

NOCE Student Learning Outcomes (SLO) Handbook

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Introduction

At NOCE, Student Learning Outcomes (SLOs) are instrumental in ensuring that our education delivery aligns with our mission and caters to the diverse needs of our students. This handbook provides a comprehensive guide to understanding, implementing, and assessing SLOs at NOCE.

Governing Body

The oversight of Student Learning Outcomes (SLOs) at NOCE is led by the SLO Coordinator, a role designated by the Administration and endorsed by the Academic Senate. This position is supported by a collaborative team of volunteer faculty across various instructional programs, dedicated to the development and enhancement of SLO initiatives. While not formalized as a committee within the academic senate's official committee assignments, this group operates in close partnership with academic leadership to ensure the effective integration of SLOs into our educational framework.

Mission Statement

NOCE serves our diverse community by providing holistic programs and services that are relevant and accessible to all learners in achieving their goals. NOCE is dedicated to offering a transformative educational experience that builds lasting foundational skills and promotes student success.

Responsibilities

The responsibility for SLOs at NOCE is collective. Faculty, administrators, and support staff all play pivotal roles. Introduced by accreditation agencies at the turn of the last century, SLOs bridge internal academic practices with external expectations about student and graduate capabilities.

What is an SLO?

Student Learning Outcomes (SLOs) in Education

- **Definition:** SLOs are succinct statement of the skills, competencies, and ideas students should be able to articulate, put into action, or utilize after the completion of a course.
- **Purpose:** Introduced by accreditation bodies to clarify student achievements, SLOs serve to:
 - Illuminate course and program learning opportunities.
 - Guide improvements in teaching based on assessment data.
 - Define transferable skills and knowledge students acquire.
- **Importance:** SLOs enhance student awareness of their learning, providing a framework for them to recognize and communicate their skills effectively.
- **Benefits:**
 - Enable tailored educational paths for a diverse student body.
 - Align with labor market requirements, supporting informed economic contributions.
 - Elevate the quality of education through ongoing refinements.

- **Assessment:** Regular assessment of student performance against SLOs helps evaluate the effectiveness of instruction and the extent of student learning.
- **Feedback and Improvement:** Results from assessments are used to provide feedback to students and to inform improvements in teaching methods, course content, and overall curriculum design.
- **Assessment Tool:** eLumen is utilized to seamlessly integrate assessment into daily educational activities, fostering a culture of continuous improvement.
- **Annual Reflection:** Our SLO Assessment Report annually showcases our commitment to educational transparency and continuous enhancement.

Why are SLOs Important?

SLOs empower students to articulate and apply their knowledge. They facilitate individualized learning paths, support economic and labor market needs, and drive education quality.

Relevance and Importance of SLOs:

- **Enhancing Student Learning:** SLOs provide a clear roadmap for students, helping them understand the expected learning trajectory and focus their efforts effectively.
- **Course and Program Improvement:** Regular assessment of SLOs offers valuable insights into the effectiveness of educational programs, highlighting areas for enhancement.
- **Accountability and Accreditation:** Well-defined SLOs demonstrate an institution's commitment to quality education and are often vital to accreditation processes.
- **Career and Real-World Application:** SLOs are often designed to reflect industry standards and real-world skills, preparing students for professional success beyond the classroom.

Distinction Between Learning Outcomes and Objectives

While the terms "learning outcome" and "objective" are often used interchangeably, they serve different purposes in the educational context:

- **Learning Outcome (SLO):** A learning outcome describes what students should know, be able to do, or feel at the end of a lesson, course, or program. It focuses on the student's perspective and the demonstrable skills or knowledge they will have gained.
 - *Example: "By the end of this course, students will be able to analyze and interpret data using statistical methods."*
- **Objective:** An objective outlines specific tasks or actions that educators aim to achieve in a lesson, course, or program. It focuses on the instructor's perspective and what they intend to accomplish regarding content delivery and activities.
 - *Example: "In today's lesson, I will introduce the concept of statistical analysis and demonstrate how to use specific statistical tools."*

In essence, learning outcomes are about the end goals for the student, while objectives are about the means through which educators aim to achieve those goals.

