Barstow Community College

OAC HANDBOOK

Approved by Academic Senate, August 2021

Contents

Introductory

OAC COMMITTEE PURPOSE STATEMENT

The purpose of the OAC is to support and guide faculty to develop, implement, and evaluate SLOs, PLOs, and ILOs utilizing assessments integrated in the institutional planning cycle of program reviews. *OAC* will facilitate campus dialogue and provide support so that assessment is ongoing, systematic, and used to assess and improve student learning and achievement. Each program is embedded in a guided pathway that leads toward student success. (CGC Approved March 2021)

OAC COMMITTEE DETAILS

OAC is a sub-committee of Academic Senate and it meets once a month with a second as needed meeting if needed to meet goals
In 2019, BCC restructured the committee to be responsible for training, assistance in assessment, and planning for **instructional programs only**. At that time, the committee name was changed from SLOAC to OAC and moved under Academic Senate.

OAC MEMBERSHIP

OAC Co-Coordinators (2 faculty co-coordinators)

- Business & Industry (2 faculty)
- STEM (3 faculty)
- Arts & Humanities (3 faculty)
- Social & Pre-Professional (1 faculty)
- Counseling (1 counseling faculty)
- Past OAC Coordinator (1 faculty)

Non-Voting Members:

- Past Program Review Faculty Co-Chair
- Academic Senate President Research,
- Development & Planning Representative Curriculum & Scheduling Specialist (Recorder)

Advisory:

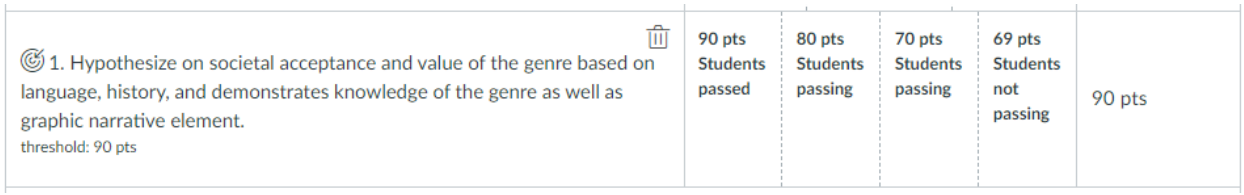
- Dean Academic Affairs;
- Dean Research, Development & Planning

CANVAS & ELUMEN

Canvas is the learning management system (LMS) used by BCC for online, hybrid, and supplementary instruction. Canvas can link to eLumen to allow outcomes to be submitted directly to eLumen and the Research Office.

eLumen is the software BCC uses to gather, organize and report out assessment data. eLumen integrates with Canvas allowing rubrics in Canvas to automatically submit Course-Level SLO assessment data for the standard outcome element to eLumen and the Research Office.

Image of rubric for outcomes to be added in assessment in Canvas with sample outcome



1. Hypothesize on societal acceptance and value of the genre based on language, history, and demonstrates knowledge of the genre as well as graphic narrative element. threshold: 90 pts	90 pts Students passed	80 pts Students passing	70 pts Students passing	69 pts Students not passing	90 pts

This Canvas - eLumen interaction requires pre-planning and some agreements and / or independent adding and submitting from each faculty separately.

NOTE: Numbers are based on % of achievement. In this example, no points are used in the scoring of the assignment

Part I: Course-Level Learning Outcomes and Assessment

GENERAL INTRODUCTION

Course Level-SLO cycle and steps

Outcomes assessment at every level is an ongoing process. It is however, most easily noted at the course level.
The 5-step cycle is the basis of the Course-Level section. Each cycle step is addressed with specific details for courses.

Assessment is woven into existing courses (see assignment page) and course standards are expressed in the course outline of record (see evaluation page). Course level assessment should start with the course outline of record and may expand accordingly.

Course-Level assessment lends itself well to an individual instructors' reflection on student learning, but should allow reasonable dialogue to improve student learning within courses across multiple instructors in the same courses.

1. DEVELOP/REVIEW COURSE-LEVEL SLOS

A. Determine what students should accomplish or produce by the end of the course.
B. Write outcomes with *assessment* in mind (check assessment types and 3Ms)
C. At BCC, most courses use three Student Learning Outcomes (SLOs). The curriculum committee established guideline is minimum of two and a maximum of four SLOs (See Curriculum links)
D. When writing Course-Level SLOs
    - Consider the overarching goals of the course
    - Consider how the objectives usually support course goals and SLOs
    - Consider most probably and effective assessment tools for each Course-Level SLO
    - Consider if there is a next course in the Guided pathways or requisite sequence. What are the needed outcomes to be prepared for the next course?
    - Use higher order thinking outcomes when possible. See Taxonomies *(Appendix A & B).*
    - Ensure SLOs meet the 3Ms -- Measurable, Manageable, and Meaningful (see below)
    - If the course is related to a external professional certificate or regulated industry, include those expectations in the course outcomes as appropriate
    - Craft an outcome statement that can be understood by all constituencies: faculty, research office, students, and so on.
        - If an outcome language is incomprehensible to the students, then it the outcome may be incomprehensible as well.
        - Submit revised outcomes / new course with new outcomes to curriculum. Outcomes are not changed or active until the course has curriculum approval. Approval includes mapping and adding to the two-year assessment schedule
        - There is an OAC review of any outcomes or mapping changes, so if desired, reaching out for assistance before submission is welcome as well.

E. Transfer level courses should involve a high degree of critical thinking so SLO statements should use action verbs that specify definite, observable, and measurable behaviors.

F. NOTE: Once curriculum approved, Course-Level SLOs are on Course Outlines of Records (COR).
G. RESOURCES/Samples: For specific Course-Level SLO Samples see *Appendix B*.
H. During program review, examine existing Course-Level SLOs for relevance, measurability, and continued appropriateness to course goals.

The Three M's

Measurable:	Manageable:	Meaningful:
Use verbs that specify definite, observable student performance, actions, or behaviors. *Directly measurable.* *Describe student rather than instructor behaviors.* *Describe student outcomes rather than processes.*	*Realistic and attainable.* *Indicate behaviors that are direct results of your program.* *Use simple language, clearly understood by people outside the program.* *Validated by colleagues*	*Tie directly to course content* *Applicability to course material* *Relevant to life experiences and/or allow for a bridge to existing student knowledge*

Mapping – Course-Level Specific Details

In curriculum when a new course is created or outcomes of an existing course outcomes are revised, or PLOs are revised, the mapping must be done to include all course, program, and institutional level outcomes.

