THE ACADEMIC SENATE FOR CALIFORNIA COMMUNITY COLLEGES

STUDENT LEARNING OUTCOMES (SLO)
SYMPOSIUM COLLECTIVE WORKS
Dear Faculty,

It is my great pleasure to introduce the first issue of the Student Learning Outcomes (SLO) Symposium Collective Works publication, devoted to summaries of the presentations that took place at the 2018 symposium. The fifth annual SLO Symposium started with a keynote delivered by Dr. Gianina Baker from the National Institute for Learning Outcomes Assessment (NILOA). Dr. Baker’s address offered a unique bird’s eye view of the state of the student learning assessment in the country. Her presentation only confirmed that community colleges in California struggle and adapt learning assessment practices similar to those that are prevalent in the rest of the country. The recent and numerous initiatives focused on institutional effectiveness and improved student achievement are designed to support student learning and cannot be addressed in isolation from classroom practices.

The guiding topic of the symposium, assessment of student learning, was interwoven in breakout sessions with a great variety of topics such as equity, assessment cycles, integrated planning, institution-set standards, SLO assessment data disaggregation, faculty engagement, and guided pathways. Presentations were delivered mostly by faculty and other practitioners in the field of assessment and offered very concrete examples of daily practices that could inform campus-wide discussions in the areas of professional development, institutional effectiveness, and accreditation.

The symposium would not have happened in the form that it did without the generous support of vendors eLumen, Intellus Learning, and Nuventive. eLumen delivered a presentation on the system of digital badges to help document student competencies as they complete courses and programs. Colleges co-presenting with vendors whose programs they use offered a unique opportunity for other colleges to learn from their practices and help inform decision-making processes for those who are in a need of adoption of a platform to document student learning.

American Institutes for Research presented on faculty learning communities, a concept designed to help faculty create focus groups to discuss, analyze, and issue recommendations for program improvement based on SLO assessment data.

Symposium evaluations praised the scope and depth of the event, and many attendees stated that topics discussed were timely, well presented, and addressed the practice of student learning to an applicable degree.

Thank you again to Orange Coast College for hosting the 5th Annual SLO Symposium. Materials from the symposium presentations can be found on the ASCCC web site under Events.

Enjoy the readings. We hope to see you next year.

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Institutions of higher education in the United States continue to grapple with the challenge of improving student success. The use of student learning outcomes assessment (SLOA) has increased at community colleges across the nation (Kuh et al., 2015) and gained wider acceptance at community colleges in California (ASCCC, 2010). Evidence also shows that SLOA has changed instructional practice, course design, and program development (Cameron et al., 2002; Jennings et al., 2006) At the same time, sufficient evidence that SLOA has improved learning remains elusive (Kuh et al., 2015). One proposed explanation for the lack of evidence that SLOA improves learning is insufficient faculty engagement (Hutchings, 2010; Kuh et al., 2015).

Our study explored the experiences of faculty engaged in SLOA to identify facilitators and barriers to the use of SLOA to improve teaching and learning. Purposefully selected faculty participants held advanced degrees in the social and behavioral sciences, disciplines devoted to the study of human behavior and social systems. Student learning outcomes coordinators brought college-wide perspectives informed by an attention to institutional accountability and experiences working with faculty from a range of disciplines. Through understanding the experiences of faculty members and SLO coordinators, both barriers and facilitators to further faculty engagement in SLOA were discovered. The overall question that motivated this study was, “does SLOA work?”

The study found that a combination of faculty cognitive frameworks, effective change processes, and institutional context worked to explain why and how some faculty members engaged in SLOA.

Participants in this study identified themselves as engaged in SLOA with the intent to improve teaching and learning, sharing characteristics such as self-efficacy, empathy, an openness toward new ideas, science, and collaborative work with Rogers’ (2003) early adopters.

