planning within the program or department, as well as evidence of student learning.

**Plan for authentic assessment**

The ASCCC defines authentic assessment as something that “simulates a real world experience by evaluating the student’s ability to apply critical thinking and knowledge or to perform tasks that may approximate those found in the work place or other venues outside of the classroom setting.” Such a definition indicates that the best kinds of assessment may not merely be multiple choice questions on a test; be creative in the design of your assessment process utilizing scenarios that engage critical thinking, conceptual understanding, and active production.

**Organize your assessment processes**

Most likely, your outcomes are covered in several courses/service areas so that responsibility for achieving acceptable performance falls on several faculty/staff/administrators. The question of who does what, how, where, and when to facilitate assessment is important. It is advisable for faculty/staff/administrators with common functions related to a specific outcome to discuss what precisely each one does to help the students succeed. This discussion will help identify gaps and redundancies that can be eliminated to better align the efforts and maximize success.
Writing Course Learning Outcomes (CLO)
Outcomes for the classroom describe the knowledge, skills, abilities or attitudes that a student can demonstrate by the end of the course. Don’t think about content or coverage — consider what students should be able to DO with what they’ve learned by the end of the semester. How will students demonstrate this? What can they produce to show faculty that they have learned to apply their new knowledge?

Tools that may help you in writing or revising outcomes.

Bloom’s Revised Taxonomy (see appendix at end of Guide)
When creating or modifying outcomes that capture the "big ideas" of a course, faculty may utilize Bloom's Revised Taxonomy of action verbs. In the 1990s, one of Bloom’s students, Lorin Anderson, revised the original taxonomy changing the names of the major cognitive process categories to indicate action because thinking implies active engagements. Instead of listing knowledge as a part of the taxonomy, the category is divided into different types of knowledge: factual, conceptual, procedural, and metacognitive.

Bloom's Revised Taxonomy of Educational Objectives identifies six major categories of cognitive skills and abilities, including remember, understand, apply, analyze, evaluate, and create. The Revised Bloom's provides key words that can be associated with different levels and evidence of learning complexity.

Habits Of Mind (see appendix at end of Guide)
When we teach for the Habits of Mind, we are interested also in how students behave when they don't know an answer. The Habits of Mind are performed in response to questions and problems, the answers to which are not immediately known. The focus is on the ways students produce knowledge rather than how they merely reproduce it. We want students to learn how to develop a critical stance with their work: inquiring, editing, thinking flexibly, and learning from another person's perspective. The critical attribute of intelligent human beings is not only having information but also knowing how to act on it.

Most programs at Mesa have identified two to four course learning outcomes. By publishing clearly written course learning outcomes, you present the students with what they can expect to achieve when they successfully complete the course.

A course should have two to four key learning outcomes that answer the question:
a. What will students who successfully complete this course be able to DO
   • Intellectually?
   • Physically?
   • Emotionally?
b. What minimal skill set(s) should a student have acquired by the time they complete this course?
c. What knowledge, skills, or attitudes distinguish a student who has competed this course from other students in the program?
## Course Learning Outcome Characteristics Worksheet

<table>
<thead>
<tr>
<th>Course Learning Outcome Characteristics</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our Course Learning Outcomes are aligned to our Program Learning Outcomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Course Learning Outcomes are specific to a given course and are not our Program Learning Outcomes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our CLO are clear, precise, unambiguous, and use action verbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our CLO describe the broadest goals for the class, ones that require higher-level thinking abilities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our CLO require students to synthesize many discreet skills or areas of content.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our CLO ask students to then produce something -- papers, projects, portfolios, demonstrations, performances, art works, exams etc. – that applies what they have learned.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Require faculty to <strong>evaluate</strong> or to <strong>assess</strong> the product to measure a student’s achievement or mastery of the outcomes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have the resources to conduct the necessary measurements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our CLO can be understood by our students; they are simple, focused statements, not a bundle of different ideas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our CLO describe learning results and not the learning process.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our CLO are measurable in a continuous and sustainable way.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Assessing Course Learning Outcomes
Faculty teaching specific courses should meet to define the assessment plan, to discuss the assessment process and timeline, and to make plans to review the assessment once complete. Course Learning outcomes assessment should align to your Program Outcomes Assessment. But in the first year of the cycle, COA suggests that you revisit all Course Outcomes to make sure that they are still aligned to the principles of your Program. Programs may do this more frequently, but COA suggests doing so at a minimum at the beginning of each cycle.

Some Things to Consider:

- COA recommends that you use multiple measures to obtain richer data that enables you to put greater trust in your final conclusions.
- Consider using both qualitative and quantitative assessment methods. Quantitative methods assign numerical scores to student work while qualitative methods often focus on the quality of work without assigning a numerical value to them.
- Utilize rubrics in your assessment reporting. A well-developed rubric allows you to give a numerical scores for a qualitative assessments which make the reporting, analysis, and evaluation components much easier.
- Departmentally developed measurement tools tend to have tremendous content validity. Work together to develop your own tool, for example a rubric that can be used in multiple classes to track performance improvement over time. You could use it for formative and/or summative assessment of student performance.
- Some of your course learning outcomes may be better assessed through the use of indirect methods, as they can provide feedback that is useful in interpreting the results or effectiveness of the direct assessments you use in a course.
- To increase efficiency you can randomly sample students rather than test everyone, but make sure that you obtain enough data to trust your outcomes and conclusions.
- If several tools are used in a course assessment, for example a student survey and a direct assessment, the faculty should ensure that each uses the same or a similar prompt so there is consistency in the questions that respondents are asked to address in relation to the course learning outcomes.
- Need a survey, having trouble interpreting results, use your Research Office --they are there for you!
Methods of Assessments

Direct Assessment
COA suggests using course embedded direct methods of assessment as much as possible, selecting student work that they produce as part of the curriculum. Identify and critically examine the work products your students produce as part of the course curriculum, and determine which of these are relevant, valid, and reliable assessments of your learning outcomes.

1. Written Work
   a. Demonstrates knowledge of important content on an exam or in a paper
   b. Shows analysis, application, synthesis, and evaluation capabilities
   c. Displays writing skills
   d. Produces reflections on what, how, when, and why they learned

2. Portfolios of student work
   a. Are assessed systematically using a rubric.
   b. May be evaluated to determine student learning over time, or may be composed of the student’s best work.
   c. Encourage student self-reflection

3. Visual or audio recording of oral presentations or performances with self, peer, and or instructor evaluations using a rubric; may include recordings of subsequent performances to document improvements

4. Capstone projects

5. Field or service learning projects

6. Performance on in-class tests (or portion of a larger exam), assuming they are valid, reliable and objective

7. Presentations
   a. Demonstration of acquired skills
   b. Demonstration of ability to work collaboratively

Indirect Assessment

1. Surveys
   *Surveys can reveal your students’ attitudes and opinions about what they learned, which may also help you evaluate your outcomes.*

2. Course Evaluations that you create to garner specific information from students
   *Entrance and/or Exit tickets, for example*

3. Curriculum and Syllabus Analysis
   *Self or faculty/student group*

4. External Reviewers
   *Colleague or Industry Professional*

Evaluating the Data
Data should be gathered on all course sections that run the assessment in a given semester. The compiled data for all sections should then be reviewed by all faculty in the department. Questions faculty may want to explore might include:

- Do you see gaps in the skills or abilities of a student completing the course? If so, what is the cause?
- Do you see overall gaps in their instructional experience? If so, where?
- Do you see gaps in the evaluation process itself? If so, why?
- Do you see problems with the sequencing of courses or issues with pre-requisites for the course?
Planned Changes and Action Plan
What are the planned changes that result from the review of all relevant assessments and your department’s discussion. Planned changes can include changes to the curriculum of the course, the curriculum of the program, scheduling or sequencing changes to curriculum, the request for new equipment or facilities, the request for new personnel, etc. Your Action Plan would include the planned changes as well as the proposed participants, timeline, and assessment plan to evaluate the planned changes.

Closing the Loop
Once the assessment has been run, faculty should close the loop by meeting to discuss the results. Faculty should identify and include all needs, including personnel, equipment, supplies, necessary workshops/training, etc. which were identified as a result of the assessment data. These requests will then feed into the Integrated Planning Process and resource requests through the Program Review process.