Course-level to program level outcomes maps should use on collegial consultation. It is strongly recommended that faculty who regularly teach the core courses complete the mapping. However, insights of another faculty are welcomed. The Course-level to program level outcomes map must be submitted to research office and entered into eLumen; otherwise all outcomes levels are negatively impacted and data cannot be compiled.

Mapping is the connection of outcome levels. At BCC course-Level SLOs are the feeder data for the other two levels Program Learning Outcomes (PLOs) and Institutional Learning Outcomes (ILOs). General Education is considered a program, so Course-level SLOs are mapped to General Education using Institutional Learning Outcomes (ILOs).

Mapping is aligning Course-level SLOs to other outcome levels by degree of proficiency that student meets: I, D, P

I – Introductory Level
D – Developing Level
P – Proficiency Level

GOALS in Mapping Course-Level SLOs:

Align course-level SLOs with PLOs, to enable full exposure to levels of skill attainment and reach proficiency in each PLO the assessment of overall program coherence.

- Clarify relationship of core required courses in a program to the program PLOs as these are the courses that provide the program's foundational educational experience for students in that program.
- Identify each core course-level SLO contributions to a program's PLOs.
- Evaluate to what degree each core course-level SLO contributes to a program's PLOs: Introduced, Developed, Proficiency.
- Illustrate the path of student learning from the core required courses into the comprehensive programmatic learning expectations.
- Ensure that students have been able to attain program PLOs, through required courses and natural assessment to reach success through course formative feedback, opportunities for practice.

Any revision or creation of new course-level SLOs must include mapping to the program, GE, and / or ILOs. *

NOTE: Proficient Level is on the degree of proficiency that the assignment and level of expectation meets attainment of college program - Not individual student abilities or the field or related to end career goals.

SLO map can raise the following questions about course curriculum or pedagogy

- Do all Course-level SLOs align PLOs? Or are there outliers?
- Would a more explicit courss sequencing improve student attainment of skills to reach proficiency? Does program roadmap and curriculum reflect this?
- Do required courses introduce students to skills to reach the proficiency level
- Should advising practices or the program roadmap be modified to encourage students to take courses that introduce skills before they enroll in more advanced courses?
- Would it be beneficial to include additional opportunities for reinforcing course-level SLOs in other courses?

Two-Year Assessment Schedule – Course-Level Specific Details

The Two-Year Assessment Schedule determines within a two-year cycle when each specific course will be assessed and data entered into eLumen.

All BCC courses are to be assessed every two years.

This assessment plan is done by faculty in each discipline for courses in their discipline – All course with the discipline designator are done by discipline faculty, even if the courses may not be part of a degree path, but general education.

Once the two-year assessment cycle is completed by faculty, it is submitted to the Research Office and input into eLumen.

During program review, faculty should review 2-year assessment schedule to ensure it is still the most effective.

Cancellations and Scheduling Changes:

eLumen will compensate if a course is moved off cycle through cancellation or scheduling. The course is usually assessed in the next available offering after the semester planned if course is not offered in planned semester.

2. ASSESS COURSE-LEVEL SLOS

Assessment in General and Faculty Assessing Course-Level SLOs

While most instructors know how to grade, evaluate student work and give feedback, course level assessment can be better implemented with understanding of Canvas/eLumen interconnections in assessment, planning and colleague dialogue.

A. Course-Level SLO - Assessment Planning:

Planning assessment at the time of creating/revising course-level SLOs is preferred, but even so a regular planning / review should be done so that any changes or assessment plan is shared with all faculty in the discipline, program, and/or who teach the courses.

Planning as a group and individually needs to occur for many reasons:

- **Saves time -** Reduces last minute rushing or reassessment an assignment/assessment twice: once for grades, and again reassessed with eLumen interface rubric added into assignment

- **When to Assess** - Which assessments and when student can reasonably be expected to attain the outcome skills or knowledge – this does not need to be a final. If an outcome is obtained earlier, and earlier assignment may make more sense.
- **One final reporting assessment** - There should be only one assessment for reporting purposes which is naturally more appropriate to be a summative, not a formative assessment.
- **Similar assessment types across a course assessment** - When possible, assessments should be discussed with other instructors who teach the same courses as a similar type assessment means the data is more accurate and useful.
    - EX: a writing prompt, an objective multiple-choice question, a project, and so forth.
- **Similar types of Assessments** - Data from multiple types will not only need to be added individually for each faculty by the faculty, but can result in less effective data it assessment types are dissimilar.

B. Course-Level SLO - Assessment Rubric

BCC has an established assessment rubric to ensure courses being assessed are using a standard rubric to evaluate outcomes attainment. This standard approved rubric is needed for eLumen / Canvas interface for automatically transferring assessment results

- The Course-Level SLO assessment rubric can be the sole rubric assessment for the assignments or can be added to an existing rubric as an additional line or row.
- When adding the rubric there are two options
    - An ungraded line with no assignment points attached to outcome achievement
    - A graded line with assignment points attached to outcome achievement (not recommended)
- The rubric when added (with or without points) is visible to the students.
- As student may not understand its role, informing student in advance is recommended
- Informing them of the assignment rubric grading and the intended outcome attainment helps students understand outcome goals
- The standard rubric allows data to more easily be compiled for courses, programs, and institutional outcomes reports.
- If there are struggles in determining assessments, work with OAC and / or research office regarding questions on connecting assessment rubric from eLumen, helping to determine an appropriate assessment assignment, and so on.

C. Image of the eLumen Course-Level SLO assessment rubric

1. Hypothesize on societal acceptance and value of the genre based on language, history, and demonstrates knowledge of the genre as well as graphic narrative element. threshold: 90 pts	90 pts Students passed	80 pts Students passing	70 pts Students passing	69 pts Students not passing	90 pts

D. Course-Level SLO - Common Best Practices in Assessment (See Appendix XX for more examples)

- Use pre-test/post-test - pre-test as formative / posttest as summative outcome assessment

    This is usually used for an instructor's own reflection on students' knowledge or skill acquisition. Given at two points in course to intervene mid-point based on pre-test data

- Use one assignment that incorporates multiple SLOs if feasible
- Use specific questions in one objective test
    - EX: Math or content knowledge for an outcome
- Use shared guidelines regarding an assignment such as writing or project – Not necessarily the exact assignment, but guidelines that ensure similar experience and meeting of outcomes
    - Ex. In English the final which is the suggested assessment outcome in composition courses is an essay of a set number of pages with a college level reading (samples / options are provided), and sample prompt with outcome related elements included.

