# STUDENT LEARNING OUTCOMES ASSESSMENT (SLOA) HANDBOOK

Academic Year 2022/3

#### Abstract

This document contains information about Yavapai College's SLOA Committee, the Assessment Cycle and Processes, Creating Learning Outcomes and Curriculum Maps, and Assessment Planning and Reporting within the Program Review cycle.

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### **Introduction**

The Higher Learning Commission requires institutions to meet standards of quality using five criteria: Mission, Integrity (Ethical and Responsible Conduct), Teaching and Learning (Quality, Resources, and Support), Teaching and Learning (Evaluation and Assessment), and Resources, Planning and Institutional Effectiveness. This document provides information about Yavapai College's guidelines and processes with respect to Student Learning Outcomes and Assessment (SLOA) addressed primarily in Criterion 4.

Criterion 4: Teaching and Learning: Evaluation and Assessment. *"The institution demonstrates responsibility for the quality of its educational programs, learning environments, and support services, and it evaluates their effectiveness for student learning through processes designed to promote continuous improvement."* 

#### Student Learning Outcomes Assessment (SLOA)

#### **Mission and Guiding Principles**

**Mission:** In harmony with Yavapai College's mission and values, SLOA's mission is to foster student success by developing and implementing an effective, comprehensive and consistent learning outcomes assessment cycle of continuous improvement based on evidence.

#### **Guiding Principles:**

- Assessment is a vehicle for improvement of student learning and success, not an end in itself.
- Assessment is ongoing, multi-dimensional and employs multiple methods.
- Assessment defines outcomes that are clear, shared, implementable and measurable.
- Assessment provides accountability for students' learning.
- Assessment results are used to improve instruction and change curriculum, not to make comparative or evaluative judgements across departments or programs.
- Successful assessment requires institutional support and resources.

#### Student Learning and Outcomes Assessment (SLOA) Committee

The SLOA committee is a Yavapai College committee whose purpose is to review and recommend college policies and procedures regarding assessment. SLOA meet each month during the Academic year. SLOA Committee activities are:

- Communicate with constituents to gain feedback on SLOA meeting minutes, activities, and any proposed changes;
- Provide consultation and support to faculty and deans surrounding assessment;
- Provide suggestions for quality improvement to assessment forms and processes;
- Review and provide feedback on assessment documents: curriculum maps, rubrics, assessment plans, and assessment reports;
- Assist in planning, coordinating, and facilitating assessment activities, such as Assessment Day;

- Participate in professional development activities to enhance knowledge of assessment;
- Actively participate in committee operations and projects by attending all meetings and tracking communication.

Membership of the committee is defined in the Student Learning Outcomes Assessment (SLOA) Charter.

#### **Assessment**

#### What is Assessment?

"Assessment is the systematic collection of information about student learning, using the time, knowledge, expertise, and resources available, in order to inform decisions that affect student learning." (Walvoord, 2010, p. 2). Assessment involves:

- Setting explicit goals (outcomes or objectives). What do we want students to be able to do?
- **Gathering information.** How well are students attaining the goals and what is influencing their learning?
- Taking Action. How can we use the information to improve student learning?

#### The Assessment Cycle

The assessment cycle is a process of continuous improvement and consists of the following components:

**Define Outcomes:** Define learning outcomes that are measurable and communicate what students are able to do after completing an activity, course, or program.

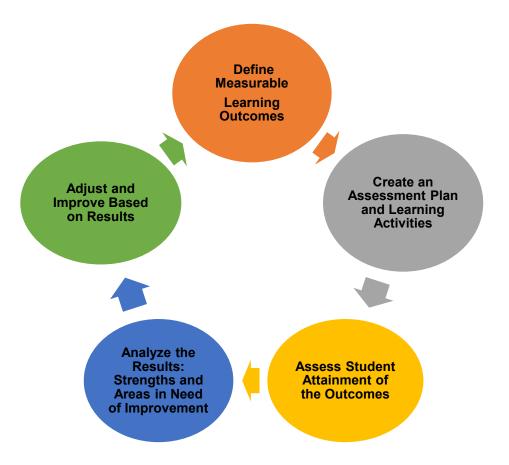
**Assessment Plan:** Create learning activities and assessment tools to measure how well students are attaining the outcomes.

**Assess:** Students complete the assessments to provide data about their attainment of the learning outcomes.

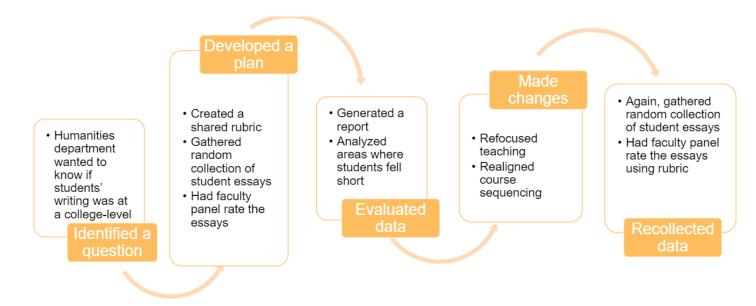
**Analyze the Results:** Review student assessment data and look for strengths and areas in need of improvement.

**Improve:** Decide what changes to curriculum, instruction, or the assessment process are needed to achieve desired results.

**Repeat Cycle:** After improvements have been made, repeat the cycle for continuous review and improvement of courses programs.



#### **Example - Humanities Department**

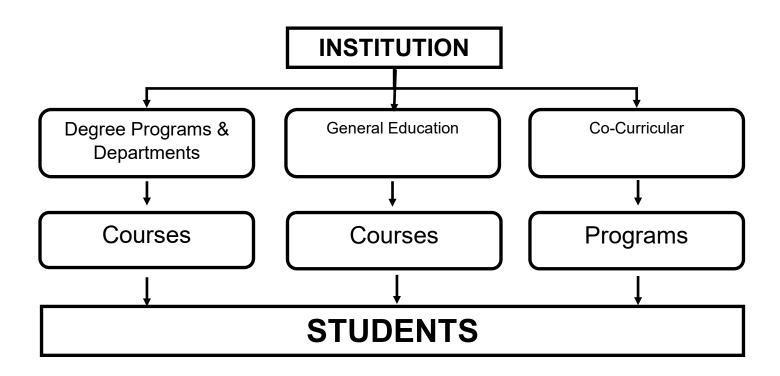


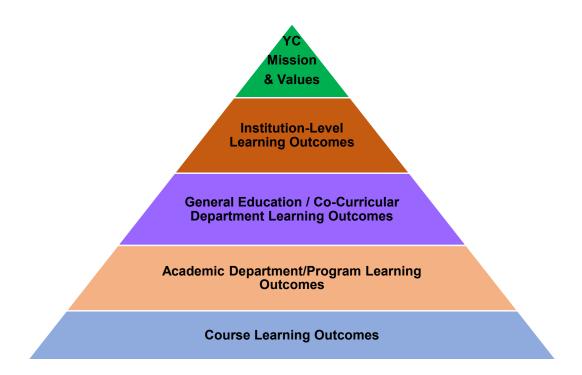
#### **Student Learning Outcomes**

#### **Purpose of Student Learning Outcomes**

- 1. Student learning outcomes communicate to students what they will be able to do after completing an activity, course, or program (course outcomes are specific and department/program outcomes are general).
- 2. Student learning outcomes show alignment of department/program learning outcomes with the institution's mission and strategic plan.
- 3. Measurable student learning outcomes allow departments/programs to assess student learning and make improvements.

#### Levels of Student Learning Outcomes





#### Institution-level outcomes are general and measurable across the student experience.

- Institution-level learning outcomes are embedded in the General Education component of any degree.
- Institution-level learning outcomes are embedded in courses required for degree programs.
- Institution-level learning outcomes are embedded in co-curricular activities.

#### Program/Department-level outcomes are general and measurable.

- Program/Department outcomes reflect general competencies attained as students complete required courses or activities.
- Program/Department outcomes are not a compilation of course or activity-level student learning outcomes.
- Program/Department outcomes are not intended to represent everything that your students learn as a result of completing the program.
- A common issue is too many program/department outcomes; approximately 4 to 6 general outcomes is appropriate.