Grading and SLO Achievement in Non-Credit Institutions

In both credit-bearing and non-credit courses, the achievement of Student Learning Outcomes (SLOs) is a crucial indicator of student success. At NOCE, while traditional grades in credit-bearing institutions may consider a variety of factors such as attendance, participation, assignments, and exams, our focus on ensuring students achieve the desired competencies and skills is equally stringent. SLO achievement is integral to our assessment process.

Tying SLO Achievement to "Passing" the Course:

At NOCE, if a student successfully meets the established SLOs for a course, it strongly indicates that they have acquired the necessary skills and competencies.

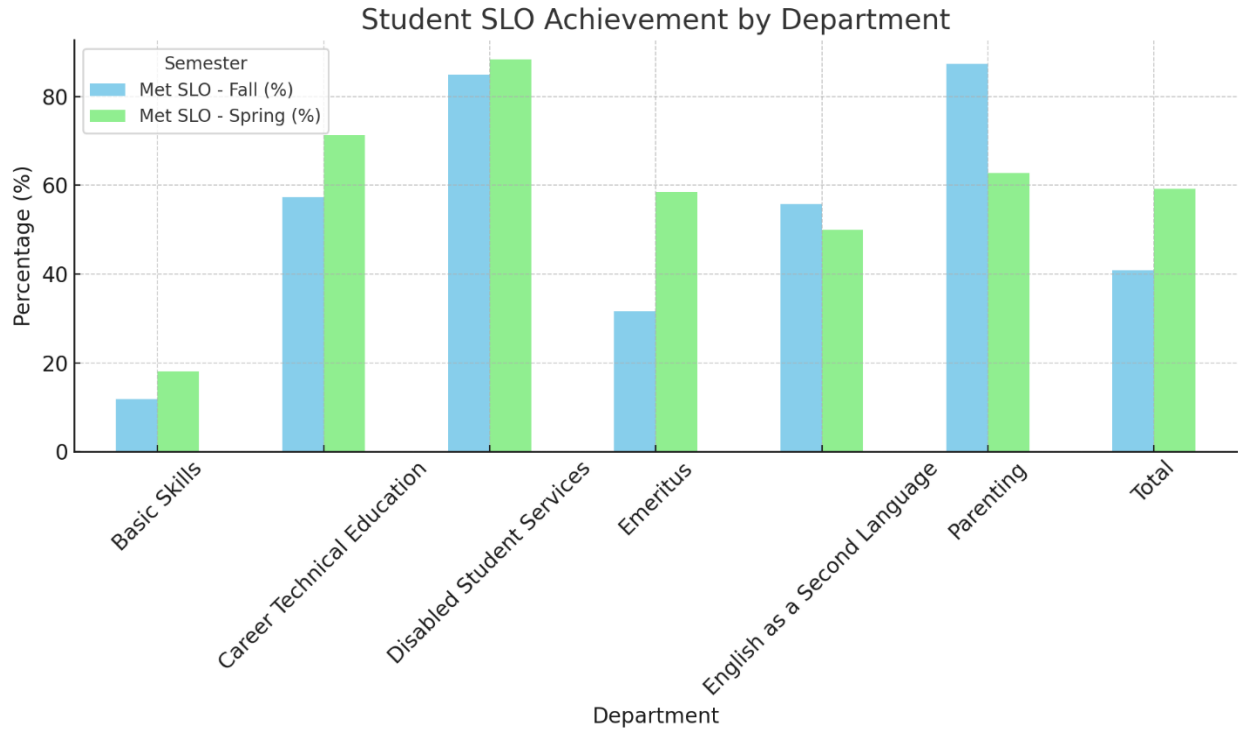
As such:

- **SLO Achievement Equals Course Completion:** Meeting the SLOs for a course effectively means that the student has "passed" or successfully completed the outcome of the course. They have demonstrated the required mastery of necessary competencies.
- **Assessment and Feedback:** Comprehensive assessment, which includes traditional exams and assignments when applicable, is complemented by SLO achievement to provide holistic feedback on student performance.
- **Consistency in Evaluation:** Faculty are encouraged to align assessments with SLOs across all course materials, ensuring that a student's completion of a course accurately reflects their learning and achievement of set outcomes.

