

2025 Summer Assessment Mini Grant Award Recipients

College of Agriculture:

Program: BS Plant Science

Title: Enhancing Quantitative Literacy and Data-Driven Assessment in Precision Agriculture Education

Faculty Lead: Eshwar Ravishankar

This project addressed a gap in quantitative literacy and applied technology training in the Plant Science curriculum, especially in courses emphasizing technology adoption in controlled environment agriculture. While students engaged enthusiastically with hydroponic rigs, sensors, Raspberry Pi controllers, and climate control systems, many struggled to analyze and interpret the resulting datasets.

I piloted scaffolded data sprints that progressed from spreadsheets to sensor calibration and Python-based visualization. Students applied these skills to live greenhouse datasets tracking of humidity, temperature, and lighting. The structured design clarified expectations, improved confidence in quantitative reasoning, and reinforced data-driven decision-making.

This work supported course development efforts: (1) informing the design of PLT 3730: Introduction to Agricultural Drone Technology, which will expand quantitative and technical training through geospatial data, aerial imaging, and FAA Part 107 certification preparation; and (2) aligning with PLT 4210: Production Mycology, launching in Spring 2026, where students will apply data collection and automation in fungal production systems.

Next steps include finalizing analytic rubrics for lab deliverables, embedding cumulative data assignments across PLT 1120, 3020, and 3730, and guiding students to disseminate findings at venues such as the CPP RSCA conference.

College of Business Administration:

Program: MS Digital Marketing & Analytics

Title: MS Digital Marketing & Analytics (MSDM) Program Assessment Rubrics Development

Faculty Lead: Maria Ortiz

The goal of this project was to establish assessment metrics for the MS in Digital Marketing (MSDM) program to measure student learning outcomes (SLOs). Prior to this work, the program had an assessment plan for aligning SLOs with courses and the culminating experience thesis project that needed some refinement.

As a result of the mini grant, the MSDM now has seven new assessment metrics corresponding to the seven program student learning objectives. In the process the student learning outcomes were also updated to ensure relevance and clarity. The assessment plan was also revised to specify which courses will provide data for each SLO, while the culminating experience project (CEP) was refined, better aligning the CEP with both the SLOs and assessment rubrics. During development, preliminary testing of the metrics took place in the summer course IBM 6950, which included two rounds of student presentations. These trials highlighted the challenges of developing effective rubrics and the need for revisions, which were incorporated into the final drafts. Overall, the main objectives were successfully achieved.

The next steps include finalizing the Assessment Plan Alignment and Matrix as well as the Curriculum Matrix. Beginning in Fall 2025, the program will conduct its first round of data collection using the newly developed assessment metrics, starting with SLO1 and SLO2. With these deliverables completed, the MSDM is positioned to establish a consistent and meaningful assessment process that strengthens program cohesion and ensures that learning outcomes are effectively measured and aligned with student work.

College of Education and Integrative Studies

Program: Education

Title: Focused Student Teaching Literacy Observation, Protocol, Coaching Guidelines and Resources to Support Multiple Subject Teacher Candidate Success

Faculty Lead: Amy Gimino

This project aimed to help multiple subject teacher candidates meet California's new Literacy Standards and Dyslexia Guidelines. AY 24-25 student teaching evaluations and supervisor feedback suggested the need for further support with the new literacy Teaching Performance Expectation (TPE) 7. Beginning Fall 25, California requires multiple subject candidates to pass a new Literacy Performance Assessment (LPA) which measures these outcomes, replacing former Reading Instruction Competency Assessment (RICA) and Teaching Performance Assessment (TPA).

Our former student teaching observation tool and mid-and-final evaluation did not include the literacy TPE 7 elements. So, we developed a focused literacy observation coaching tool and checklist and updated our clinical practice mid-term and final evaluation to explicitly include and support TPE 7 elements. We also updated our Clinical Practice Handbook, clinical practice orientation, supervisor checklist and developed training and resources to support supervisors and cooperating teachers.

We met our deliverables. Supervisors expressed gratitude and comfort with using the new materials at our orientation and training meetings, so we believe the program was successful.