#### Course/Activity-level learning outcomes are specific and measurable.

• Course/Activity-level learning outcomes contain specific competencies for a single course or learning activity.

#### Institutional-Level Learning Outcomes (ILOs)

The following ILOs were created and selected by faculty (all full-time faculty in Fall of 2018 participated in an activity) with additional input from staff and administrators in Student Development (representatives from advising and the library), the Office of Instructional Support, Institutional

Effectiveness and Research, the academic deans, various program directors and campus associate deans.

There are three Institutional- Level Learning Outcomes:

**COMMUNICATION** is the ability to effectively develop, express and support ideas in a variety of mediums. Communication can be in the form of written English, spoken English, visual mediums (such as works of art, dance or ASL), alternative auditory or written mediums (such as music or a foreign language), or in mixed mediums (such as digital media, transmedia or theater).

**CRITICAL THINKING** includes both the skills and the habit of thinking in a clear, disciplined, openminded way informed by evidence and observation.

**SOCIAL RESPONSIBILITY** encompasses diversity awareness, civic and community engagement, as well as historical, global, ethnic, racial and/or gender awareness.

#### **General Education Competencies**

The Arizona General Education Curriculum (AGEC) is a state-mandated system designed to ensure that students graduating from any Arizona community college with the intention of transferring to a state university will have experience in and a familiarity with the ideas, values, and practices of the different disciplines that make up a liberal arts education. The General Education curriculum at YC is comprised of six distinct categories: Composition, Arts and Humanities, Social and Behavioral Sciences, Physical and Biological Sciences, Mathematics and Numeracy, and Communication.

Each course students take at YC to fulfill their General Education requirements develops students in one or more of the following five General Education competencies:

**WRITTEN COMMUNICATION** is the ability to effectively develop, express, and support ideas in written English.

**SCIENTIFIC LITERACY** is the knowledge and understanding of scientific concepts and processes required for personal decision making, participation in civic and cultural affairs, and economic productivity. (National Science Education Standards)

**QUANTITATIVE LITERACY** (also known as Numeracy or Quantitative Reasoning) is a "habit of mind," competency, and comfort in working with numerical data. (AACU Value Rubric)

**CRITICAL THINKING** is careful goal-directed thinking using and evaluating reasons in support of a conclusion in accordance with proper patterns of reasoning. This skill includes the ability to critically examine an issue by evaluating conceptual frameworks, determining and drawing upon relevant bodies of evidence, and avoiding reasoning from unquestioned perspectives.

**DIVERSITY AWARENESS** is the ability to understand a broader perspective of human experience that accompanies an understanding of diverse people groups across history, geography, and culture.

Each of these competencies is representative of the general education categories, the special AGEC requirements, or both. Faculty identify the competencies developed in each course on the Official

Course Outlines available through the YC catalog. Faculty members incorporate course activities and assignments to facilitate students' development for the applicable competency's learning outcomes, as identified on the YC General Education Rubrics available in the General Education Assessment Plan.

#### **Co-Curricular Department-Level Learning Outcomes**

Co-Curricular activities are "learning activities, programs and experiences that reinforce the institution's mission and values and complement the formal curriculum. *Examples: Student-faculty research experiences, tutoring, academic advising, professional clubs and organizations, athletics, honor societies, library services, etc*" (HLC Criteria for Accreditation Revisions adopted Feb. 2019, effective Sept. 2020).

Using this definition, areas, such as the YC Library and Student Affairs, will select one to three activities, programs, and experiences that strengthen students understanding of the College's Institutional Learning Outcomes (ILOs) each year to evaluate how well students are using their learning outside of the classroom.

Co-curricular activities serve two primary functions:

- 1. To **Inform**: Co-curricular activities that inform introduce the supporting knowledge that students need in order to perform the competency.
- 2. To **Practice**: Co-curricular activities that support practice require learners to interact with, process, or apply content so that they store what they have learned in long-term memory.

A co-curricular activity, program, or experience should have co-curricular department-level learning outcomes that are tied to one of the Institutional Learning Outcomes (Communication, Critical Thinking, or Social Responsibility).

These co-curricular department-level learning outcomes are being developed and piloted during the 2021-2022 academic year.

#### Program-Level Learning Outcomes

Program-Level Learning Outcomes are created by full-time faculty of degrees and certificates and reflect the knowledge and skills that students should have when they graduate. These outcomes are reinforced throughout the core classes of the program. While not every course may contribute to every program-level outcome, the students should be given multiple opportunities throughout the program to demonstrate and apply the learning outcomes.

Faculty identify the learning outcomes developed for each program in on the Official Program Plan available through the YC catalog.

#### **Department-Level Learning Outcomes**

Department-level Learning Outcomes are similar to Program-level Learning Outcomes in that they are developed by full-time faculty within that department and should reflect the knowledge and skills students should develop when taking multiple required courses within that department. These are a collection of courses within a field of study that have not been formalized as a specific degree or certificate. Many of the department-level courses serve dual assessment purposes and can be assessing both department-level outcomes and General Education competencies. It is the collection of discipline specific courses that should provide multiple opportunities for students to demonstrate and apply the outcomes.

Art Department-level Learning Outcomes

- 1. Create works of art in one or more fine art or digital media fields;
- 2. Utilize, analyze, and synthesize the principles and elements of design;
- 3. Identify historical and contemporary examples of the Fine Arts and Crafts;
- 4. Use media specific terminology to critique and evaluate works of art;
- 5. Display works of art.

#### English Department-level Learning Outcomes

- 1. Apply research methods and integrate, synthesize and document sources;
- 2. Generate organized and logical writing that responds to the demands of a particular purpose and audience;
- 3. Use language effectively, precisely and according to the conventions of standard written English;
- 4. Apply reading strategies to professional and student texts;

#### Humanities Department-level Learning Outcomes

- 1. Classify concepts or artifacts within their historical or stylistic contexts;
- 2. Analyze the development of arts and humanities within historical or global contexts;
- 3. Use key terms within the appropriate discipline;
- 4. Develop informed positions on discipline-specific issues.

Mathematics Department-level Learning Outcomes

- 1. Use appropriate mathematical language and operations;
- 2. Apply mathematical concepts to real world situations;
- 3. Create, analyze and interpret various representations of data (e.g., graphs, tables, charts, summary statistics, etc.)
- 4. Use a variety of problem solving strategies and evaluate their appropriateness.

Science Department-Level Learning Outcomes

- 1. Demonstrate comprehension of the scientific approach;
- 2. Produce and/or interpret scientific information presented in a variety of formats;
- 3. Use scientific sources to support an argument or decision.

#### **Course-Level Learning Outcomes**

Course-Level Learning Outcomes are created by subject matter expert faculty for a particular course. The outcomes should reflect the knowledge and skills scaffolded throughout the course through various activities and measured through formative and summative assessment tools.

Course-Level outcome measurement can be assessed at several levels, including the General Education-Level and the Program/Department-Level. Assessment tools may vary based on the necessity of reliability and validity.

The outcomes for each course are reflected on the Official Course Outlines available through the YC catalog.

#### Creating Student Learning Outcomes (at any learning level)

Student learning outcomes are the primary skills, behaviors, abilities, expertise, and proficiencies the learner will be able to demonstrate as a result of their participation in learning activities. The emphasis of an outcome is on what the learner will be able to do with the knowledge or information, not just possession of it.

**Basic Format:** Upon successful completion of **<<course, activity, program, etc.>>**, the learner will be able to **<<action verb\* and description>>** to **<<do something>>**.

**Example:** Upon successful completion of the course MAT 167 Elementary Statistics, the learner will be able to use technology to create visual displays of data.