What Should Be Entered into Taskstream?
Once your assessments are complete, data have been collected, and faculty have had a chance to analyze and to evaluate the outcome, the information must be added into our data management system. Process information to be entered should include:

- Course number and title
- Assessment design participants
- Course learning outcome that was assessed
- Assessment method
- Measurement goal
- Timeline
- Assessment delivery
- Course section information

Assessment results may be entered as:
- Qualitative or quantitative data
- Formative or summative data
- Rubrics
- Narrative Response
- Documented conversations regarding outcomes
- Performances (video or other digital imaging)
- Presentations (video or other digital imaging)
- Documentation of the faculty discussion of assessment results

The Action Plan describing planned changes and needed resources to improve student success should include:
- Explanation of any changes you intend to implement
- Required Resources
- Timeline
- Individuals responsible for implementing your planned changes
- How will you assess whether the planned changes were successful once implemented?
Program Outcomes & Assessment

COA is defining an academic program as a series of courses that lead to a certificate or a degree. Do not confuse “Program Assessment” with “Program Review.” Program Assessment should:

- Allow faculty to map and to assess curriculum
- Create insightful discussion around student success
- Direct curriculum and pedagogical choices that will make your program efficient, effective, and shiny.

The Accrediting Commission for Community and Junior Colleges (ACCJC) requires the assessment of outcomes at the program level to maintain our accreditation.

Some things to consider:

- Each department needs to determine overall course offerings, progressions, and take note of activities that exist to help you identify your program. (performances, athletic events, internship programs, local business collaborations, participation in festivals and competitions, etc.)
- Program Outcomes should
  - Lead to improved student success by finding and removing obstacles
  - Be tied to Mesa's Integrated Planning Process to prioritize funding (Program Review)
  - Contribute a critical component to the Curriculum Review processes
- Programs can be assessed in various ways, including
  - Use of curriculum maps and assessment of course outcomes for selected courses
  - A capstone course or series of capstone projects embedded within higher level courses
  - A state licensing exam
- If your program does not offer any degrees or certificates, consider evaluating
  - GE course offerings
  - Assessment of sequential courses that may serve other programs
  - Pre-requisite sequences that may serve other programs

Review of Program's Mission and Outcomes

All departments and programs at Mesa should already have a mission statement. But, before you start the process of revising your Program Learning Outcomes, it is a good idea to revisit and update, if necessary, the mission of the department or program. Your Department/Program mission should provide a clear description of the purpose of the program and reflect how the program contributes to the education and careers of students served by the program. The mission of your department or program should be aligned with the College mission, but be specific to your program’s unique identity. The mission should also guide you in the development of your learning outcomes. Does your Program’s mission still align with the College's mission?
**Program Mission and Outcomes Worksheet**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your mission clearly state the purpose of your program?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does it indicate the primary functions or activities of your program?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does it indicate for whom you do it?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is your mission statement distinctive, unique to your program?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does it clearly support the College Mission?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Review of Program Outcomes**

Again, all departments and programs at Mesa already have Program Outcomes. But in the first year of the cycle, COA suggests that you revisit the Program Outcomes to make sure that they are still aligned to the principles of your Program. Programs may do this more frequently, but COA suggests, at a minimum, doing so at the beginning of each cycle.

**Program Learning Outcome Worksheet**

<table>
<thead>
<tr>
<th>Program Learning Outcome Characteristics</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our Program Outcomes are aligned with our mission statements and goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes are relevant to our discipline.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes clearly indicate the level and type of competence that is required of graduates of our program.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes are clear, precise, and unambiguous; using action verbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes are measurable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes can be measured by more than one assessment method.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have the resources to conduct the necessary measurements of our Program Outcomes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes are for our program, not a specific course.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes can be understood by our students; they are simple, focused statements, not a bundle of different ideas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes describe intended learning outcomes, not actual outcomes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes describe learning results and not the learning process.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have the resources and capabilities in our program to pursue our learning outcomes successfully.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Some things to consider:

Most programs at Mesa have identified three to five learning outcomes. By publishing clearly written learning outcomes, you present the students with your promise, a promise about what they can expect to achieve when they complete your program successfully. As faculty, this is your commitment to your students, and the assessment process presents evidence to them that you honor that commitment.

In reviewing your Program Outcomes, COA suggests that the discussion include not only Departmental Faculty, but also staff, students, alumni and professionals in the community who will employ your graduates to create the most relevant learning outcomes possible. A program or department should have three to five key program learning outcomes that answer the question:

a. What will students who graduate from our program be able to DO
   • Intellectually?
   • Physically?
   • Emotionally?

b. What minimal skill set should our graduates have acquired by the time they leave our college?

c. What knowledge, skills, or attitudes distinguish the graduates of our program from other students on campus?

Writing Program Learning Outcomes

While most programs already have established learning outcomes, in reviewing them, you may find that it is necessary to update or revise your outcomes. When revising or creating new outcomes, you may want to work backwards by examining the following:

• Consider what students should be able to DO with what they’ve learned in your Program.
• How will students demonstrate this?
• What can they produce to show that they have learned to apply their new knowledge?
• Is the outcome measureable in a continuous and sustainable way?

Using this information, you may revise existing outcomes or create new outcomes that represent the specific knowledge/skills/abilities/attitudes students will acquire as a result of achieving a degree or certificate in your program.
Example of Program Learning Outcomes for Hula Hoop Engineering

1. Students will become proficient in the fundamental concepts of engineering, science, and creativity to generate the intellectual curiosity to provide for a successful career, and life-long learning.

Example assessments used to evaluate Program Outcome 1:
   a. Design, implement, and verify hula hoop systems of varying complexity by using appropriate techniques and tools and by selecting appropriate design patterns, architectures, languages, and testing approaches.
   b. Evaluate a hula hoop system with respect to criteria such as performance, complexity, correctness, and usability.
   c. Apply problem-solving techniques to solve real-world hooping problems.

2. Students will be able to design effective hula hoop systems.

Example assessments used to evaluate Program Outcome 2:
   a. Apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of hula hoop-based systems.
   b. Estimate the feasibility and effort required to build a particular hula hoop system.
   c. Identify and specify requirements for hula hoop systems by selecting appropriate modeling techniques and tools.

3. Students will have the ability to function on multidisciplinary teams.

Example assessments used to evaluate Program Outcome 3:
   a. Participate as a productive member of a team.
   b. Solve common problems in team dynamics.

4. Students will serve as productive members of society by recognizing the social, ethical, environmental, and political implications involved in the engineering of hula hoops.

Example assessments used to evaluate Program Outcome 4:
   a. Project the potential impacts of technical decisions on the individuals, organizations and external constituencies involved, and identify ethical and legal implications.
   b. Apply the insights embodied in the professional codes of hula hoop ethics.

5. Students will be able to communicate effectively to technical and non-technical audiences.

Example assessments used to evaluate Program Outcome 5:
   a. Present technical information orally.
   b. Write a professional technical report.
   c. Formulate and pose incisive, technical questions.
**The Curriculum Map**

The Curriculum Map is another tool useful in assessing Program Outcomes. The Curriculum Map serves as the legend to your program; it unlocks your program and gives you the information needed for the program to make sense. In reviewing your program, faculty need to understand how courses fit together, which courses offer introductory information, which offer developing skills, and which offer mastery. By designing an assessment process that views the progression of the student through your program, you can identify course strengths and weaknesses that may lead to gaps in your program.

**Curriculum Map Worksheet**

<table>
<thead>
<tr>
<th>Course</th>
<th>PLO 1</th>
<th>PLO 2</th>
<th>PLO 3</th>
<th>PLO 4</th>
<th>PLO 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
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<tr>
<td>101</td>
<td>I</td>
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<td>I</td>
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<tr>
<td>102</td>
<td>D</td>
<td>I</td>
<td>I</td>
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<td>D</td>
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<tr>
<td>103</td>
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<td></td>
<td>I</td>
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<tr>
<td>200</td>
<td>D</td>
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<td>D</td>
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<tr>
<td>201</td>
<td></td>
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<td>M</td>
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<tr>
<td>202</td>
<td>D</td>
<td>M</td>
<td>D</td>
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<td></td>
</tr>
</tbody>
</table>

I-Introductory  D-Developing  M-Mastery

After collectively reviewing the Curriculum Map and the integration of learning outcomes and their assessments, faculty should look for redundancies and gaps in the coverage of the learning outcomes. Determine whether each and every program learning outcome receives sufficient attention in various courses to ensure that the students experience enough practice opportunities to attain the program learning outcomes successfully. Not every course needs to address multiple learning outcomes; covering all learning outcomes and how this occurs is a function of the entire curriculum.
**General Education Map**

The General Education Map serves to help department's define which of their courses fall into the GE category, which are requirements or electives of the major and which are stand alone courses. It is important to note that most course offerings should be GE or Major requirements or electives.

