

Comprehensive Outcomes Assessment Plan

GovState

MISSION, VISION & CORE VALUES

MISSION

Governors State University is committed to offering an exceptional and accessible education that prepares students with the knowledge, skills and confidence to succeed in a global society.

VISION

GovState will create an intellectually stimulating public square, serve as an economic catalyst for the region, and lead as a model of academic excellence, innovation, diversity and responsible citizenship.

CORE VALUES

Invest in **Student Success** through a commitment to mentoring and a deliberate university focus on student achievement of academic, professional and personal goals.

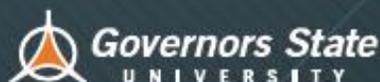
Provide **Opportunity and Access** to a first-class public education to residents of our surrounding communities and all those traditionally underserved by higher education.

Serve as an **Economic Catalyst** for the citizens of the State of Illinois and our larger Midwest region, so that our communities grow and flourish.

Prepare **Stewards of our Future** to thrive in the global economy, to contribute to ongoing innovative research and to serve as stewards of the environment.

Demonstrate **Inclusiveness and Diversity** to encourage acceptance of wide-ranging perspectives among students, staff, faculty and members of the broader community.

Promote **Quality of Life**, which encompasses civic, personal, professional and cultural growth.



INTRODUCTION:

Since the inception of the Committee on Assessment of Student Learning Outcomes (CASLO), the committee has been committed to viewing data for the purposes of continuous improvement. Yet, the overall purpose and intent of this comprehensive assessment plan was not fully realized at the inception of the committee, its structure, scope, and purpose has expanded. Regarding outcomes assessment, the university continues to make noteworthy strides. The design of this comprehensive outcomes assessment plan and this learning guide relies on credible strategies that demonstrate the quality of student learning across all areas of the campus.

Within this framework, the comprehensive outcomes assessment plan provides a pathway for using academic program review, assessing curricular programs, co-curricular programs and centers at GovState. This plan is based on creating a culture and infrastructure that embeds continuous quality improvement while examining student learning and success throughout the university.

The scope of the comprehensive outcomes assessment plan includes:

- Components of institutional effectiveness
- A formalized process of periodical assessment reviews & reporting
- A conceptual framework for university-wide assessment

At the heart of the process is the capture of assessment results while infusing results into the program or unit activities for the purposes of continuous improvement as related to outcomes. These outcomes as stated across all functioning areas both academically and co-curricular areas serve as the criteria for measuring the attainment of the University mission.

PURPOSE OF THIS GUIDE

The outcomes assessment provides a framework for building assessment plans and reports. It further provides a structure for using outcomes assessment data and indicators that point to student learning at multiple levels: institutional, programmatic, and at the course level, all of which points to institutional effectiveness.

Ultimately, Governors State University demonstrates its quality and effectiveness through a comprehensive outcomes assessment plan focused on the performance of the department's/unit's student learning outcomes assessment plan. The formation of a program's plan allows both academic and non-academic programs/units to develop a mission, goals, and outcomes, which demonstrate characteristics and components of the institution's overarching mission as it impacts the knowledge gained by all students. The comprehensive outcomes assessment plan coupled with the university's guiding mission aids in preparing the **Success of Students** "through a commitment to mentoring and a deliberate university focus on student achievement of academic, professional and personal goals."

STRUCTURE:

The development and construction of each of the six phases within the plan is as important as the evidence gathered to show students' overall success. Components of an outcomes assessment plan are designed by faculty to establish learning goals. They are also responsible for evaluating whether the goals for their respected program, degree or certification are being achieved.

A systematic approach for gathering, analyzing, and using evidence from various areas within a program to measure improvements in students' learning is explained throughout this document. Regardless of the discipline, this is accomplished by developing a concise understanding and expectation of what graduates know and should be able to do with the knowledge from within the field. Equally important are the values, attitudes, and disposition held by graduates. This culminates in the elements of the above infrastructure as articulated in an outcomes assessment plan.

Mission

The Mission of the Committee on Assessment of Student Learning Outcomes (CASLO) is to assist the university community with the development, implementation, and assessment of student learning outcomes to **support** assessment as a process with an aim to provide programs with actionable feedback on student learning.

Purpose

CASLO functions in an advisory capacity to promote a unified culture of assessment and evidence-based design for student learning outcomes. CASLO's aim is to maintain high-quality programs that uphold the mission, vision, and values of Governors State University.

