ASSESSMENT HANDBOOK

Solano Community College

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The Solano College Assessment Handbook provides an overview of the campus's assessment process for student, academic program, general education, and institutional learning outcomes. The intent is to provide a shared understanding of the philosophy behind learning outcomes and the procedures for developing and assessing them. Structurally, the handbook begins with the rationale, moves into details of how to develop and assess outcomes, continues with how outcome assessments link to the integrated planning process, and then ends with appendices of relevant information and samples. This handbook is a means to document the assessment process at Solano College for greater continuity and a richer understanding of faculty's role in outcomes assessment. When questions arise, faculty are encouraged to consult this handbook and online reference materials, attend trainings, or speak with the college assessment coordinator, school coordinators, and/or deans.

Rationale

At the heart of outcomes development and assessment is *student learning* and *quality teaching*. Outcomes are developed to determine the essential knowledge and skills faculty want students to ascertain at the course, program, general education, and institutional levels. Measuring these outcomes provides faculty data to identify and analyze the strengths of students and their areas of needed improvement. This analysis, in-turn, allows faculty to calibrate their classroom practices and assignments to enrich student learning. The practice of reflecting on student learning is one educators have done well before student learning outcomes were required by accrediting bodies and formalized across campuses. Assessing is at the core of what faculty do; we teach skills and concepts, reflect on what worked and what didn't, and make adjustments to increase success. We try new in-class activities, adjust our assignments, and rewrite exam questions, all in the hopes of improving learning. Turning these individual acts of reflection into a formalized outcomes assessment process allows the college to have a common language and procedures for analyzing and responding to the needs of students. It provides the possibility of shared inquiry, group dialogue, and transparency. It can help students better understand what we want them to learn, and help faculty determine effective ways to get them there.

While this handbook will address the procedures surrounding outcomes assessment, a repeated goal of this document is for the college to a move toward a *culture of inquiry* rather than a culture of compliance. With the original Accrediting Commission for Community and Junior Colleges (ACCJC) mandate to create and assess student learning outcomes, campuses found themselves scrambling to create and assess outcomes. Many looked at this external mandate as a chore. It is our hope that through a more refined assessment process, faculty can find meaning in the task at hand, taking ownership of outcome development, assessment, and planned actions to

support student learning and quality teaching. Faculty should come together to *dialogue about effective practice* and include students in these discussions.

There are four types of academic outcomes that must be developed and assessed: 1) Student Learning Outcomes (SLOs), Program Learning Outcomes (PLOs), General Education Learning Outcomes (GELOs), and Institutional Learning Outcomes (ILOs) (The ACCJC assessment standards related to assessment can be found at: http://accjc.org/wp-content/uploads/Accreditation-Standards-Adopted-June-2014.pdf). Outcomes in each area are developed so faculty are intentional and mindful of the learning they want students to obtain in each course (SLOs), at the time of completion (PLOs), in their general education courses (GELOs), and at the college as a whole (ILOs). While faculty have the opportunity to provide input on all four types of outcomes, the development of SLOs and PLOs fall squarely on faculty who are the discipline experts. The handbook will outline how each type of outcome is developed and assessed at Solano College. Later in the handbook, details of how the outcomes are woven in the college's integrated planning process will be described. This handbook does not address non-academic Service Area Outcomes (SAOs) which follow a separate set of procedures overseen by the Vice President of Student Services and the Office of Institutional Research and Planning.

Student Learning Outcomes (SLOs)

All courses at Solano College must have student learning outcomes. Periodically, it is useful to look at those outcomes to see if: 1) the SLOs are still the most relevant to student success, 2) they are measurable and well-written, and/or 3) there is a recognized need to better connect SLOs with PLOs, GELOS, or ILOs. In an assessment culture of inquiry, outcomes should be developed based on shared dialogue about the most important learning faculty want to measure in the course; individual faculty should not make decisions about course outcomes in silos. The outcomes should be meaningful and of vested interest to the faculty, so they are motivated and engaged in their assessment. It is essential that all sections of the course share the same learning outcomes, to ensure equity of learning across sections. Further, it is important to not change outcomes too often. If the target moves frequently, it will be harder to inquire about what teaching techniques are most effective in achieving learning goals. There is a lot to consider when writing and reviewing SLOs, and increasingly faculty are being encouraged to bring the student's perspective into assessment planning. Appendix A provides samples of well-written SLOs as well as some common errors, and the section below highlights the student's role.

Student's Role in SLO Assessment

Increasingly, organizations who study assessment and best practices at colleges, such as the National Institute for Learning Outcome Assessment (NILOA), are advocating for greater student involvement in outcome assessments. Seeing students as active participants rather than passive receivers of assessments, changes the way faculty can envision outcome development and assessment. Natasha Jankowski, the director of NILOA recommends several practices to keep students meaningfully engaged in the SLO process. These practices can also help faculty reflect on their teaching, and how best to achieve the desired outcomes. Presented here is a list of recommendations. They should not be viewed as college requirements, but rather practices to consider to support student learning.

1. Create transparency with students about what the SLOs are, when and how they are being measured, and the criteria used to measure them. Students should know what our learning goals are for them to give them an opportunity to perform their best.

   a. The syllabus must state what the outcomes are and when/how they are being measured per state requirement
   b. The top of the assignment or test can include the outcome being assessed as a reminder of the SLO being measured
   c. A success criteria rubric that outlines the necessary skills that distinguish outstanding work from proficiency or subpar work, should be provided to students so they have a better understanding of what is expected of them.

2. After an assessment, ask students for their feedback. What did they think they were most successful on, what do they feel they need help or support with?

3. At the end of the semester, give them a handout/questionnaire with each SLO and space to write. Ask them what activities, discussions, assignments, etc. helped them to learn these outcomes the best. We may be doing something that is really important to their learning that we don't even recognize. Other tasks may be not as effective. At the core of the assessment process is improving student learning, and it can be valuable to get the student's perspective.

4. We need to have "root cause" conversations. What is at the heart of student successes and difficulties? What is working, what is getting in the way? For example, are all of their assessments at the end of the semester when they are swamped? Does it really portray their true potential or are mitigating factors getting in the way?

Guidelines for the Development of Student Learning Outcomes

1.	All courses have 2-4 SLOs, which are the same across all sections
2.	Outcomes are measurable, clearly written, and easily understood
3.	Outcomes are meaningful to faculty and students
4.	Outcome development happens collectively among discipline faculty after dialogue about the chief learning goals in the course
5.	When choosing the 2-4 SLOs for the course, faculty consider the varied skills and knowledge they want students to develop. Likely, all won't measure content knowledge. Some will relate to discipline specific skills, critical thinking, writing skills, etc.
6.	Consider the type and depth of learning for each SLO. Bloom's taxonomy can be a resource to ensure some SLOs measure higher-order learning (Appendix B)
7.	Consider how the SLOs support the broader learning goals. Some SLOs in the program will map to PLOs, GELOs, and ILOs, so it is imperative that they are developed in context (See mapping section of the handbook)
8.	Course objectives and outcomes are not synonyms, and should not be identical (See Appendix C)
9.	The California State Chancellor's Office for Community Colleges requires that course outcomes are an approved part of the course outline of record (COR). As such, they must go through the curriculum committee and curriculum review
10.	Solano College has chosen CurricUNET META to house our curriculum, outcomes, and assessments. Faculty are responsible for inputting their own assessments and for keeping outcomes current in the database.
11.	Approved outcomes must be published in the course syllabi

Success Criteria

An integral part of SLO development is the establishment of success criteria. Like the SLOs, the success criteria are the same across all sections of the course. The success criteria are the measure of the skills and/or knowledge the student needs to achieve in order to be considered successful on the learning outcome. It is a measure of student learning, not a measure of the course as a whole. The criteria are described both qualitatively and quantitatively and there

should be a rubric that helps students and faculty clearly understand what skills and/or knowledge is considered proficient and inadequate. In courses with multiple sections and multiple instructors, faculty should dialogue and come to consensus about the success criteria for each SLO. This ensures that students taking different sections of the course are held to the same standards of achievement on the SLOs. Appendix D provides examples of success criteria and rubrics.