3. ANALYZE AND REFLECT COURSE-LEVEL SLOS ASSESSMENT RESULTS

A faculty's task is to examine, discuss, and analyze the assessment report or data trends, reflect on the key aspects of the assessment implemented, note observations or conclusions about the success of that aspect of the process, and then propose recommendations, where appropriate, that follow from these observations.

Due to the use of eLumen, this analysis and reflection at the individual instructor level is done with the assessment report through the instructor annotation/input option selected in eLumen.

A. Thoughtful analysis and reflection can help improve student acquisition of knowledge or skills.
B. Based on the assessment results and your knowledge of the class anecdotally what changes would improve students' success on the assessment in future classes?
C. Analyze and reflect on course results. See possible ideas below:
    - What relevant information may account for differences?
    - What is relevant that is not immediately recognizable from the assessment results?
    - What could can be improved in the class or what was successful in the class?
        - Instructor approach or scaffolding
        - Outcome or assessment used
        - Assignments or preparation
        - Textbook
        - Understanding of student learning modalities
        - Internal or external factors: COVID, and so on

    When completing assessment, the instructor notes allows for insight and additional information
        - Include any other anecdotal information regarding student success and/or failure in the **notes** area in the Course Level SLO Assessment in eLumen.
        - Consider including information such as students not taking the assessment or dropping the course

E. REPORT COURSE-LEVEL SLOS ASSESSMENT RESULTS

A. **Submission:** Submit Course Level SLO assessments through eLumen.
B. **Deadline:** As per Academic Senate, SLO assessment reports are due within 14 calendar days after a class ends.
    - **Best practices on when to submit:**

- **AFTER** the assignments for a specific outcome is assessed – which can be at any point in the summer for the planned assessment.
- **BEFORE** 14 days of the end of class. However, at the time of grades makes the most sense as otherwise. Once course from a semester are closed, usually 7-10 days after a semester is over, outcomes may be affected or need permission to reopen course for assessing and/or submitting outcomes assessments

B. **Course-Level SLO** are the base of all levels of outcomes at BCC. Course outcomes are automatically included into any mapped Program and Institutional Learning Outcomes
   - **Program Review:** Course Level SLOs assessments are compiled into the data for Program Learning Outcomes (PLOs) these are compiled into reports for Program Review
   - **Institutional Outcomes:** Course Level SLOs assessments are compiled into the data for Institutional Learning Outcomes on an established schedule

C. **Course-Level SLO assessment Participation**:
   - All faculty are required to participate in the outcome assessment process.
     - Part-time Associate faculty are usually only required to be involved in course-level assessments, but may be invited to other assessments depending on their specific courses and the program and institutional learning outcome cycles.
   - Not participating can reflect on evaluations and eventually impact schedule offerings.

D. **Course-Level SLO assessment Reports**:
   - Data in SLO reports is not part of any evaluation process.
   - Data is compiled for all courses taught in the assessment cycle and as a rule is not disaggregated by course or instructor.
   - If data is disaggregated it is usually by student ethnicity or disproportionally impacted groups, online compared to live, or other larger impacts to the college scheduling or student success.

F. USE COURSE-LEVEL SLOS RESULTS TO IMPROVE STUDENT SUCCESS

A. Gather Assessment results – Assessment reports from previous semester(s) / assessment cycle – for courses that is the two-year assessment schedule – is provided to discipline/program faculty.

B. Discuss results as a group
   - Look for course-level SLOs for trends.
   - Consider the same elements, but try to use those questions on a larger scale:
     - What may account for success or unsuccessful in attaining outcomes?
     - What can be improved in the course-wide teaching and offering to improve success?
       - Additional technology or scaffolding steps
       - Change or adjust the outcome or assessment used
       - Rethink assignments or preparation
       - Textbook effectiveness
       - Does instruction and assessment work with student learning styles
       - Other factors: Guided Pathway – or expected pathway through courses?

C. Plan and prioritize changes to improve student success
   - Use the review as a planning point to make changes to improve student success.

- Remember when implementing, establish priorities – can't fix everything at once.
- Implement steps and/or change in instruction, assessment, or pathway
  - Adjust instructional methodology and materials as needed
  - Consider potential revisions to SLO's / curriculum as needed.

D. Rinse and Repeat

G. CLOSE THE LOOP AND START A NEW CYCLE FOR COURSE-LEVEL SLOS

A. Repeat the steps in the process as needed – to revise outcomes, assessments, review data after implementing changes, and so on.
B. There is no end goal. This is an opportunity to reflect and improve the program
C. Use the Program Review Cycle as an additional chance to review SLOs, SLO assessment data, and share implementations in progress or successfully executed

Part II: Program-Level Learning Outcomes and Assessments

1. DEFINING A PROGRAM

An "educational program" is defined in Title 5, Section 55000(g) as "an organized sequence of courses leading to a defined objective, a degree, a certificate, a diploma, a license, or transfer to another institution of higher education." Title 5 regulations set a minimum, as too the state Academic Senate, defined as a cohesive set of courses that result in a certificate or degree. These are the only statewide descriptions of instructional programs, so colleges widely differ. BCC's local interpretation for outcomes assessment and program review is:

> **Precollegiate, noncredit, and stand-alone** courses align with the originating program. **Hybrid** programs encompass student experiences delivered by instructional and service components within a program, and that entity will be defined as a program.

This includes six (6) options: Associates Degree, Transfer, Major/Area of Emphasis, Certificate, and Educational Pathway.

2. DEVELOP/REVIEW/REVISE PROGRAM LEARNING OUTCOMES (PLOS)

A. Review College Mission and current Program Mission Statement if available in most recent Program Review.
B. Collaborate with program faculty to clarify what students should achieve by the end of the program (Recommend starting with three to six possible outcomes
   C. Brainstorming Program-Level Outcomes (PLOs) recommend 4-6 possible outcomes
      a. Consider the overarching goals of the program
      b. Consider how the courses usually support program goals and PLOs
      c. Consider if the program is in a sequence such as Level I to Level II certificate.
      d. Consider if the program is related to an external professional or regulated industry exam
      e. Ensure PLOs meet the 3Ms -- Measurable, Manageable, and Meaningful (see below)
   D. Crafting/Revising PLOs that can be understood by all constituencies: faculty, research office, students, and so on.
      a. At BCC, most programs use three PLOs. The curriculum committee established guideline is minimum of two and a maximum of four SLOs (See Curriculum links)
      b. If the language is incomprehensible to students, then the outcome may be incomprehensible as well.
      c. Use higher order thinking outcomes when possible. See Taxonomies *(Appendix A & B).*
      d. Each PLO should be one outcome not combined outcomes so mapping and assessing can be clearer.
   E. Outcome Submission and Approval
      a. Submit revised outcomes / new program with new PLOs to curriculum.
      b. Outcomes are not changed or active until curriculum process is complete and state approved. Curriculum process includes mapping PLOs to Course-Level SLOs
      c. NOTE: Once curriculum approved, PLOs are included in the catalog.