The participants’ experiences revealed that SLOA works as an effective change process impacting the “black box” of instruction, providing a means of professional development for faculty to hone their teaching craft. However, equally important findings were that faculty were reluctant to recognize that student learning improved as a result, citing a lack of evidence, and faculty were not fully prepared to identify SLOA as a means of closing achievement gaps.

Research Conducted by Aeron Zentner, Raissa Covit, Steven Homestead, Josh Levenshus, Danny Pittaway, Shanon Gonzalez
Leadership support is key to successful change efforts, and assessment coordinators provided leadership as they designed and guided strategically-integrated dialogue focused on teaching and learning. Strategically-integrated dialogue describes the system of communication and reflective dialogue created by SLO coordinators to facilitate SLOA, as revealed by this study. Strategically-integrated dialogue moved both horizontally across departments and divisions and simultaneously vertically, connecting classroom data to institutional planning decisions. Strategically-integrated dialogue, through connecting faculty who have expertise at the course level to the larger educational programmatic and design conversations, can be a valuable tool for facilitating change across institutions.

Overall, this study revealed that engaging faculty in SLOA works to create a synergy of well-educated, dedicated, socially engaged professionals collaborating on action research directed at social improvement.

REFERENCES


ESCAPE! HOW TO BUILD FACULTY ASSESSMENT TEAMS THROUGH THE USE OF ESCAPE ROOMS

By Denise Kruizenga-Muro and Jude Whitton, Riverside City College

This presentation first highlighted the work that Riverside City College's (RCC) Assessment Committee did to create a multi-discipline program assessment workgroup. RCC’s work began with the formation of the Program Assessment Workgroup, or PAW, which consisted of representatives from each campus division. We were pleased to have broad representation on this workgroup because we knew that getting buy-in from our colleagues would require a close connection between the individual faculty doing assessments and the broader campus community.

The PAW’s work included creating a vision statement that guided our work, developing specific goals including program-level assessment models, and strengthening communication between faculty and departments.

The work of the PAW over a span of two years created a culture of assessment at RCC. Today, most of our faculty are assessing their student learning outcomes, many have moved into program-level outcome assessment, and we are ready to start a college-wide push toward regular and sustained PLO assessment. This push is going to begin with an assessment summit that will include a guest speaker, breakout sessions, and an exciting escape room game that will help build the kind of teams—and the kind of excitement—necessary to get this initiative off the ground.

The next portion of the presentation was focused on establishing what an escape room is and how it is used for learning. An escape room is a physical adventure game where the participants solve a series of puzzles using hints, clues, knowledge, and strategy to complete the particular objective. This process is typically done over a set amount of time where the players solve clues found in sources around the room. If an escape room is executed well, then players genuinely learn, collaborate, and contribute to the overall objective.

One of the major reasons escape rooms moved from a Groupon deal to learning environments is they are an effective tool for collaboration. A large body of research on gameplay within groups suggests this play facilitates a collaborative environment where individuals work together and think critically. Including the escape room element then adds additional components too. First, the activity can help participants develop communication with one another and acquire the specific skills needed to develop together (Rouse, 2017). Second, much like assessment, escape rooms have challenges which create roadblocks. If the group works well together and
finds a way around the roadblock, then the members’ mindset is changed. As Dweck points out in her work on the growth mindset, sustained effort over time is the key to outstanding achievement. Ultimately, when utilizing this tool, this growth is the objective.

During this presentation, best practices for using escape rooms on individual campuses were shared. The highlights were as follows: start with your outcome in mind, do a test run, and debrief and assess the outcome. The attendees then played through an escape room scenario, which gave them a tangible example of an assessment related task.

PASSION, PATIENCE, & COMPASSION IN THE SLO JOURNEY

Only a teacher knows what expectation a student has satisfied or failed to satisfy.

“Acharya Devo Bhava” —Sanskrit—“Teacher is like God.”

By Nita Gopal, Modesto Junior College

The value of what a teacher knows cannot be undermined in any educational setting. Similarly, what a teacher knows about a specific student’s performance in her class could be one of the most valuable possessions of a school. Without the teacher’s intelligence, diligence, and dedication, no data of students’ mastery can exist.