Recording SLOs and Success Criteria in the CurricUNET META Course Module

Once developed, SLOs and their success criteria must be stored in the CurricUNET META **course** module. For new courses, the SLOs and success criteria will be inputted at the time of the new course proposal. When SLOs are being revised, faculty will initiate a course modification. Once the modification has been started, the originator will go to the Student Learning Outcome tab and under "Outcome" add a new item. **Each SLO is entered individually as a new item**. Old, unwanted SLOs, or SLOs that have been entered consecutively in one box should be deleted. When adding a new item, write the SLO in the "Outcome Text" box, and then write the success criteria for the SLO in the "Success Criteria" text box. This screen is also where the SLO will be mapped to the ILOs and the GELOs (if the course is a general education course). It is imperative that faculty map all their SLOs to ILOs, but *only* to the 1 or 2 that are actually being measured by the SLO. If the course is a general education course, map the SLO to a GELO only if it is measuring a GELO. At least one SLO for the course must map to a GELO, but every SLO need not map to a GELO. Like ILOs, it is essential to only click the link if there is a direct assessment of the GELO happening within the SLO assessment. This will ensure accurate measurement of ILOs and GELOs when they are analyzed by the assessment committee.

New course SLOs and changes to existing course SLOs will go through the curriculum committee approval process and will be looked at in technical review by the Assessment Coordinator. The goal is to ensure the SLOs are measurable, clearly written, there are at least two per course, and are mapped appropriately. Please remember not to initiate SLO changes unless discipline faculty have been consulted and are in agreement with the changes. There is only one set of SLOs per course that will be utilized by all faculty teaching the course.

Appendix K includes the training materials provided to faculty Fall Flex 2017. It provides a step-by-step process, with screen-shots, for creating a course modification to input SLOs, success criteria, and GELO/ILO mapping in the curriculum side of META.

Components of SLO Assessments

Once faculty have written SLOs and success criteria for their courses and entered them in the CurricUNET META **course** module, the next step is to assess them. This section will first detail the different components of SLO assessment at Solano College, and then outline the procedures for inputting those assessments into the CurricUNET **assessment** module. The SLO Quality Rubric (Appendix E) is a tool for determining whether all sections of the assessment have been addressed completely. The Assessment Committee encourages faculty to review the rubric before beginning their assessments. Details about which courses to assess and how often to assess them are provided under the heading "Assessment Schedule and Compliance."

Student Learning Outcome and Success Criteria

The first two parts of the SLO assessment are the student learning outcome itself and the success criteria. When conducting the assessment, faculty do not alter either of these. They are to be consistent across all sections of the course and should have already been developed in the course module. They will automatically generate in the assessment module.

Methods of Assessment

Faculty will need to decide what methods to use to assess their SLOs. When there are multiple sections of a course, some disciplines may decide to use common assessment methods, while others will use varied methods. Utilizing different methods of assessment is permissible as long as the success criteria are followed to ensure the same standard of competence is being achieved, and the method is robust enough to measure that competence (for example, one multiple choice question is not sufficient to measure a SLO). Once the faculty member decides how they will measure the SLOs that semester, they should embed this information in their syllabi and assignments. Students should be informed in what assignments the SLOs will be measured, and what the established success criteria for the SLOs are. They should also be provided the success criteria rubric.

Assessment Results

After students have been assessed, faculty need to tabulate the results both quantitatively (numerical data) and qualitatively (descriptive data). How many students met the success criteria? What were their areas of strength and areas of needed improvement? The more depth provided here, the more opportunity to drill down on needs of students in the classroom. Were there certain types of questions, concepts, theories, etc. students had more difficulty with? Was writing a barrier, or certain aspects of their lab activity, oral presentation, or skill demonstration that needed refinement? Focus not only on their areas of weakness, but report strengths too. In what knowledge and/or skills did they demonstrate proficiency?

Planned Actions

A vital step in SLO assessment is the development of planned actions. Here, faculty will pull from the assessment results to plan for the future. It should be noted that not all assessments have to take place at the end of term. If faculty assess a SLO midterm and note areas of needed improvement, they can take steps *that* semester to improve student success. Planned actions should include what faculty will continue to do in the classroom based on observed strengths, and what they will do differently to address deficits. The assessment committee encourages faculty to be innovative and creative in their efforts to support learning. Consider utilizing varied teaching strategies, creating support networks in the classroom, refining assignment or in-class activities can help meet the needs of learners. Connecting with campus resources (DSP, Counseling, etc.) may also be beneficial. We also encourage faculty to dialogue with each other when they note areas of student weakness. There may be assignments or activities that other instructors use that are demonstrating success.

Planned actions may go beyond what faculty will initiate in their classrooms. In the CurricUNET assessment module, faculty can record what they think can be done by the department or the college as a whole to facilitate success on the SLO. For example, if more distance education support is needed, instructional equipment, professional development, library resources, tutoring, etc. faculty can document these perceived needs. This information will be reported to the college administration and Academic Senate as part of the integrated planning process. Discipline faculty will also be able to use this information in their program reviews and future planning.

Closing the Loop

The final aspect of SLO assessment is closing the loop. This affords faculty the opportunity to report on the efficacy of planned actions from their previous SLO assessments. For example, if a faculty member decided to require students turn in an outline of their research paper for feedback, did this change improve scores on the assignment? One of the benefits of reviewing the same courses twice in the assessment cycle is that it allows for greater opportunity to reflect on changes that have been made. Please note faculty candor is important here, as it is in all assessment reporting. Faculty are not being "graded" as individuals if their scores did not go up. But, faculty are being asked to be reflective, to try new techniques and go back to the drawing board if needed. The goal is student learning and engaged teaching.

Recording SLO Assessments in the CurricUNET META Assessment Module

SLO assessments are recorded in the CurricUNET META **assessment** module. Every faculty is responsible for logging into CurricUNET and inputting their own assessments. Initially your username will be your email address and your password will be ChangeMe1. Please be sure to change your password to maintain confidentiality. Once logged in, click on "Curriculum" and then choose "Assessment." The next step is to click "Create Proposal." A new proposal will need to be created for EVERY SLO that is being assessed. Under "Proposal Type," go to the Module heading and choose "Individual Instructor SLO." Click next. Choose the division (school) and then name the assessment under "Module Title." For ease of searching name the assessment as follows: **Course SLO # Term Instructor Last Name** An example would be: CDFS 038 SLO 1 Spring 2017 Johnson. Click next, and then create proposal.

Student Learning Outcomes – CurricUNET META

Once your proposal is created, use the first page to fill in details about the course and the SLO you are reviewing. Descriptors like the course duration, timing, modality, and location are recorded so that reports can be generated that disaggregates SLO data to compare the performance of students who take the courses on different campuses, or online versus face-to-face, etc. In order to make this type of analysis possible, faculty can only include more than one CRN in the same SLO report if ALL the descriptor information is the same. Please do NOT include students from online courses and face-to-face courses in the same analysis, or day and night students in the same analysis. Typically, faculty will only be recording one section of a course at a time. Only choose a co-contributor if faculty are team-teaching a course.

If, when you choose outcome, there isn't a choice between the course outcomes because all the outcomes are listed together in one block separated by bullets, it means the SLOs are entered in the curriculum side of CurricUNET incorrectly. This must be remedied before the assessment can be inputted. First, save your work as a draft. Then the faculty member must go back to the curriculum module and create a course modification. Under SLOs, the SLOs must be entered individually, each as a new item. It will require curriculum approval before the faculty member can go back in and complete the assessment.

The gray menu tabs on the left of the screen navigate faculty through the remaining components of the assessment: success criteria, methods, results, planned actions, and closing the loop. Faculty should "save" as they move through each component of the SLO assessment, and when they are finished they should "launch" the assessment. Once it is launched, the faculty cannot go back to edit it.

Success Criteria – CurricUNET META

The success criteria for the SLO will auto populate based on what is recorded in the course outline of record. Faculty should not change the success criteria in the assessment module. If the success criteria is blank, incorrect, or needs to be re-envisioned, dialogue needs to take place among discipline faculty so that everyone agrees a change is warranted. Faculty must go back to the course module and create a course modification proposal. Choose the SLO, and then update the success criteria. The only thing faculty should do on the assessment module success criteria page is attach the success criteria rubric. If one doesn't exist, faculty should make it a goal to create one before the next round of SLO assessments (or during curriculum review, whichever is first).