**General Education Map Worksheet**

<table>
<thead>
<tr>
<th>Course</th>
<th>GE</th>
<th>Major's requirement</th>
<th>Major's Elective</th>
<th>Stand Alone</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>102</td>
<td>x</td>
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<tr>
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<tr>
<td>104</td>
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<td>x</td>
<td>x</td>
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</tr>
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<td>105</td>
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<td></td>
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<tr>
<td>106</td>
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</tr>
</tbody>
</table>

**Program Assessment**

When developing your Program Assessment, consider that the assessment will vary based on the size of your program and number of majors that you serve. You may choose to utilize information from your curriculum map combined with one or more course assessments. You may also choose to survey majors, graduates, or students in a GE class as part of the assessment process. Determine what courses will be utilized in assessing your program Outcomes, identify the program learning outcome, the assessment or activity type, and the relevance of that outcome to the activity.

**Program Assessment Worksheet**

**Program: Hula Hoop Engineering**  **Date: May 22, 2016**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Learning Outcome covered</th>
<th>LO-Related Assessment</th>
<th>LO-Related Learning Activities</th>
<th>Relevance, Validity, Reliability, Objectivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Identify the tools and techniques used in engineering hula hoop systems.</td>
<td>Demonstrate use of the measurement and weight tools introduced in class. Build a mock hula hoop using the techniques as introduced.</td>
<td>Small group project in which students create a mock up of a hula hoop using appropriate measurement tools.</td>
<td>Hands on application of principles. Application of measurement tools and theories as taught in the course. Mock up project allows real life application. Group work provides collaborative experience.</td>
</tr>
</tbody>
</table>
Methods of Program Assessment
While course embedded assessments can be used as program measurements, it is also appropriate to review cohorts of students who are studying a specific discipline. If using course embedded assessments, consider evaluating only those courses that are specific to the Associate Degree requirements or Certificates in that discipline and not the broader GE or Gateway courses.

- Single exam item across courses specific to discipline majors
- Multiple exam items across courses specific to discipline majors
- Complete Exam (appropriate for CTE programs that require State Licensing Exam)
- Group activity/assignment in a course(s) specific to discipline majors
- Individual activity/assignment from a course (s) specific to discipline majors
- Writing assignment across courses specific to discipline majors
- Small or large group discussion in a course specific to discipline majors
- Student evaluation of the learning process in courses specific to discipline majors
- Oral presentation in courses specific to discipline to discipline majors
- Projects in courses that are specific to discipline majors
- Final Capstone Project
- Skill/proficiency exam in courses that are specific to discipline majors
- Other, please explain.

Evaluating the Data
Data should be gathered on all program-based assessments run in a given semester or following a cohort of students. The compiled data should then be reviewed by all faculty in the department. Questions faculty may want to explore might include:

- Do you see gaps in the skills or abilities of a student completing the program? If so, what is the cause?
- Do you see gaps in their instructional experience? If so, where?
- Do you see gaps in the evaluation process itself? If so, why?
- Do you see problems with the sequencing of courses or issues with pre-requisites for the course?

Planned Changes and Action Plan
What are the planned changes that result from the review of all relevant assessments and your department’s discussion. Planned changes can include changes to the curriculum of the program, scheduling or sequencing changes to curriculum, the request for new equipment or facilities, the request for new personnel, etc. Your Action Plan would include the planned changes as well as the proposed participants, timeline, and assessment plan to evaluate the planned changes.

Closing the Loop
Once the assessment has been run, faculty should close the loop by meeting to discuss the results. Faculty should identify and include all needs of the program, including personnel, equipment, supplies, necessary workshops/training, etc. which were identified as a result of the assessment data. These requests will then feed into the Integrated Planning Process and resource requests through the Program Review process.

What should be entered into Taskstream?
Once your assessments are complete, data have been collected, and faculty have had a chance to
analyze and to evaluate the outcome, the information must be added into our data management system.

Process information to be entered should include:
- Assessment design participants
- Program learning outcome that was assessed
- Assessment method
- Measurement goal
- Timeline
- Assessment delivery
- Course section information for all courses involved in the assessment

Assessment results may be entered as:
- Qualitative or quantitative data
- Formative or summative data
- Rubrics
- Narrative Response
- Documented conversations regarding outcomes
- Performances (video or other digital imaging)
- Presentations (video or other digital imaging)
- Documentation of the faculty discussion of assessment results

The Action Plan describing planned changes and needed resources to improve student success should include:
- Explanation of any changes you intend to implement
- Required Resources
- Timeline
- Individuals responsible for implementing your planned changes
- How will you assess whether the planned changes were successful once implemented?
- In what areas (outside of this particular program) are improvements needed, or what barriers must be removed to further support students who are completing this particular degree/certificate?
Part 4--Student Services Outcomes
Student Development, Student Affairs, Student Success and Equity

Student Services Program Outcomes (SSPO) and Student Service Outcomes (SSO)
At Mesa, we distinguish between Student Service Program Outcomes and Student Service Outcomes. While all service areas should assess Student Service Outcomes, those programs that work with groups of students to support learning (i.e., Puente, ASG, UMOJA, Athletics, FYE, International, STAR/TRIO, DSPS, and EOPS) should also develop outcomes and assessments for those programs as well as their services that are more administrative in nature.

Student Services Outcomes

Student Service Outcome (SSO) are statements that identify a service area’s client, service provided, and the experience that the service provides. Student Service Outcomes identify critical and central services, processes, and functions expected of a department and the desired quality (timeliness, accuracy, responsiveness, effectiveness, etc.).

Writing of service area outcomes should begin with a collective discussion about how the individual area supports students; the group should include all employees who work in an area. After brainstorming, the outcomes can be written using action language about what students will be able to “DO” as a result of contact with the service area. The outcomes should be broad and overarching goals that might encompass many detailed activities leading to the overall successful support of a student. The service area outcomes should also be connected with the mission and need to be measureable.

SSO include support services and structured events that occur outside of the classroom. These areas may be designed to complement the academic programs or serve students in ways that support their college experience beyond the classroom. Student services outcomes should enhance student learning and the overall educational experience of students through development of, exposure to, and participation in social, cultural, intellectual, recreational and governance programs by:

• Informing students regarding college policies and procedures and how these relate to their lives and activities
• Aiding in the awareness and utilization of college facilities and resources
• Assisting with developing leadership, decision-making and related skills
• Encouraging engagement in the campus community and society
• Encouraging exploration of activities that provide opportunities for growth in individual and group settings
• Exposing students to various cultures and experiences, ideas and issues, art and musical forms and styles of life

Review your Mission Statement
All Student Service areas at Mesa should already have a mission Statement. But, before you start the process of revising your Student Service Outcomes, it is a good idea to revisit and update, if necessary, the Service Area’s Mission. Your Mission should provide a clear description of the purpose of your Area and reflect how it contributes to the educational experience of the students it serves. The Mission of your Service Area should be aligned with the College mission, but be specific to your Area's unique identity. The mission should also guide you in the development of your outcomes. Does your Service Area’s mission still align with the College’s mission?
### Student Services Mission Worksheet

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your mission clearly state the purpose of your service area?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does it indicate the primary functions or activities of your service area?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does it indicate whom you serve?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is your mission statement distinctive, unique to your service area?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does it clearly support the College Mission?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Review your Outcomes

Again, all Service Areas at Mesa already have Outcomes. But in the first year of the cycle, COA suggests that you revisit your Outcomes to make sure that they are still aligned to the principles of your Area. Areas may do this more frequently, but COA suggests doing so, at a minimum, at the beginning of each cycle.