Understanding the Data: Why SLOs Matter at NOCE

Over the last two academic years, NOCE has made significant strides in assessing and realizing SLOs. As evidenced by a previous SLO report:

- **Course SLO Achievement:** In the 2021-2022 academic year, most students met the course SLOs, with an average score of 70% or higher.
- **Program SLO Achievement:** Our program-specific SLOs have consistently improved, with several programs showcasing exemplary student achievement.
- **Feedback and Improvements:** Continuous assessment and feedback loops have led to tangible improvements in courses and teaching methodologies, enhancing student outcomes.

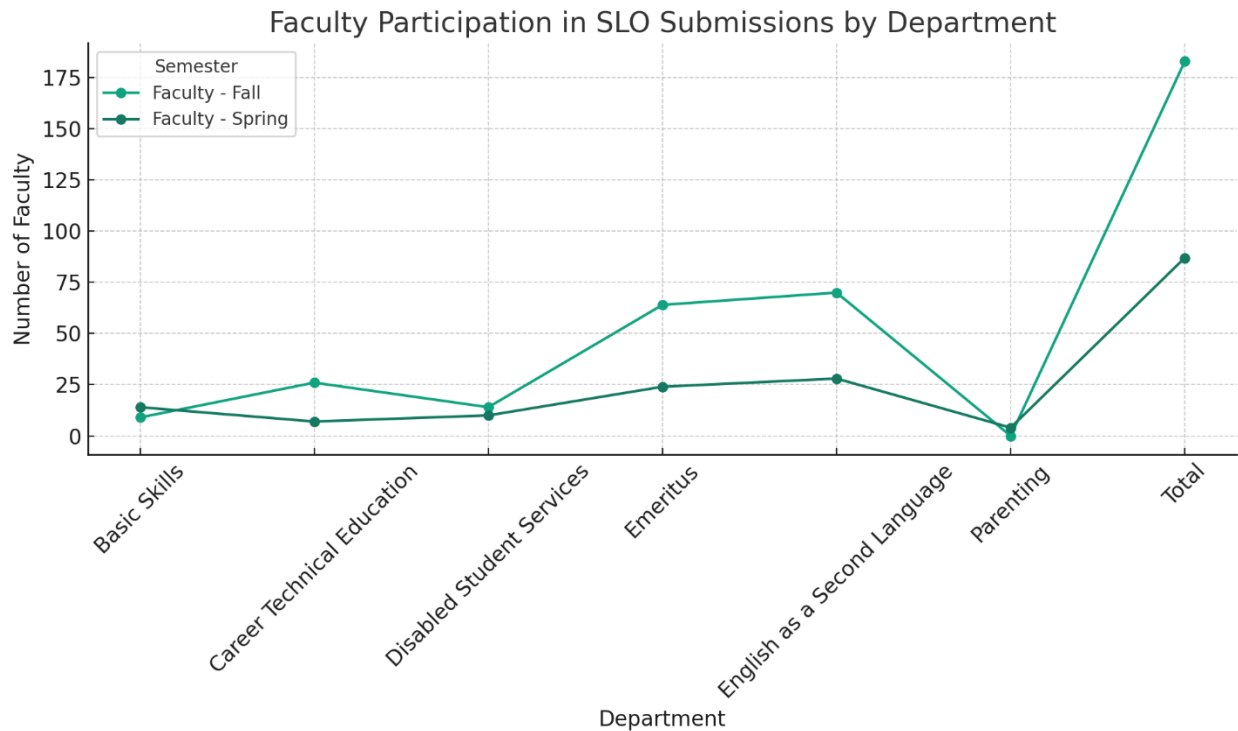


Student SLO Achievement by Department for both the Fall and Spring semesters:

- The blue bars represent the percentage of students who met the SLOs in the Fall semester.
- The green bars represent the percentage of students who met the SLOs in the Spring semester.

This graph visually illustrates the comparison between the two semesters across different departments, highlighting areas of strength and potential for improvement.

Example Performance Based on the 2021-2022 SLO Report:



The line graph above illustrates the Faculty Participation in SLO Submissions by Department for both the Fall and Spring semesters:

- The lines with markers represent the number of faculty members participating in SLO submissions.
- The trend for each department is shown from Fall to Spring, providing a clear visual of participation patterns.