Methods – CurricUNET META

Under the methods tab, faculty should check the box(es) that describe the method of assessment(s) used to measure the SLO. Then, they should *either* write into the text box, *or* attach the assignment, test questions, etc. that they used to measure the SLO.

Results – CurricUNET META

Follow the prompts in the results box to record the number of students in the class, the number of students who were assessed, and then of those students assessed, the number that were successful. Then, please fill in both the quantitative and qualitative boxes. The quantitative box provides the space to further detail the scores on the assignment. The instructor may want to record the number of A's, B's, C's, the number of students who missed particular types of questions (if they have done an item analysis), or the number of students who were proficient versus outstanding. Results will depend on how the instructor analyzed student performance.

The qualitative box is one of the most important sections of the assessment. Here the faculty will describe the areas of strength and weakness of the students on the assessment measure. As previously mentioned, the more depth provided the more the faculty can drill down on the specific needs of the students which will be important for the development of planned actions. If there is information known about the reasons students did not complete the assessment at all, this can also be included in this box.

Planned Actions – CurricUNET META

The planned action section is divided into two major categories: 1) what can be done *in the classroom* and 2) what can be done outside the classroom by the *department or the college*. Begin by detailing any successful classroom practices that strengthened student performance on the SLO and that will continued to be used in future semesters (or during the current semester). Then, check any boxes related to planned changes to bolster student learning in areas of

demonstrated weakness. After you have checked a box(es), a text box will generate. Fill in the specific information about what you want to change, add, revise, etc.

In the next section, faculty will be asked if there is anything they believe the department or college can do to bolster student performance on this SLO. If not, check "nothing." If there are changes, check the box and then write in the text box what the specifics of what is needed. Please note, any recommendations here should be directly tied to the results on the SLO assessment, not just general ideas about what the college needs to do. This box is important, because results will be shared with administration as part of the integrated planning process and will link to resource allocation and long range campus planning (see Integrated Planning section of the handbook for more details).

Closing the Loop – CurricUNET META

In the last section, a text box is provided to record the efficacy of past planned actions. Did the changes made have a positive impact, minimal or no impact? Why is this? The faculty member should only complete this section if they have assessed the same SLO in the past.

Please remember to "Launch" the assessment when it is complete. The faculty member will then need to create a new proposal for each SLO in the course, and follow the same set of procedures.

Note: Appendix K includes the training materials provided to faculty Fall Flex 2017. It provides a step-by-step process, with screen-shots, for inputting SLO assessments in META.

SLO Assessment Schedule and Compliance

The Solano College Academic Senate approved an assessment schedule based on a six-year program review cycle (Appendix F). It includes SLO assessment twice within a six-year program review cycle, and PLO assessment once. The cycle denotes SLO assessment in years two and five. While that *is* the recommendation of the assessment committee, there are further considerations in order to be compliant with accreditation expectations, to support equity among faculty members, and ultimately support student success. Here are guidelines to help faculty sort out the nuances of SLO assessment:

1. In the SLO assessment year, faculty can choose whether to assess their courses in the fall or spring (or both) depending on scheduling. **ALL SLOs** for the course must be assessed

during the assessment year. An assessment scheduling calendar (Appendix G), can be utilized to schedule when assessments will be completed.

2. Faculty are responsible for inputting their own SLO assessments into the CurricUNET **assessment** module during the year of review. New faculty should request a copy of the Solano College Assessment Handbook to learn about the college's assessment procedures and attend trainings and/or obtain mentorship from faculty about how to conduct and input assessments.

3. **ALL courses in a discipline need to be assessed twice in six years**. Depending on how courses in the discipline are scheduled, or if a course is cancelled due to low enrollment, *faculty may need to veer from the set schedule and assess when the course is offered*.

4. **Full-time faculty must assess a minimum of three courses each assessment year** (see Appendix F for each school's assessment years). Faculty should plan with others in their discipline to make sure the ultimate goal of *all* classes being assessed is achieved. In disciplines with many courses, more than three courses may need to be assessed to meet the requirement. Faculty should be strategic; if they are the only instructor teaching a course, they must assess that course. If it is a new course or being taught in a new modality, it should be assessed. If a faculty teaches fewer than three distinct courses in an academic year, they should assess multiple sections of the same course. The goal is collaboration and workload equity. The table in Appendix G can help faculty distribute courses.

5. Adjunct faculty should consult with full-time faculty to determine which courses should be assessed and when. If they are the only faculty teaching the course during the assessment year or it is the first time the course is being offered, they must assess it. **Adjunct faculty should assess a minimum of one course during the assessment year**, but more may be required to accomplish the goal of assessing all courses in an assessment year. New adjunct faculty are encouraged to get training and support from full-time discipline faculty, and review their completed SLO assessments as models when needed.

6. There is value when multiple faculty assess the same course. They can dialogue about outcomes and share strategies for promoting student success. Thus, when possible, it is ideal when the same course is assessed by different faculty members, in different modalities, and at different times and locations.

7. If a course is offered for the first time, it **MUST** be assessed the **first** semester it is offered. This helps faculty gauge student progress in the new course and immediately

identify changes in instruction that could facilitate student learning. It helps ensure all courses are assessed.

8. Closing the loop is a goal of assessment, which means investigating how implemented planned actions impacted student success. In order to close the loop faculty are encouraged to assess the same course SLOs in both assessment years (when practical). At times, faculty may need to veer from the assessment schedule in order to achieve this goal.

Compliance

Accrediting bodies expect colleges to be at 100% compliance for SLO assessments, so it is essential that we all keep current in our reporting. We encourage faculty to use the mandate to assess SLOs as an opportunity for reflection, data collection, and dialogue. By looking closely at areas of strength and weakness we can plan for increased student understanding and success.

The need to comply with assessments goes beyond accreditation. Solano College includes SLO work as part of the contract and as part of faculty evaluations. Article 19.104 of the contract states "all faculty will develop and assess SLOs/SAOs." The faculty evaluation states faculty "develops SLOs as needed; assesses SLOs as needed; produces written reports on SLO assessment results as needed; initiates and/or participates in overall department-wide program development, maintenance, evaluation/assessment, revision, updating and/or expansion of the program." Further, "timely completion of SLO assessments as assigned" is one consideration in the list of priorities for rehire of adjunct faculty. To compensate adjunct faculty for their SLO work, Article 19.702 of the contract supports up to 7 hours of CAT 3 pay for SLO/SAO per semester when assessments are assigned. An adjunct pay form must be completed and submitted the academic year the assessment was completed (The form can be found on SCC website, under SLOs, and forms). Deans and/or school coordinators will run reports on assessment compliance and notify faculty if assessments are missing.

This handbook is designed to outline the campus's assessment process; yet to the extent that any direction in this document conflicts with board policies and/or regulations, labor contracts, Education Code or Title 5, those policies and practices prevail.

Program Learning Outcomes (PLOs)

In many ways, PLO development is similar to SLO development. The chief difference is faculty are considering not what the student is learning in an individual course, but the knowledge and skills that should be mastered at the time of completion (whether it is obtainment of an Associate's Degree or Certificate of Achievement). Like SLOs, they should be developed based on dialogue with discipline faculty. PLOs should be clearly written, measurable, and understandable to faculty and students alike. SLO mapping in CurricUNET will provide the data for PLOs assessment, so in developing PLOs it is important to be mindful of whether the final graduation-level learning goals are written in a way that connects the SLOs to the PLOs (see the mapping section for more details). As seen from the following PLO development guidelines, there is tremendous overlap with SLO development.