Modesto Junior College’s SLO journey began in the early 2000s. Within a few years of the first sound of SLOs, our psychological terrain accumulated layers of narratives and memory that generated anxiety. This anxiety dictated attitude and action and interfered with communication. Though there were campus-wide assessment days, professional development SLO workshops, and committees and workgroups that discussed, analyzed, debated, and reached out to the school about SLOs, solutions did not become clearly visible. Assessment information used to be deposited in a system, but the data was static and severely limited in meaning and usage. Such struggles initiated a change.

In fall 2015, we switched to a new database (eLumen) designed for SLOs. We moved data entry from a locker-like system to an interactive Web 2.0 system that allowed us to collect and extract SLO data as would be useful to us. Though all was for the future good, a different type of learning was needed during the switch: understanding the big data and the working of a new database. We also needed to stay on the path of truly understanding outcomes assessments from generating evidence to using that data. New fears sat on old ones, once again threatening communication and action.

What was needed most at this time was a sense of peace, security, understanding, and clarity; we needed liberation from SLO anxiety, which would not be achievable without the practices of patience and compassion. Without stability, we would collapse what we were expected to build. The practice of patience and compassion for each other, for our history, for our collective memories of passionate resistance, for our tug-of-war between caution and exploration, and for our efforts to understand the demands of a changing world helped soften the difficulties of our SLO journey.
Today, as we continue to navigate the new database, we realize that only individual instructors can contribute to big data, only individual instructors can access their own assessments, each individual instructor is the most important person with the most important data, and only individual instructors know what each student learned or did not learn.

Such realizations automatically expanded the boundaries of SLO perceptions. In the most recent semester, fall 2017, 97-98% of our courses scheduled for assessments were assessed. We also disaggregated the data and obtained a variety of reports. We went from the fear of setting assessment goals to setting the bar high: assessing all sections of a course every time it is up for assessment.

In the current SLO path, we are neither agitated nor idle. We are aware that this is a journey and not an established state. We stay in the moment, doing what is needed for the common good.

In Sanskrit: "Acharya Devo Bhava."
ORANGE COAST COLLEGE

COMPREHENSIVE EVALUATION OF THE SLO PROCESS WITHIN AN INTEGRATED PLANNING SYSTEM AT ORANGE COAST COLLEGE

By Sheri Sterner, Orange Coast College
Gabrielle Stanco, Orange Coast College

Orange Coast College (OCC) regularly evaluates its SLO processes as part of its integrated planning system. OCC’s comprehensive evaluation reviews our program review, student learning outcomes and administrative unit outcomes, and planning processes as a whole. Using qualitative and quantitative methods, faculty, staff, and managers provide evaluative feedback and identify areas that warrant a change for improvement. This presentation reviewed the evaluation plan, the role SLO processes play, and how evaluating SLO processes within the context of the larger system provides critical feedback.

The evaluation plan comprised the timeline, development and review of instruments, implementation, analysis, and dialogue. Evaluation topics included the SLO process and structure, support, timeframe, impact, communication, and the TracDat database for capturing the information. Data collection was carried out in a two-part process consisting of focus groups and a campus-wide perception and opinion survey. Trends from focus group transcripts were analyzed alongside descriptive statistics from survey items to develop major themes and recommendations. Data was disaggregated by administrative wing (e.g., Instruction compared to Support Services) and employee type (e.g., full-time compared to part-time faculty).