Membership

Members are appointed by deans across the university to maintain representation of academic and co-curricular programs. The makeup of membership includes administration, faculty, and staff involved in assessment of accredited and non-accredited programs.

CASLO Responsibilities:

- Review academic and co-curricular programs' assessment process on a cyclical basis.
- Provide feedback on reports, improvement plans, assessment alignments/curriculum mapping, measurement/benchmarks, and student learning outcomes (SLOs).
- CASLO will also provide professional development opportunities for the GSU community on topics such as:
 - Development of student learning outcomes
 - Blooms Taxonomy
 - Measurement of student learning outcomes

PHASE 1

Mission *(A clear description of the purpose, direction, and values as aligned with the university mission)*

PHASE 2

Department/Program Goals *(What are the overall goals of the department, program/unit?)*

Department and program goals should be provided to CASLO by xx-month every three years *(or mid-cycle, depending on their accreditation cycles)*.

PHASE 3

Student Learning Outcomes *(What does the student know/what can the student do/what does the student value?)*

PHASE 4

Determine the Assessment Measures/Tools *(Identify direct and indirect measures for measuring evidence)*

PHASE 5

Strategies and Methods for Analyzing Data *(What questions can be asked and answered with the data)*

PHASE 6

Summarizing and Reporting Evidence *(What changes if any, will be made to the procedures, tools, or curriculum and why? Feedback: how will results be communicated to faculty, staff, students, and educational assessment committee/CASLO)*

OUTLINE
For
PLANS & REPORTS

PROPOSED -DRAFT

(DRAFT) Reporting Cycle (DRAFT)	
August	Data Day (spring data)
September	Start Date
October	Assessment review by CASLO
November	Documentation of changes
December	Documentation of changes
<hr/>	
January	Data Day (fall data)
February	Cyclical submissions to APRC
March	Assessment review by CASLO
April	
May	
<hr/>	
June	
July	

OUTCOMES ASSESSMENT PLAN OUTLINE

I.

THE OUTCOME ASSESSMENT PLAN

- a. Name of the program/unit
- b. Academic degree(s) offered

1. Introduction (Phase 1 & 2)

- a. Process used to develop the outcomes assessment plan
- b. State the mission for the academic program/unit (*A clear description of the purpose, direction, and values as aligned with the university mission*)
- c. State the purpose of the program: who it serves – campus and community, its direction and overall goals. (*What are the overall goals of the department, program/unit?*)

2. Clearly defined each Student Learning Outcome - a maximum of 4-5

(Phase 3) (*What does the student know/what can the student do/what does the student value?*)

- a. What do you expect students to know and be able to do at each level?
- b. What are the standards or level for success?
- c. What disposition should students hold as related to the discipline?

3. Identify both direct and indirect methods used (Phase 4)

All outcomes must be assessed using both direct and indirect methods

- a. Explain what form, when, and where the assessment will take place, and at what levels (e.g., freshman year, sophomore and junior years; graduate year 1, year 2).

4. Analyzing the data and using results for improvement (Phase 5) (*What questions can be asked and answered with the data*)

- a. Clearly define the process for evaluating the data and using the results.
- b. What does data mean? How will the results be used? What changes will be or will not be made? How will the information be used to improve curriculum, instruction, and student learning?

5. Timetable for Implementation (Phase 5)

- a. What will happen in the fall or spring as a result of the data and information gained?
- b. What will be implemented, and when?

6. Feedback: summarizing and reporting evidence (Phase 6)

- a. How will results be communicated to faculty, staff, students, Educational Assessment Committee members, Deans and Deans' Council?

***** AT THE END OF A THREE YEAR CYCLE, THE DEPARTMENT/PROGRAM OR UNIT SHOULD IDENTIFY THE STRENGTHS AND AREAS FOR IMPROVEMENT IN THE EXISTING OUTCOMES ASSESSMENT PLAN TO DETERMINE NECESSARY CHANGES.**

PHASES OF THE OUTCOMES ASSESSMENT PLAN

It is important to note that the assessment process is a cycle of perpetual adjustment, development, and improvement. The **phases** within the assessment plan will remain constant, consisting of assessing student learning outcomes, gathering data to verify the outcomes, and analyzing the results and data. Taken together with the information gathered, the evidence is used for the purposes of implementing changes for the benefit of gauging students' success. The foundation of the process is built on measurements used for improving students' ability to learn. Ultimately, the process is a continuously evolving cycle of assessment that ends and begins anew. Hence, a three-year cycle is used. In this way, outcomes are measured over the course of six semesters, offering an opportunity to monitor the developments toward attaining departmental and institutional missions.