Guidelines for the Development of Program Learning Outcomes

1.	ALL programs have 3-5 program learning outcomes
2.	Outcomes are measurable, clearly written and easily understood
3.	Outcomes are meaningful to faculty and students
4.	Outcome development happens collectively among discipline faculty after dialogue about the chief learning goals in the program
5.	When choosing the 3-5 PLOs utilized for the program, consider the varied skills and knowledge faculty want to students to develop by the time of completion.
6.	Consider the type and depth of learning for each PLO. Bloom's taxonomy can be utilized as a resource to ensure some PLOs measure higher-order learning (see appendix B)
7.	The PLOs will map to some ILOs. When writing PLOs, consider the College's goals for student learning when developing the program's goals
8.	Our campus has chosen CurricUNET to house our outcomes and assessments. Changes to PLOs are initiated through a program modification and must obtain curriculum committee approval
9.	Approved PLOs will be published in the college catalog

PLOs are stored and updated in CurricUNET Meta. If faculty wish to revise their PLOs, they need to log in and click the "Curriculum" button at the top of the screen and choose

"Program." Next, click the "Create Proposal" button and under "Proposal Type" scroll to the "Program" heading and choose "Program Outcome Update." Alternatively, faculty can also choose a program modification and the steps are the same. Choose your division on the next screen, and rather than typing in the program title, press the search button and choose the program you are updating. Click "Next," then "Create Proposal." Go to the gray box on the left that says "Program Outcomes." A text box will generate to write in the outcome, followed by a text box to write in the success criteria by which student success on the PLO will be measured. Please record the success criteria in both quantitative and qualitative terms. Be sure to click "Update" after all changes. This is also the screen where PLOs are mapped to ILOs and SLOs, however to do this effectively, faculty must ensure their "Course Block Definitions" are marked appropriately.

Clear and well-planned SLO → PLO maps are vital to effective PLO assessment. The "Course Block Definitions" are where faculty denote which course's SLOs map to the PLOs. Click on the gray "Course Block Definition" tab to the left of the screen, and then where the program courses are listed, click "Edit Program Courses." Then if a course in the program contains an SLO that maps to the PLO, click that course title. There will be a small box, mid-screen, that must be checked: "Include Course in SLO Map." Then, click the green "update" box. Repeat this for all course that have an SLO that maps to the PLO. Click done when you have made all the updates.

Before going in to make these changes discipline faculty should dialogue together about the sequence of learning that prepares students for mastery on their PLOs. In which course's SLOs are the knowledge or skills for the PLOs introduced or developed, and in which course's SLOs are the knowledge or skills for the PLOs mastered? These discussions are not only beneficial pragmatically for map making, but more importantly they lay the foundation for sequenced learning by which student's competencies deepen as they move through the program. Faculty gain clarity on what they should introduce in beginning courses, and how to build upon early skills in more advanced courses. Appendix H provides a sample chart for mapping SLOs to PLOs in pen and paper, before doing so in CurricUNET.

After the courses have been checked to be included in the SLO map, faculty should navigate to the "Program Outcomes" gray box on the left of the screen. Click on the PLO, and toward the bottom of the screen, all the SLOs for the courses checked under "Course Block Definitions" will appear. Faculty should denote whether the SLO is not part of the map, whether the SLO introduces or develops the PLO (I/D), or if the SLO demonstrates mastery (M) of the PLO. If a mastery (M) is checked, the screen will prompt you to check if this SLO will be used to measure the PLO. Only click "yes" if you want to use this SLO assessment to measure your PLO. Be sure to click "Update" once you have mapped the SLOs. Do this for all the PLOs for

the course. It is important to not over-report, but rather just click the SLOs that directly measure the learning in the PLO. For each PLO, please also state if the PLO provides an assessment for the college's ILOs. "Update" and "Launch" once you are finished making your changes. Launching the changes will initiate the CurricUNET approval process and will send the revisions to the Curriculum Committee. Changes to PLOs will be looked at by the Assessment Coordinator in Tech Review.

PLO Assessment

Discipline faculty assess the Program Learning Outcomes of *all* the programs in their area once every six years (this means all the certificates, ADTs, and associate's degrees). According to the assessment cycle, PLO assessment takes place in year four of the program review cycle (see Appendix F). PLO assessments are analyzed based on the mapping of SLOs that directly demonstrate mastery of the program learning outcomes through the CurricUNET **assessment** module. As of summer 2017, the PLO assessment module is still be designed by the assessment committee. It is anticipated it will be ready for faculty access at the beginning of the Spring 2018 term.

General Education Learning Outcomes (GELOs)

Solano College's General Education Learning Outcomes (GELOs) are applicable to courses designated as general education and are meant to "facilitate responsible participation in civil society, skills for lifelong learning, and a broad comprehension of the development of knowledge, practice, and interpretive approaches in the arts and humanities, the sciences, mathematics, and social sciences" (ACCJC standard II.12). The GELOs were revised in 2017 to align with the general education patterns: Option A (Solano), Option B (IGETC), and Option C (CSU), to link more closely to accreditation standards, and to remedy problems recognized from the assessment of the first iteration of the College's GELOs.

Communication and Critical Thinking (Option A, Area D; IGETC Option B, Area 1 and 6; CSU Option C, Area A)

- Students will develop their writing, listening and speaking skills to communicate effectively
- Students will engage in critical thinking to analyze problems and consider potential solutions

Scientific Inquiry and Quantitative Reasoning (Option A, Area A; IGETC Option B, Area 2 and 5; Option C, Area B)

- Students will engage in scientific inquiry to discover and apply information to the analysis of data and/or scientific phenomena
- Students will solve problems using appropriate mathematical and/or statistical techniques

Arts and Humanities (Option A, Area C; IGETC Option B, Area 3; CSU Option C, Area C)

- Students will exhibit an understanding of the ways in which people in diverse cultures and eras have produced creative works
- Students will analyze significant events and/or works from the past, including cultural and regional influences
- Students will create works through diverse forms of expression

Social Sciences (Option A, Area B; IGETC Option B, Area 4; CSU Option C, Area D)

- Students will analyze human behavior in a variety of contexts
- Students will investigate the social, political, economic, historical, geographical, and/or psychological forces that impact individuals, groups, and society

Lifelong Learning and Self Development (Option A, Health and Physical Development; CSU Option C, Area E)

- Students will demonstrate knowledge of the physical, psychological, cognitive, and/or developmental practices that foster personal well-being and human development

Cross-Cultural Studies (Option A, Area E)

- Students will analyze cross-cultural beliefs, practices, and forms of expression to gain a rich understanding of self and others

As only courses designated as general education will be used in assessing the GELOs, it is important discipline faculty are aware of which of their courses are approved in which areas for Option A, B, and C (See Appendix I for approved general education courses, or reference the college catalog). The GELOs are arranged topically, with the link to the GE Option and Area delineated in parenthesis. Understanding where your GE course(s) reside(s) (ex. Communication and Critical thinking, Scientific Inquiry and Qualitative Reasoning, etc.) is important because there should be a direct link between the area of learning the student is receiving GE credit for and the learning outcomes for the course that is meeting the designation. Because GELOs are assessed using SLOs that are mapped to the GELOs, it is essential the connections are clear. As an example, a student can take English 02 to fulfill their Critical Thinking GE Option B requirement. Thus, English faculty would want to ensure that at least one SLO for this course is assessing student's ability to critically think, and mapped to one of the Communication and Critical Thinking GELOs. Deliberately connecting student learning outcomes for GE courses in

their topic areas supports and upholds the integrity of the general education designation, and ensures we are measuring student's learning in these areas.

In CurricUNET Meta, SLOs are mapped to the GELOs in the **curriculum** module. When faculty initiate a course modification or are adding a new course, they go to the Student Learning Outcome tab. Each SLO is added as a new item. The faculty member is prompted to designate the SLO for the course, the success criteria, and then they are asked if the course is a general education course. If it is, the GELOs will populate. Faculty should ONLY map the SLO to a GELO, if it is a designated GE course and ONLY if the SLO directly assesses the GELO. Usually only one box will be checked. Not all SLOs in a GE course will necessarily map to the GELOs, however *at least ONE SLO in the topic area the course is designated in needs to map to a GELO*. It is imperative the SLOs are mapped clearly and accurately to the GELOs, or GELO assessment will be difficult.

To create transparency for students, the syllabi of GE courses should include not only the course SLOs, but the GELOs that are being measured in the course.