Some things to consider:
By publishing clearly written outcomes, you present the students with your promise, a promise about what they can expect to achieve when they visit your department. This is your commitment to your students, and the assessment process presents evidence to them that you honor that commitment. A Service Area should have two to four key program learning outcomes that answer the question:

a. What will students who visit our Service Area be able to do as a result of interacting with our staff?

b. What minimal skill set or experience might a student visiting our Service Area acquire?

c. What knowledge, skills, or aptitudes would distinguish a student who has visited our Service Area from any other office on the campus?
Examples of Outcomes and Objectives for Student Service Areas
Not all examples are derived from Mesa College Student Service Area Outcomes and Objectives

<table>
<thead>
<tr>
<th>Student Services Area</th>
<th>Objectives</th>
<th>Outcomes</th>
</tr>
</thead>
</table>
| **Financial Aid**     | • Students who visit the financial aid office will be able to identify:  
  • The Financial Aid filing deadline.  
  • Differences between student aid programs.  
  • Eligibility criteria.  
  • GPA requirement.  
  • Types of aid available.  
  • Fee waiver information.  
  • Location of the financial aid office.  
  • Other resources which may be available | Students will demonstrate basic knowledge of financial aid principles, rules, and regulations.  
Students will be able to identify financial aid resources for which they may qualify, submit applications, and meet deadlines. |
| **Student Health Services** | • Mesa Student Health Services will:  
  • Increase amount of information specific to students on the Student Health Services web site.  
  • Participate in orientation process of incoming students.  
  • Assist international students with immunization requirement compliance.  
  • Conduct small group tours of Student Wellness Center facility and explanation of clinic process for incoming students.  
  • Provide health information for a diverse student population including traditional and alternative health practices | Access and Diversity: Recruit, retain and graduate a larger, more academically prepared and more diverse student body.  
Provide scholarly outreach opportunities that contribute to student learning and benefit our local and campus communities. |
| **Office of Admissions** | • Process all student course registrations  
  • Monitor enrollment activity, including withdrawals and changes made before, during and after the Drop/Add period  
  • Collect and distribute registration, enrollment information to other offices as appropriate  
  • Maintain each student’s official educational records, with appropriate sensitivity to privacy concerns and confidentiality laws governing these records  
  • Provide guidance and training to students, about the process for accessing and releasing educational records  
  • Collect and distribute registration, enrollment and degree completion information to other offices as appropriate | Provide timely, precise guidance and support to students as they work toward degree completion, as well as faculty and staff involved in the graduation process.  
Ensure that the College maintains accurate personal, academic and enrollment records for its entire student population, past and present, and provide access to data derived from these records only when appropriate. |
Writing Outcomes
Consider what students should be able to DO with what they’ve learned in visiting your service area.
• How will students demonstrate this?
• What can they produce to show that they have learned to apply their new knowledge?
Does the outcome represent specific knowledge/skills/abilities/attitudes students will acquire as a result of an experience in the department or office? Is the outcome measureable in a continuous and sustainable way?

Student Services Outcomes Worksheet

<table>
<thead>
<tr>
<th>Outcome Characteristics</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our Service Area Outcomes are aligned with our mission statements and goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Service Area Outcomes are written clearly, are unambiguous, and use action verbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Service Area Outcomes are measurable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Service Area Outcomes can be measured by more than one assessment method.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have the resources to conduct the necessary measurements of our Service Area Outcomes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Service Area Outcomes can be understood by our students; they are simple, focused statements, not a bundle of different ideas.</td>
<td></td>
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</tr>
</tbody>
</table>

Service Area Assessments
Service Area Assessments will vary based on the size of your office and nature of students that you serve. Staff from the Service Area should meet to define the assessment plan, to discuss the assessment process and timeline, and to make plans to review the assessment once complete.

Some Things to Consider:
• COA recommends that you use multiple measures to obtain richer data that enable you to put greater trust in your final conclusions.
• Consider using both qualitative and quantitative assessment methods. Quantitative methods assign numerical scores to service quality while qualitative methods focus on the quality of the service without assigning a numerical value to them.
• Departmentally developed measurement tools tend to have tremendous content validity. Work together to develop your own tool, for example a rubric that can be used to track performance improvement over time. You could use it for formative and/or summative assessment.
• Utilize rubrics in your assessment reporting. A well-developed rubric allows you to give a numerical scores for a qualitative assessments which make the reporting, analysis, and evaluation components much easier.
• Some of your Student Service outcomes may be better assessed through the use of indirect methods as they can provide immediate feedback to a service. Indirect assessment can also be used in combination with direct assessment and may help you to interpret the results or effectiveness of the direct assessment.
• To increase efficiency, you can randomly sample students rather than test everyone, but make sure that you obtain enough data to trust your outcomes and conclusions. If several tools are used in a Student Services assessment, for example a student survey and a direct assessment, the staff should ensure that each uses the same or a similar prompt so there is consistency in the questions that respondents are asked to address in relation to the course learning outcomes.
• Need a survey, having trouble interpreting results, use your Research Office -- they are there for you!
Methods of Assessments
While COA suggests using direct methods of assessment as much as possible, we recognize that in Student Services, indirect assessments are more likely to be utilized. When using direct assessment, identify and examine the student's work product to determine whether the assessment is a relevant, valid, and reliable assessments of your outcomes.

Direct Assessment
1. Random sampling to determine the efficiency of a form students fill out in your office.
2. Sampling of returning students to determine success of a service or improvement of a process.
3. Sampling of first time students visiting your office to determine efficiency of instructions based on student's ability to interpret and complete required forms.

Indirect Assessment
1. Surveys
   Surveys can reveal your students’ attitudes and opinions about what they learned which may also help you evaluate your outcomes.
2. Evaluations that you create to garner specific information from students
   Entrance and/or Exit tickets, for example
3. External Reviewers who observe your process
   Colleague or Industry Professional

Evaluating the Data
Data should be gathered on all assessments run in a given semester or following a cohort of students. The compiled data should then be reviewed by all program faculty/staff/administrators. Questions faculty/staff/administrators may want to explore might include:
   • Do you see gaps in the skills or abilities of a student utilizing a specific services? If so, what is the cause?
   • Do you see gaps in their overall experience with the service area? If so, where?
   • Do you see gaps in the evaluation process itself? If so, why?
   • Do you see other issues students experience in utilizing the services provided?

Planned Changes and Action Plan
What are the planned changes that result from the review of all relevant assessments and your department’s discussion. Planned changes can include changes to the structure of a provided service, to the forms or other tools used as part of a service, to the evaluation of the sequencing of services, to the timeframe of the service provided, the request for new equipment or facilities, the request for new personnel, etc. Your Action Plan would include the planned changes as well as the proposed participants, timeline, and assessment plan to evaluate the planned changes.

Closing the Loop
Once the assessment has been run, staff/faculty and administrators should close the loop by meeting to discuss the results and to identify all needs of the service area, including personnel, equipment, supplies, necessary workshops/training, etc. which were defined as a result of the assessment data. These requests will then feed into the Integrated Planning process and resource requests through the Program Review process.
What Should Be Entered into Taskstream?

Once your assessments are complete, data have been collected, and staff/faculty/administrators have had a chance to analyze and to evaluate the outcome, the information must be added into our data management system.

Process information to be entered should include:
- Student Service area
- Assessment design participants
- Outcome that was assessed
- Assessment method
- Measurement goal
- Timeline
- Assessment delivery

Assessment results may be entered as:
- Qualitative or quantitative data
- Formative or summative data
- Rubrics
- Narrative Response
- Documented conversations regarding outcomes
- Performances (video or other digital imaging)
- Presentations (video or other digital imaging)
- Documentation of the faculty/staff/administrator discussion of assessment results

The Action Plan describing planned changes and needed resources to improve student success should include:
- Explanation of any changes you intend to implement
- Required Resources
- Timeline
- Individuals responsible for implementing planned changes
- How will you assess whether the planned changes were successful once implemented?

Student Services Program Outcomes (SSPO)

Student Service Program Outcomes (SSPO) are statements that identify the program's client, experiences that the client may expect, and the resulting goals of those experiences. Student Service Program Outcomes identify the processes and functions expected of the program, and the desired goals of that program (retention and completion, academic networking, academic support, etc.).