CASLO Guidance on Preliminary Activities for Programs:

The sequence of preliminary activities is vital to the development of a program's or unit's outcomes assessment plan. A more expanded explanation for each of the key items below is found in subsequent sections of this document.

Faculty within each discipline collectively deliberate the following:

- Articulate a mission for the program or unit, including goals.
- Development of no more than 4-5 student learning outcomes. The outcomes include the following three areas.
 - The knowledge, skills and disposition of a Governors State University [program] graduate.

Guiding Questions:

- What do you expect students to know and be able to do at each level?
- What are the standards or level for success?
- What disposition should students hold as related to the discipline?
- **Determine methods and assessment tools used to gauge learning outcomes.**
 - Each outcome must be measured using both a direct and an indirect method.

Guiding Questions:

- Explain what form, when, where the assessment will take place (levels).
- Are our core classes preparing student for the next level? How do we know?
- What experiences (in class and out of class) are students using to gain knowledge?
- Are our capstone courses meeting the needs of students, as well as the needs of an entry level position within the field?
- What tools are we using to gauge the concerns of our current students, graduates and future employers?
- Are our undergraduate and graduate students meeting an acceptable standard of success? What is the stated level of success?
- **Analyze results of the direct and indirect assessment methods**

Guiding Questions:

- What conclusions can be synthesized from the data?
- Is there a difference from semester to semester?
- Are the direct methods supported by the indirect methods?
- Are there unexpected results that can be drawn from the data?

- **Summarizing and reporting**

Guiding Questions:

- Explain how the outcomes assessment plan was communicated with faculty and students.
- Feedback: how were results shared with faculty, staff and students?
 - All members of the department/unit.
 - The University at large – Educational Assessment Committee and the Deans’ Council.

- **Implementation**

- How were the collected results used?
- How were data used to make changes to curriculum or methods for collecting data?

Three-Year Cycle

- At the conclusion of a three-year cycle, use the results and new knowledge about students to draft a revised outcomes assessment plan.

Annual Progress Reports:

I. Cover page

PROGRESS REPORT: STUDENT LEARNING OUTCOME ASSESSMENT

- a. Name of the program/unit

Introduction (Phase 1 & 2)

- i. State the mission for the academic program/unit?
- ii. State the purpose of the program: who it serves – campus and community, its direction, and overall goals.

II. Assessment Lessons Learned

- a. **Identify what outcomes were assessed during the fall term?**

(Phase 3, see p. 22) Assessing all outcomes during a single term is not recommended.

- b. **What student learning outcomes are planned for assessment during the spring term?**

- i. What assessment tools will be used?
- ii. Explain what form, when and where the assessment will take place, and at what levels (e.g., freshman year, sophomore, and junior years).
- iii. What are the department/units expectations and standards for student learning?
- iv. What disposition should students hold as related to the discipline or field?

- c. **Clearly state how each outcome is assessed using both a direct and indirect methods (Phase 4)**

III. Analyzing the data and interpreting the results (Phase 4)

Use the following series of questions to address the data and results.

- a. **Summarized the results and the findings:**

- i. What were students to accomplish, standards or level for success?
- ii. What disposition should students hold as related to the discipline?
- iii. Did students meet the department/unit's expectation: why or why not?
- iv. Were there any unusual results? If so, what are they?
- v. How will students' progress be tracked?
- vi. Provide an explanation of the results at each level: freshmen, sophomore, junior and senior level; graduate year 1, year 2, etc.
- vii. Provide a timeline including implementation and collection for assessment.

IV. Use of Results and Improvements

- a. **Where and when are the assessment tools implemented within the curriculum?**

- i. What program changes are indicated?
- ii. How will they be implemented?
- iii. If none, describe why changes were not needed.
- iv. Are results comparable to university mission or vision statement?