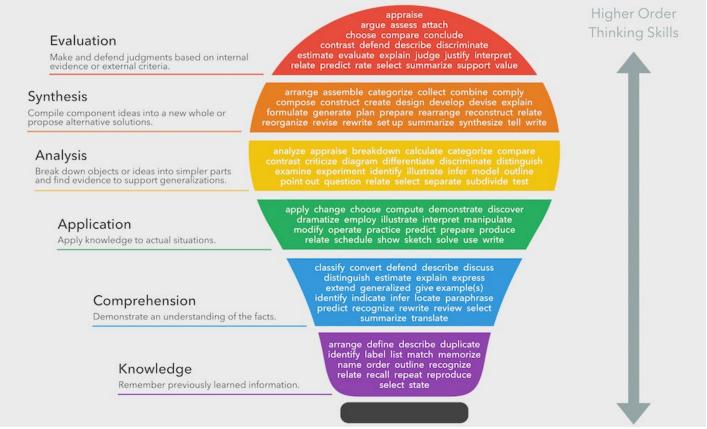
#### Example of a Poorly Written Learning Outcome:

The learner will be able to imagine and seek out a variety of possible goals, assumptions, interpretations, or perspectives which can give alternative meanings or solutions to given situations or problems.

A better revision would be, "The learner will be able to provide alternative solutions to situations or problems."

#### **Characteristics of Measurable Learning Outcomes**

- Select only one action verb. If there are several, focus on the highest cognitive level.
- Focus on outcomes, not processes.
- Identify single accomplishments
- Focus on students (not staff, faculty or curriculum).
- Do not indicate level of quality.



Source: https://www.fractuslearning.com/blooms-taxonomy-verbs-free-chart/

#### **Questions to Ask When Writing Learning Outcomes**

- 1. If students complete the course/program having mastered these learning outcomes, and only these learning outcomes, would you consider the course/program a success?
- 2. If a colleague asked why these outcomes were chosen, how would you explain the decisions?
- 3. Why do the skills, concepts, attitudes, and values contained in these learning outcomes matter to you, to your course, to your discipline, to your program/department? Why should they matter to students?
- 4. What does this set of learning outcomes communicate about you as a teacher or your program as a discipline?
- 5. Given the chosen outcomes, how does this course connect with other courses taught in your department or program?
  - a. How does it build on what they would have learned prior to enrolling in this course?
- 6. If a colleague said, "I think your outcomes expect too much (or too little)," how would you explain your choices?

### Curriculum Maps: Aligning Levels of Student Learning Outcomes

Once learning outcomes have been written, it is important to determine where the outcomes will be assessed in the curriculum. By mapping the outcomes to the program courses on a grid, it is easier to see if there are any "holes" in the curriculum or assessment processes.

Mapping is a lens in which to view the organization of the curriculum and identify opportunities to collect assessment evidence and the role of pre-requisites.

#### Purpose of Curriculum Maps

- The curriculum mapping process helps faculty and program directors create curriculum that aligns with professional and/or industry standards and Yavapai College's institutional mission and goals.
- The curriculum map provides evidence that there is alignment between the program mission, program-level learning outcomes and course-level learning outcomes and communicates the alignment to all internal and external audiences.
- The curriculum mapping process helps faculty and program directors create a program assessment plan that will provide information about student attainment of learning outcomes at both the program and course level.

#### **Curriculum Map Format and Criteria**

Program Outcome	Required Course #1	Required Course #2	<b>Required Course #</b> add columns as needed
Program Outcome #1	*List the course outcome number(s) that correspond to the program outcome –they should obviously align.		
Program Outcome #2	LO #2,5,7		
Program Outcomeadd rows as needed			

Curriculum Maps contain a mapping of Program Outcomes to Course Outcomes.

If a course if both a program/department course and a General Education course, it needs to be developed in a way to contributing and meeting both the program outcomes and the General Education Outcomes.

Program Outcome Required Course #1	Required Course #2	Required Course #add columns as needed
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Program Outcome #1 GE Competency: Quantitative Literacy ILO: Critical Thinking	*List the course outcome number(s) that correspond to the program outcome –they should obviously align.	
Program Outcome #2	LO #2,5,7	
Program Outcomeadd rows as needed		
General Education Competency #1	*List the course outcome number(s) that correspond to the General Education competency –they should obviously align.	
General Education Competency #2	LO #2,5,7	

### **Gathering Assessment Evidence**

Learning outcomes are one of the three key components of a constructively aligned course, meaning a course in which the outcomes, means (teaching methods and learning activities), and assessment methodology are mutually consistent and supportive. The outcomes specify what a student should achieve, the teaching methods and activities help them achieve those outcomes, and the assessment methodology determines whether and how well the outcomes have been achieved.



Three Essentials of Alignment:

- 1. Teaching methods should help students develop the knowledge and skills specified in the learning outcomes. The teaching methods are the means; the learning outcomes are the end.
- 2. Assessment methodology should determine whether, and to what degree, students have achieved the learning outcomes.
- 3. Teaching methods, assessments, and learning outcomes should be consistent and coherent.

If the learning outcome requires the students to be able to recall information, the assessment methodology should be designed to ensure the student can do just that, recall information.

#### **Assessment Methodology**

There are many considerations that need to be taken in account before collecting student learning data, and it is important to note that all assessment methods and tools have advantages and disadvantages. Therefore, carefully consider which is an "ideal" method that has the best fit for program needs, satisfactory validity, and affordability in terms of time, effort, and money.

FORMATIVE vs. SUMMATIVE	<b>Formative</b> - those undertaken as students progress through the course/curriculum; the purpose is to identify areas of learning that need to be improved before the end of the course/program.	<b>Summative</b> – obtained at the end of a course program; the purpose of which is to document student learning designed to capture students' achievement at the end of their program of study.
DIRECT vs. INDIRECT	<b>Direct</b> – provides for the direct examination or observation of student knowledge or skills against measurable student outcomes.	<b>Indirect</b> – ascertains the opinions or self-report of the extent or value of learning.
OBJECTIVE vs. SUBJECTIVE	<b>Objective</b> – one that needs no professional judgement to score correctly; examples: multiple-choice, true-false, exams where there is a finite number of "right" answers.	<b>Subjective</b> – yield many possible answers of varying quality and require professional judgement to score.
EMBEDDED vs. ADD-ON	<b>Embedded</b> – program assessments that are taken as part of the course work.	<b>Add-on</b> – assessments that are in addition to course requirements.
QUANTITATIVE vs. QUALITATIVE	<b>Quantitative</b> – predetermined response options that can be summarized into meaningful numbers and analyzed statistically.	<b>Qualitative</b> – use flexible, naturalistic methods and are usually analyzed by looking for reoccurring patterns and themes.

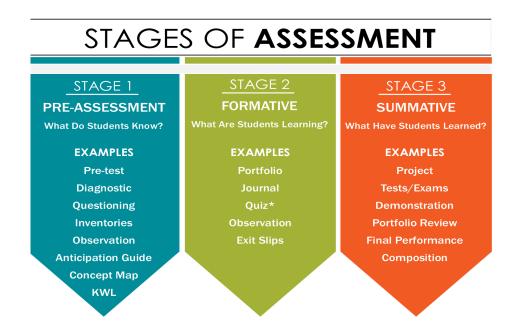
#### **Common Assessment Tools**

While there are a variety of ways to collect student learning outcome data, the following table shows the most common tools and indicates which tools are direct or indirect along with the learning level data can be collected.

METHOD	DIRECT / INDIRECT	LEARNING LEVEL	METHOD	DIRECT / INDIRECT	LEARNING LEVEL
Exit and	Direct and	Course,	Faculty	Direct	Course
Other	Indirect	Program,	Developed		
Interviews		Institution	Exams		

Simulations	Direct	Course	Expert	Direct	Course,
			External Examiner		Program
Behavioral	Direct	Course,	Written	Indirect	Course,
Observations		Program	Surveys /		Program,
			Questionnaires		Institution
Archival Data	Indirect	Program,	Portfolios	Direct	Course,
		Institution			Program
Focus	Indirect	Course,	Oral Exams	Direct	Course,
Groups		Program,			Program
		Institution			_
Performance	Direct	Program	Standardized	Direct	Course,
Appraisals		_	Tests		Program
Course	Indirect	Course,	Graduations	Indirect	Program,
Grades		Program,	Rates		Institution
		Institution			

#### **Course-Level Assessment Methodology Example**



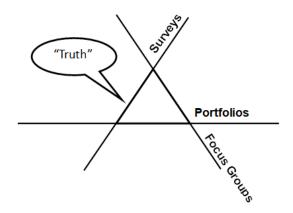
#### Triangulation

Validity is often questioned when it comes to discussing student learning results. In order to improve the validity of data collection, consider the following:

• Relevance – the assessment option should measure the student outcomes as "directly" as possible.