Writing of Student Service Program Outcomes should begin with a collective discussion about how the program can best serve students; the group should include all employees who work in that program. After brainstorming, the outcomes can be written using action language about what students will be able to “DO” as a result of participation in the Program. The outcomes should be broad and overarching goals that might encompass many detailed activities leading to the overall successful support of a student. The Program Outcomes should also be connected with the mission and need to be measurable.
Review your Program's Mission and Outcomes

As stated above, all Student Services programs at Mesa should already have a mission statement. But, before you start the process of revising your SSPO, it is a good idea to revisit and update, if necessary, the mission of the program. Your mission should provide a clear description of the purpose of the program and reflect how the program contributes to the education and careers of students served by the program. The mission should be aligned with the College mission, but be specific to your program’s unique identity. The mission should also guide you in the development of your outcomes. Does your Program's mission still align with the College's mission?

Student Services Program Mission and Outcomes Worksheet

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your mission clearly state the purpose of your program?</td>
<td></td>
<td></td>
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<tr>
<td>Does it indicate the primary functions or activities of your program?</td>
<td></td>
<td></td>
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<tr>
<td>Does it indicate for whom you do it?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is your mission statement distinctive, unique to your program?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does it clearly support the College Mission?</td>
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</tr>
</tbody>
</table>

Review your Program Outcomes

Again, all Student Services Programs at Mesa already have Program Outcomes. But in the first year of the cycle, COA suggests that you revisit the Program Outcomes to make sure that they are still aligned to the principles of your Program. Of course, programs may do this more frequently, but COA suggest doing so, at a minimum, at the beginning of each cycle.

Some things to consider:

- Each program needs to determine the tools and activities that it currently supports to serve students. These tools and activities are part of your program outcomes, but may also be assessed independently of Program Outcome assessments.
- Program Outcomes should
  - Lead to improved student success by finding and removing obstacles
  - Be tied to Mesa's Integrated Planning Process to prioritize funding (Program Review)
  - Contribute a critical component to the Student Services processes
Examples of Outcomes and Objectives for Student Service Programs
Not all examples are derived from Mesa College Student Service Program Outcomes and Objectives

<table>
<thead>
<tr>
<th>Student Service Program</th>
<th>Objectives</th>
<th>Outcomes</th>
</tr>
</thead>
</table>
| EOPS                    | • Students will meet Title V regulations  
 • Students will maintain a good status  
 • Students will meet all requirements to continue their participation in the program  
   • Students will be required to create an Educational Plan.  
   • Students will define an educational goal and choose courses according to their major.  
   • Students will be expected to evaluate their academic process continually  
   • Students will be expected to self evaluate  
   • Students will be expected to meet with faculty and/or staff twice a semester to evaluate their progress. | Students will be able to identify EOPS requirements.  
 Students will be able to understand and navigate the transfer process  
 Students will be able to identify at least one barrier to their success |

**Student Services Program Outcome Worksheet**

<table>
<thead>
<tr>
<th>Program Outcome Characteristics</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our Program Outcomes are aligned with our mission statements and goals.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes clearly indicate the level and type of competence that is required of graduates in our program.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes are clear, precise, and unambiguous; using action verbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes are measurable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Program Outcomes can be measured by more than one assessment method.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have the resources to conduct the necessary measurements of our Program Outcomes.</td>
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<tr>
<td>Our Program Outcomes are for our program not a specific activity.</td>
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<tr>
<td>Our Program Outcomes can be understood by our students; they are simple, focused statements, not a bundle of different ideas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have the resources and capabilities in our program to successfully pursue our outcomes.</td>
<td></td>
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</tr>
</tbody>
</table>

**Writing Student Service Program Outcomes**

While most Student Service Programs already have established learning outcomes, in reviewing them, you may find that it is necessary to update or revise your outcomes. When revising or creating new outcomes, you may want to work backwards by examining the following:
• Consider what students should be able to DO with what they’ve learned in your Program.
• How will students demonstrate this?
• What can they produce to show that they have learned to apply their new knowledge?
• Is the outcome measurable in a continuous and sustainable way?

Using this information, revise existing outcomes or create new outcomes that represent the specific knowledge/skills/abilities/attitudes students will acquire as a result of completing your program?

Program Assessment
When developing your Program Assessment, consider that the assessment will vary based on the size of your program and number of students that you serve. Determine what activities will be utilized to assess your program outcomes and to identify the relevance of that outcome to the activity.

Student Services Program Assessment Worksheet
Example may not reflect specifics of Mesa College Student Service Area

<p>| Program: ___________________________ Date: ____________ |
|-----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Activity</th>
<th>Outcome covered</th>
<th>Outcome Related Assessment</th>
<th>Related Learning Activities</th>
<th>Relevance, Validity, Reliability, Objectivity</th>
</tr>
</thead>
<tbody>
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</table>

Methods of Assessment

Indirect Assessment
• Surveys of students involved in the program
• Surveys of students participating in activities sponsored by the program

Direct Assessment
• Review of the program’s students’ work or product, either as a complete random sampling, a cohort’s work product, or a focus group’s feedback
• A portfolio of the activities and work product a student in the program completes during their time in the program
• An aggregate evaluation of a given cohort in the program
• Group activity/assignment
• Individual activity/assignment
• Writing assignment
• Small or large group discussion
• Oral presentation
• Other, please explain

Evaluating the Data
Data should be gathered on all program-based assessments run in a given semester or following a cohort of students. The compiled data should then be reviewed by all program faculty/staff/administrators. Questions faculty may want to explore might include:
• Do you see gaps in the skills or abilities of a student completing the program? If so, what is the cause?
• Do you see gaps in their overall experience with the program? If so, where?
• Do you see gaps in the evaluation process itself? If so, why?
• Do you other issues students experience in participating with the program?

Planned Changes and Action Plan
What are the planned changes that result from the review of all relevant assessments and your department’s discussion. Planned changes can include changes to the structure of the program, the activities of the program, evaluation of the forms and other tools used within the program, the request for new equipment or facilities, the request for new personnel, etc. Your Action Plan would include the planned changes as well as the proposed participants, timeline, and assessment plan to evaluate the planned changes.

Closing the Loop
Once the assessment has been run, staff/faculty and administrators should close the loop by meeting to discuss the results and to identify all needs of the Student Services program, including personnel, equipment, supplies, necessary workshops/training, etc. which were defined as a result of the assessment data. These requests will then feed into the Integrated Planning process and resource requests through the Program Review process.

What should be entered into Taskstream?
Once your assessments are complete, data has been collected, and faculty/staff/administrators have had a chance to analyze and to evaluate the outcome, the information must be added into our data management system.

Process information to be entered should include:
• Assessment design participants
• Program outcome that was assessed
• Assessment method
• Measurement goal
• Timeline
• Assessment delivery
Assessment results may be entered as:

- Qualitative or quantitative data
- Formative or summative data
- Rubrics
- Narrative Response
- Documented conversations regarding outcomes
- Performances (video or other digital imaging)
- Presentations (video or other digital imaging)
- Documentation of the staff/faculty/administration discussion of assessment results

As a result of your review of all relevant assessments and your area’s discussion, what planned changes are intended for the program? What is your Action Plan?

The Action Plan describing planned changes and needed resources to improve student success should include:

- Explanation of any changes you intend to implement
- Required Resources
- Timeline
- Individuals responsible for implementing your planned changes
- How will you assess whether the planned changes were successful once implemented?
- In what areas (outside of this particular program) are improvements needed, or what barriers must be removed to further support students who are completing this particular program?
Part 5--Administrative Unit Outcomes

Although Outcomes are used across many campus programs and services, AUOs are exclusive to non-instructional departments, programs, and services at the College. AUO assessment is an essential piece of the College's planning process. Every department provides a service, direct or indirect, in support of the College’s mission, and client experiences with these services must be examined in order for the service (and the College’s overall performance) to improve.

Administrative Unit Outcomes (AUO) are concise statements which describe what an administrator, faculty, staff or student will experience, receive, or understand as a result of a given service. Administrative Services refer to non-instructional areas which may directly or indirectly improve student success. AUOs provide data and evidence of a client reaction that has occurred as a result of receiving your service. The assessment will vary based on the size of your office and nature of client that you serve.

Review your Administrative Unit’s Mission Statement

All Offices/Departments at Mesa should already have a Mission Statement. But, before you start the process of revising your Administrative Unit Outcomes, it is a good idea to revisit the Mission of the department or office. Your Department/Office Mission should provide a clear description of the purpose of your department and reflect how the department contributes to the education of students served by the department. The mission of your department or office should be aligned with the College mission, but be specific to your department’s unique identity. The mission should also guide you in the development of your outcomes. Does your Department's mission still align with the College's mission?