Measurable:	Manageable:	Meaningful:
▸ *Use verbs that specify definite, observable student performance, actions, or behaviors.* ▸ *Directly measurable.* ▸ *Describe student rather than instructor behaviors.* ▸ *Describe student outcomes rather than processes.*	▸ *Realistic and attainable.* ▸ *Indicate behaviors that are direct results of your program.* ▸ *Use simple language, clearly understood by people outside the program.* ▸ *Validated by colleagues*	▸ *Tie directly to course content* ▸ *Applicability to course material* ▸ *Relevant to life experiences and/or allow for a bridge to existing student knowledge*

Mapping - Program Specific Details

See the general mapping structures and alignments in the Mapping section in Course-Level SLOs

Mapping PLOs include specific awareness of Program structure and goals

- Do core courses in a program allow students to naturally develop and ultimately reach an assessment that will demonstrate proficiency?
- Are all PLOs clearly represented in course outcomes?
- Any revision or creation of new course-level SLOs must include mapping to the program, GE, and / or ILOs. *

In addition to specific certificate and degree programs, the general Education is considered a program. Course-level SLOs are mapped to General Education using Institutional Learning Outcomes (ILOs).

Two-Year Assessment Schedule - Program Specific Details

See general TWO-YEAR assessment schedule information under the Course-Level SLOs

A program may include course from multiple disciplines that are Core to the program. However, when creating a TWO-YEAR assessment schedule, this is done by discipline faculty as the faculty who teach the courses and must schedule in meaningful way. However TWO-YEAR assessment schedule should include expected or past schedules of classes and the planning guided pathway.

The TWO-YEAR assessment schedule is not impacted by changing out any course or program outcome as mapping is. It is only impacted and need revision if courses are added or deleted from the discipline. However, during program review cycle, reviewing the TWO-YEAR assessment schedule can be helpful to ensure the courses align with best semester in offering for assessing.

3. ASSESS PROGRAM LEARNING OUTCOMES

Program assessment requires information about student learning that can be aggregated across an entire program to provide useful feedback about that program.

Ensuring student learning is the 4th Pillar of Guided pathways, so ensuring student learning is happening in useful and effective pathway or patter at the program level helps a program to make decisions, design initiatives, and recommend changes in a manner that is based on the best information possible.

Knowing what students are learning and why is critical to making effective decisions about program improvement. There are also many other benefits to using program assessment.

Why Program Learning Assessment is Needed

Documentation of Best Practices:

- Allows Faculty to share their best practices with colleagues at this institution and others—at professional meetings and conferences, in publications, as part of awards programs, and so on.
- Able to share innovative teaching practices, student success initiatives, and other good ideas in a convincing and reputable manner requires assessment data that documents their effectiveness.
- Colleagues will be more interested in ideas and more likely to adopt programs and initiatives developed if there is evidence that they result in desired student learning outcomes.

Better Data on Outcomes:

- Performance-based funding model includes outcomes' data and success
- Completion and outcomes data figure heavily in how funding is allocated to institutions
- Relying solely on completion and placement data of program effectiveness has difficulties

PLOs Assessed by Course-Level Outcomes as Feeders Data

BCC uses the individual course outcomes assessment and the mapping of said outcomes to determine overall program obtainment of skills and knowledge. The only exceptions are if a specialized field or field exam requires an external or culmination type assessment.

- First, direct assessment of student learning allows programs see results and improve student learning. Indirect data like program completions and placements do not provide student learning as a data point. The goal of improving a program and student learning must have student learning data. Therefore, assessment results to base decisions, formulate hypotheses, or otherwise come up with strategies to address improving student learning in the program.
- Second, an institution cannot control whether a student completes an entire program and usually less control over whether a student finds work in their chosen field. Students begin programs and later change or do not complete for reasons beyond the institutions control: changing interest or work or personal reasons. If a student does not complete all program courses, on-going course-level assessment provides data on student learning in progress. Thus, program assessment data even if a student does not complete all of the program coursework
- Third, program assessment meets institutional and accreditation requirements.

Program-Level Outcomes (PLO) - Assessment

- Assessment must have recent and accurate mapping a two-year plan to work
- **Similar assessment types across a course assessment** - When possible, assessments should be discussed with other instructors who teach the same courses as a similar type assessment means the data is more accurate and useful.
    - EX: a writing prompt, an objective multiple-choice question, a project, and so forth.

- **Similar types of Assessments** - Data from multiple types will not only need to be added individually for each faculty by the faculty, but can result in less effective data if assessment types are dissimilar.

4. ANALYZE & REFLECT ON PROGRAM LEARNING OUTCOMES

PLO assessment reports are generated through eLumen from course assessments. Reports are made available, but are specifically run and used by faculty during the program review cycle.

A. As a department, analyze outcome results to determine outcomes, assessments, process, or data aggregated or disaggregate supports student success or attainment support the program as a whole.
B. If the outcome assessment indicates the need for course, program or other adjustments to fully meet program mission, and then determine with the department appropriate steps and use curriculum process as needed.

5. REPORT ASSESSMENT RESULTS PROGRAM LEARNING OUTCOMES IN PROGRAM REVIEW CYCLE

PLO results occur through the course assessment process, so assessment is done within course assessment process and schedule. PLO information (assessment and results) are posted to department and outcomes webpages

A. Outcomes reporting at the Program Level:

- Once courses are mapped to programs in eLumen, program data will be regularly gathered in from the course-level assessment schedule.
- Programs are all to be in a Program Review schedule for a formalized review of all PLO data in a Program review cycle.
- Sample of the reporting information regarding PLOs and Program Review

Instructional Program Review Template

Program Learning Outcomes	Assessment Results – Summary of Data	Use of Results
1.		
2.		

6. USE PROGRAM LEARNING OUTCOMES RESULTS TO IMPROVE STUDENT SUCCESS

A. If mapping is done and correctly represent the program outcomes, these will create data for the program outcomes. This program level data is also compiled and provided to the faculty in the

discipline and/or program. Faculty will and discuss the results: What the results mean, what concerns the data raises on the program outcomes and courses mapped, and how results can be used to improve student learning at the program level.