- Accuracy the option should measure the student outcome with confidence that the findings represent the "true value" of student learning.
- Utility The option provides formative and summative results with "clear implications" for program evaluation and improvement.

Use triangulation to ensure the validity of the student learning data, and keep in mind that the "truth" of the data is not an exact and clearly defined data point. More often than not, many factors impact student learning and the "truth" may be more data-informed than data-defined.



#### Assessment Method Truisms

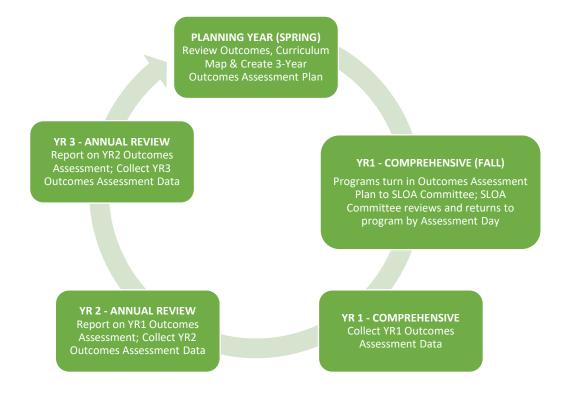
- There will always be more than one way to measure any student outcome.
- No single method is good for measuring a wide variety of student abilities.
- There is generally an inverse relationship between the quality of measurement methods and their expediency.
- It is important to pilot test to see if a method is appropriate for your program.

#### **3-Year Department/Program Learning Outcomes Assessment Plan**

After establishing learning outcomes and determining the when, where, and how to gather student learning assessment data, this is all used to create the program/department 3-Year Assessment Plan. The creation of the assessment plan and reporting cycles integrate with the 3-Year Program Review Cycle. The timeline and description of assessment activities are described below.

For more detailed information on the Program Review process and handbook, visit the Institutional Effectiveness and Research <u>Academic Program Review</u> page.

#### **Timeline for 3-Year Assessment Plans and Reporting**



#### Planning Year

Create an Assessment Plan using the **3-Year Student Learning Outcomes Assessment Plan** Form (Appendix B)

The form has three sections:

- 1. PART A: Program/Department Learning Outcomes Assessment
- 2. PART B: Course Learning Outcomes Assessment
- 3. PART C: General Education Competency/Institutional Learning Outcomes Assessment

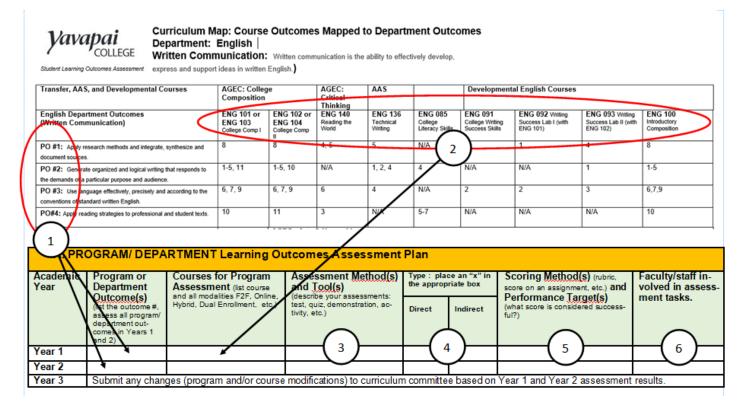
#### PART A: Program/Department Learning Outcomes Assessment

(all program outcomes are to be assessed in the first two years of the 3-year cycle). Please identify the Program/Department Outcomes you plan to assess each year and the course(s) in which you will collect assessment data. Program outcomes assessed in courses taught using different modalities (online, F2F, hybrid, dual enrollment) must be compared for consistency in students' attainment of the learning outcomes. Include at least one indirect measure of student learning where students provide information about their perception of how well they have attained the program outcomes (survey, focus group, interview, etc.).

**NOTE:** Program/Department outcomes are assessed in Years 1 and 2 so that modifications to the program can be submitted to the Curriculum Committee in the Fall semester of Year 3. Modifications to curriculum are effective the following Fall in the Academic Catalog. **NOTE:** Design your assessment plan so you are assessing program and course outcomes at the same time.

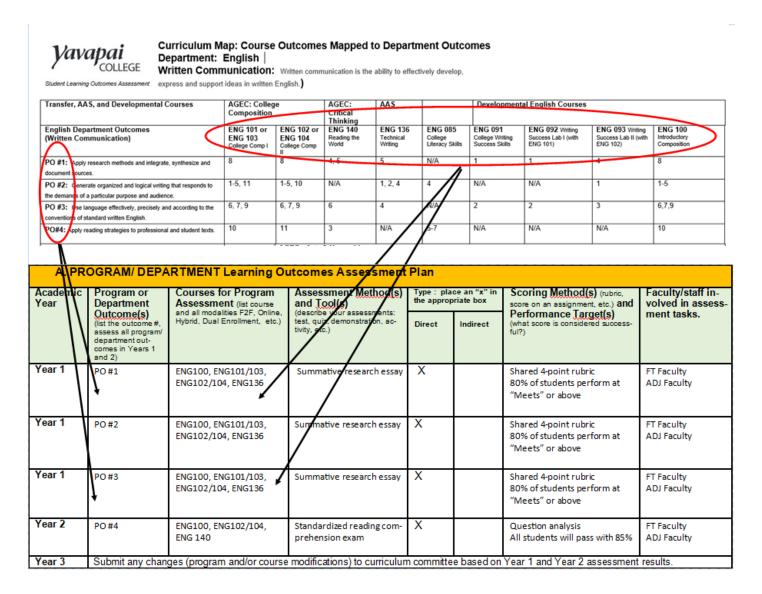
#### Aligning the Curriculum Map to PART A

Use the curriculum map with the created outcomes to fill out PART A on the 3-Year Student Learning Outcomes Assessment Plan Form. Ensure all of the program outcomes are assessed within the 3-Year plan.



#	SECTION TITLE & PURPOSE	#	SECTION TITLE & PURPOSE
1	Program or Department Outcome(s)	2	Courses for Program Assessment
	Identify the program/department outcomes		Identify the courses to be used collect program-
	planned to be assessed in each year. Not every		level assessment. Not every aligned course must
	outcome needs to be assessed every year. Some		be selected. Consider electing to assess in
	may be better aligned to be assessed together		courses that are sequenced, include all
	due to the assessment methodology and faculty		modalities, and/or are better representative of
	involved.		the students in the program.
3	Assessment Method(s) and Tool(s)	4	Direct vs. Indirect
	Indicate the "ideal" plan for collecting program or		Identify whether the assessment methodology
	department/level assessment in terms of		will be direct (observable skills or display of
	satisfactory validity, and affordability in terms of		knowledge) or indirect (self-reports on learning).
	time, effort, and money. Be sure to consider		If using an indirect method, consider using the
	what method will produce information or data		results provided to the program through the
	that will help the program affirm or improve		yearly data benchmarks from IER.
	teaching and learning.		
5	Scoring Method(s) and Performance	6	Faculty/Staff Involved in Assessment
	Target(s)		Tasks
	Scoring methods can include results from a		Identify the faculty that will be involved in
	rubric, question analysis		collecting the assessment data and evaluating the
			results. While not all faculty need to collect data,

#### **EXAMPLE – ENGLISH DEPARTMENT**



#### PART B: Course Learning Outcomes Assessment

(assess all courses in your program/department in the 3-year cycle): Please identify the courses and outcomes you plan to assess each year. Course outcomes assessed in multiple sections of courses taught using different modalities (online, F2F, hybrid, or dual enrollment) must be compared for consistency in students' attainment of the learning outcomes. Include a brief description of the assessment methods, performance targets and faculty/staff involved in the assessment tasks.