Administrative Unit Mission Statement Worksheet

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your mission clearly state the purpose of your Administrative Unit?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does it indicate the primary functions or activities of your Administrative Unit?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does it indicate whom you serve?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is your mission statement distinctive, unique to your Administrative Unit?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does it clearly support the College Mission?</td>
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</tbody>
</table>

Write and/or Review the Unit's Outcomes

In the first year of the cycle, COA suggests that you revisit any existing Administrative Unit Outcomes to make sure that they are still aligned to the principles of your Department/Office. Departments/Offices may do this more frequently, but COA suggest doing so, at a minimum, at the beginning of each cycle.

Each Administrative Unit should have 2-4 key unit outcomes that respond to the following questions:

a. What will students or staff who visit our office be able to do as a result of interacting with our staff?
b. What minimal skill set or experience might a student or staff member visiting our office acquire?
c. What knowledge, skills, or aptitudes might be gained that would distinguish someone’s experience visiting our office from any other office on the campus?
**Administrative Unit Outcomes Characteristics Worksheet**

<table>
<thead>
<tr>
<th>Administrative Outcomes Characteristics</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our Administrative Unit Outcomes are aligned with our mission statements and goals.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Administrative Unit Outcomes are clearly written and unambiguous; use of action verbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Administrative Unit Outcomes are measurable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Administrative Unit Outcomes can be measured by more than one assessment method.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have the resources to conduct the necessary measurements of our Administrative Unit Outcomes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Administrative Unit Outcomes can be understood by students and staff; they are simple, focused statements, not a bundle of different ideas.</td>
<td></td>
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</tbody>
</table>

**Writing New Outcomes**

AUOs are specific to the unit’s mission and service area and should be feasible to achieve in the performance review period. AUO statements often mention the quality of a service or the satisfaction of clients with a specific process or service provided by the unit.

Identify the key service(s) your unit provides to the Mesa community. The service(s) should be a fundamental function of your unit, and what you deem to be the most valuable. COA suggests assessing one to two services within a one-year assessment period.

Once you have identified your service(s), you need to write the actual Outcome. The AUO for that service should describe what your client will receive, experience, or understand as a result of your service. Develop one AUO statement per service.

A few examples of how to begin the AUO statement:

- Faculty and staff will receive...
- The campus will receive...
- Faculty and staff will be satisfied with...
- (Said unit) will provide satisfactory service to...
**Examples of Administrative Unit Outcomes**

*Examples do not reflect Mesa's actual AUO for these Units.*

- **Information Technology**
  - Technical support will be provided to students, faculty, staff, and administrators.
  - All groups may expect informed, efficient, and timely responses.

- **Research Office**
  - Internal and external clients will be satisfied with the services provided by the research office.
  - The office will respond to requests within 48 hours; results will be provided in a timely manner.

- **Admissions and Records**
  - The successful application, registration, fee payment and record maintenance of students are all critical elements of a student's success while attending Mesa College.
  - Students will demonstrate an increased usage of technology through the provision of information and services provided, as related to the services and programs.

- **Instructional Division Office**
  - Office staff and administration provides ongoing communication between the Division office and departments within Division.
  - Communication between all groups in the Division will be efficient, systematic, and timely.

- **Accounting Unit**
  - All campus clients will be satisfied with the turnaround time on check reimbursements for staff travel.

---

**Administrative Unit Assessment**

Service Area Assessments will vary based on the size of your office and nature of students and staff that you serve. Staff from the administrative unit should meet to define the assessment plan, discuss the assessment process and timeline, and make plans to review the assessment once complete.
Some things to consider:

- What will clients have to do in order to demonstrate that you have served them effectively?
- Is the outcome measureable in a continuous and sustainable way?
- It is not necessary to reinvent the wheel. Do you currently have some type of in-house service check which could aid in assessing the AUO? If so, can you use that as your assessment? COA recommends that you use multiple measures to obtain richer data that enables you to put greater trust in your final conclusions.
- Consider using both qualitative and quantitative assessment methods.
  - **Quantitative methods assign numerical scores to service quality while qualitative methods focus on the quality of the service without assigning a numerical value to them.**
  - Departmentally-developed measurement tools tend to have tremendous content validity. *Work together to develop your own tool, for example a rubric that can be used to track performance improvement over time. You could use it for formative and/or summative assessment.*
- Utilize rubrics in your assessment reporting.
  - *A well-developed rubric allows you to give a numerical score for a qualitative assessment which makes the reporting, analysis, and evaluation components much easier.*
- Some of your AUO may be better assessed through the use of indirect methods as they can provide immediate feedback to a service. Indirect assessment can also be used in combination with direct assessment and may help you to interpret the results or effectiveness of the direct assessment.
- To increase efficiency, you can randomly sample clients rather than include everyone, but make sure that you obtain enough data to trust your outcomes and conclusions.
- If several tools are used in an AUO assessment, the staff should ensure that each uses the same or a similar prompt so there is consistency in the questions that respondents are asked to address in relation to the outcome(s).
- Need a survey, having trouble interpreting results, use your Research Office --they are there for you!

**Methods of Assessments**

While COA suggests using direct methods of assessment as much as possible, we recognize that in Administrative Services, indirect assessments are more likely to be utilized. If using direct assessment, identify and examine the user's work product to determine whether the assessment is a relevant, valid, and reliable assessment of your outcomes.

**Direct Assessment**

1. Random sampling of clients to determine the efficiency of a form staff fills out in your office.
2. Random sampling of clients to determine the efficiency of a system in place in your office.
3. Random sampling of returning clients to determine success of a service or improvement of a process.
4. Sampling of first time clients visiting your office to determine efficiency of instructions based on client's ability to interpret and complete required forms.
Indirect Assessment

1. Surveys

Surveys can reveal your clients’ attitudes and opinions about what they got from the experience of visiting your office.

2. Evaluations that you create to garner specific information from clients

Entrance and/or exit tickets, for example

4. External Reviewers who observe your process

Colleague or Industry Professional

Evaluating the Data

Data should be gathered on all assessments run in a given semester or following a cohort of students/faculty/staff/administrators. The compiled data should then be reviewed by all program faculty/staff/administrators. Questions faculty/staff/administrators may want to explore might include:

- Do you see gaps in the skills or abilities of someone utilizing your service(s)? If so, what is the cause?
- Do you see gaps in their overall experience with the service area? If so, where?
- Do you see gaps in the evaluation process itself? If so, why?
- Do you see other issues in the experience of someone utilizing the services provided?

Planned Changes and Action Plan

What are the planned changes that result from the review of all relevant assessments and your department’s discussion. Planned changes can include changes to the structure of a provided service, to the forms or other tools used as part of a service, to the evaluation of the sequencing of services, to the timeframe of the service provided, the request for new equipment or facilities, the request for new personnel, etc. Your Action Plan would include the planned changes as well as the proposed participants, timeline, and assessment plan to evaluate the planned changes.

Closing the Loop

Once the assessment has been run, staff and administrators should close the loop by meeting to discuss the results and to identify all needs of the service area, including personnel, equipment, supplies, necessary workshops/training, etc. which were defined as a result of the assessment data. These requests will then feed into the Integrated Planning process and resource requests through the Program Review process.

What should be entered into Taskstream?

Once your assessments are complete, data have been collected, and staff/faculty/administrators have had a chance to analyze and to evaluate the outcome, the information must be added into our data management system.

Process information to be entered should include:

- Administrative Unit
- Assessment design participants
- Outcome that was assessed
- Assessment method
- Measurement goal
- Timeline
• Assessment delivery

Based on all related Outcomes assessments relative to this Administrative Unit, what knowledge, skills or abilities can a student or staff member who utilizes the designated service take away? Do you see gaps in their experience? If so, where?

Assessment results may be entered as:
• Qualitative or quantitative data
• Formative or summative data
• Rubrics
• Narrative Response
• Documented conversations regarding outcomes
• Performances (video or other digital imaging)
• Presentations (video or other digital imaging)
• Documentation of the faculty/staff/administrator discussion of assessment results

As a result of your review of all relevant assessments and your Administrative Unit's discussion, what planned changes are intended for this course? What is your Action Plan?