GELO Assessment

GELOs are assessed in two different ways: through SLO mapping and shared dialogue. The Assessment Committee will conduct an analysis of mapped SLOs to the GELOs every five years. A rubric will be used to systematically evaluate each GELO. The first task will be to see that all GE courses are in fact mapped to the GELOs, and that SLO assessments have been completed. The Assessment Committee will look at the distribution of SLOs mapped to the varied GELOs; if some GELOs have minimal SLOs assessing them, discipline faculty will be consulted to see if more links can be made, or if the GELO itself is off target. The committee will look at student performance on the GELOs. What were student's areas of strengths and weakness? What were the planned actions faculty proposed to increase student success? These themes will be compiled in a report and shared with discipline faculty teaching the general education courses, Academic Senate, and College Administration. Findings will be used as part of the integrated planning process to plan for professional development and other needed resources.

The second way GELOs will be assessed is through shared dialogue. Each year one GELO topic area (communication and critical thinking, scientific inquiry and quantitative reasoning, etc.) will be the focus of a flex teaching and learning event. Faculty teaching general education course in the topic area will be invited to share examples of how they promote success and engage learners. They will share the SLOs and success criteria they use to assess the GELO and dialogue about successes and challenges they encounter. Finally, they will make

recommendations to the college about how to promote student success in these general education courses.

Institutional Learning Outcomes (ILOs)

Solano College's Institutional Learning Outcomes (ILOs) articulate the knowledge and skills students will achieve through their education. They describe a breadth of learning that provides for a rounded education. Given the diversity of educational goals of our students and the length of their study, students will be proficient in the following areas to the extent required of their courses and/or program of study. These outcomes are neither course nor program specific but are meant to be applicable to ALL students. Solano's current ILOs were revised and approved in 2017 to more closely align with accreditation standards, and to be more inclusive of the diversity of learning students undertake at the college whether they are in basic skills courses, degree programs, career technical education programs, or are life-long learners.

Communication Competency

Students will effectively communicate ideas and information through writing, speaking, performance, art, or other modes of expression

Information Competency

Students will be conversant in the vocabulary and concepts of the discipline and be able to use discipline-appropriate tools to locate and retrieve relevant information effectively, upholding academic and ethical integrity

Quantitative Competency

Students will solve problems and interpret findings using appropriate mathematical, statistical, and scientific techniques

Technical Competency

Students will demonstrate the technical skills and strategies required of the discipline

Analytic Inquiry

Students will engage in critical thinking to discover and apply information to the analysis of problems

Ethics

Students will identify ethical issues and apply ethical principles to discipline specific problems

Global Awareness

Students will demonstrate an understanding of how diverse cultural beliefs and practices impact behavior and forms of expression. They will be able to articulate how social, economic, environmental, and political events impact society

Personal Growth

Students will manage personal health and well-being, including engaging in self-reflection to facilitate personal insight

Professional Development

Students will demonstrate effective workplace behaviors such as appropriate communication, professionalism, decision-making, and time management

In CurricUNET Meta, **all** SLOs are mapped to the ILOs in the **curriculum** module. When faculty initiate a course modification or are adding a new course, they go to the Student Learning Outcome tab. Each SLO is added as a new item. The faculty member is prompted to designate the SLO for the course, the success criteria, and then map the SLO to the institutional learning outcomes. Faculty should ONLY map the SLO to the ILO(s) that are directly measured by that SLO. Typically, there will only be one link made per ILO. For example, in COSM 112, the first SLO is to "Identify the ethical standards requisite to the practice of cosmetology." This would link to the ILO Ethics, "Students will identify ethical issues and apply ethical principles to discipline specific problems." The fourth SLO is to "Demonstrate the application and knowledge of basic hairstyling and haircutting skills." This links to the ILO Technical Competency, "Students will demonstrate the technical skills and strategies required of the discipline." By making the links specific and direct, the assessment of the ILOs will be clear and meaningful.

ILO Assessment

Similar to GELOs, ILOs are assessed in two different ways: through SLO mapping and shared dialogue. The Assessment Committee will conduct an analysis of mapped SLOs to the ILOs every five years, systematically pulling a robust sample size of representative certificate, degree, general education, and career technical education course. A rubric will be utilized to evaluate each ILO. The first task will be to see that all courses are in fact mapped to the ILOs, and that SLO assessments have been completed. The Assessment Committee will look at the distribution of SLOs mapped to the varied ILOs; if some ILOs have minimal SLOs assessing

them, discipline faculty will be consulted to see if more links can be made, or if the ILO itself needs revising. The committee will look at student performance on the ILOs to ascertain student's areas of strengths and weakness. What were the planned actions faculty proposed to increase student success? These themes will be compiled in a report and shared with discipline faculty teaching the general education courses, Academic Senate, and College Administration. Findings will be used as part of the integrated planning process to plan for professional development and other needed resources.

The second way ILOs will be assessed is through shared dialogue. Each year one ILO topic area (communication competency, information competency, etc.) will be the focus of a flex teaching and learning event. All faculty will be invited to share examples of how they promote success and engage learners in that area. They will share the SLOs and success criteria they use to assess the ILO and dialogue about successes and challenges they encounter. Finally, they will make recommendations to the college about how to promote student success in their courses. The goal is to share quality practices in teaching, dialogue about techniques that facilitate learning, and highlight the work of faculty across campus that support the institutional learning outcomes.

Mapping Learning Outcomes

Mapping is an important component of outcome design and assessment. Maps help faculty articulate how learning is sequenced in a program, and how the student learning outcomes are interwoven into the broader goals of the college (GELOs/ILOs). Looking at outcomes as being interconnected facilitates dialogue among faculty, intentional programmatic design, and hopefully a richer educational experience for students. We typically think of maps in terms of how SLOs connect to PLOs, to GELOs, and ILOs. Which is, in fact, the main way mapping occurs at Solano College. However, in an assessment culture of inquiry it is also useful to the think of the other ways mapping can benefit students and the program. The content of courses can be mapped, as can course-taking patterns, as can the timing of SLO or PLO assessments. What we teach, when and how, can have an impact on student's progression through the major and their learning.

In terms of outcome maps, looking both top-down and bottom-up are helpful in conceptualizing how the outcomes are linked. Starting with ILOs, helps to think about our individual courses and programs and what type of learning experiences we are providing for students. We may place a lot of emphasis on information, communication, quantitative and technical competencies, but are we providing our students opportunities to reflect on discipline specific ethical issues, or are we facilitating global awareness, and personal or professional growth? Thinking broadly about the breath of issues and topics that students can and should be learning in their college-level education, challenges us to examine our SLOs to ensure we are assessing in a variety of areas.

Taking a bottom-up approach helps us to look in detail at our courses and the specific learning opportunities we are offering students. Knowing what skills and knowledge we want to develop in each class, helps us build a foundation for the broader programmatic, general education, and institution level outcomes. It can be helpful to ask ourselves: 1) Which course SLOs are building the foundational knowledge and skills measured in the PLOs? Are they at the introductory/development level or are they at the masterly level? 2) Which SLOS in your general education (GE) courses measure the area(s) of learning in the corresponding GE pattern? 3) Which SLOs in your program measure the ILOs? As previously mentioned in the handbook, outcomes will be mapped in CurricUNET, so having a clear picture of their integration is useful. As a reminder, it is in the curriculum module under the "Student Learning Outcome" tab that SLOs are mapped to GELOs and ILOs. It is in the program module under the "Course Block Definition" and "Program Outcomes" tabs that SLOs are mapped to the PLOs.

The Integrated Planning Process and Outcome Assessment

At Solano College, assessment data is used for two major purposes, 1) to improve teaching and learning in the classroom, and 2) as part of the integrated planning process to determine departmental needs, campus needs, and then to allocate resources accordingly. The later goal is accomplished in several ways:

1. When completing planned actions for SLOs and PLOs, faculty report what they believe can be done at the department/college level to improve student success. At the end of each academic year, a report is compiled and shared with college administration and the Academic Senate to consider the results in planning decisions and resource allocation.
2. When GELO and ILO assessments are completed, the results are shared with Academic Senate and college administration to aid in short and long-term planning.
3. Faculty analyze assessment data comprehensively in their program reviews to create planned actions and goals for their programs. The assessment sections of program review are robust, and are measured in the program review rubric.
4. Faculty are provided their department's SLO assessment reports to be used as part of the dialogue for completing program review yearly follow-up reports. In these reports, faculty describe progress on their goals and prioritize their planning goals for the coming year(s).