We plan to further evaluate project effectiveness once supervisors submit their fall clinical practice materials and provide feedback on the new literacy assessments. We will also examine candidate Literacy Performance Assessment (LPA) results, including first attempt pass rates individual rubric scores, for continued program improvement.

Program: BA Liberal Studies

Title: Knowledge, Evidence, and Data in The Liberal Arts

Faculty Lead: Anthony Peña

The purpose of this project was to re-design the Liberal Studies Core Course LS 3011: Knowledge, Evidence, and Data in The Liberal Arts. Specific to informational literacy and quantitative literacy, curriculum, lessons, and activities for teaching and assessing were developed to be implemented in the new course. The university rubrics were considered and used during the development of revised materials, lessons, and assessments. The revised course is being taught through two sections in the Fall of 2025. Additionally, the revised course was designed to better prepare students for our LS 4611 and ultimately address the PLOs related to synthesis, critical thinking, and academic writing. The next step is to assess effectiveness of new lessons and assignments related to information literacy and quantitative literacy using the university rubrics.

College of Letters, Arts, and Social Sciences

Program: BA History

Title: Closing the Loop on the History Capstone

Faculty Lead: Rachel Tamar Van

In Summer 2025, the History Department conducted an assessment retreat to close the loop on its recent capstone curriculum revision. The department had reduced its two-semester thesis capstone to a one-semester experience (HST 4620) as part of a three-course sequence (HST 1100, 3300, and 4620), aiming to improve graduation timelines, particularly for transfer students. Faculty analyzed student work and course scaffolding to evaluate learning outcomes in information literacy and critical thinking (SLO #2a). Review of thesis proposals revealed varied levels of preparedness, emphasizing the need for clearer expectations, stronger support for primary source analysis, and structured progression from historiography to research. The retreat highlighted that transfer students benefit from early upper-division coursework and that a portfolio approach to the thesis proposal enhances readiness for HST 4620. Faculty also identified the value of HST 449x as a preparatory course and stressed the need for early faculty mentoring. Outcomes include refining assignment design, advising protocols, and reinforcing applied research as a distinctive strength of the department's polytechnic model.



Program: MA English – TESOL option
Title: MA TESOL Portfolio Project
Faculty Lead: Alyssa Kermad

The M.A. TESOL option in the Department of English and Modern Languages has been formally assessing its graduate students through comprehensive examinations. These exams consist of a sit-down portion as well as a take-home portion, and they are typically taken in a student's last semester. The sit-down portion of these exams is quite intense, as students must complete several exams spanning different knowledge areas within a specific amount of time. Due to the high stress associated with the sit-down portion of these exams, we have observed a low-performance rate, delaying the path to graduation.

As a result of the 2025 Mini Summer Assessment Grant, TESOL graduate faculty converted the comprehensive examinations into portfolio assessment. This was part of our closing-the-loop initiative to move students faster to graduation, retain current students, and recruit new students. Prospective students are often deterred from the program when they learn of the comprehensive examination format. The creation of the TESOL Culminating Portfolio went very well without any major hurdles. The most challenging component was the conceptualization stage when we had to determine how to capture the skills and knowledge base that we expect of our graduating TESOL students. Once we knew what we wanted to evaluate, the rest was a matter of articulating that in a step-by-step, student-friendly manner. We created a new rubric to formally evaluate the portfolio content. As a result of this work, we also revised our option-specific outcomes in TESOL. The next step is to begin offering the TESOL Culminating Portfolio!

Program: BA Theatre
Title: ECO Updates for New Program SLO's
Faculty Lead: Sarah Krainin

Theatre B.A.'s existing ECO's were not aligned to current program SLO's and needed to be reviewed in order to assure alignment, proper scaffolding between courses, and the elimination of content gaps or redundancies. In beginning this work, faculty discovered that old ECO's were not only outdated, but aligned to different past versions of our SLO's, making alignment issues difficult to accurately identify and correct, and content gaps plentiful.

Lead faculty adjusted the deliverable from a full set of revised ECO's to a comparison chart that included only major required course ECO's (since most GE ECO's aren't scaffolded into the major), and encouraged faculty to prioritize the new ECO item "role of the course in the curriculum" to maximize the usefulness of the grant time. Even so, not all major ECO updates were completed as some were contingent on others, and the planning process had not allowed for adequate collaboration time during the summer.