#### Aligning the Curriculum Map and PART A to PART B

## Yavapai COLLEGE

Year 3

#### Curriculum Map: Course Outcomes Mapped to Department Outcomes Department: English

Written Communication: Written communication is the ability to effectively develop,

Student Learning Outcomes Assessment express and support ideas in written English.)

Transfer, AAS, and Developmental Courses	AGEC: Colleg	e	AGEC:	AAS		Developmenta	I English Courses		
	Composition		Thinking		$\sim$	L .			
English Department Outcomes (Written Communication)	ENG 101 or ENG 103 College Comp I	ENG 102 or ENG 104 College Comp	ENG 140 Reading the World	ENG 136 Technical Writing	ENG Colleg Literacy	NG 091 llege Writing occess Skills	ENG 092 Writing Success Lab I (with ENG 101)	ENG 093 Writing Success Lab II (with ENG 102)	ENG 100 Introductory Composition
PO #1: Apply research methods and integrate, synthesize and document sources.	8	8	4,5	5	N/A	1	1	÷	8
PO #2: Generate organized and logical writing that responds to the demands of a particular purpose and audience.	15,11	1-5, 10	N/A	1, 2, 4		N/A	N/A	1	1-5
PO #3: Use language effectively, precisely and according to the conventions of standard written English.	6, 7, 9	6, 7, 9	2	4	N/A	2	2	3	6,7,9
PO#4: Apply reading strategies to professional and student texts.	10	11	ľ ,		5-7	N/A	N/A	N/A	10

#### A. PROGRAM/ DEPARTMENT Learning Outcomes Assessment Plan Assessment Method(s) Type : place an "x" in the appropriate box Academic Program or Courses for Program Scoring Method(s) (rubric, Faculty/staff inand tool(s) Department Assessment (list course and all modalities F2F, Online, Hybrid, Dual Enrollment, etc.) volved in assess-Year score on an assignment, etc.) and cribe your assessments: st, quiz, demonstration, ac-ity, etc.) Outcome(s) (list the outcome # Performance Target(s) ment tasks. Direct Indirect (what score is considered successassess all program/ department outful?) comes in Years 1 and 2) Year 1 1 3 4 5 6 Year 2 based on Year 1 and Yea Year 3 Submit any changes (program and to curriculum committe assessment results. for course modification COURSE Learning Outcomeg Assessment Plan : place an "x" in ppropriate box Faculty/staff in-volved in as-sessment tasks. Academic Course(s) Assessed Øutcome(s) Assessed Assessr ent Method(s) Type the a Scoring Method(s) (list course and all modali-ties F2F, Online, Hybrid, (list the outcome course that you s for each I be asand Tool(s) Year (rubric, s re on an as (describe y etc.) and assessments: test, signmen Dual Enrollment, etc.) sessing) ation, activity, etc.) quiz, demo Performance Tar-Assess all program/ department courses Direc Indirect get(s) 3 (what so is considyears. ered succ ssful?) Year 1 Ţ ź Year 2 1 3 4

#	SECTION TITLE & PURPOSE	#	SECTION TITLE & PURPOSE
1	Course(s) Assessed	2	Outcome(s) Assessed
	The courses chosen for a particular year should		The courses outcomes should be determined by
	correspond with the courses being assessed for		the curriculum map and associated with the
	PART A.		selected program outcomes for that particular
			year.
3	Assessment Method(s) and Tool(s)	5	Direct vs. Indirect
	The assessment method(s) and tool(s) chosen for		The direct vs. indirect methodology chosen for a
	a particular year should correspond with the		particular year should correspond with the
	courses being assessed for PART A.		courses being assessed for PART A.
5	Scoring Method(s) and Performance	6	Faculty/Staff Involved in Assessment
	Target(s)		Tasks
	The scoring method and performance targets		The identified faculty chosen for a particular year
	chosen for a particular year should correspond		should correspond with the courses being
	with the courses being assessed for PART A.		assessed for PART A.

5

6

#### **EXAMPLE – ENGLISH DEPARTMENT**

A. PR	OGRAM/ DEPAR	TMENT Learning Ou	itcomes Assessment	Plan				
Academic Year	Department A Outcome(s)	Courses for Program Assessment (list course and all modalities F2F, Online, Hybrid, Dual Enrollment, etc.)	Assessment Method(s) and Tool(s) (desoribe your assessments: test, quiz, demonstration, ac- tivity, etc.)	Type : plac the appropr Direct	e an "x" in riate box Indirect	score on ar Perform	Method(s) (rubric, n assignment, etc.) and ance Target(s) is considered success-	Faculty/staff in- volved in assess ment tasks.
Year 1		ENG100, ENG101/103, ENG102/104, ENG136	Summative research essay	x	(		point rubric udents perform at or above	FT Faculty ADJ Faculty
Year 2		ENG100, ENG102/104, ENG 140	Standardized reading com- prehension exam	х			ts will pass with 85%	FT Faculty ADJ Faculty
Year 3	Submit any change	es (program and/or course	modifications) to curriculur	n committe	e based on	Year 1 and	Year 2 assessment	results.
00115		tcomes Assessmen						<u> </u>
Academic Year	Course(s) Assesse (list course and all modalities F2F, Online, Hybrid, Dual Enrollment etc.) Assess all program/ department courses in 3	is the outcome #s for e course that you will be assessing)	adh and Tool(s) (describe ydurnassessme quiz, demonstration, adi	vity, etc.)		te box	Scoling Method(s) (rubric score on an assignment, etc.) and Performance Targetis) (what slope is conside ed successful?)	Facultystaff involved in assessment tasks.
Year 1	ENG100-F2F, Online ENG101/103-F2F, Online ENG102/104-F2F, Online ENG136- F2F	ENG101/103 - #8 ENG102/104 - #8 ENG136 - #5		essay	x		Shared 4-hoint rubric 80% of studients performat "Meets" or above	FT Faculty ADJ Faculty
Year 2	ENG100-F2F, Online ENG102/104-F2F, Online ENG140–F2F	ENG100 - #10 ENG101/103 - #' ENG102/104 - #' ENG136 - #5-7		•	x		Question analysis All students will pass with 85%	FT Faculty ADJ Faculty
Year 3	Any other courses want to measure or thos associated with General Education Competency	se	e					

**PART C:** General Education Competency/Institutional Learning Outcomes Assessment The GECCO outcomes and assessment process will be under review/revision in 2019/2020.

## ?

## **Analyzing Student Learning Assessment Results**

After assessment data is collected, compare the results to performance targets identified in the assessment plan to measure student attainment of the learning outcomes.

Start with first impressions about the data - "gut reactions"

Second, focus on the following discussion points to begin your analysis:

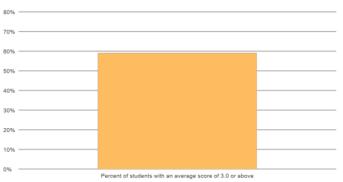
- 1. Observations: What do we think about this data?
- 2. Gaps: What else do we want to know?

- 3. Relationships: What connections can we make?
- 4. Success: Identify evidence of learning!
- 5. Outliers: Any anomalies (unexpected, unintended data) or provocative data?
  - By capturing anomalies, you can make sure three to five years from now you can remember what caused the anomalies. For example, campus could close during to a pandemic and all learning must be moved to remote learning in an extremely short time span. This could impact student performance on assessment instruments.
- 6. Usefulness: How can this data be used for instructional purposes?
  - Sometimes we find the assessment instrument we designed does not actually help inform learning or curriculum changes. If this is the case toss it!
- 7. Future questions: What other questions does this data raise?
  - Usually as the trends in the data emerge, a future assessment question also emerges.

Use the discussion points to identify strengths are areas in need of improvement within the programs/departments, courses, or learning activities based on the analysis of the assessment data.

Hopefully, the collected data resulted in useful information that can pinpoint where curricular or pedagogical changes can be made. If the data and results are not useful to inform changes concerning teaching and learning, the first step that can be taken would be to refine the data collected.