The Action Plan describing planned changes and needed resources to improve student success should include:
• Explanation of any changes you intend to implement
• Required Resources
• Timeline
• Individuals responsible for implementing planned changes
• How will you assess whether the planned changes were successful once implemented?
Part 6--Appendix

Appendix A--Academic Senate for California Community Colleges
Student Learning Outcomes Terminology Glossary

A Resource for Local Senates


The following glossary was developed from existing research and feedback from faculty and researchers from the California community colleges in response to Resolution S08 2.02 that asked the Academic Senate for California Community College to address the confusion in the field by researching and developing a glossary of common terms for student learning outcomes and assessment. The glossary does not dictate terminology nor does it seek to be comprehensive. Due to the increased collaboration between researchers and faculty, dialog about these terms increases our ability to serve our students and increase student success.

**Affective Outcomes.** Affective outcomes relate to the development of values, attitudes and behaviors.

**Alignment.** Alignment is the process of analyzing how explicit criteria line up or build upon one another within a particular learning pathway. When dealing with outcomes and assessment, it is important to determine that course outcomes align or match up with program outcomes; that institutional outcomes align with the college mission and vision. In student services, alignment of services includes things like aligning financial aid deadlines and instructional calendars.

**Artifact.** An assessment artifact is a student-produced product or performance used as evidence for assessment. An artifact in student services might be a realistic and achievable student educational plan (SeP).

**Assessment Cycle.** The assessment cycle refers to the process called closing the loop and is figuratively represented below.

**Assessment of Learning.** Learning assessment refers to a process where methods are used to generate and collect data for evaluation of courses and programs to improve educational quality and student learning. This term refers to any method used to gather evidence and evaluate quality and may include both quantitative and qualitative data in instruction or student services.

**Assessment for Accountability.** The primary drivers of assessment for accountability are external, such as legislators or the public, and usually entail indirect or secondary data. Application of accountability data for educational improvement requires careful analysis of the alignment of the data and the ramifications of the actions.

**Assessment for Placement.** Assessment for placement is the process of gathering information about individual students, such as a standardized test or process to determine a student’s skill level, in order to place the student in a course sequence, such as math, English, ESL, or reading to facilitate student success. This process involves the validation of the content of the standardized test by the appropriate faculty content experts and analysis of the cut scores to determine the effectiveness of the placement and the development of multiple measures. Title5 §55502 defines assessment for placement and the requirements for this kind of assessment.

**Authentic Assessment.** Traditional assessment sometimes relies on indirect or proxy items such as multiple choice questions focusing on content or facts. In contrast, authentic assessment simulates a real world experience by evaluating the student’s ability to apply critical thinking and knowledge or to perform tasks that
may approximate those found in the work place or other venues outside of the classroom setting.

**Bloom’s Taxonomy.** Bloom’s Taxonomy is an example of one of several classification methodologies used to describe increasing complexity or intellectual sophistication:

1. **Knowledge:** Recalling or remembering information without necessarily understanding it. It includes behaviors such as describing, listing, identifying, and labeling.

2. **Comprehension:** Understanding learned material and includes behaviors such as explaining, discussing, and interpreting.

3. **Application:** The ability to put ideas and concepts to work in solving problems. It includes behaviors such as demonstrating, showing, and making use of information.

4. **Analysis:** Breaking down information into its component parts to see interrelationships and ideas. Related behaviors include differentiating, comparing, and categorizing.

5. **Synthesis:** The ability to put parts together to form something original. It involves using creativity to compose or design something new.

6. **Evaluation:** Judging the value of evidence based on definite criteria. Behaviors related to evaluation include: concluding, criticizing, prioritizing, and recommending. (Bloom, 1956)

**Classroom assessment techniques.** Classroom assessment techniques (CATs) are “simple tools for collecting data on student learning in order to improve it” (Angelo & Cross, 1993, p. 26). CATs are short, flexible, classroom techniques that provide rapid, informative feedback to improve classroom dynamics by monitoring learning, from the student’s perspective, throughout the semester. Data from CATs are evaluated and used to facilitate continuous modifications and improvement in the classroom.

**Classroom-based assessment.** Classroom-based assessment is the formative and summative evaluation of student learning within a classroom, in contrast to institutional assessment that looks across courses and classrooms at student populations.

**Closing the Loop.** Closing the loop refers to the use of assessment results to improve student learning through collegial dialog informed by the results of student service or instructional learning outcome assessment. It is part of the continuous cycle of collecting assessment results, evaluating them, using the evaluations to identify actions that will improve student learning, implementing those actions, and then cycling back to collecting assessment results, etc.

**Competencies.** See Student Learning Outcomes.

**Continuous Improvement.** Continuous improvement reflects an ongoing, cyclical process to identify, evidence, and implement incremental changes to improve student learning.

**Core Competencies.** Core competencies are the integration of knowledge, skills, and attitudes in complex ways that require multiple elements of learning that are acquired during a student’s course of study at an institution. Statements regarding core competencies speak to the intended results of student learning experiences across courses, programs, and degrees. Core competencies describe critical, measurable life abilities and provide unifying, overarching purpose for a broad spectrum of individual learning experiences. Descriptions of core competencies should include dialog about instructional and student service competencies. See also Institutional Learning Outcomes.

**Course Assessment.** This assessment evaluates the curriculum as designed, taught, and learned. It involves the
collection of data aimed at measuring successful learning in the individual course and improving instruction with the ultimate goal towards improving learning and pedagogical practice.

**Criterion-based assessments.** Criterion-based assessment evaluates or scores student learning or performance based on explicit criteria developed by student services or instruction which measures proficiency at a specific point in time.

**Culture of evidence.** The phrase “culture of evidence” refers to an institutional culture that supports and integrates research, data analysis, evaluation, and planned change as a result of assessment to inform decision-making (Pacheco, 1999). A culture of evidence is characterized by the generation, analysis and valuing of quantitative and qualitative data in decision making.

**Direct data.** Direct data provide evidence of student knowledge, skills, or attitudes for the specific domain in question and actually measuring student learning, not perceptions of learning or secondary evidence of learning, such as a degree or certificate. For instance, a math test directly measures a student’s proficiency in math. In contrast, an employer’s report about student abilities in math or a report on the number of math degrees awarded would be indirect data.

**Embedded assessment.** Embedded assessment occurs within the regular class or curricular activity. Class assignments linked to student learning outcomes through primary trait analysis serve as grading and assessment instruments (i.e., common test questions, CATs, projects or writing assignments). Specific questions can be embedded on exams in classes across courses, departments, programs, or the institution. Embedded assessment can provide formative information for pedagogical improvement and student learning needs.

**Evidence.** Evidence is artifacts or objects produced that demonstrate and support conclusions, including data, portfolios showing growth, as opposed to intuition, belief, or anecdotes. “[G]ood evidence, then, is obviously related to the questions the college has investigated and it can be replicated, making it reliable. Good evidence is representative of what is, not just an isolated case, and it is information upon which an institution can take action to improve. It is, in short, relevant, verifiable, representative, and actionable.”

**Evidence of program and institutional performance.** Program or institutional evidence includes quantitative or qualitative, direct or indirect data that provide information concerning the extent to which an institution meets the goals it has established and publicized to its stakeholders.

**Formative assessment.** Formative assessment is a diagnostic tool implemented during the instructional process that generates useful feedback for student development and improvement. The purpose is to provide an opportunity to perform and receive guidance (such as in class assignments, quizzes, discussion, lab activities, etc.) that will improve or shape a final performance. This stands in contrast to summative assessment where the final result is a verdict and the participant may never receive feedback for improvement such as on a standardized test or licensing exam or a final exam.

**General Education Student Learning Outcomes.** GE Outcomes are the knowledge, skills, and abilities a student is expected to be able to demonstrate following a program of courses designed to provide the student with a common core of knowledge consistent with a liberally educated or literate citizen. Some colleges refer to these as core competencies, while others consider general education a program.

**Grades.** Grades are the faculty evaluation of a student’s performance in a class as a whole. Grades represent an overall assessment of student class work, which sometimes involves factors unrelated to specific outcomes or student knowledge, values or abilities. For this reason equating grades to SLO assessment must be done carefully. Successful course completion is indicated by a C or better in California Community College data, such as that reported in the Accountability report for Community Colleges (ArCC).