Using the chart independently, faculty successfully focused on the most pivotal courses in the curriculum. They will need to continue the work of content gap closure and cross-comparing some courses before completing the remaining ECO's during the academic year. One more final round of review will then be needed to close out the ultimate goal of the project to revise all program ECO's.

College of Engineering

Program: MS Engineering Management
Title: Preparing for the 6-Year Assessment Cycle: Review and Improvement of Assessment Practices
Faculty Lead: Shokoufeh Mirzaei

An analysis of the graduating student survey and program learning outcomes assessment reveals that the EMT Program at Cal Poly Pomona continues to deliver strong academic and professional preparation. Project-based assessments from 2023 - 2025 across 16 capstone teams show consistent achievement in five core learning outcomes, with the highest performance in engineering data analysis (3.22) and critical thinking (3.08). While scores for management knowledge and communication were solid, the area of research methodology (2.94) revealed room for improvement, particularly in integrating research frameworks and methodological rigor.

Graduating student feedback collected between 2021 and 2025 supports these findings. High satisfaction levels (above 89%) were reported for academic quality, faculty engagement, and preparedness for real-world application. Students praised the program's faculty expertise, approachability, and support outside of class, with strong ratings for their ability to find information, solve problems, and apply knowledge in new contexts. However, course availability remained a persistent concern throughout the review period, reflecting challenges in scheduling flexibility and access to required courses.

To improve the knowledge of "research method", the culminating experience course will be split into two parts. The first (1 unit) will build student capacity in research skills, literature review, and proposal development, using model examples and formative checkpoints. The second (2 units) will focus on implementation.

Overall, the combined analysis of assessment data and student feedback confirms the program's effectiveness, while highlighting key areas of research instruction and course access for ongoing improvement.

Program: BS Aerospace Engineering

Title: Engineers as writers: commentary on the math

Faculty Lead: Michael V. OL

We sought to take advantage of smaller class sizes in the summer term to explore a non-traditional approach to engineering education: greater emphasis on writing; on qualitative reasoning about physical problems as a complement to manipulating equations; and on drawing diagrams, sketches, and cartoons in addition to simply producing numerical answers. The aim was two-fold: first, to highlight the epistemic value of describing a problem and assessing its solution, rather than merely crunching numbers; second, to cultivate the ability to justify one's answers clearly and cogently in written communication.

The primary approach was to have students keep class journals in which they wrote about the lecture material, noted questions, connected the course content with other components of the Aerospace Engineering curriculum (where courses overlap), and reflected on the progress of the class. A secondary approach was to include open-ended problems on homework assignments and exams, asking students to explain how they would solve a problem rather than requiring a fully worked numerical solution.

The result was a progression in how students articulated their thinking from the beginning of the summer term to its conclusion. Although the term was brief—only ten weeks—it served as a harbinger of future promise. We hoped to integrate the journal-based approach into future courses, as appropriate.

Program: BS Computer Engineering

Title: Developing a Robust and Consistent Assessment Instrument for Evaluating ABET Student Outcome 6 in Upper-Division ECE Laboratory Courses

Faculty Lead: Anas Salah Eddin

The computer engineering program wanted addressed the challenge of consistently assessing ABET Student Outcome 6 (SO6): An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions. Previous assessments varied across courses, resulting in inconsistent program data.

The project produced a reusable laboratory assignment, a Pushbutton Debouncing Experiment, that can be used in both ECE 3300L (Digital Design Using Verilog) or ECE 3301L (Microcontrollers). Students design an experiment, implement and test multiple debounce strategies with varying parameters, collect and analyze timing and reliability data, and recommend an optimal design. A student-facing lab guide and a rubric mapped to all four SO6 performance indicators were developed.

The program succeeded in creating a clear, flexible assessment tool that integrates naturally into two courses while emphasizing real engineering trade-offs of responsiveness versus reliability. Next steps include piloting the assignment in both labs, scoring student work with the rubric, and incorporating results into the department's assessment cycle for SO6. Built-in alternatives, such as timestamp logging in place of oscilloscopes, ensure the activity can be implemented even with equipment limitations.