V. Feedback, communication with internal and external constituents: faculty, students, advisory boards, and partners

- a. Implementation, Communication and Action plan

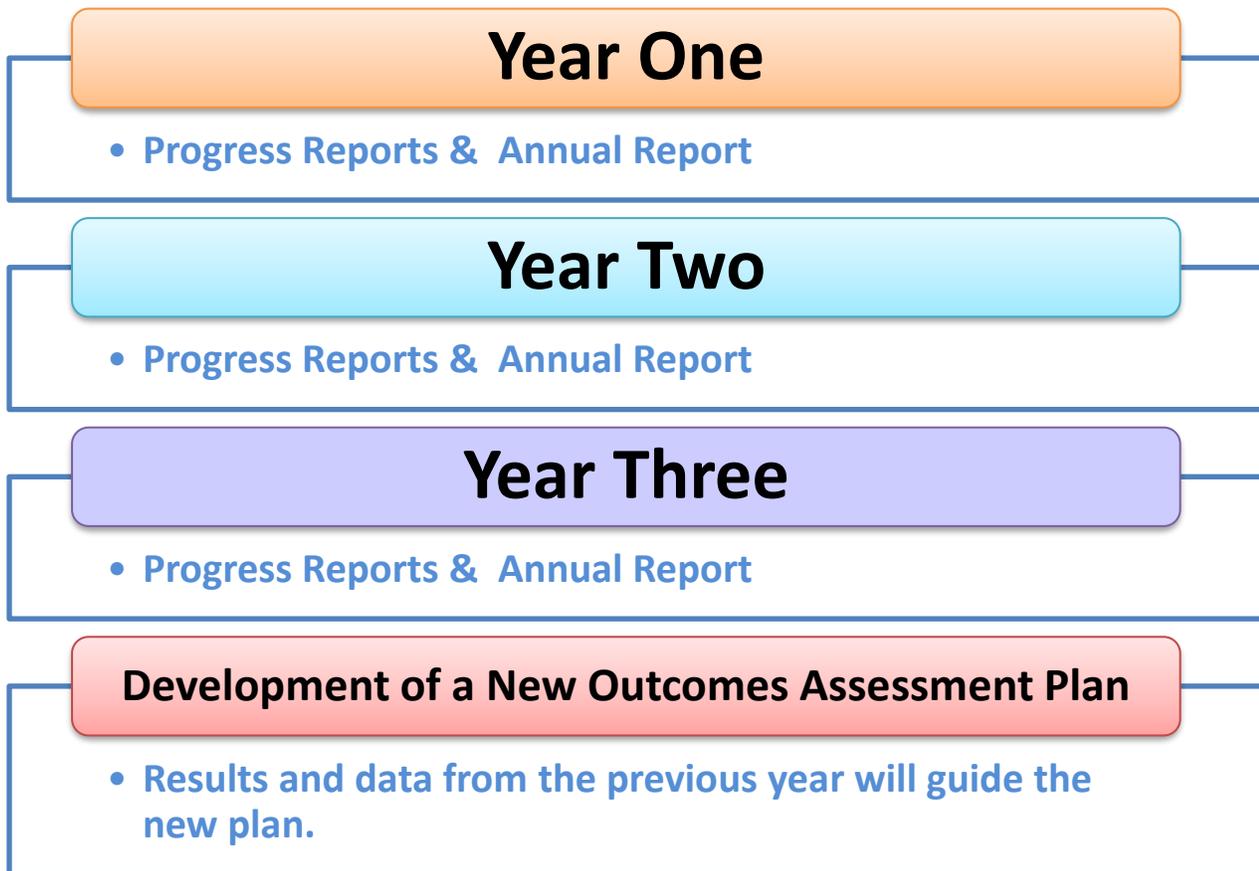
- i. Explain how results were shared with faculty and students.
- ii. Explain how faculty were involved in implementing changes.
- iii. How are results shared within departments/units and across the campus?
- iv. How were external constituents, employers & alumni involved in the process?
- v. What is the departments/units action plan for the next term?

Reporting Cycle

Throughout the three-year cycle, departments/units will generate *Progress Reports* and *Annual Assessment Reports*. The reports are expected to contain the department's/unit's progress on the development and achievement of outcomes assessment results.

At the end of the three-year cycle, each department/unit will assess its progress on students' achievement of student learning outcomes. Based on the findings, a department/unit may expand or adjust the current list of student learning outcomes. Depending on the findings and results, the department/unit may opt to add or decrease the outcomes. Similarly, the department/unit may decide to re-assess the outcomes, using a variety of tools.

All adjustments, whether to the outcomes or with the selection of assessment tools, are left to the will of the department/unit as they monitor the progress of students' ability to achieve its stated mission and outcomes.