**Homegrown or Local assessment.** This type of assessment is developed and validated by a local college for a
specific purpose, course, or function and is usually criterion-referenced to promote validity. This is in contrast to standardized state or nationally-developed assessment. In Student Services, homegrown student satisfaction surveys can be used to gain local evidence, in contrast to commercially-developed surveys which provide national comparability.

**Indirect data.** Indirect data are sometimes called secondary data because they indirectly measure student performance. For instance, certificate or degree completion data provide indirect evidence of student learning but do not directly indicate what a student actually learned.

**Information competency.** Information competency reflects the ability to access, to analyze, and to determine the validity of information on a given topic, including the use of information technologies to access information.

**Institutional Learning Outcomes (ILO).** Institutional Learning Outcomes are the knowledge, skills, and abilities with which a student is expected to leave an institution as a result of a student’s total experience. Because GE Outcomes represent a common core of outcomes for the majority of students transferring or receiving degrees, some but not all, institutions equate these with ILO’s. ILOs may differ from GE Outcomes, as institutional outcomes may include outcomes relating to institutional effectiveness (degrees, transfers, productivity) in addition to learning outcomes. Descriptions of ILOs should include dialog about instructional and student service outcomes.

**Likert scale.** The Likert scale assigns a numerical value to responses in order to quantify subjective data. The responses are usually along a continuum such as responses of strongly disagree, disagree, agree, or strongly agree and are assigned values such as 1 to 4.

**Metacognition.** Metacognition is the act of thinking about one’s own thinking and regulating one’s own learning. It involves critical analysis of how decisions are made and vital material is consciously learned and acted upon.

**Norm-referenced assessment.** In norm-referenced assessment, an individual’s performance is compared to another individual. Individuals are commonly ranked to determine a median or average. This technique addresses overall mastery to an expected level of competency, but provides little detail about specific skills.

**Objectives.** Objectives are small steps that lead toward a goal, for instance the discrete course content that faculty cover within a discipline. Objectives are usually more numerous and create a framework for the overarching student learning outcomes which address synthesizing, evaluating and analyzing many of the objectives.

**Pedagogy.** Pedagogy is the art and science of how something is taught and how students learn it. Pedagogy includes how the teaching occurs, the approach to teaching and learning, how content is delivered, and what the students learn as a result of the process. In some cases pedagogy is applied to children and andragogy to adults; but pedagogy is commonly used in reference to any aspect of teaching and learning in any classroom.

**Primary Trait Analysis (PTA).** Primary trait analysis is the process of identifying major characteristics that are expected in student work. After the primary traits are identified, specific criteria with performance standards are defined for each trait. This process is often used in the development of rubrics. PTA is a way to evaluate and to provide reliable feedback on important components of student work thereby providing more information than a single, holistic grade.

**Program.** In Title 5 §55000(g), a “Program” is defined as a cohesive set of courses that result in a certificate or degree. However, in Program review, colleges often define programs to include specific disciplines. A program may refer to student service programs and administrative units, as well.

**Qualitative data.** Qualitative data are descriptive information, such as narratives or portfolios. These data
are often collected using open-ended questions, feedback surveys, or summary reports, and may be difficult
to compare, reproduce, and generalize. Qualitative data provide depth and can be time and labor intensive.
Nonetheless, qualitative data often pinpoint areas for interventions and potential solutions which are not
evident in quantitative data.

**Quantitative data.** Quantitative data are numerical or statistical values. These data use actual numbers
(scores, rates, etc.) to express quantities of a variable. Qualitative data, such as opinions, can be displayed as
numerical data by using Likert scaled responses which assign a numerical value to each response (e.g., \(4 = \)
strongly agree to \(1 = \) strongly disagree). These data are easy to store and manage providing a breadth of
information. Quantitative data can be generalized and reproduced, but must be carefully constructed to be
valid.

**Reliability.** Reliability refers to the reproducibility of results over time or a measure of the consistency when an
assessment tool is used multiple times. In other words, if the same person took the test five times, the scores
should be similar. This refers not only to reproducible results from the same participant, but also to repeated
scoring by the same or multiple evaluators. While the student learning outcomes process should be reliable, it
does not suggest statistical reliability analysis for every item and aspect of classroom and program
assessment, but rather indicates that assessments should be a consistent tool for testing the student’s
knowledge, skills or ability.

**Rigor.** California community college faculty use the term rigor relating to courses in the context of Title 5
§55002, such as referring to course standards of grading policies, units, intensity, prerequisites level, etc.
Researchers often refer to rigor as statistical rigor or compliance with good statistical practices.

**Rubric.** A rubric is a set of criteria used to determine scoring for an assignment, performance, or product.
Rubrics may be holistic, not based upon strict numerical values which provide general guidance. Other rubrics
are analytical, assigning specific scoring point values for each criterion often as a matrix of primary traits on one
axis and rating scales of performance on the other axis. A rubric can improve the consistency and accuracy of
assessments conducted across multiple settings.

**Sampling.** Sampling is a research method that selects representative units such as groups of students from
a specific population of students being studied, so that by examining the sample, the results can be generalized
to the population from which they were selected when everyone in the population has an equal chance of
being selected (i.e. random). Sampling is especially important when dealing with student service data.

**Standardized assessment.** Standardized assessments are those created, tested, validated, and usually sold by an
educational testing company (e.g., GRE’s, SAT, ACT, ACCUPLACer) for broad public usage and data comparison,
usually scored normatively. There are numerous standardized assessment instruments available for student
service programs which provide national comparisons.

**Student Learning Outcomes (SLO).** Student learning outcomes (SLOs) are the specific observable or measurable
results that are expected subsequent to a learning experience. These outcomes may involve knowledge
(cognitive), skills (behavioral), or attitudes (affective) that provide evidence that learning has occurred as a
result of a specified course, program activity, or process. An SLO refers to an overarching outcome for a
course, program, degree or certificate, or student services area (such as the library). SLOs describe a
student’s ability to synthesize many discreet skills using higher level thinking skills and to produce something
that asks them to apply what they’ve learned. SLOs usually encompass a gathering together of smaller
discrete objectives (see definition on previous page) through analysis, evaluation and synthesis into more
sophisticated skills and abilities.

**Summative assessment.** Summative assessment is a final determination of knowledge, skills, and abilities. This
could be exemplified by exit or licensing exams, senior recitals, capstone projects or any final evaluation which
is not created to provide feedback for improvement, but is used for final judgments.
**Validity.** An indication that an assessment method accurately measures what it is designed to measure with limited effect from extraneous data or variables. To some extent this must also relate to the integrity of inferences made from the data.

**Content Validity.** Validity indicates that the assessment is consistent with the outcome and measures the content we have set out to measure. For instance, you go to take your driver’s license exam, the test does not have questions about how to make sushi.

**Variable.** A variable is a discrete factor that affects an outcome.
Appendix B--Bloom's Taxonomy

Bloom's Taxonomy

- **Remember**: Recall facts and basic concepts
  - define, duplicate, list, memorize, repeat, state

- **Understand**: Explain ideas or concepts
  - classify, describe, discuss, explain, identify, locate, recognize, report, select, translate

- **Apply**: Use information in new situations
  - execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch

- **Analyze**: Draw connections among ideas
  - differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test

- **Evaluate**: Justify a stand or decision
  - appraise, argue, defend, judge, select, support, value, critique, weigh

- **Create**: Produce new or original work
  - design, assemble, construct, conjecture, develop, formulate, author, investigate

https://cft.vanderbilt.edu-guides-sub-pages/blooms-taxonomy
<table>
<thead>
<tr>
<th>Bloom's Definition</th>
<th>I. Remembering</th>
<th>II. Understanding</th>
<th>III. Applying</th>
<th>IV. Analyzing</th>
<th>V. Evaluating</th>
<th>VI. Creating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definitions</strong></td>
<td>Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.</td>
<td>Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.</td>
<td>Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.</td>
<td>Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.</td>
<td>Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.</td>
<td>Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.</td>
</tr>
<tr>
<td><strong>Verbs</strong></td>
<td>Choose</td>
<td>Define</td>
<td>Find</td>
<td>How</td>
<td>Label</td>
<td>List</td>
</tr>
</tbody>
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Appendix C--Habits of Mind

http://www.habitsofmind.org/sites/default/files/Habits%20of%20Mind%20in%20the%20Curriculum.pdf
2015-16 Members of COA

- Rachelle Agatha
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