The resulting comprehensive report was shared across campus and discussed with all constituent groups. Critical dialogue and feedback points with the college Academic Senate were outlined, including the role of the faculty SLO and program review coordinators in instrument development and facilitation of results discussions. The findings from the prior and current evaluations were discussed. Findings highlighted how results from the prior evaluation were effectively used to enact change in SLO processes and support. One example was implementation of an integrated database to reduce data entry and better track SLO assessment workflow. In addition to past changes, current findings suggest that while the SLO processes are working well as a distinct process, the alignment of SLO, program review, and planning processes could be further matured. Additionally, current findings suggest process cycles may be too short. The dialogue and communication plan across the campus and within the college Academic Senate were also discussed.
Institution-Set Standards: How to Weave Them in Meaningfully into Program Review

By Jennifer Klein, Director of Planning, Research and Accreditation
Shouka Torabi, Research and Planning Analyst

The Accrediting Commission for Community and Junior Colleges (ACCJC) expects all colleges to regularly evaluate Institution-Set Standards (ISS) and examine performance at a program level that is relevant to the institution (ACCJC Accreditation Standards - 1.B.3; Eligibility Requirement 11). Institution-Set Standards are developed as thresholds for minimum expected performance in key areas and are federally mandated (USDE CFR 34, subpart B, Chapter VI, part 602.16-602.21).

The aim of this presentation was to provide information and context regarding Institutional-Set Standards and the method that Saddleback College used to adopt them in order to capture dialogue and reflection. In the spring 2017 semester, an online survey was administered to all department chairs. The survey consisted of six questions and had a 75% response rate. The questions asked chairs to assess their ISS and compare it to their most recent year’s performance, provide suggestions and action steps for program improvement to ensure increases in their course success rates, and identify ways in which their ISS can help inform program review.

A thematic analysis of the open-ended responses revealed two overarching themes as having the greatest impact on course success rates: faculty and curriculum. Specific recommendations that were related to the faculty included the following:

1. Increase faculty to faculty engagement
   a. Provide more professional development activities (i.e. grade norming and successful teaching strategies)
   b. Richer dialogue in department meetings

2. Increase faculty to student engagement.
   a. Increase use of MySite’s Progress Report
   b. Increase communication to address potential academic problems (i.e. dropping after census)

3. Hire more faculty
In regard to curriculum changes, respondents recommended the following:

1. Better scheduling to accommodate students
2. Updating course content so that it is relevant
3. Increasing course offerings so that they are more appealing to students (i.e. industry specific and transferable courses).

The results of the analysis suggested that shifting focus to the recommended solutions provided by department chairs regarding faculty and curriculum changes could potentially increase course success rates, thus increasing the minimum ISS, which ultimately leads to the success of our students.
LONG BEACH CITY COLLEGE INCREASING PARTICIPATION IN SLO DISAGGREGATION

By William Collins, Long Beach City College

Since the 2014 ACCJC Revised Standards were published, and after receiving a recommendation from the ACCJC in 2015, Long Beach City College (LBCC) has shifted its culture and technology to increase full-time faculty participation in assessing and disaggregating student learning outcomes. The first challenge in this process was to help LBCC faculty change negative perceptions regarding SLO assessment procedures. Two SLO coordinators (general and CTE), with the support of an educational assessment research analyst from the Institutional Effectiveness Office, led a team of 26 SLO Facilitators--one from each department--to create a collaborative, faculty-driven intervention. The coordinators arranged meetings and presentations with departments to gain understanding of issues, formulated suggestions and solutions, and, in time, were able to establish a nurturing, safe environment where faculty felt that interventions were created with their input in mind.

With the help of these new norms, faculty perceptions shifted away from fear of the uncertainty in SLO assessment towards collaborating with peers and understanding the power of data. In the recent years, SLO assessments began shifting from paper-and-pencil methods to digital via the Learning Management System Canvas. This shift started in the fall of 2016 and has only continued to increase. Because Canvas automatically scored students’ SLO assessments and presented the frequency of each answer option selected in multiple choice assessments, it alleviated time faculty needed to obtain results and helped inspire conversations about improvements in courses. Moreover, Canvas allows for data to be further disaggregated by automatically recording students’ campus ID numbers upon completion of a SLO assessment.