For example, the collected data and results may should that the students met the threshold:

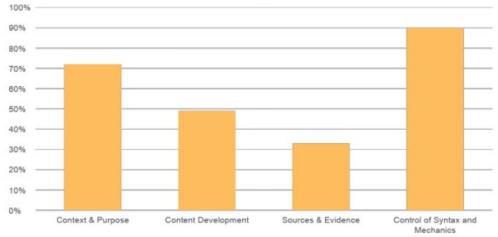


### Written Communication Rubric

Threshold: 70% of students will average 3.0 or above

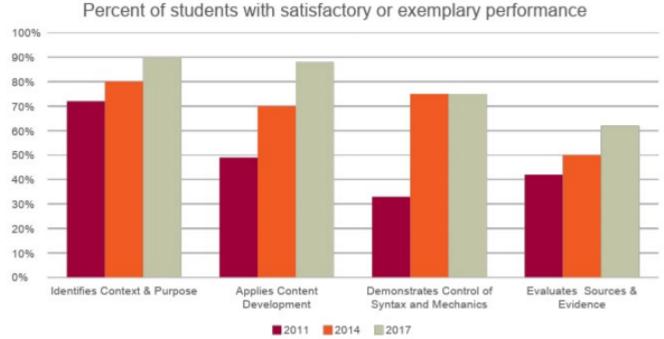
However, this is not useful information to make changes to teaching and learning. An adjustment to the rubric might show more meaningful results that can result in change:

Written Communication Percent of students with satisfactory or exemplary performance (N=65)



These results show that improvements can be made with students by focusing more on appropriate uses of sources and evidential materials and content development, both of which are performance measures of written communication.

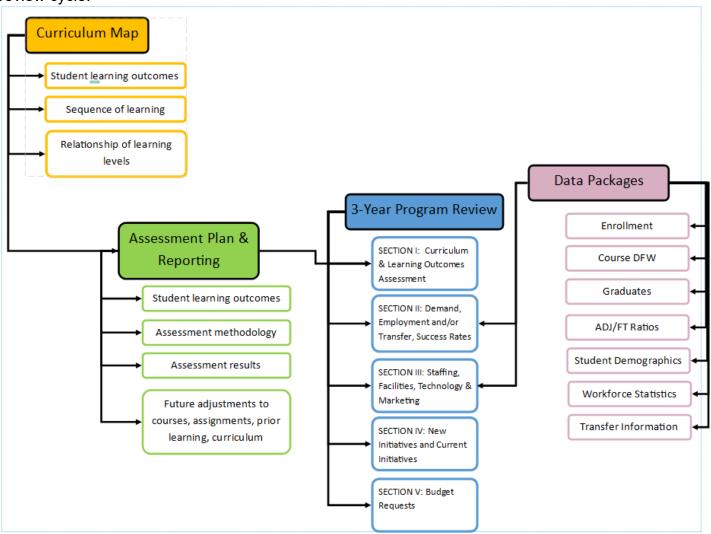
Maintaining historic data can also be useful.



## Written Communication

After areas in need of improvement are determined, identify actions needed such as, modifications to curriculum or the program, changes in instructional practice or professional development needs, equipment or staffing needs, or changes within the assessment process.

The following graphic indicates how the Assessment Plan and Reporting integrate with the program review cycle.



The analysis of assessment results is reported in the 3-Year Program Review Cycle in the Annual Reviews. Results from the previous year's assessment data are reported on the Program Review form. For example, Year 1 data and results will be reported Year 2, Year 2 results will be reported Year 3, and Year 3 results are reported the next Program Review cycle along with a new 3-Year Learning Outcomes Assessment Plan.

## Sample Table for Reporting Assessment Results from Year 1 in the Year 2 Annual Program Review Report

<b>Results:</b>	Learning Outcomes	Assessment		
Academic Year	Level of Assessment (Course, Program, GECCO)	Strengths and areas in ne based on student perform comparison of student perf in different modalities (onlin concurrent enrollment, etc.	Faculty/staff involved in the analysis.	
Year 1 2018/19	Program/Department Outcomes Assessment Results	Strengths: Needs Improvement:		_
Results	Course Outcomes Assessment Results	Strengths: Needs Improvement:	-	
	GECCO Outcomes Assessment Results	Strengths: Needs Improvement:		-
Learning Ou		ed on Results: Identify a lts: changes to curriculum,		
Action for I	mprovement	Resources Needed	Completion Date	Faculty/staff involved in action

### **Using Results to Make Improvements**

It is not always evident what changes can or should be made from assessment results as changes can occur at all of the levels of learning.

Institutional-Level:

- Revising institutional outcomes;
- Improving student engagement and success;
- Creating a culture of teaching and learning;
- Enhancing faculty collaboration across the campus and the institution;
- Reflecting on assessment processes and institutional practices.

Program/Department and Course-Levels:

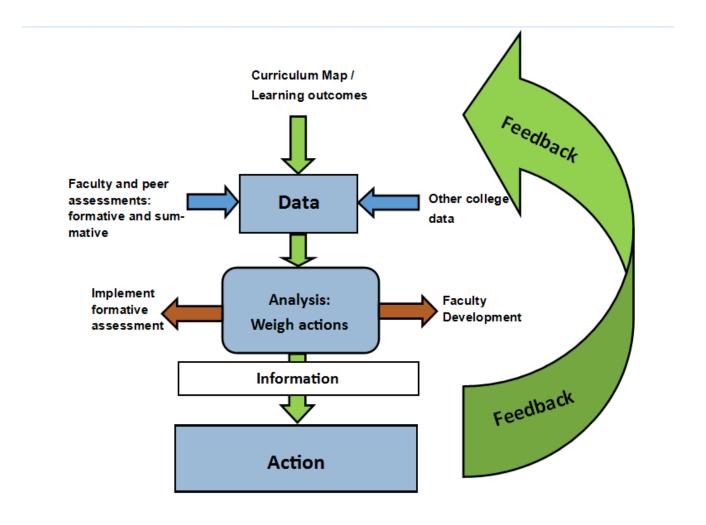
- Setting faculty priorities;
- Securing resources for professional development;
- Improving student services;
- Revising curriculum, courses, and assignments;
- Informing program reviews/departmental self-studies;
- Aligning the curriculum;
- Improving program and courses outcomes.

In the Classroom:

- Using more formative assessments to gather information on where students are and where the faculty member needs to go next;
- Observing students to see how well they are making sense of the curriculum, interacting with others, or struggling with the activities. This could involve changes to the pacing for the whole class or scaffolding specific struggling students;
- Using summative assessments to measure growth of individuals and whole groups. If a large number of students do not do well, reflection may be needed to make changes for the next class.

Additional student information may come from analyzing assessment results:

- There may be several students who miss class due to being homeless. This could be an opportunity for the institution to help;
- Several students may be inaccurately placed in classes. This could lead to a collaboration between faculty and Student Affairs.
- Students may be doing well in the coursework, but failing tests. It could be test anxiety and could lead to a workshop for anxious test takers.



## Appendix A – Curriculum Map Template

Vavapai

Curriculum Map: Required Course Outcomes Mapped to Program Outcomes Program: Certificate:

Student Learning Outcomes Assessment

Mission: Copy/paste mission from current catalog

#### List all program required courses in the first row

Required	Required course 1	Required course 2		
Courses				
Program Outcome				
PO #1:	List each outcome from the course that aligns with the program outcome			
PO #2:				
PO #3:				
PO #4:				
Additional Program Outcomes here				

## Appendix B – 3-Year Assessment Plan Template



## **3-Year Learning Outcomes** Assessment Plan

Student Learning Outcomes Assessment

For Associate's Degrees, Certificates and Academic Departments

#### Date Due:

#### **SLOA Representative:**

<b>Program/Department</b> (For AAS Degree programs, include all associated certificate programs)	
Program/Department Review 3-Year Cycle Dates	2020/21 – 2022/23
Program Director, Department Chair, Associate Dean or Faculty Contact (include email)	
School/Academic Dean	
Date Submitted	
Date Reviewed by SLOA Committee	
SLOA Review Summary (See scoring g	uidelines for a detailed description of criteria.)

**Directions:** Please complete the 3-Year Student Learning Outcomes Assessment table in Part I of the form and submit it to SLOA for review by the posted date. SLOA will provide feedback and completed assessment plans will be incorporated into the comprehensive program review.