Data Analysis Tips for SLOs

Effective data analysis is crucial for maximizing the impact of SLO assessments. Here are some tips to help faculty draw meaningful conclusions from data:

- **Trend Analysis:** Track and assess long-term performance trends to understand changes in student learning over time.
- **Pattern Recognition:** Look for consistent patterns in data that may indicate systemic strengths or areas needing attention.
- **Outlier Identification:** Be alert to exceptionally high or low scores that could signify notable successes or challenges.
- **Comparative Analysis:** Regularly compare current data with historical data to gauge progress and the effects of any changes implemented.
- **Subgroup Analysis:** Break down data by subgroups, such as ethnicity, to uncover disparities and target interventions effectively.

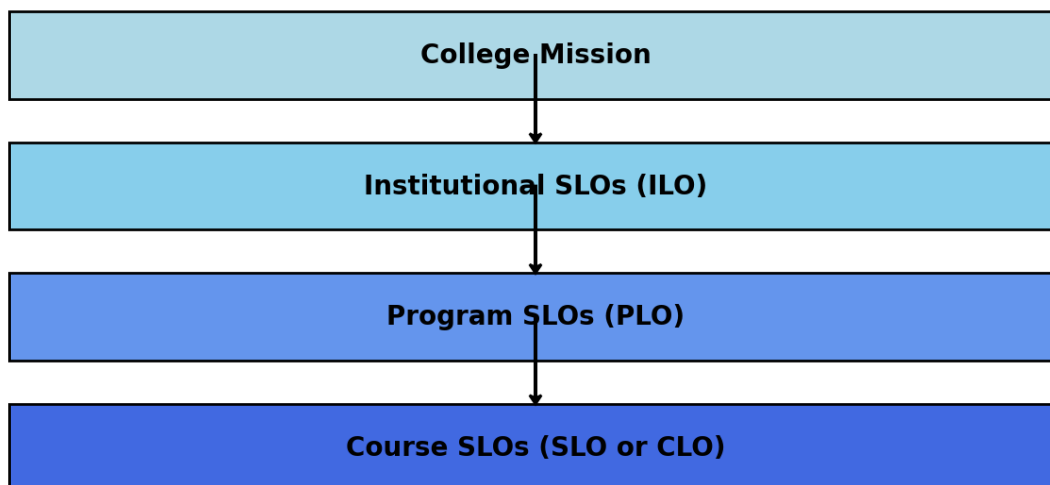
- **Qualitative Insights:** Consider the value of narrative feedback to complement quantitative data and provide context to the numbers.

By employing these analytical strategies, faculty can translate raw data into actionable insights that drive improvement in student learning outcomes.

Workflow

Our SLO hierarchy starts with the **College Mission** at the top, which informs our **Institutional SLOs (ILOs)**. These, in turn, guide the development of **Program SLOs (PLOs)** and ultimately dictate the **Course SLOs (SLO or CLO)**. Each level is essential in ensuring our students achieve the learning outcomes we value as an institution.