The educational assessment research analyst began early stages of disaggregating SLO data utilizing the program Tableau and compared performances of different subgroups of students such as ethnicity, mode of delivery, and major status. Lastly, SLO Coordinators created a structured assessment cycle for both courses and programs and began collaborating with facilitators to incorporate it into respective routine curriculum review cycles. With the changes in perceptions of SLO assessment and utilization of new technology, LBCC streamlined the SLO assessment process and will continue to evolve and strengthen the assessment process and structure.
**MIRA COSTA COLLEGE**

**THE ODYSSEY OF SLO’S: AN EPIC JOURNEY OF ASSESSMENT, IMPROVEMENT AND FACULTY ENGAGEMENT AT MIRACOSTA COLLEGE**

*By Joanne Benschop, MiraCosta College  
Jonathan Fohrman, MiraCosta College  
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**THIS PRESENTATION FOCUSED ON THE EVOLVING** implementation practices for program and institutional assessment used at MiraCosta College and strategies used to engage faculty in the assessment process.

At MiraCosta, institutional learning outcomes and the liberal arts program were assessed through the use of a survey and a focus group over a multi-year period. Through the use of a fairly wide spread marketing campaign and incentives such as an Amazon gift card, the indirect assessment survey drew a participation rate of between 30 and 40 percent over a four-year period. The survey focused on the students' perception of their experience at MiraCosta, specifically related to the institutional and general education learning outcomes. The focus group drew much less participation but included both direct and indirect assessment measures, and focused on group communication skills, teamwork, and critical thinking outcomes. Each year, the participation rate grew with the help of the opportunity to win an iPad, presented by the college president. Both tools were developed by the college’s Student Learning Outcomes and Assessment Committee (SLOAC). Results were distributed college-wide, and assessment days were held on which faculty evaluated, analyzed, and refined both assessment tools. During these outreach and inclusion activities, faculty also generated the idea to use a simple rubric to assess critical thinking. This rubric was used by participating faculty when entering final grades. Another important task at an assessment day that engaged faculty was to evaluate the coherence and overall relevance of the separate and distinct institutional and general education outcomes.

SLOAC has now grown into a larger Outcomes and Assessment governance committee. Responding to the desire for clear institutional outcomes and more evaluative data, Core Competencies based on the LEAP Outcomes were developed that merged the previous institutional and general education outcomes. In Spring 2018, the college's focus is on obtaining data from direct assessment methods. Embedded assessments focused on written communication and teamwork will be implemented by faculty volunteers using a common rubric in general education courses that have mapped as primary to these learning outcomes. Training will be held on using the common rubrics prior to the implementation of the assessment, and faculty will provide input on the process. Results will be distributed collegewide in Fall 2018.
COASTLINE COLLEGE

TRANSITIONING SLOS INTO CANVAS: COASTLINE’S STORY OF FACULTY ENGAGEMENT AND INSTITUTIONAL CHANGE

By Raissa Covit, Coastline College
Shanon Gonzalez, Coastline College
Steven Homestead, Coastline College
Josh Levenshus, Coastline College
Daniel Pittaway, Coastline College
Aeron Zentner, Coastline College

This presentation highlighted Coastline College’s transition of SLOs into Canvas. Attendees of the session participated in an activity titled “SLO Engagement Party” where they were asked to respond to three prompts. The prompts assessed how the respondents’ colleges engage faculty through the SLO development and assessment process and the frequency and venue in which discussions around SLO results are held. Additionally, participants were asked to list activities that would inspire and promote engagement in the development, assessment, and discussion and planning stages of SLOs.

How does your college engage faculty through the SLO development and assessment process?

Responses revealed that colleges engage faculty and stakeholders in the SLO development and assessment process in three primary ways: professional development and gatherings, governance and oversight, and communication.

A majority of participants indicated that their colleges provide gatherings and events to engage and empower their faculty, staff, and administration via meetings, workshops, trainings, as well as through professional development such as Flex days and other activities.

Colleges also engage faculty in the SLO development and assessment process through governance and oversight via SLO coordinators and SLO committees, as well as by ensuring that SLO assessment is scheduled and structured.