- **Part I** is to be completed the Spring semester before the first year of the Comprehensive Program Review cycle. Please fill in the table provided with a brief description of your 3-year plan for assessing student learning outcomes at the program/department level, course level, and institutional level.
- Part II provides the criteria used by SLOA to review your assessment plan.
- **Part III** is a sample reporting table for assessment results in Years 2 and 3 of the comprehensive program review cycle.

## **Part I: 3-Year Student Learning Outcomes Assessment Plan** (to be completed and included in Year 1 of the Comprehensive Program Review Cycle).

 Part A: Program/Department Learning Outcomes Assessment Plan (all program outcomes are to be assessed in the first two years of the 3-year cycle). Please identify the Program/Department Outcomes you plan to assess each year and the course(s) in which you will collect assessment data. Program outcomes assessed in courses taught using different modalities (online, F2F, hybrid, dual enrollment) must be compared for consistency in students' attainment of the learning outcomes. Include at least one indirect measure of student learning where students provide information about their perception of how well they have attained the program outcomes (survey, focus group, interview, etc.).

**NOTE:** Program/Department outcomes are assessed in Years 1 and 2 so that modifications to the program can be submitted to the Curriculum Committee in the Fall semester of Year 3. Modifications to curriculum are effective the following Fall in the Academic Catalog. **NOTE:** Design your assessment plan so you are assessing program and course outcomes at the same time.

- Part B: Course Learning Outcomes Assessment Plan (assess all courses in your program/department in the 3-year cycle): Please identify the courses and outcomes you plan to assess each year. Course outcomes assessed in multiple sections of courses taught using different modalities (online, F2F, hybrid, or dual enrollment) must be compared for consistency in students' attainment of the learning outcomes. Include a brief description of the assessment methods, performance targets and faculty/staff involved in the assessment tasks.
- **Part C: Institutional Student Learning Outcomes Assessment Plan:** The Institutional Learning Outcome process is being developed and transitioning from AGEC/GECCO.

Curriculum Map: Provide your current curriculum map below.

Academic Year	Program or Department Outcome(s)	artment Learn Courses for Program Assessment	Assessment Method(s) and Tool(s)	Type : "x" in tl	place an	Scoring Method(s) (rubric, score on an assignment, etc.) and Performance Target(s) (what score is considered successful?)	Faculty/staff involved in assessment tasks.
	(list the outcome #, assess all program/depart ment outcomes in Years 1 and 2)	(list course and all modalities F2F, Online, Hybrid, Dual Enrollment, etc.)	(describe your assessments: test, quiz, demonstration, activity, etc.)	Direct	Indirect (Include at least one indirect assessme nt)		
Year 1 2019/20							
Year 2 2020/21							
Year 3Submit any changes (program and/or course modifications) to curriculum committee2021/22based on Year 1 and Year 2 assessment results.							
SLOA Committee Review/Feedback:							

Academic Year	Course(s) Assessed (list course and all modalities F2F, Online, Hybrid, Dual Enrollment, etc.) Assess all program/depart ment courses in 3 years.	Outcome(s) Assessed (list the outcome #s for each course that you will be assessing)	Assessment Method(s) and Tool(s) (describe your assessments: test, quiz, demonstration, activity, etc.)	"x" in th	blace an ne riate box Indirect	Scoring Method(s) (rubric, score on an assignment, etc.) and Performance Target(s) (what score is considered successful?)	Faculty/staff involved in assessment tasks.
Year 1 <mark>2019/20</mark>							
Year 2 <mark>2020/21</mark>							
Year 3 <mark>2021/22</mark>							
SLOA Committee Review/Feedback:							
C. Institutional Outcomes/General Education Competencies Assessment Plan (Institutional goals and assessment are in the process of review/revision)							I (Institutional

**Part II Scoring Guidelines:** The SLOA Committee will use the following guidelines to provide feedback about your assessment plan. Please use the criteria to self-assess before submitting to SLOA.

Score	Criteria and Scoring Guide (3, 2, or 1)
3 - Healthy 2 - Cautionary 1 - Unhealthy	<ul> <li>3 – Healthy: Assessment plan criteria is complete and processes communicated clearly.</li> <li>2 – Cautionary: Assessment plan criteria is complete, but needs more detail or clarification ir some areas.</li> </ul>
	<b>1 – Unhealthy</b> : Assessment plan criteria is not complete and needs more detail or clarification in some areas.
A. Program	/Department-Level Learning Outcomes Assessment
A. Program	/Department-Level Learning Outcomes Assessment All Program/Department learning outcomes are assessed in Years 1 and 2. Plan includes assessment of all program/department–level learning outcomes in the first two years.
A. Program	All Program/Department learning outcomes are assessed in Years 1 and 2. Plan includes assessment of all program/department–level learning outcomes in the first two
A. Program	All Program/Department learning outcomes are assessed in Years 1 and 2. Plan includes assessment of all program/department–level learning outcomes in the first two years.

different modalities (online, face-to-face, dual or concurrent enrollment, hybrid, etc.) are assessed and plan includes how to compare student performance in the different modalities.
<b>Faculty/staff involved in the assessment tasks are identified.</b> A variety of faculty and staff are involved in the program-level learning outcomes assessment process over the 3-year cycle.
<b>Both direct and indirect assessment methods are incorporated.</b> Direct assessments measure student performance based on samples of their work (test, project, demonstration, etc.). Indirect assessments gather information about opinions or thoughts about student knowledge, skills or attitudes (survey, focus group, exit interview, etc.).
evel Learning Outcomes Assessment
All courses in the department/program are assessed in 3 years. All courses in the department/program are assessed in the 3-year cycle, but not all of the outcomes for the course need to be assessed. Focus outcomes in each course identified by the department/program.
A description of assessments methods, scoring, and performance targets are included. A brief, clear description is given for each type of assessment, scoring method, and performance target.
Plan describes process for comparing outcomes taught in courses with
<b>different modalities.</b> Courses that are taught in different modalities (online, face-to-face, dual or concurrent enrollment, hybrid, etc.) are assessed and plan includes how to compare student performance in the different modalities.
<b>Faculty/staff involved in the assessment tasks are identified.</b> A variety of faculty and staff are involved in the course-level learning outcomes assessment process over the 3-year cycle.
n-Level Learning Outcomes Assessment (Institutional goals and assessment are in the
eview/revision)
or the 3-Year Learning Outcomes Assessment Plan
Healthy: 3
Cautionary: 2 to 2.9 Unhealthy: 0 to 1.9

Part III: Reporting Assessment Results. To be completed in Year 2 and Year 3 of the 3-

**Year Program Review Cycle in the Annual Reviews.** Results from the previous year's assessment data are reported on the Program Review form. For example, Year 1 data and results will be reported Year 2, Year 2 results will be reported Year 3, and Year 3 results are reported the next Program Review cycle along with a new 3-Year Learning Outcomes Assessment Plan.

Please report the results of your assessment activities at the program, course and institution level in the appropriate section in the annual program review report in Year 2 and Year 3. The format for reporting is in the table below:

# Sample Table for Reporting Assessment Results from Year 1 in the Year 2 Annual Program Review Report

Results:	Learning Outcomes	Assessment		
Academic Year	Level of Assessment (Course, Program, GECCO)	Strengths and areas in new based on student performation comparison of student perfor in different modalities (online concurrent enrollment, etc.)	ance. Include mance in courses taught	Faculty/staff involved in the analysis.
Year 1	Program/Department	Strengths:		
<mark>2018/19</mark>	Outcomes Assessment Results	Needs Improvement:		
Results	Course Outcomes Assessment Results	Strengths:		
Results		Needs Improvement:		
	GECCO Outcomes	Strengths:		
	Assessment Results	Needs Improvement:		
Action fo	r Improvement Base	d on Results: Identify any	y actions needed for impro	vement based on Student
	utcomes Assessment resu nt needs, etc.	Ilts: changes to curriculum, in	struction, assessment pro	cess, professional
Action for Improvement		Resources Needed	Completion Date	Faculty/staff involved in action

## Appendix C – Glossary and References

#### Glossary

**Co-Curricular Activities:** An activity, program, or experience that supports the institution's mission and Institutional Learning Outcomes and occurs outside of a formal course.