Program: BS Industrial and Manufacturing Engineering programs



Title: Summarizing and Closing the Assessment Loop for Industrial and Manufacturing Engineering Programs

Faculty Lead: Payam Parsa

The Industrial and Manufacturing Engineering (IME) programs sought to address the challenge of fully closing the assessment loop by not only revising their assessment plan and instruments but also by implementing systematic scoring, analysis, and reporting of student performance across all ABET student outcomes. Supported by the mini grant, the program successfully collected and evaluated artifacts including Senior Project Reports, IME 3261 course projects, teamwork surveys, the Lower Division Knowledge Exam, the Ethics Exam, and Senior Project Presentation surveys. Faculty engaged in coordinated scoring, data compilation, and visualization activities, which led to the production of a comprehensive assessment report that integrates results from multiple sources.

The project achieved its intended goals, with all instruments scored and summarized, and the department now has a unified dataset that supports evidence-based decision-making. A key strength was faculty engagement in both the scoring and interpretation process, which fostered shared ownership of outcomes. One unforeseen modification was the adjustment of scoring rubrics to improve consistency across evaluators, which ultimately enhanced the reliability of results.

With the assessment report in place, the next steps will involve collective faculty review in Fall 2025, where results will be used to identify areas for improvement, set corrective actions, and document formal closing of the loop. These deliverables not only complete the current assessment cycle but also establish a replicable framework for future cycles, ensuring sustainable continuous improvement in alignment with ABET accreditation standards.

College of Environmental Design

Program: Bachelor's in Urban and Regional Planning

Title: Closing the Loop: Updating BURP Curriculum and Assessment Plan

Faculty Lead: Do Kim

The purpose of this project is to update and streamline the assessment plan based on the department's new curriculum as a closed-loop process. After curriculum redesign efforts for the last few years, the URP department is implementing a new undergraduate curriculum in AY 25-26. The new curriculum includes the cancellation of an existing required core course, the addition of a new required core course, the reduction of the option core requirements, and more. As this change apparently shifts the progress of student's overall learning outcomes, this mini-grant allowed me to update the student's learning outcome road map according to the new curriculum.

I also redesigned the road map by applying the options. As the department has required undergraduate students to choose one out of four options since the semester conversion, the students must take a selected set of option core courses according to their option. However, the road map has underestimated this aspect and has not reflected the option. As a result, student's learning outcomes varied by the option they chose. To fix this issue and make sure that all students achieve similar learning outcomes regardless of the option they choose, I adjusted the road map, reflecting the option core courses.

The adjusted learning outcomes will be assured in each course. The learning outcomes will be assessed based on the assessment plan, which was also updated. To execute the assessment plan, I also configured the data collection timeline.

Program: BFA Visual Communication Design

Title: Assessment Rubric Development for Revised SLOs

Faculty Lead: Sooyun Im

This project addressed the need for updated assessment rubrics following the revision of the Visual Communication Design BFA program's Student Learning Outcomes (SLOs) from ten to six, emphasizing

measurable, higher-order thinking skills aligned with academic and industry standards. Supported by a mini-grant, the program developed six comprehensive assessment rubrics, each aligned with a revised SLO, to ensure consistent, transparent, and meaningful evaluation of student learning in two newly designated upper-division courses. The curriculum matrix and assessment data plan were also revised to align with the updated SLOs, strengthening the program's assessment framework.

Through assessment committee kick-off meetings, SLO assignments, collaborative drafting, and peer feedback within the committee, a cohesive, clearly articulated set of rubrics was completed on schedule. The project succeeded with robust engagement from committee members and adhered fully to the planned scope. The rubrics, matrix, and data plan are ready for departmental review and ratification in Fall 2025. Upon approval, they will be implemented in designated courses, with data collected to assess effectiveness. Post refinements will ensure alignment with institutional and accreditation standards, supporting ongoing program improvement, student success, and efficient assessment reporting.