Approaches to Assessment and Techniques or Assessment Methods and Tools

Using a variety of assessment strategies departments and programs from across the campus are working independently to develop meaningful and manageable assessment that is sustainable while also appropriate for the chosen field. Although the process of assessment may seem cumbersome, the techniques and tools offered below provide avenues to productive quality assessment of student learning that is unique to each discipline.

Formative assessment is an intertwined component of teaching. A complex process, formative assessment informs the continuum of teaching and learning. It allows faculty to immediately adjust their teaching, the content, or the approach of a course and/or a program to more effectively impact learning. The forms of formative assessment take on a variety of strategies from questioning and actual practicing of a skill while simultaneously learning activities. The primary purpose of formative assessment is to glean whether students have learned the intended content. In this regard, material can immediately be clarified or re-taught. Hence, the results provide instant indicators to where the curriculum or instructional activities need modification. Examples of formative assessment include but are not limited to the following.

- Daily warm-up review questions
- Diagrams or drawings
- Exit or closure questions
- Graphic organizer
- Homework assignments
- Journaling
- Oral questioning
- Quizzes
- Review games
- Text-based questions
- Vocabulary
- “What did you learn?”

Summative assessment comparatively, is a practice that occurs at the end of the learning process such as a course or a program. The purpose of summative assessment is comprehensive and cumulative in nature and is used to gauge student’s comprehension and skill in relationship to the overall established goals. Similarly, the results of summative assessment are also used to identify areas of weakness within the curriculum.

- Standardized tests
- Proficiency tests
- State or content tests
- Oral exams
- Comprehensive exams

Direct Methods of Assessment

- Capstone Experiences (e.g., course, thesis, field project)
- Certification, performance on licensure, or professional exams
- Entrance (pre) and exit (post) tests (course-specific and program-specific)
- Embedded Assessment
- Essay questions (blindly scored by multiple faculty)

- External evaluations of internship performance
- Externally reviewed exhibits and performances
- Internal and external juried review of comprehensive graduate projects or performances
- Placement tests
- Portfolios
- Required papers and research projects (multiple reviewers)
- Standardized tests and internally/externally designed comprehensive (written and oral) exit tests and examinations

Indirect Methods of Assessment

- Alumni surveys
- Course enrollments and profiles
- Employer surveys
- Exit interviews of graduates and focus groups
- Grade distributions
- Job placement data
- Length of time to degree (years/hours to completion)
- Retention, persistence, graduation, and transfer rates of students
- SAT/ACT scores
- Students surveys

(Adopted) from Middle States Commission on Higher Education, 2007; Allen, 2006; Gronlund, 2006; Rothman, 1995 and Walker-Tileston, 2004; Tyler-Curtis C. Elliott, Andrea M. Zawoyski, and Kevin M. Ayres, 2023

Exit Interviews and Student Surveys

These surveys provide meaningful assessment of information. Exit interviews or student surveys should focus on student learning (knowledge, skills, and abilities) in addition to student satisfaction. The questions should be designed to gain insight into student knowledge and skills. The questions might also focus on student experiences such as internships, participation in research, independent projects, numbers of papers written or oral presentations given, and familiarity with tools of the discipline.

Alumni Surveys

They are aimed at evaluating students' perceptions of knowledge, skills, and abilities gained after students have completed their program.

Exit Interviews

This process is meant for students who are leaving the university. They are interviewed or surveyed to obtain feedback regarding their experiences and impressions. Data obtained can address strengths and weaknesses of an institution or program and can be used to assess relevant concepts, theories, or skills.

Faculty Surveys

They are aimed at getting feedback about perceptions of student knowledge and skills.

Employers/Recruiters Surveys

This type of survey is aimed at evaluating specific competencies, skills, or outcomes. It is normally completed by an employer regarding their impression of students.

Tracking Student Data

This type of data is related to enrollment, persistence, and performance. This data may include graduation rates, enrolment trends, transcript analysis (tracking what courses students take and when they take them and tracking student academic performance overall and in particular courses.

End of Program Surveys

They are aimed at evaluating students' perceptions of knowledge, skills, and abilities near the end of the student's academic program.

Surveys

They are commonly used with open-ended and closed-ended questions. Closed ended questions require respondents to answer the question from a provided list of responses. Typically, the list is a progressive scale ranging from low to high, or strongly agree to strongly disagree.

Curriculum Mapping

Mapping is an extremely important process used by a program or unit to diagram and thematically align assessment, instruction and the curriculum. As a continuum the process enables all members of a program or unit, including students, to clearly understand the curriculum points of assessment particularly where outcomes assessments are emphasized and practiced.