B. General Education is also a program. So, GE courses have their course-level SLOs mapped to ILOs. ILOs are used interchangeably with GE program outcomes.

C. Program assessment should be done regularly, and reported out in program review (See image below) and formalized assessment in established program review cycle (See Program Review)

D. Plan and prioritize changes to improve student success
   - Use the review as a planning point to make changes to improve student success.
   - Remember when implementing, establish priorities – can't fix everything at once.
   - Implement steps and/or change in instruction, assessment, or pathway in subsequent course offerings

7. CLOSE THE LOOP AND START A NEW CYCLE FOR PROGRAM LEARNING OUTCOMES

A. Repeat the steps in the process as needed –

B. Review data after implementing changes, to outcomes, mapping, program wide training or dialogue on courses and pedagogy, and so on.

C. There is no end goal. This is an opportunity to reflect and improve the program

D. PLOs assessments should be regularly review opportunity on student success

E. Program Review Cycle is a formal opportunity to reflect, report, and implement observations and changes for improvement. See Program Review Schedule

F. **Close the loop** on that review of data, and see if this improves the student attainment of outcomes in next cycle.

Part III: Institutional Learning Outcomes and Assessments

GENERAL INTRODUCTION

Barstow Community College has identified four Institutional Learning Outcomes (ILOs) that serve as the foundation for a general education at the college. As such, ILOs serve as a foundation for college general education and degree completion including general education and program course work.

ILOs are broad, institutional-level outcome statements which describes what students are able to do at the end of their experience at the college. They act as the highest level under which course- and program-level learning outcomes are organized

BCC standard practice is to use course level SLOs to determine achievement in PLOs and ILOs so mapping is critical *(see Mapping)*

Students who earn a degree or engage in the college experience should be expected to possess proficiency in the following areas upon completion of their program of study:

BCC Four Broad areas of Institutional Learning Outcomes (ILOs):

I. *Communication*
II. *Critical Thinking and Questioning*
III. *Global Awareness*
IV. *Personal and Professional Development*

(See Appendix XXX or BCC website Institutional Learning Outcomes (ILOs Core Competencies)

NOTE: BCC uses the term Institutional Learning Outcomes (ILOs) in eLumen and many other areas. In the past BCC used Core Competencies. There may be older materials with that designation, but ILOs are the preferred term for consistency.

1. DEVELOP/REVIEW/REVISE INSTITUIONAL LEARNING OUTCOMES (ILOS) IN PROGRESS

Institutional Learning Outcomes (ILOs) are the skills and knowledge a student should obtain after completing their college experience. This is the overall content including GE courses as well as program specific courses.

ILOs are revised though a larger approval process in which OAC with guidance from Academic Senate and as needed the research office on whether exist ILOs are sufficient to measure student outcomes attainment or meet state recommendations or accreditation changes.

- Development/Revision should include widespread collaboration across the college.

Mapping – Institutional Specific Details

See the general mapping structures and alignments in the Mapping section in Course-Level SLOs and PLOs

Mapping ILOs include specific awareness of ILO structure and goals

- Is there a pattern in student data in each GE Area?
- Are all ILOs clearly represented in course outcomes mapped to GE areas?
- Any revision or creation of new course-level SLOs must include mapping to the program, GE, and / or ILOs. *

General Education is considered a program, but also uses ILOs as a reflection of the overall college (GE) experience that encompasses program courses and GE courses.

When mapping for ILOs, the distinction is that courses are not mapped for a focused program, but the overall GE experience.

Example: COMM 1 may be in a sequence for COMM degree and not have full proficiency for program outcomes. However, as a student completing COMM 1 as a GE course may not be continuing in the COMM program, how does the course help students meet general college skills and ability expected of an AA student accomplishment

TWO-YEAR Assessment Schedule – Institutional Specific Details

See general TWO-YEAR assessment schedule information under the Course-Level SLOs

As a rule, the TWO-YEAR assessment schedules from each discipline are done at the ILO level. However, GE/ILO assessment data may reflect gaps or problems with full assessment data. If so this should be reviewed and as needed shared with disciplines to review and possibly adjust their TWO-YEAR assessment schedules

Gaps may be due the following:

- Added course not mapped to ILOs or not on TWO-YEAR assessment
- Deleted courses not indicated in all areas yet.
- Classes cancelled or not offered
- Classes not offered sufficiently in TWO-YEAR assessment schedule semesters
- Course with proficiency are not indicated or offered regularly

2. ASSESS INSTITUIONAL LEARNING OUTCOMES (ILOS)

ILOs are assessed

1. **Outcomes:** Describe what students must know, do and value at the conclusion of the program.

Assessment Task:

BCC uses the course-embedded assessment method as the primary assessment method for Instructional learning outcomes (ILOs) whereas the success in designated course outcomes that have been mapped to GE and institutional-level outcomes.

Course-embedded and programmatic: These are the two major approaches in actually employing assessment methods to gather data on instructional program learning outcomes. Course-embedded approaches gather data from student work in individual courses or in the capstone course in a sequence, while programmatic approaches are conducted outside of regular courses, for example, periodically during or at the end of a student's program.

In addition to course-embedded assessment, BCC can use direct or indirect assessment (see below)

- direct assessment which provides data that measures the exact value
- *indirect evidence* provides additional data measuring a variable related to the intended value

Examples of Direct Assessment Methods

Capstone Course Evaluation: Capstone courses integrate knowledge, concepts, and skills associated with an entire sequence of study in a program. This method of assessment is unique because the courses themselves become the instruments for assessing student learning. Evaluation of students' work in these courses is used as a means of assessing program level learning outcomes (PLOs).

• **Collective Portfolios:** Students assemble samples of specified work from various classes and present this "collective" portfolio of learning to discipline faculty to assess specific program student learning outcomes (SLOs).

• **Commercially Produced or Standardized Tests (licensure, certification):** Commercial or standardized tests used to measure student competencies under controlled conditions. Tests are used nationally to determine the level of learning that students have acquired in specific fields of study.

• **Embedded Questions on Assignments or Exams:** Questions related to outcomes can be embedded within course assignments or exams. For example, advanced courses that have proficiency level of could include a question or set of questions relating to the PLOs or ILOs. Faculty includes appropriate assessment level items in an assignment and link to higher level of outcomes for analysis.