Finally, colleges engage faculty with SLOs via the flow of information, such as through the use of reports, presentations, online technologies (e.g., Canvas, CurricUNET, dashboards), and printed resources.
**How frequently are discussions around SLO results held? In what venue are these discussions held (e.g., department meetings)?**

Roughly two-thirds of respondents reported that discussions around SLO results were commonly held on a monthly basis at the departmental level. Other scheduled discussions were reported to be held for facilitators or on a college-wide level less frequently (i.e. once a term or twice yearly).

About one-third of respondents indicated a lack of awareness of the frequency at which discussions around SLO results were held, with further indication that the information was simply unknown to them or because SLO assessment processes were in the midst of implementation.

**List three activities that would inspire and promote engagement through the different stages of SLOs.**

Gathering personnel to train and inform was the most commonly listed activity for inspiring and promoting.

Specific SLO development activities included trainings, workshops, symposia, and forums. Holding large events and creating broad campus buy-in through such activities was regarded as effective in the development of SLOs. Engaging faculty to understand the role, purpose, and function of SLOs was also seen as important in the SLO development process, as well as holding department meetings and discussions.

**Activities inspiring and promoting SLO assessment**

Respondents espoused the use of Flex days and other Flex activities and professional development activities to promote and inspire SLO assessment. Linking SLOs to other required or common activities, such as rubrics and program reviews, was also suggested. Using technology (e.g. Canvas, eLumen, and TracDat) to facilitate the tracking and reporting of SLOs was also mentioned. Additionally, respondents saw the need for trainings and workshops on such technology.

Respondents also indicated that they wanted to see more collaboration and more equality among SLO stakeholders, a greater understanding of data, and more frequent meetings. A need to streamline, simplify, and standardize the SLO assessment process was also expressed.

Less common responses for methods or activities that would inspire and promote SLO assessment include garnering faculty buy-in, potentially through incentivizing assessment.
Activities inspiring and promoting SLO discussion and planning

Department and division meetings were most commonly considered a means to promote and inspire SLO discussion and planning. Responses varied for the suggested frequency in which regular, scheduled meetings should take place and from weekly meetings for certain SLO stakeholders to once-a-term Flex days and Flex activities.

Less common suggestions for promoting and inspiring SLO discussion and planning included the use of resources such as YouTube videos and others guides and templates, as well as linking discussion and planning with program review.

In addition, some respondents saw the need for committees, a diverse SLO coordinating team, and data provided by the institutional research department. A few respondents expressed the need to ensure a view of data in which data was not scary, sharing cross-institutionally and interdepartmentally, and the desire for good work.
Bakersfield College's institutional learning outcomes were revised and updated 2014. These ILOs have been historically assessed using a variety of techniques including perception surveys (e.g. CCSSE, Student Worker survey and Library Survey) and institution-wide activities (e.g. Critical Thinking prompt on Growth Mindset and Oral Communication rubric for speeches in courses other than speech). With the advent of Guided Pathways, it has become important to see the integration of these outcomes in the pathways and in skills essential for transfer and employment success.

The implementation of eLumen and move from CurricuNET provided an opportunity to define effective ILO assessment and describe its integration with ongoing work and institution-wide mapping.

**Think – Think critically and evaluate sources and information for validity and usefulness.**

1. Mapping individual course SLO assessment to PLOs and ILO results
2. Sampling Critical Thinking Assignments (e.g. Growth mindset)
3. Perception using CCSSE and sampling of specific institutional Initiatives through surveys
**Communicate – Communicate effectively in both written and oral forms.**

1. Mapping ILOs and individual course assessment to PLOs and ILO results
2. Sampling writing and presentation assignments (e.g. Growth mindset and discipline presentations)
3. Perception using CCSSE and sampling of specific institutional Initiatives through surveys

**Demonstrate – Demonstrate competency in a field of knowledge or with job related skills.**

1. Primarily assessed through program outcomes and then mapped to ILOs.
2. Survey results from employers.
3. Data from transfer institutions based on completion.