The curriculum map provides an audit and overview of the program's curriculum and student's journey through learning outcomes. This is achieved in two ways both horizontally through the department or unit's stated outcomes and vertically through the rigor of academic life students experienced with each course of the curriculum.

The dynamic process of mapping evolves over a series of phases. Initially student learning outcomes and goals must be clearly stated and understood by all faculty within the program before this process is to commence.

- I. Collect authentic data and information about each course
 1. This phase involves all members of a program.
 2. Course syllabi are required at this phase.
 3. Faculty identify outcomes and expectations of each course they teach.

- II. Populating the map
 1. Each member identifies where his/her course fits within the curriculum: introduces "I", reinforced "R" or mastery "M" an outcome.

- III. The panoramic review, analysis and key questions
 1. Does the map demonstrate a clear sequence of learning and knowledge for the discipline?
 2. Are the outcomes appropriately matched with the level of each course: I, R & M
 3. Are all courses appropriately placed to match the sequence of learning (e.g., a lower- or upper-level course is out of sequence)?
 4. Are there gaps between the goals and outcomes versus what is actually taught?
 5. Is there a repetition of content and skills without forwarding complex mastery of the content or discipline specific skills?

- IV. Areas of integration
 1. Are there patterns of student engagement or service learning?
 2. Is the content of the course mirrored in the integrity of the discipline?

- V. Accountability, Assessment and Standards
 1. What do you expect students to know and be able to do at each level: beginning, middle and end of the program?
 2. What are the standards or level for success: locally or nationally?
 3. What disposition should students hold as related to the discipline?
 4. What do external constituencies say about your students?
 5. Evidence through student learning and standards must be clearly articulated.

- VI. Establish a plan and set priorities

1. Based on the alignment of the curriculum, assessment of students intended outcomes, the program or department developed a plan and set priorities.
2. Revise, collapse or remove courses from the curriculum.
3. Revisit the established outcomes and goals of the program or department.
4. Communicate the plan with all faculty and staff.

Below is a completed example of a curriculum map and program audit. Running vertically along the side are the program's stated outcomes. Horizontally along the top of the table are all courses within a program. This visual representation of the curriculum pinpoints key areas within the curriculum where faculty can gauge the success of students within their program. This process also allows faculty to review course content and sequence holistically as students matriculate through the program, enabling faculty to identify and verify what students should know and be able to do as a result of their education.

The process begins with faculty identifying where in the curriculum each student learning outcome is “**I**” introduced. The “**R**” signifies where the outcome is reinforced throughout the program. Usually, this outcome can be seen near the beginning or middle of the curriculum. An accelerated outcome is represented by an “**M**.” The accelerated outcome within a program is noted by advanced and higher levels of learning. This type of outcome seeks to verify students' mastery of the content thereby applying skills of analysis and synthesis.

Curriculum mapping and auditing is vital to a program identifying where courses within the curriculum emphasize or fail to emphasize the program's stated outcomes. As a tool for curriculum enhance and student learning, curriculum mapping offers an analysis and bases for making curricular changes as well as alignment of all course syllabi.

Learning Outcomes	Course 1000	Course 1010	Course 1025	Course 2000	Course 3010	Course 3025	Course 3033	Course 3050
Outcome 1	✓- I	✓- R	✓- I	✓- R				
Outcome 2	✓	✓	✓- R	✓- R	✓	✓- R	✓- M	✓- M
Outcome 3	✓	✓	✓- I					
Outcome 4	✓- I	✓- I	✓	✓- R	✓- R	✓- M	✓- I	✓
Outcome 5	✓- I	✓- I	✓	✓- R	✓- R	✓- M	✓- M	✓