Assessment data has the potential to impact department and college planning in a number of ways. Improved teaching and learning strategies can be developed. Curriculum or scheduling needs can surface through the process of outcome assessment. Assessment data can alert the campus to needed professional development for faculty, and areas where student's may need additional support such as tutoring, math or writing skill development, study skills, counseling, disabled student support, etc. Facility improvements, technology and instructional equipment needs, safety considerations, etc. may also be identified through the outcome assessment process.

Assessment Committee

The Assessment Committee is a sub-committee of the Academic Senate that is charged with overseeing the academic assessment process on campus. The committee is composed of a faculty assessment coordinator (.40 reassigned time), one faculty representative from each school

(division), an adjunct faculty representative, a representative from the program review and curriculum committees, and the Vice President of Academic Affairs (or an administrative representative). Committee members should be seen as a resource for training, individual support with assessments, and the dissemination of assessment related information. Please check with your dean if you are unsure who your Assessment committee representative is.

APPENDIX A

How to Develop Quality Student Learning Outcomes

According to the Academic Senate for California Community College's (ASCCC) terminology glossary (2010), "Student learning outcomes are the specific observable or measurable results that are expected subsequent to a learning experience. These outcomes may involve knowledge (cognitive), skills (behavioral), or attitudes (affective) that provide evidence that learning has occurred as a result of a specified course, program activity, or process."

Characteristics of Quality Outcomes:

Well-conceived and written SLOs have a number of common features:

CLEAR – Written succinctly so students can understand

OBSERVABLE/MEASURABLE – If you can see it, you can assess it. Look at action/higher level words on bloom's taxonomy, and only include ONE measurable outcome per SLO. Avoid phrases like "Understand the importance of…" which is hard to measure

SKILLS – There should be more SLOs related to skill obtainment than knowledge obtainment

RELEVANCE – Choose SLOs that are the most representative of course learning objectives

RIGOROUS YET REALISTIC – SLOs should be obtainable at course completion

Examples of Quality SLOs:

AERO055	Complete an aircraft weight and balance and record data
BIO 009	Describe an oceanographic process and then explain how it affects marine life
HS 055	Demonstrate basic case management skills in assessing clients for their service needs
MATH310	Perform arithmetic operations with positive real numbers, including fractions
MT162	Write programs for computer simulated robotic tasks
WELD112	Set up and apply welding and cutting procedures

Examples of Poor Quality SLOs:

1. Students will increase their awareness of global issues.

   Avoid terms like "increasing" awareness or competence as it is difficult to measure. This SLO doesn't clearly state what knowledge will be ascertained and how it will be measured

2. Develop knowledge about a variety of computer programs such as Excel, Word, WordPerfect, and Publisher and create documents in each program

   There are several problems with this SLO: 1) more than one outcome is embedded (both knowledge development and document creation); 2) the "such as" gives choices which makes it difficult to standardize learning across sections; 3) the term "develop" knowledge is harder to measure than "demonstrate" knowledge

APPENDIX B

Bloom's Taxonomy

To facilitate higher-order thinking, it is suggested that some SLOs and PLOs are developed using constructs from level IV-VI.

REVISED Bloom's Taxonomy Action Verbs

Definitions	I. Remembering	II. Understanding	III. Applying	IV. Analyzing	V. Evaluating	VI. Creating
Bloom's Definition	Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.	Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.	Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.	Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.	Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.
Verbs	• Choose • Define • Find • How • Label • List • Match • Name • Omit • Recall • Relate • Select • Show • Spell • Tell • What • When • Where • Which • Who • Why	• Classify • Compare • Contrast • Demonstrate • Explain • Extend • Illustrate • Infer • Interpret • Outline • Relate • Rephrase • Show • Summarize • Translate	• Apply • Build • Choose • Construct • Develop • Experiment with • Identify • Interview • Make use of • Model • Organize • Plan • Select • Solve • Utilize	• Analyze • Assume • Categorize • Classify • Compare • Conclusion • Contrast • Discover • Dissect • Distinguish • Divide • Examine • Function • Inference • Inspect • List • Motive • Relationships • Simplify • Survey • Take part in • Test for • Theme	• Agree • Appraise • Assess • Award • Choose • Compare • Conclude • Criteria • Criticize • Decide • Deduct • Defend • Determine • Disprove • Estimate • Evaluate • Explain • Importance • Influence • Interpret • Judge • Justify • Mark • Measure • Opinion • Perceive • Prioritize • Prove • Rate • Recommend • Rule on • Select • Support • Value	• Adapt • Build • Change • Choose • Combine • Compile • Compose • Construct • Create • Delete • Design • Develop • Discuss • Elaborate • Estimate • Formulate • Happen • Imagine • Improve • Invent • Make up • Maximize • Minimize • Modify • Original • Originate • Plan • Predict • Propose • Solution • Solve • Suppose • Test • Theory

Anderson, L. W., & Krathwohl, D. R. (2001). A taxonomy for learning, teaching, and assessing, Abridged Edition. Boston, MA: Allyn and Bacon.

APPENDIX C

Course Objectives v. Course Outcomes

Course objectives and student learning outcomes are not the same. Although both are published in the course outline of record and in the syllabus, they are not intended to mirror each other. The chart below provides guidance on how they differ:

COURSE OBJECTIVES	COURSE OUTCOMES (SLOs)
Aspirational – These are what faculty plan to teach students in the course	**Measurable** – These are what students actually need to demonstrate
Beginning of Term – The course objectives are presented as a roadmap at the beginning of the term to describe the learning plans	**Throughout the Course** – The SLOs are measured throughout the course to gauge student learning
Broad – Objectives may be painted with a wide brush stroke to cover a variety of knowledge/skills	**Specific** – Outcomes are specific to a skill or type of knowledge to be learned and measured
Numerous – Typically there are many course objectives (5-15) presented to students	**Fewer** – At Solano, there are 2-4 student learning outcomes the instructor plans to assess
Example – Effective use of the compare and contrast rhetorical mode for developing an argument	**Example** – Write a paragraph using the compare and contrast rhetorical mode to create an argument

These examples were taken from Randy Beach, presenter at the 4th Annual ASCCC SLO Symposium, February 2017

APPENDIX D

Success Criteria & Rubrics

Key Points about Success Criteria and Rubrics

- Success criteria is the standard of success on a learning outcome
- It is measured at the student level, not the course level as the goal is to measure student learning (ex. student receives 70% or higher on the exam, NOT 70% of the students pass)
- Each SLO will have a defined success criteria so that no matter who is teaching the course, the student has to achieve the same competency
- Faculty should decide together what the success criteria for the SLO is and document it in a rubric
- The creation of success criteria rubrics helps delineate to both faculty and students what specifically constitutes success
- Rubrics may vary by assignment and discipline. It is imperative that they include a description of what is proficient and what is not passing/substandard. However, some rubrics may be more detailed, specifying what constitutes an A, B, C, etc. or what is outstanding, proficient, and substandard. The goal is clarity and consistency

Many of our course SLOs are general, and without the detail provided in a success criteria rubric, there could be wildly different expectations across sections. For example, in CDFS 038, a SLO is to "Demonstrate an understanding of developmental theories from conception through adolescence." Those teaching the course may wonder, how many theories constitutes success, and are there specific theories that must be taught? One instructor may ask for two theories while another asks for six. Imagine how a description of the success criteria and a rubric would clarify the expectations.

SLO: Demonstrate an understanding of developmental theories from conception through adolescence

Success Criteria: Students earn a score of proficient (70%) or higher on their written descriptions of child development theories including their stages and/or major concepts. Students provide examples of how the theories relate to children's behaviors.