**Engage - Engage productively in all levels of society- interpersonal & community, the state a& nation & the world**

1. Mapping ILOs and individual course assessment to PLOs and ILO results
2. Perception using CCSSE and sampling of specific institutional Initiatives through surveys

**Outcomes assessment meets Std 1B and IIA.**

**Mapping** specifically guarantees that assessment of learning is the basis of degree completion as required in Std II.A.9, "The institution awards course credit, degrees and certificates based on student attainment of learning outcomes," and Std II.A.11, "The institution includes in all of its programs, student learning outcomes, appropriate to the program level, in communication competency, information competency, quantitative competency, analytic inquiry skills, ethical reasoning, the ability to engage diverse perspectives, and other program-specific learning outcomes."

**Assessment sampling** validates that "The institution uses assessment data and organizes its institutional processes to support student learning and student achievement" (Std I.B.4).

**Transfer alignment and success** guarantee Std II.A.10, "The institution makes available to its students clearly stated transfer-of-credit policies in order to facilitate the mobility of students without penalty. In accepting transfer credits to fulfill degree requirements, the institution certifies that the expected learning outcomes for transferred courses are comparable to
the learning outcomes of its own courses. Where patterns of student enrollment between institutions are identified, the institution develops articulation agreements as appropriate to its mission” (ER 10). Bakersfield College has been working to map transfer pathways, determining necessary outcomes at BC to meet expectations for knowledge, skills, and abilities of upper division work. See below for a comparison of Bakersfield College and CSUB ILOs.

**Employer surveys** provide validation of Std II.A.14, “Graduates completing career-technical certificates and degrees demonstrate technical and professional competencies that meet employment standards and other applicable standards and preparation for external licensure and certification.”

Through Strong Workforce, BC has recently implemented this new aspect of ILO assessment to improve our understanding.

**CALIFORNIA STATE UNIVERSITY, BAKERSFIELD UNIVERSITY LEARNING OUTCOMES**

**Goal I. Students will show critical reasoning and problem solving skills.**

1A: The student will demonstrate the ability to read critically.
1B: The student will demonstrate the ability to write critically.
1C: The student will demonstrate the ability to speak critically.
1D: The student will demonstrate the ability to think critically.
1E: The student will demonstrate the capacity for life-long learning.
1F: The student will engage in critical problem solving.

**Goal II. Students will be able to communicate orally and in writing.**

2A: The student will present information in a professional manner using well-developed writing skills.
2B: The student will present information in a professional manner using well-developed oral presentation skills.
2C: The student will demonstrate competence in information management.
2D: The student will demonstrate computer literacy.

**Goal III. Students will demonstrate discipline-based knowledge and career-based-learning.**

3A: The student will demonstrate broad knowledge in their selected discipline.
3B: The student will successfully apply discipline-based knowledge to the real world.
3C: The student will successfully engage in career preparation and planning.

**Goal IV. Students will possess numerical literacy.**

4A: The student will correctly utilize mathematical calculations and estimation skills.
4B: The student will demonstrate quantitative reasoning skills.
4C: The student will successfully apply quantitative reasoning skills to the real world.
Goal V. Students will become engaged citizens.
  5A: The student will engage in university and community activities (including civic action).
  5B: The student will demonstrate superior interpersonal skills.
  5C: The student will develop and demonstrate a thorough knowledge of self.
  5D: The student will demonstrate responsibility in group settings (including teamwork, leadership, managing skills, etc.)
  5E: The student will demonstrate the ability to work independently.

Goal VI. Students will develop a well-rounded skill set.
  6A: The student will possess and demonstrate an ethical framework.
  6B: The student will demonstrate an understanding of cultural and ethnic diversity.
  6C: The student will successfully apply research methods/analysis and technology for problem solving.
  6D: The student will demonstrate interdisciplinary knowledge