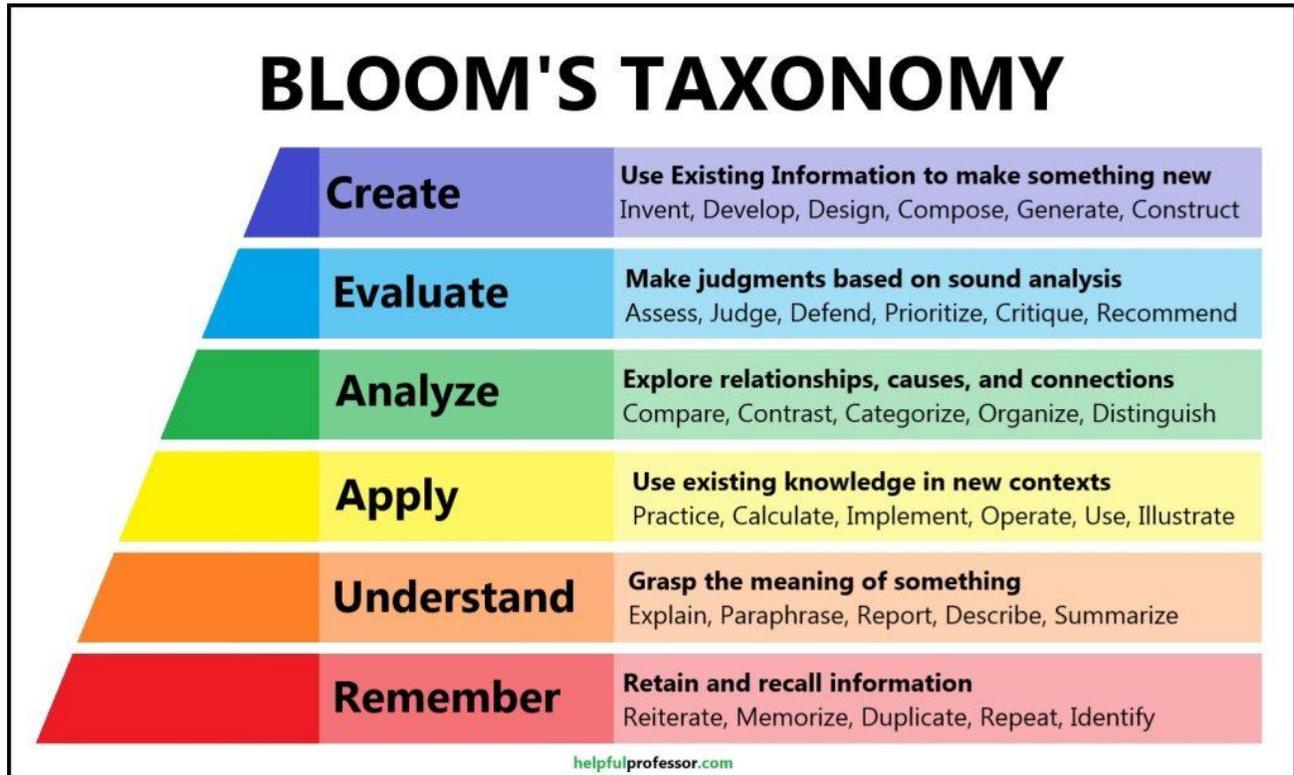
Interpreting the Map

Analysis of the table above provides a variety of valuable information regarding the five outcomes. Similarly, the diagram speaks to the rigor of each outcome and its delivery individual courses within the curriculum. The distribution of several outcomes is out of sync within the curriculum signifying a weakness. For example, outcome three is only delivered once. The map further identifies it as an outcome that should be examined by the program. Outcome one is clearly introduced throughout the curriculum and re-enforced near at the upper level of the curriculum but not mastered. The sequence of outcome two is well placed yet it is not introduced within the curriculum. Clearly in many upper-level courses the outcomes should be accelerated and not introduced. In comparison, outcome five is properly introduced, reinforced, and mastered throughout the course map. This would be an effective way of introducing, reinforcing, and mastering a specific course outcome throughout the curriculum.

Overall the analysis underscores an improper distribution of each outcome, particularly the limited number of outcomes that are accelerated. This framework provides additional avenues for investigating how standards and objectives are taught. Most importantly, the map provides excellent strategy for analyzing individual courses, standards and facilitating assessment and planning.

Blooms taxonomy Chart

Levels of Educational objectives



<https://helpfulprofessor.com/levels-of-understanding/>
By Chris Drew (PhD)/ September 17, 2023

Cognitive

1. Knowledge (represents lowest level of learning)
Ability to observe and remember previously learned information; knowledge of specific facts, terms, concepts, principles, ideas, events, places, etc.; mastery of subject material.
2. Comprehension (represents lowest level of understanding)
Ability to understand information and grasp material; translating knowledge from one form to another; interpreting, comparing, and contrasting material; predicting consequences and future trends.
3. Application (represents higher level of understanding)
Ability to use information, learned material, methods, concepts, theories, principles, laws and theories in new situations; problem solving using required knowledge or skills.
4. Analysis (represents a higher intellectual level)

Ability to break down material and recognition of organization structure; identification of components and relationships between components; recognition of patterns and hidden meanings.