Rubric:

Outstanding	Comprehensive description of a minimum of 4 theories of child development (Piaget and Erikson must be included) including examples of how the theories relate to children's behaviors
Proficient	Describe and provide examples of a minimum of 3 theories of child development
Substandard	Describe 2 or fewer theories of child development

Rubrics can be designed with more depth and detail than the one above. They can also delineate the difference between the grades of A, B, C, etc. The key is that faculty are deciding what the standard of success should be and that all faculty that teach the course are adhering to the same standard. It is also essential that we are sharing our expectations with students and we let them know when we will be measuring their learning. The more information they have, the more prepared they will be to give their best effort.

Solano College does not require that all faculty use the exact same assessment method to measure the SLO (though standardization has many advantages), but we do ask for common success criteria. In the CDFS 038 example, one faculty may assess this SLO as essay questions on the final exam, while another faculty may do an in-class activity mid-semester and have their students write about their understanding of the theories. The key is that student are learning and integrating the material!

APPENDIX E

SLO Quality Rubric

Utilize this tool to review SLO assessments to ensure they fall in the quality range.

	QUALITY	INADEQUATE
Student Learning Outcome	Outcomes are clear, measurable, and specify the knowledge or skill to be mastered by the students. SLOs have been chosen carefully so that the 2-4 SLOs for the course represent the most important learning to be mastered, and are the same across all sections.	Outcomes are not measurable (ex. understand the importance of...), or are overly narrow or broad (ex. attempt to measure multiple skills in one SLO)
Success Criteria	Describes what the quantitative AND qualitative measures of success are for the SLO. Focus is on the knowledge and/or skills students are expected to master. A common rubric is included for courses with multiple sections. Success criteria are the same across all sections	Criteria not described or reported superficially (ex. 70% pass with a "C" or better). Only reported quantitatively OR qualitatively
Methods	Methods of assessment are substantial enough to gauge student learning and/or skills. For example, 10-20 multiple choice questions, papers, portfolios, in-class skill demonstrations, etc. Where appropriate, multiple assignments and/or methods are utilized to assess the SLO. These measures are described or attached	Methods not reported or reported superficially (ex. "exam" or "rubric")
Results	Results for the SLO assessment are described in both quantitative AND qualitative terms. The specific strengths and weakness of students are reported	Results are not reported or reported superficially (ex. 73% successful)
Planned Actions	Planned actions are derived from the analysis of results. Plans include information about any needed adjustments in the classroom and in the department/college to bolster areas of student weakness. Specific changes are noted. If students were successful, comment on the teaching strategies and/or assignments that you believe helped them become successful	Planned actions not reported or the actions are not connected to the results. Analysis is cursory
Closing the Loop	For courses that have been assessed by the faculty before, changes or results stemming from previous planned actions are reported. Faculty note if changes will become a regular part of the course or assessment and why	Results of previous planned actions are not reported or described minimally

APPENDIX F

Assessment Schedule

The assessment schedule outlines in which year program reviews, curriculum reviews, and student & program learning assessments take place. If is the first time a course is taught, the SLO must be assessed that semester

Year 1: Program Review   Year 4: PLO Assessment
Year 2: SLO Assessment   Year 5: SLO Assessment
Year 3: Curriculum Review   Year 6: Preparation for Program Review

School of Applied Technology and Business

2016-2017 – SLO and PLO Assessments
2017-2018 – Program Review
2018-2019 – SLO Assessment
2019-2020 – Curriculum Review + Abridged Program Review (CTE)
2020-2021 – PLO Assessments
2021-2022 – SLO Assessment + Abridged Program Review (CTE)

School of Health Sciences & Counseling

2016-2017 – SLO Assessments
2017-2018 – PLO Assessments + Abridged Program Reviews (CTE)
2018-2019 – Program Review
2019-2020 – SLO Assessments
2020-2021 – Curriculum Review + Abridged Program Review (CTE)
2021-2022 – PLO Assessments

School of Social & Behavioral Sciences

2016-2017 – SLO Assessments
2017-2018 – PLO Assessments + Abridged Program Review (CTE)
2018-2019 – SLO Assessments
2019-2020 – Program Review
2020-2021 – SLO Assessments
2021-2022 – Curriculum Review+ Abridged Program Review (CTE)

School of Math & Sciences

2016-2017 –SLO Assessments (1st half), Curriculum Review (2nd half)
2017-2018 – PLO Assessments (1st half), SLO Assessments (2nd half) + Abridged Program Reviews (CTE)
2018-2019 – SLO Assessments (1st half), PLO Assessment (2nd half)
2019-2020 – Any outstanding PLO/SLO assessments + Abridged Program Reviews (CTE)
2020-2021 – Program Review (all)
2021-2022 – SLO Assessments

School of Liberal Arts and Library

2016-2017 – SLO Assessment
2017-2018 – Curriculum Review + Abridged Program Reviews (CTE)
2018-2019 – PLO Assessments
2019-2020 – SLO Assessments + Abridged Program Reviews (CTE)
2020-2021 – Any outstanding SLO/PLO Assessments
2021-2022 – Program Review

APPENDIX G
Calendaring SLO Assessments

SLO assessments should be completed the calendar year in which they are assigned (see schedule in Appendix F). However, as described in the "SLO Schedule and Compliance" section of the handbook, there are times when faculty will have to assess off-schedule. For example, if a course is cancelled due to low enrollment, offered for the first time, or only scheduled once every two years. A chart like the one below can be used to plan the timing of the discipline's SLO assessments.

Course	Semester & Year of Assessment	Modality of Course	Person(s) Responsible

APPENDIX H
Mapping SLOs to PLOs

A chart like the one below can be valuable for discipline faculty's discussions about how course SLOs map to the PLOs. Not all of the course SLOs will map to the PLOs, so it is important to think about where the knowledge and skills needed for the PLOs are being introduced or development, and in which SLOs the skills are being mastered. It is only in courses where mastery is occurring that you would want to assess the PLOs. PLOs are designed to be a measure of learning at the time of program completion, so assessing learning in introductory courses isn't a true measure of success. Faculty will map their SLOs to the PLOs in CurricUNET, but doing a pen and paper chart first can facilitate a discussion and understanding of how course learning is sequenced.

Below List the Course and SLO that maps to the PLO	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
Ex: CDFS 063, SLO 2*			I/D		
Ex: CDFS 065, SLO 1*			M		

'

In the sample above, PLO 3 relates to curriculum development in early childhood education environments. The topic is introduced in CDFS 063: Introduction to Curriculum (SLO2), and is mastered in the CDFS 065 Practicum capstone course (SLO 1).

APPENDIX I

General Education Courses & SLO to GELO Mapping

Please refer to the list SCC Catalog (in 2017-2018 pages 52-59) to see if any of your discipline courses are in the GE pattern http://www.solano.edu/catalog/ If there are, faculty will need to link the course SLO that measures the GELO area of emphasis. Faculty will map the SLOs to the GELOs in CurricUNET. But doing so first in pen and paper can facilitate discussion among faculty. Below is a chart that faculty may choose to use to organize their thoughts. In many cases faculty might find that an SLO for the course might need to be revised or added to map with the GELO. Not all SLOs need to map to a GELO, but there must be at least one SLO in the course that maps.

COURSE SLO	GE Area of Emphasis	GELO
Ex: PSYC 001, SLO 3	Social Sciences	Students will investigate the social, political, economic, historical, geographical, and/or psychological forces that impact individuals, groups, and society

In the example above PSYC 001 is a general education option for the social sciences. The third SLO for the course maps to the second social science GELO. Psychology will need to go through all the PSYC courses that are designated as GE and chart which SLOs map to the GELOs. Mapping means an assessment for the SLO will measure some aspect of the GELO.

APPENDIX J

Assessment Terminology Guide

CurricUNET META – The latest version of the curriculum database that will be used for curriculum, assessment and eventually program review. You can login under the faculty tab on My Solano, or on the SLO page: https://solano.curricunet.com/Account/Logon

GELO – General Education Learning Outcomes are learning goals that were developed for students taking general education courses. Faculty must map at least one of the SLOs in each of their GE courses to a GELO in the area the course is assigned. Solano College's GELOs are posted in this handbook and online: http://www.solano.edu/slo/1718/Solano%20College%20GELOs.pdf

ILO – Institutional Learning Outcomes are learning goals that were developed to ensure all students, regardless of their educational goals, are achieving during their time at Solano College. All SLOs should map to ILOs. Solano College's ILOs are posted in this handbook and online:
http://www.solano.edu/slo/1718/Solano%20College%20ILOs.pdf

Mapping – A tool for connecting learning outcomes. Course-level SLOs map to PLOs, GELOs, and ILOs.