• **Videotape or Audiotape Presentations:** Videotapes and audiotapes can assess student skills and knowledge within a program or capstone outcomes. This is often a performance via video or audio as it relates to the PLOs. Disciplines, such as theatre, music, art, and communication, especially use this type of assessment method.

Examples of Indirect Methods of Assessment

• **Alumni Surveys:** Surveying of alumni is a useful assessment tool for generating data about student preparation for professional work, transfer, program satisfaction, and curriculum relevancy

• **Student Exit Interviews/Surveys:** Students leaving the college are interviewed or surveyed. Data obtained can address strengths and weaknesses of the program and/or assess relevant concepts, theories or skills. While qualitative, these may be useful to ascertain program themes and concerns.

• **Focus group interviews:** Focus groups are traditionally developed and conducted by the Office of Institutional Effectiveness. The interview material is developed in conjunction with the discipline faculty based on the purpose or goals of such an interview.

• **Academic performance after transfer:** Follow-up of transfer students' academic achievement and engagement in upper-division course work at a university may be a way to ascertain major or area of emphasis preparation information for an instructional program.

• **Analysis of college student achievements and records:** The following types of data are referred to at BCC as "achievement results". These are not direct measures of student learning outcomes. Rather, this information can inform achievement of department goals.

- Job placement rates
- Retention studies
- Transfer rates
- Graduation rates
- Performance indicators disaggregated by diversity
- Course success rates
- Registration or course enrollment data (sequential)
- Program review data (which may include any or all of the statistics identified above)

3. ANALYZE & REFLECT ON INSTITUTIONAL LEARNING OUTCOMES

Using eLumen reports faculty will view assessments for ways to improve the outcomes, assessment methods, pedagogical, and other related knowledges attainment obstacles or

The ILO data will provide insight into students' achievement on tasks that are designated proficient in regards to general education institutional. Looking for patterns and trends. As an institutional level outcome, review of data should be collaborative of faculty and programs related to the overarching outcomes. Example for Communication for writing, speaking and reading, disciplines with proficiency level expecting for college experience: English composition, Public speaking, and so on.

4. REPORT ASSESSMENT RESULTS PROGRAM LEARNING OUTCOMES IN PROGRAM REVIEW CYCLE

The ILO reporting process will be determined in collaboration with OAC, Academic Senate, and IEC. Reports will be made available to the public and include a plan for improvement and implementation.

5. RINSE AND REPEAT: START A NEW CYCLE FOR PROGRAM LEARNING OUTCOMES

In a new cycle of institutional level outcomes, previous improvements and implementation will be part of the design, assessment, and analysis.

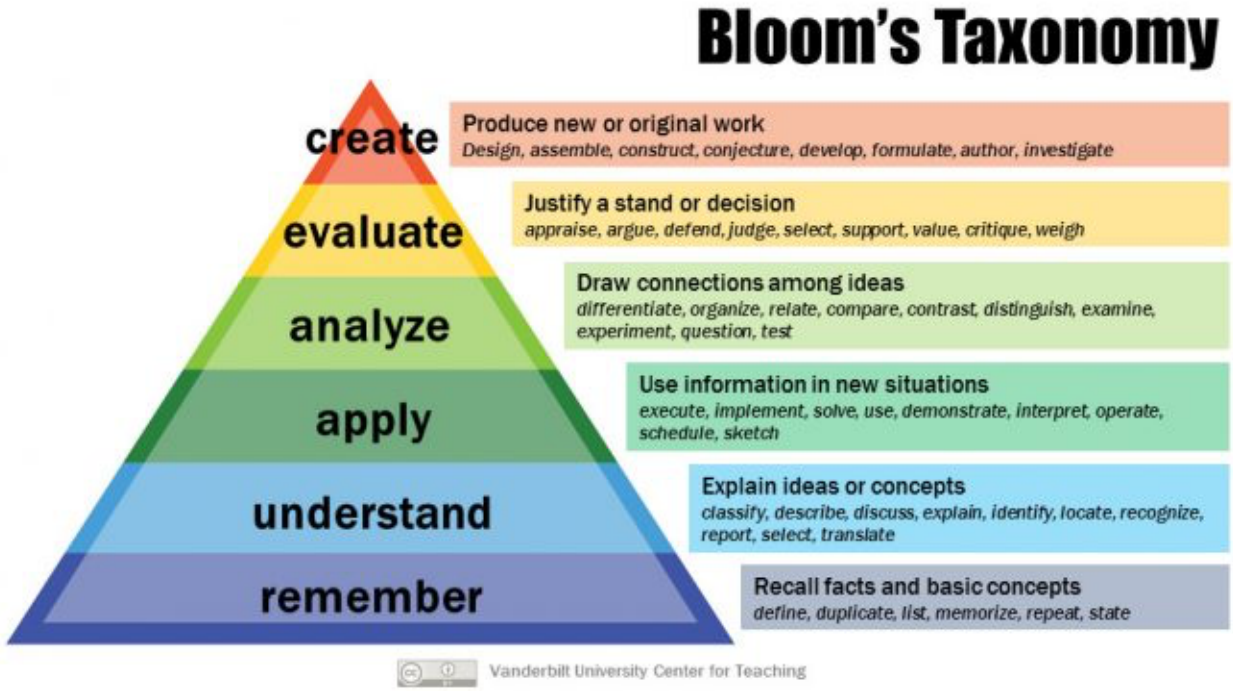

1.
Develop/Review Outcomes
2.
Assess Outcomes
3.
Analyze & Reflect
4.
Report Assessment Results
5.
Use Results to Improve Student Success
Sustainable Continuous Quality Improvement for Student Success

Appendix Outcomes Resources

APPENDIX A: THE THREE M'S

Measurable:	Manageable:	Meaningful:
• *Use verbs that specify definite, observable student performance, actions, or behaviors.* • *Directly measurable.* • *Describe student rather than instructor behaviors.* • *Describe student outcomes rather than processes.*	• *Realistic and attainable.* • *Indicate behaviors that are direct results of your program.* • *Use simple language, clearly understood by people outside the program.* • *Validated by colleagues*	• *Tie directly to course content* • *Applicability to course material* • *Relevant to life experiences and/or allow for a bridge to existing student knowledge*

APPENDIX B: BLOOM'S TAXONOMY



APPENDIX C: TAXONOMY FOR TEACHING, LEARNING, AND ASSESSMENT (BLOOM'S TAXONOMY REVISED)

In 2001, cognitive psychologists, curriculum experts, instructional and assessment researchers, issued a revision of Bloom's Taxonomy called *Taxonomy for Teaching, Learning, and Assessment*.