5. Synthesis (represents a higher intellectual level)

Ability to combine parts or apply prior skills and knowledge to produce a new whole; integrate ideas into a solution; generalize from given facts; propose a plan of action; formulate new classification methods.

6. Evaluation (represents highest cognitive level)

Ability to judge and assess the value of theories and presentations, based on their value, logic or adequacy, for a given purpose; compare and make choices based on reasoned argument; verify the value of evidence; recognize subjectivity.

(Adopted from Selim, Pet-Armacost, Albert and Krist, 2006)

Cognitive Key Words

Knowledge	Arrange, define, describe, duplicate, enumerate, identify, indicate, know, label, list, match, memorize, name, reads, recall, recognize, record, relate, repeat, reproduce, select, state, view, underline
Comprehension	Classify, cite, convert, defend, describe, discuss, distinguish, estimate, explain, express, generalize, give examples, identify, indicate, infer, locate, paraphrase, predict, recognize, report, restate, review, rewrite, select, suggest, summarize, tell, trace, translate, understand
Application	Act, administer, apply, articulate, assess, change, chart, choose, collect, compute, construct, contribute, control, demonstrate, determine, develop, discover, dramatize, employ, establish, extend, give examples, illustrate, implement, include, inform, instruct, interpret, investigate, manipulate, operate, organize, participate, practice, predict, prepare, preserve, produce, project, provide, relate, report, schedule, shop, show, sketch, solve, teach, transfer, translate, use, utilize, write
Analysis	Analyze, appraise, breaks down, calculate, categorize, compare, contrast, correlate, criticize, debate, determine, diagram, differentiate, discriminate, distinguish, examine, experiment, focus, identify, illustrate, infer, inspect, inventory, limit, outline, point out, prioritize, question, recognize, relate, select, separate, subdivide, solve, test
Synthesis	Adapt, anticipate, arrange, assemble, categorize, collaborate, collect, combine, communicate, compile, compose, construct, create, design, devise, develop, explain, express, facilitate, formulate, generate, incorporate, individualize, initiate, integrate, intervene, manage, model, modify, negotiate, organize, perform,

	plan, prepare, produce, propose, rearrange, reconstruct, reinforce, relate, reorganize, revise, set up, structure, substitute, validate, write
Evaluation	Appraise, argue, assess, attach, chose, compare, conclude, contrast, criticize, critique, decide, defend, enumerate, estimate, evaluate, grade, interpret, judge, justify, measure, predict, rate, reframe, revise, score, select, support, value

Affective Key Words

Receiving	Ask, choose, describe, follow, give, hold, identify, locate, name, point to , reply, select, sit erect, use
Responding	Answer, assist, compile, conform, discuss, greet, help, label, perform, practice, present, read, recite, report, select, tell, write
Valuing	Complete, describe, differentiate, explain, follow, form, initiate, invite, join, justify, propose, read report, select, share, study, work
Organization	Adhere, alter, arrange, combine, compare complete, defend, explain, generalize, identify, integrate, modify, order, organize, prepare, relate, synthesize
Characterization by Value	Act discriminate, display, influence, listen, modify, perform, practice, propose, qualify, question, revise, serve, solve, use, verify

Skills Key Words

Perception	Choose, describe, detect, differentiate, distinguish, identify, isolate, relate, select separate
Set	Begin, display, explain, move, proceed, react, respond, show, start, volunteer
Guided Response	Assemble, build, calibrate, construct, dismantle, display, dissect, fasten, fix, grind, heat, manipulate, measure, mend, mix, organize, sketch, work
Mechanism	Assemble, build, calibrate, construct, dismantle, display, dissect, fasten, fix, grind, heat, manipulate, measure, mend, mix, organize, sketch, work
Complex Over Response	Assemble, build, calibrate, construct, dismantle, display, dissect, fasten, fix, grind, heat, manipulate, measure, mend, mix, organize, sketch, work
Adaptation	Adapt, alter, change, rearrange, reorganize, revise, vary
Origination	Arrange, combine, compose, construct, design, originate

Adopted from Robert Armacost, Julia Pet-Armacost, Paula Krist, (2006) Developing Program Assessment Plans, AIR Annual Forum.