SLO Workflow from College Mission to Course SLOs

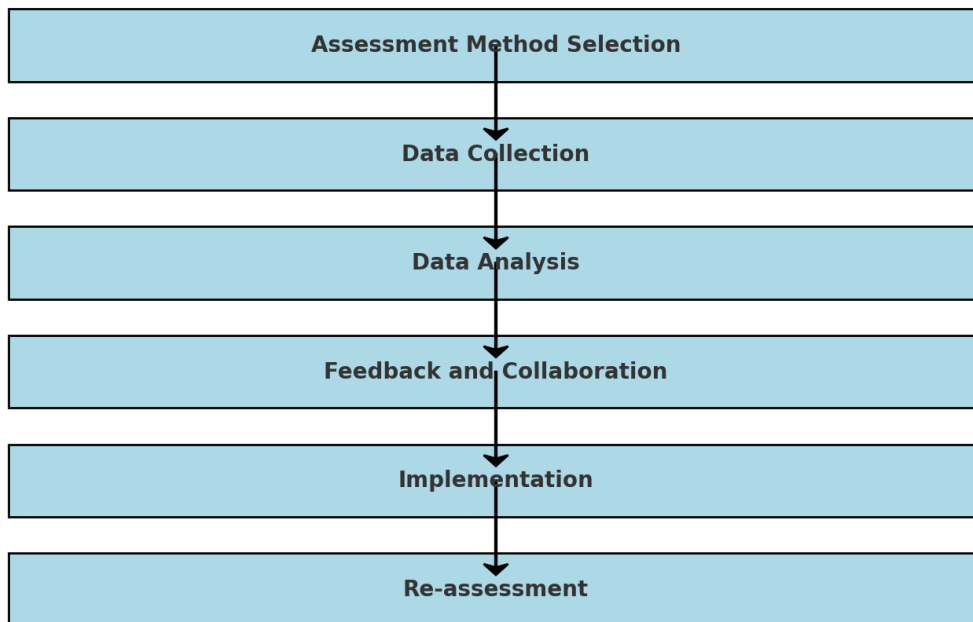


SLO Hierarchy

The SLO process at NOCE involves the following steps to ensure continuous improvement:

- **SLO Hierarchy:**
 - **College Mission:** Sets the foundation for our Institutional SLOs (ILOs).
 - **Institutional SLOs (ILOs):** Direct the formulation of Program SLOs (PLOs).
 - **Program SLOs (PLOs):** Influence the crafting of Course SLOs (SLO or CLO).
 - This hierarchy is pivotal for ensuring students realize the learning outcomes that epitomize our educational ethos.
- **SLO Continuous Improvement Process:**
 - **Assessment Method Selection:** Faculty are empowered to select the most fitting evaluation methods, informed by pedagogical expertise and Bloom's Taxonomy, to ensure assessments capture a comprehensive range of cognitive skills.
 - **Data Collection:** Leveraging tools like eLumen, faculty systematically gather data, reflecting both quantitative and qualitative aspects of student performance.
 - **Data Analysis:** A reflective examination of data uncovers areas for improvement and pedagogical successes that can be scaled.
 - **Feedback and Collaboration:** Constructive dialogue among faculty members fosters a shared commitment to refining educational practices.
 - **Implementation:** Actionable strategies, informed by data analysis, are executed to elevate the educational experience.
 - **Re-assessment:** Subsequent evaluations measure the efficacy of changes implemented, ensuring a dynamic, responsive educational environment.

SLO Continuous Improvement Process at NOCE



This structured approach allows us to reflect on our practices, make informed decisions, and implement strategies that lead to meaningful educational experiences for our students.

SLO Mapping

A clear SLO hierarchy upholds the integrity of NOCE's educational offerings, which aligns with and supports our College Mission. This alignment is achieved through a process of careful mapping, ensuring that each level of outcome supports the next:

- **College Mission:** The apex of our SLO hierarchy, shaping our Institutional SLOs (ILOs) to reflect overarching educational goals.
- **Institutional SLOs (ILOs):** Directly influenced by the College Mission, ILOs guide the development of Program SLOs (PLOs).
- **Program SLOs (PLOs):** These outcomes are derived from ILOs and shape the Course SLOs (SLO or CLO), ensuring program-specific competencies are met.
- **Course SLOs (SLO or CLO):** Students are expected to achieve specific, measurable learning outcomes in each course, supporting the program and institutional objectives.

Mapping Process

- **Collaborative Development:** Departments work together to ensure CLOs support PLOs, with alignment workshops provided to facilitate this process.

- **Practical Examples:** Faculty can access a repository of mapping examples that illustrate how different levels of SLOs interconnect across disciplines.
- **Ongoing Review:** Regular review sessions are held to ensure the SLO mapping remains relevant and reflects any changes in educational standards or institutional goals.
- **Support Tools:** Tools and support are available through the SLO Coordinator and the Academic Senate to assist faculty in understanding and engaging with the mapping process.

Through this structured approach to SLO development and mapping, NOCE fosters a culture of continuous improvement, where every course and program contributes meaningfully to our students' educational journey.

Assessment Methods

NOCE recognizes the diversity in teaching methodologies and the uniqueness of each course.