Table 1 The Knowledge Dimension

Classifies four types of knowledge that learners may be expected to acquire or construct— ranging from concrete to abstract

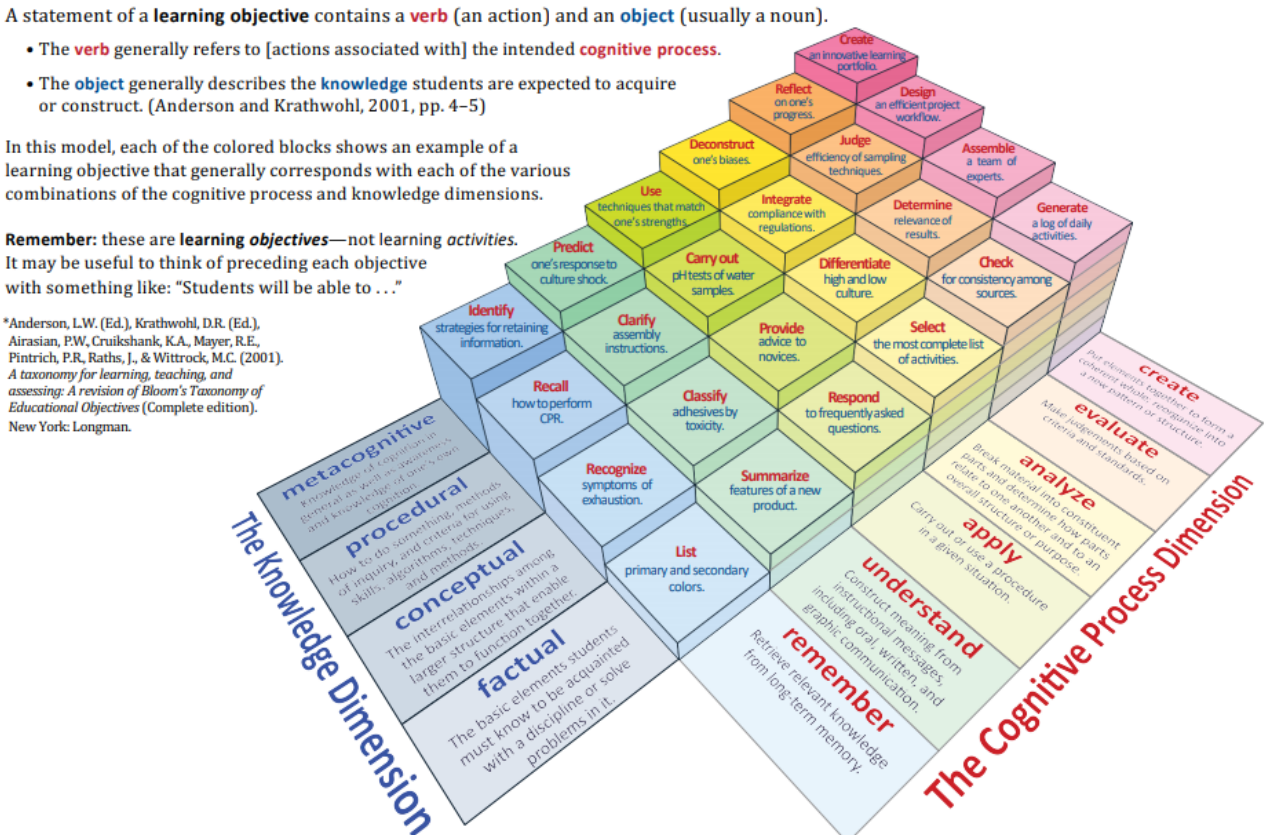
concrete knowledge → abstract knowledge			
factual	**conceptual**	**procedural**	**metacognitive***
knowledge of terminology knowledge of specific details and elements	knowledge of classifications and categories knowledge of principles and generalizations knowledge of theories, models, and structures	knowledge of subject-specific skills and algorithms knowledge of subject-specific techniques and methods knowledge of criteria for determining when to use appropriate procedures	strategic knowledge knowledge about cognitive tasks, including appropriate contextual and conditional knowledge self-knowledge

Table 2 The Cognitive Process Dimension

Represents a continuum of increasing cognitive complexity—from lower order thinking skills to higher order thinking skills

lower order thinking skills → higher order thinking skills					
remember	**understand**	**apply**	**analyze**	**evaluate**	**create**
recognizing • identifying recalling • retrieving	interpreting • clarifying • paraphrasing • representing • translating exemplifying • illustrating • instantiating classifying • categorizing • subsuming summarizing • abstracting • generalizing inferring • concluding • extrapolating • interpolating • predicting comparing • contrasting • mapping • matching explaining • constructing models	executing • carrying out implementing • using	differentiating • discriminating • distinguishing • focusing • selecting organizing • finding coherence • integrating • outlining • parsing • structuring attributing • deconstructing	checking • coordinating • detecting • monitoring • testing critiquing • judging	generating • hypothesizing planning • designing producing • constructing

Image of Integrating the Knowledge Dimension and the Cognitive Process Dimension



A Taxonomy for Learning, Teaching, and Assessing Source:

A Model of Learning Objectives–based on A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives by Rex Heer, Center for Excellence in Learning and Teaching, Iowa State University is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

APPENDIX D: OUTCOMES STRUCTURE AND FORMAT

Structure of an Outcome Statement

Outcome statements will have two mandatory elements:

- intended **beneficiary** (customers, students, institution, community) and
- **gain or benefit** they receive from what you do (impact/end result).

General Format when Drafting Outcome Statements

[Intended audience] for instructional outcomes will be students

Course-Level Outcomes usually start with a statement such as "The student will be able to…" with the following list of outcomes using format below:

Start with Action verb 1 such as complete, engage in, participate in

Use clear descriptions of expectations

See samples in Appendix D

APPENDIX E: SLO TEMPLATES AND EXAMPLES

1) **Deconstruct** the relationship between _____ concept and _____ concept.
2) **Explain** _____'s theory to your understanding of the "real life" situation provided (or experienced by student).
3) Using text and class information, **create** a possible model (physical or theoretical model). **Determine** how class information supports your model's potential success.
4) **Critique** _____' theory in view of the situation we experience in today's world. **Distinguish** which elements are valid?
5) Create a visual representation of historical _____ struggles in America. **Support** with text evidence.
6) **Distinguish** between _____ and _____ as they apply to _____
7) **Describe** and **Execute** the steps necessary to complete the _____ process.
8) **Differentiate** between crucial and non-crucial amino acids in _____

The following are examples from various departments across the curriculum using Blooms Taxonomy or *A Taxonomy for Teaching, Learning, and Assessment*.