Program: BA Art History

Title: Closing the Loop: Part Two of the Art History Department's SLOs Grading Rubric

Faculty Lead: Susan Croteau

The SLO Rubric project addressed a central problem: uneven expectations and inconsistent scoring across courses. The mini grant enabled translation of program SLOs into observable criteria organized at four levels (Advanced, Proficient, Developing, Beginning) with Conclusion checkpoints and, where appropriate, Disciplinary Conventions. These span five domains' formal/iconographic analysis (SLO 1), historical context and cause effect (SLO 2), evidence-based argumentation (SLO 3), research and Chicago style documentation (SLO 4), and methods/theory as strategies of interpretation (SLO 5).

To finish the rubric, I mapped each SLO to clear criteria, normalized verbs, harmonized terminology, and drafted descriptors. I completed SLOs 1, 2, and 4; advanced SLOs 3 and 5 from an unfinished draft to near final form; and improved formatting. Where the draft flagged gaps especially the Conclusions row for SLO 3 and the integration statements under SLO 5 I drafted bridges pending pilot testing.

Overall, the work succeeded in standardizing expectations, improving reliability, and making documentation assessable. What went well: alignment of criteria, clearer Conclusions, and disciplinary conventions (e.g., cause effect in SLO 2 and documentation in SLO 4). Challenges: limited time for norming with anchor artifacts, and pruning redundancy across rows. An unforeseen scope change was to formalize a program-wide language guide to keep terminology consistent across courses.

Next steps are to pilot the rubric in gateway and capstone courses, run additional norming sessions with sample student work, collect reliability data, and revise descriptors. Deliverables will be embedded in assignments and the LMS, used for assessment reporting, closing the loop conversations, and student feedback to drive continuous improvement.

College of Science

Program: BS Computer Science**Title: Closing the Assessment Loop to Support Continuous Program Improvement and ABET Re-accreditation****Faculty Lead: Hao Ji**

The primary objective of this assessment project was to prepare an annual assessment report for AY2024â€“25 and to conduct a comprehensive review of all assessment data and documentation to ensure completeness and accuracy for the ABET re-accreditation process in 2026. Over the summer, we analyzed and evaluated both direct and indirect assessment data, including course-level assessments, graduating student surveys, the industry advisory board survey, and the university-administered survey. In addition, we drafted the proposed annual assessment report for AY2024â€“25 and developed actionable recommendations aimed at strengthening program outcomes and supporting continuous improvement. The project successfully achieved its objectives on schedule, establishing a strong foundation for next year's re-accreditation preparation efforts. The next steps include reviewing the draft report and recommendations within the department's assessment committee. The finalized assessment report will then be forwarded to the department for discussion, approval, and implementation.

Program: BS Kinesiology**Title: Closing the Loop: Aligning Service-learning with Curricular Changes and Career Competencies at the MDC****Faculty Lead: Chloe Simpson**

The project aimed at aligning the Motor Development Clinic's (MDC) service-learning experiences with departmental course changes and the university's service-learning protocol. With recent shifts in the course schedule for MDC operations, the project ensured that curricula remained aligned with student learning outcomes while sustaining high-quality service delivery at the clinic.

Through this mini-grant, faculty and MDC co-directors (Drs. Chloe Simpson & Mai Jara) reviewed and revised Extended Course Outlines (ECOs) and syllabi for KIN 2460/AS, KIN 3460/A, and KIN 4330/A. These revisions aligned courses with Academic Service-Learning (AS) requirements and embedded assignment rubrics targeting both student learning outcomes and NACE career readiness competencies. Revisions to officially change KIN 3460A and 4330A to AS-designated courses are in progress at the department level, with submission scheduled by the end of Fall 2025. This modification falls behind the August 2025 submission goal for the ECO revisions, but keeps us on track for the grant deliverables regardless.

Key accomplishments included redesigning course assignments, creating rubrics tied to professional competencies, and developing a curriculum matrix that maps learning objectives, collaboration, and student roles across MDC service-learning courses. Piloting of revised syllabi and assignments is underway, with KIN 2460AS-01 (Dr. Mai Jara) and KIN 2460AS-02/3460A (Dr. Chloe Simpson) currently in progress. Next steps include piloting the KIN 4330A syllabi, implementing final revisions to KIN 2460 in Spring 2026 based on Fall 2025 feedback, refining KIN 3460 in Fall 2026, and finalizing KIN 4330 revisions in Spring 2027.