**Data Collection Tool:** Determine what instrument will be used to collect data: percentage correct, rubric scores, Likert-type scale on a survey, etc.

**Direct Assessment Method:** A method that seeks to assess observable student performance. Data collection tools could be a portfolio, pre-/post-tests results.

**Formative Assessment Method**: Data collected during the program or experiences with the purpose to provide feedback to shape, modify, or improve the program or experience.

**Indirect Assessment Method:** A method that measures perceptions and opinions of students' learning. Data collection tools could be self-reported survey data or focus group responses.

**Institutional Learning Outcome (ILO):** General and measurable outcomes across the student experience. While at least one Institutional Learning Outcome must be assessed for each activity, program, or experience, co-curricular activities might have multiple ILOs embedded within them. Specific ILO definitions are available in the Co-Curricular Assessment Plan and Results instructions.

**Performance Targets:** What is the desired level of performance that represents students' success at achieving an outcome?

Examples:

- At least 80% of students will be able to .....
- The mean rubric score will be 3 or greater on a scale of 1 to 4.

**Qualitative Data Collection Type:** Narrative data that is useful for understanding the depth and richness of an experience. Examples are written reflections, focus group results, interviews, openended questions to surveys.

**Quantitative Data Collection Type:** Numerical data that is useful for comparing and measuring across individual students or student populations. Examples are rubric scores, checklists, pre-/post-tests, survey questions.

**Rationale:** Identify the purpose of the co-curricular activity, program, or experience as related to learning outcomes that supports the institutional mission. Consider the driving force and need for the activity, program, or experience.

**Responsible/Point Person:** Determine who should collect the data. Depending on the Targeted Audience, one person may be able to collect the data, but it may take more if it is a focus group or Q&A.

**Summative Assessment Method:** Data collected after the activity, program, or experience has been completed. It provides the opportunity to make a judgment on the quality, worth, or compare it to a standard.

**Targeted Audience:** Define who will be impacted by the co-curricular activity, program, or experience. Examples could include 1st Gen students, TRIO students, YC students at event, Hispanic or other student populations.

**Timeframe for Activity:** Determine if the activity, program, or experience will be a one-time event or an ongoing event for a week, a month, a semester

#### References

Accreditation Standards (2018). Higher Learning Commission. Retrieved from <a href="https://www.hlcommission.org/Policies/criteria-and-core-components.html">https://www.hlcommission.org/Policies/criteria-and-core-components.html</a> June 2018

Allen, Mary J. (2004). Assessing Academic Programs in Higher Education (2<sup>nd</sup> Edition)

Hatfield, Susan (April 2017): Arizona Assessment Conference Presentation: "Assessment that Matters: Rethinking Good Practice in Assessment"

Suskie, Linda (2009). Assessing Student Learning; A Common Sense Guide (2<sup>nd</sup> Edition)

Allen, Mary J. (2004). Assessing Academic Programs in Higher Education (2<sup>nd</sup> Edition)

Walvoord, Barbara E. (2010) Assessment Clear and Simple: A Practical Guide for Institutions, Departments, and General Education (2<sup>nd</sup> Edition)

#### Appendix A:

#### Yavapai College Descriptions for 100, 200, 300 and 400 Level classes

#### Proposed Definition:

Yavapai College courses provide content at different levels of knowledge and skill adopted from Bloom's Taxonomy Staircase, Fredonia State University and AZ transfer.

AZ Transfer—Lower Division (100-Level and 200-Level)—Lower division courses should acquaint, introduce, develop, and lay foundation information.

AZ Transfer—Upper Division (300-Level and 400-Level)—Upper division courses should provide in-depth study, application, and understanding of scope and limitations of the knowledge.

Upper Level courses are at an advanced-undergraduate level of difficulty, and are generally taken by majors, minors, and other students with a well-defined interest and demonstrated ability in a particular subject area.

#### Qualifications:

Individual disciplines may provide different levels of knowledge and skill at different course levels than those outlined in this document. The final decision regarding learning outcome language lies with the discipline faculty.

This document is being used as a starting point for further discussion on what differentiates lower and upper division courses at Yavapai College. The guidelines presented here will be revised as necessary.

#### LEVELS

- Developmental courses (below 100-level) generally cover pre-college-level competencies and prepare students to take college-level courses;
- 100-Level Courses
  - These are typically introductory courses having no university-level prerequisites, often presenting basic concepts and terminology. Students in such courses are expected to operate largely at the "knowledge" and "comprehension" levels, but should be provided opportunities to develop at the "application" and "analysis" levels.
- 200-Level Courses
  - Such courses are at an intermediate level of difficulty, and sometimes survey a subfield within a discipline. They often have a prerequisite at the 100-level. Students taking such courses should solidify their abilities at the knowledge and comprehension levels, and be provided ample opportunity to develop their application and analysis skills.
- 300-Level Course

- While continuing to develop proficiency at the lower cognitive levels, 300-level courses are expected to provide students with the opportunity to operate at the "synthesis" and "evaluation" levels.
- 400-Level Courses
  - Courses at the 400-level operate mostly at the "synthesis" and "evaluation" levels. They are
    often of a "seminar" nature, with the students taking significant responsibility for the course
    agenda. In particular, courses which provide students with the opportunity to perform directed
    research are usually at the 400-level.

#### Additional guide to help with course creation

#### • (100-level) Factual

- First year (100-level) courses generally cover competencies that do not require previous experience or knowledge of the subject and are often introductory and survey courses and focus on:
  - Knowledge (Remember)
    - Verbs: *define, repeat, record, list*
    - Activities: lecture, visuals, video, audio, examples, illustrations, analogies
  - Comprehensive (Understand)
    - Verbs: translate, restate, discuss, describe, recognize, explain, express, identify
    - Activities: questions, discussion, review, test, assessment, reports, learner, presentation, writing

#### • (200-level) Conceptual

- Second year (200-level) courses generally cover competencies for which some previous experience or knowledge may be desirable. A 200-level course has a prerequisite course, and focuses on:
  - Application
    - Verbs: interpret, apply, employ, use, demonstrate, dramatize, practice, illustrate, operate, schedule, shop, sketch
    - Activities: exercises, practice, demonstrates, projects, sketches, simulations, role play, microteach
  - Analysis
    - Verbs: distinguish, analyze, differentiate, appraise, calculate, experiment, test, compare, contrast, criticize, diagram, inspect, debate, inventory, question, relate
    - Activities: problems, exercises, case studies, critical incidents, discussion, questions, test

#### • (300-level) procedural

- Third year (300-Level) courses are subject-specific and continue to develop lower cognitive levels while developing experience through:
  - Synthesis
    - Verbs: compose, plan, propose, design, formulate, arrange, collect, construct, create, set-up, organize, manage, prepare, select

- Activities: projects, problems, case studies, creative exercises, develop plans, constructs, simulations
- Analysis
  - Verbs: distinguish, analyze, differentiate, appraise, calculate, experiment, test, compare, contrast, criticize, diagram, inspect, debate, inventory, question, relate
  - Activities: problems, exercises, case studies, critical incidents, discussion, questions, test

#### • (400-level) Metacognitive

- Fourth year (400-Level) courses generally focus on a seminar, self-knowledge and practical application/problem-solving projects which focus on:
  - Synthesis/create
    - Verbs: compose, plan, propose, design, formulate, arrange, collect, construct, create, set-up, organize, manage, prepare, select
    - Activities: projects, problems, case studies, creative exercises, develop plans, constructs, simulations
  - Evaluating
    - Verbs: judge, appraise, evaluate, rate, compare, value, revise, score, select, choose, assess, estimate, measure
    - Activities: Case studies, projects, exercises, critiques, simulations, appraisals
- Fredonia State University <u>https://www.fredonia.edu/apcaas/guidelines-numbering-courses-undergraduate-</u>
   <u>level#:~:text=300%2DLevel%20and%20400%2DLevel%20Courses,in%20a%20particular%20subject%20</u>
   <u>area</u>.
- Bloom's Taxonomy Staircase (Source: https://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcs143\_023989.pdf)

Revised and approved by Curriculum Committee 9/27/2022