Assessment methods include:

- Behavior Observations
- Combination Test
- Lab Work
- Objective Test
- Physical Activity
- Project or Portfolio
- Self-Report or Survey
- Standardized Test
- Writing Assignment
- Other

Data Analysis Tips for SLOs

To get the most out of the SLO assessment data:

- **Trends:** Observe overall trends over time.
- **Patterns:** Identify recurring patterns.
- **Outliers:** Note exceptionally high or low scores.
- **Comparisons:** Compare the data with previous terms.
- **Data Breakdowns:** Consider data by subgroups, such as ethnicity.
- **Themes and Interactions:** Analyze narrative information.

Guiding Principles for SLO Assessment

In harmony with the recommendations from the Academic Senate for California Community Colleges, NOCE adheres to the following principles to ensure our SLO assessments are effective and meaningful:

- **Faculty Responsibility:** The development and use of assessment tools rest primarily with the faculty, underscoring the importance of their active engagement in SLO assessment.
- **Inclusive Participation:** All relevant parties at each college level should be involved in the outcomes assessment process, not limited to select individuals or groups.
- **Integration with College Culture:** SLOs and their assessment should reflect and be integrated with the college's vision, program reviews, and broader planning and budgeting processes.
- **Alignment and Mapping:** Clear mapping and alignment of SLOs across course sequences and institutional levels ensure efficient and impactful assessment.
- **Authentic Assessment:** Assessments should mirror real-world applications as closely as possible and minimally intrude on the educational experience.
- **Diverse Assessment Methods:** A variety of assessment methods should be employed to accommodate different learning outcomes, teaching styles, and student needs.
- **Contextual Analysis:** Assessment data should be considered alongside other influencing factors to fully understand the achievement of outcomes.
- **Distinction from Grading:** While grading and SLO assessment are distinct, they should be complementary processes that mutually enhance student evaluation.
- **Resource Commitment:** Effective SLO assessment necessitates a dedicated commitment to adequate resources and support from the college.
- **Separation from Faculty Evaluation:** The process of assessing student learning outcomes is separate from the appraisal of faculty performance.
- **Professional Practice:** Faculty engagement in SLO development and assessment is driven by a commitment to professional practice that benefits both programs and students.

Roles and Responsibilities

- **Faculty:** Handle SLO creation, assessment, and data input.
- **SLO Coordinator:** Oversee the SLO process.
- **Associate Deans:** Ensure alignment with broader objectives.
- **SLO Committee:** Guide, set standards, and drive continuous improvement.

SLO Assessment Report

NOCE employs a standardized report template for consistent data collection and analysis. The recent SLO report reflects our commitment to transparency and continuous improvement.

SLO Assessment Report Process



Using Data for Improvement

The heart of SLO assessment is not just collection but application. NOCE emphasizes data-driven decision-making, encouraging departments to use assessment data for continuous course and program improvement. Regular reviews, collaborative discussions, and an iterative approach ensure our educational offerings remain top-notch and relevant.

Creating a Culture of SLO Engagement

At NOCE, we recognize that fostering a culture where SLOs are valued and integrated requires more than processes. It involves understanding, engagement, and commitment. To support this:

1. **Educate and Raise Awareness:** We conduct workshops, invite guest speakers, and provide clear communication on the benefits and expectations of SLOs.
2. **Simplify the Process:** Through tools, templates, and a centralized system, we aim to make SLO documentation and assessment as seamless as possible.
3. **Collaborative Culture:** Encouraging collaboration, feedback, and open forums ensures our faculty feel supported and engaged in the SLO process.
4. **Incentivize Participation:** Through recognition, professional development opportunities, and tying SLO participation to tangible benefits, we aim to make SLOs an integral part of our faculty's professional journey.
5. **Integrate into Existing Structures:** By aligning SLOs with program reviews and institutional goals and providing regular updates, we ensure that SLOs remain front and center in our academic endeavors.

Frequently Asked Questions (FAQ)

- **Why is SLO assessment critical?**
 - SLO assessment provides valuable insights into student learning and informs instructional strategies, serving as a key metric for evaluating and enhancing course effectiveness.