1. **Identify**, **explore**, and **justify** selections of potential career pathways that match student needs, abilities, and interests.
2. **Decide** what the important factors were that enabled the American colonies to defeat the British Empire during the Revolutionary War.
3. **Describe** the cultural characteristics of Mesoamerica as well as the historical processes by which the characteristics were created and transformed through time.
4. **Identify** and **analyze** an environmental problem or situation, **describe** its physical, biological and/or sociological ramifications, and draw conclusions as to what can be done about the situation.
5. **Create** a model for environmental law and community planning.
6. **Explain** the inherent meaning of the word primitive and **determine** why oral religions should no longer be called *primitive* religions.
7. **Differentiate** between public relations and community relations.
8. **Design** pricing schedules and advertisement campaigns utilized in sales promotions.
9. **Illustrate and explain** the relationship between voltage, current, resistance and power and be able to calculate each type in a circuit.
10. **Perform** basic arithmetic calculations as applied to business situations.
11. **Identify** Tools and their Functions and use correctly for specified situation
12. **Compare, contrast, and analyze** major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development using standards research methodologies.

APPENDIX F: ACTION VERBS FOR OUTCOMES

Avoid Weasel Words:

be aware of	have a (firm) grasp of
have an awareness of	have a (an in-depth) knowledge of
be conversant with	be prepared for a variety of
be familiar with	have a (good) sense of
display a broad and full grasp of	understand
develop awareness (understanding)	have an (a broad) understanding of

Use Action Verbs:

Add	Design	List	Restate
Advance	Determine	Locate	Reveal
Alter	Differentiate	Make	Revise
Analyze	Discriminate	Manipulate	Section
Annotate	Dissect	Match	Select
Apply	Distinguish	Mobilize	Separate
Appraise	Divide	Modify	Show
Arrange	Draw	Multiply	Sift
Assign	Earn	Name	Sketch
Assay	Employ	Negotiate	Solve
Assess	Estimate	Offer	Sort
Calculate	Evaluate	Omit	Speak
Canvass	Exercise	Operate	Specify
Change	Exert	Perform	Spell
Check	Expand	Pick	State
Choose	Extrapolate	Plan	Strike
Classify	Find	Point	Subtract
Collect	Form	Predict	Summarize
Combine	Generate	Produce	Support
Compare	Give	Project	Synthesize
Compose	Hold	Propose	Take care, teach
Contrast	Identify	Quality	Tell
Convert	Illustrate	Quantity	Test
Create	Include	Quote	Touch
Criticize	Integrate	Rate	Transfer
Dance	Interpolate	Read	Transform
Deduce	Interpret	Recite	Translate
Define	Judge	Referee	Use
Demonstrate	Justify	Repeat	Weigh
Derive	Label	Reproduce	Write

APPENDIX G: BCC INSTITUTIONAL LEARNING OUTCOMES ILOS

I. Communication

A. WRITE

1. Communicate thoughts, ideas, information, and messages in writing.
2. Compose and create documents, such as: letters, reports, memoranda, manuals and graphs with correct grammar, spelling, punctuation, and appropriate language, style and format.
3. Check, edit, and revise written work for correct information, appropriate emphasis, form, style, and grammar.

B. SPEAK AND/OR CONVERSE

1. Organize ideas and communicate verbal or non-verbal messages appropriate to the audience and the situation.
2. Participate in conversations, discussions, and group activities.
3. Speak clearly and ask questions.

C. READ

Comprehend and interpret various types of written information in (1) prose and in (2) documentation, such as manuals and graphs.

II. Critical Thinking and Questioning

A. ANALYZE

1. Apply rules and principles to new situations.
2. Discover rules and apply them to solve problems.
3. Use logic to draw conclusions from information given.
4. Differentiate between facts, influences, assumptions, and conclusions.

B. COMPUTE

1. Use basic numerical concepts, such as: whole numbers, percentages, estimates of math without a calculator.
2. Use tables, graphs, charts, and diagrams to explain concepts or ideas.
3. Use basic geometrical shapes, such as: lines, angles, shapes, and space.

C. RESEARCH

1. Identify the need for information and data.
2. Obtain data from various sources.
3. Organize, process, and maintain records of the information collected.
4. Analyze the information for relevance and accuracy.
5. Synthesize, evaluate and communicate the results.
6. Determine which technology resources will produce the desired results.
7. Use current technology to acquire, organize, analyze, and communicate information.

D. SOLVE PROBLEMS

1. Recognize whether a problem exists.
2. Identify components of the problem or issue.
3. Create a plan of action to resolve the issue.
4. Monitor, evaluate, and revise when necessary.

III. Global Awareness

A. SCIENTIFIC PROCESSES

1. The Scientific Method: Apply scientific processes to solve problems and measure and observe natural phenomena.
2. Scientific Observation: Design, perform and analyze experiments and scientific observations.
3. Interconnectivity: Analyze the major differences and connections between social, natural and physical sciences

B. GLOBAL SYSTEMS AND CIVICS

1. Cultural: Interface with people from a variety of backgrounds and analyze different cultural beliefs and behaviors.
2. Political, Social and Economic: Recognize important economic and political issues and values in one's own community, state, country and the world.
3. Environmental: Analyze the importance of the natural environment to human well-being and the impact of human activity on the well-being of global environmental systems.
4. Integrated Systems: Assess and analyze the interconnectivity between social, political, economic, and ecological systems and activities.
5. Action: Develop and evaluate strategies and plans for addressing global systems and civics issues.

C. ARTISTIC VARIETY

1. Arts awareness: Assess the visual arts, dance, music and literature of one or many cultures.
2. Critical Analysis: Analyze the methods used to create art and interpret its literal and/or symbolic meaning.
3. Creativity: Engage in artistic creative endeavors.

IV. Personal and Professional Development

A. SELF-AWARENESS

1. Accurately assess his/her own knowledge, skills, and abilities.
2. Self-motivate and set realistic goals.
3. Accept that taking feedback well is important to success.
4. Respond appropriately to challenging situations.

B. SOCIAL AND PHYSICAL WELLNESS

1. Manage personal health and well-being.
2. Demonstrate appropriate social skills in group settings.

C. WORKPLACE SKILLS

1. Be dependable, reliable, and accountable.
2. Meet deadlines and complete tasks.
3. Maintain a professional attitude.
4. Work as a productive member of a team.