- **How do I assess an SLO?**
- SLOs can be assessed using a variety of methods, including:
 - Rubric Assessments
 - Observations
 - Quizzes and Tests
 - Learning Management Systems
- **When should I assess an SLO?**
 - SLOs should be assessed regularly to continuously improve student learning, typically each term for every class.
- **How do I interpret the SLO assessment data?**
 - After entering scores into platforms like eLumen, analyze the collective data to identify where students excel and where they may need additional support.
- **What resources are available for SLO assessment?**
 - The school offers resources such as:
 - Leadership Team
 - Associate Deans
 - SLO Coordinator
 - Departmental SLO Representatives
 - NOCE Canvas Resource

Resources

SLO Coordinator

The SLO Coordinator plays a pivotal role in implementing and managing Student Learning Outcomes at NOCE.

Key responsibilities include:

- **Data Stewardship:** Overseeing the management and accuracy of SLO data within the eLumen platform.
- **Reporting:** Generating and analyzing reports to inform decision-making and improve educational outcomes.
- **Liaison Role:** Serving as the intermediary between faculty and administration, including the Vice President of Instruction.
- **Collaboration with Technical Support:** Regular meetings to ensure smooth operation and address technical issues.
- **Training Leadership:** Conduct training sessions for faculty on SLO processes and eLumen usage.
- **Program Meeting Participation:** Attending program meetings to address specific needs related to SLOs.

- **Website and Resource Updates:** Keeping the SLO resources on the website, Canvas, and handbook current and relevant.
- **Leading SLO Team Meetings:** Organizing and guiding meetings to discuss and strategize SLO-related matters.

SLO Program Representatives

SLO Program Representatives are faculty members who advocate for and address the needs of their respective programs in the context of SLOs.

Their roles include:

- **Faculty Advocacy:** Ensuring faculty interests are represented in the SLO process.
- **Communication Bridge:** Facilitating communication between the faculty and the SLO Coordinator, sharing program-specific nuances and requirements.
- **Process Development:** Collaborating in developing processes and supports tailored to the unique needs of their programs.
- **Idea Generation:** Contributing ideas to enhance the SLO system's effectiveness.

Other Resources

Comprehensive support for the SLO journey.

We offer a range of resources to ensure faculty have the tools and assistance they need:

- **Training Resources:** Offering flexible training resources, including sessions, handbooks, FAQ sheets, and video demonstrations.
- **eLumen Platform Access:** Ensuring access to our SLO management system.
- **Canvas Shell Access:** Canvas shell is loaded with extensive resources on outcomes, eLumen, training materials, and more to guide faculty through every aspect of SLO management.
- **Continuous Support:** Ongoing assistance from the SLO Coordinator and Committee.

Glossary

1. **Academic Senate:** The primary governing body that oversees academic and professional standards within NOCE.
2. **Assessment:** The systematic evaluation of student performance against predetermined criteria, often involving SLOs.
3. **Course Objective:** A specific task performed by students and evaluated by the instructor leading to a goal.
4. **eLumen:** The centralized software NOCE employs for managing and tracking assessment projects, utilizing adaptable rubrics for evidence collection.

5. **Institutional SLOs (ISLOs):** The overarching goal of providing students with valid and equitable course instruction.
6. **Learning Management System (LMS):** A digital platform for administering, documenting, and tracking educational programs, such as Canvas.
7. **Mapping:** Departments work together to ensure CLOs support PLOs, with alignment workshops provided to facilitate this process.
8. **Outcomes Assessment:** A process to determine the degree to which educational goals, like SLOs, are met by students.
9. **Program SLOs (PSLOs):** Provides student guidance by clearly identifying the knowledge, skills, and abilities that they can expect to pursue.
10. **Rubric:** An assessment tool delineating clear performance criteria, often used to evaluate student work in relation to SLOs.
11. **Student Learning Outcomes (SLOs):** a succinct statement of the skills, competencies, and ideas students should be able to articulate, put into action, or utilize after the completion of a course.

Closing Note

NOCE's commitment to Student Learning Outcomes reflects our dedication to academic excellence and student success. This handbook serves as a guide, but the journey is collective. Together, we aim to create an environment where every student thrives, and every course and program reflects our highest standards.