PLO – Program Learning Outcomes are learning outcomes that students are to achieve by the time of program completion. The college recommends having 3-5 PLOs, which are measured through mastery level SLOs.

SLO – Student Learning Outcomes are the core knowledge and/or skills faculty want students to learn by the completion of a course. The college recommends having 2-4 SLOs, which are clearly written, measurable, and have common success criteria.

Success Criteria – Success criteria is the detailed standard of success on an SLO. It is a measure of individual student success, not the class as a whole. It is the same across all sections of the course, and should be delineated in a common rubric.

Qualitative - Descriptive data that is not numerical. For the success criteria, a qualitative descriptor states in words what success looks like. For the results analysis, a qualitative analysis describes in words the strengths and weaknesses of students on the measure.

Quantitative – Numerical data. For the success criteria, a quantitative descriptor states the score/percentage a student would need to achieve to be proficient. For the results analysis it states the number of students who were proficient and any other relevant numerical data relating to student performance.

APPENDIX K
CurricUNET META Assessment Training – Fall Flex 2017

Solano College chose CurricUNET META for outcome assessments for several reasons:

1. Curriculum and Assessment data will be in the same system. The chancellor's office now requires SLOs to be an approved part of the official course outline of record, so it is advantageous that they are linked in the same database
2. Faculty have access & input their own assessment; no need to funnel through a coordinator
3. Assessment data clearly links to the integrated planning process. Faculty have a platform to address what they can do in the classroom AND what the *college* can do to support student learning and success on SLOs
4. There is the ability to create "maps," where SLO assessments directly inform PLO, GELO, and ILO assessments
5. Outcomes (not assessments) will go through the curriculum approval process, meaning faculty will get feedback on their outcomes
6. Easier tracking of SLO/PLO completions

Initially, getting started will take work (and patience):

- Before faculty can start assessing their SLOs, they must be inputted correctly in the curriculum side of META and approved (the old SLO database and META don't sync). Please note, this semester as we get META up and running, the Assessment Coordinator can approve outcomes w/out going through the full curriculum committee**. It is ESSENTIAL that for this expedited approval, faculty only change the SLOs. If faculty change textbooks, content, etc. the changes must go through the full curriculum committee**
- Inputting SLOs requires not only entering the course outcomes, but also the *success criteria* for each outcome. It is important faculty come together to agree on the success criteria as it will be the same for every faculty member teaching the course
- Finally, SLO input also requires mapping the SLOs to the GELOs (if applicable) & the ILOs

In sum, before faculty can assess SLOs, they need their outcomes, success criteria, and GELO/ILO maps inputted into the curriculum side of CurricUNET META.

Workload:

Getting META up and running with your correct SLOs, success criteria, and maps will be time consuming. We encourage deans provide time at school meetings, faculty discuss at department meetings, retreats, and/or during the optional flex days, and faculty consider assigning "leads" for different classes so the workload can be split equitably. While individual faculty shouldn't be making decisions in silos, the actual inputting after decisions are made can be split up. All faculty can get optional flex credit for their time, and adjunct faculty are eligible for up to 7 hours of paid SLO work.

Making it Meaningful:

Nobody is going to argue that it isn't going to be a task to get META ready for outcomes assessment, however we do see it as an opportunity to look at SLOs with fresh eyes and make sure they are meaningful. Are the SLOs for the course representative of the most important learning you want to measure, and of the different *types* of learning you want students to achieve? For example, do you only want to measure content knowledge, or do you want to measure writing, critical thinking, etc.? Do your SLOs link to your PLOs? Are there SLOs in your program courses that capture a variety of the GELO and ILO goals? For example, is ethics measured anywhere? How about personal growth?

When looking at success criteria, meaningful discussions can be had about what constitutes success. It is important that we have a clear vision so we can share with students the skills, knowledge, etc. they will need to pass the assessment. If faculty aren't on the same page, students can complete the course with highly divergent skill sets.

Along with these training materials, the Assessment Handbook should be used to learn more about outcome assessments at Solano College. The Assessment Coordinator and School Coordinators are also good resources. There will be opportunities for feedback as we move forward. Know there will be bumps on the way as we get CurricUNET META up and running, but once the initial leg work is done, we should have an efficient system to store, analyze, and share student learning.

Inputting SLOs on the Curriculum Side of META

The first step is to log into CurricUNET META: https://solano.curricunet.com/ You can also find the link under the faculty tab on My Solano.

Intitially, your **username will be your email address** and your **password will be ChangeMe1**. If your email doesn't work as your username, try the variation of firstintiallastname@solano.edu. For example aobegi@solano.edu.

To change your password for confidentiality, click on the gray cog on the top right next to you email address, and then choose "profile". You will see in blue letters "Click here to change your password". Reset your password.
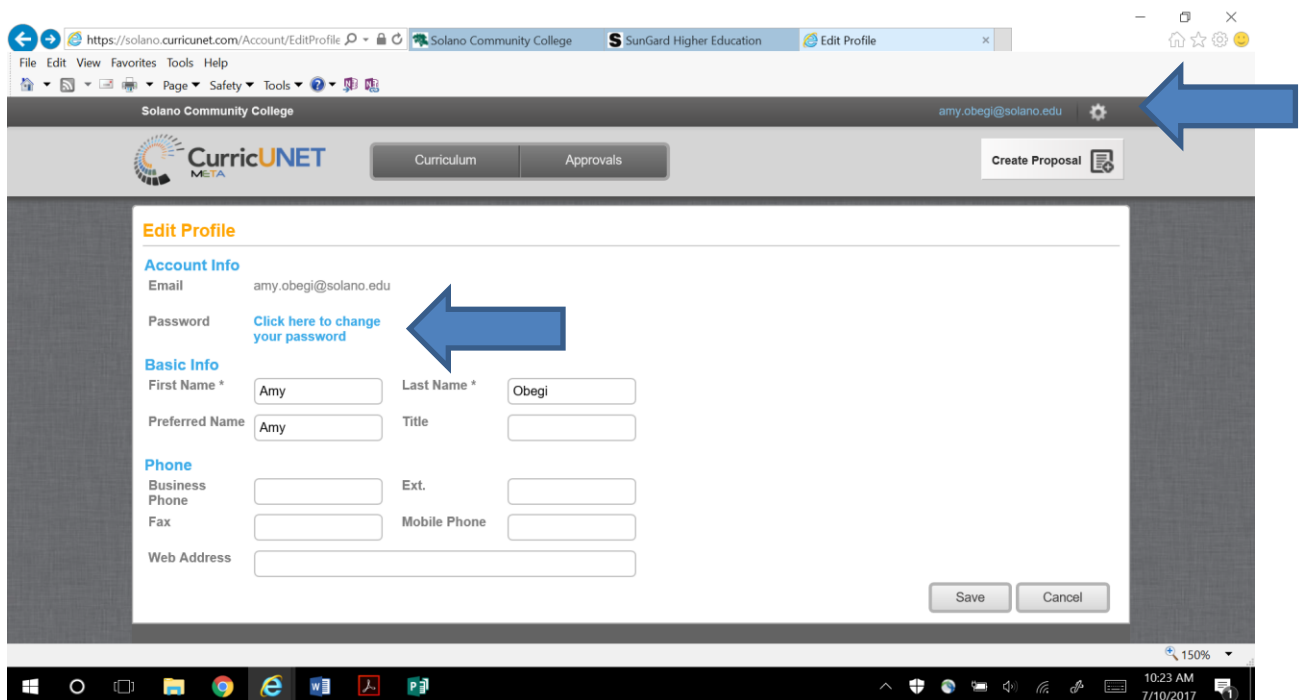
Once you are logged in, you are going to create a proposal. Choose "Create Proposal" and then select "SLO Change Only" under course type.
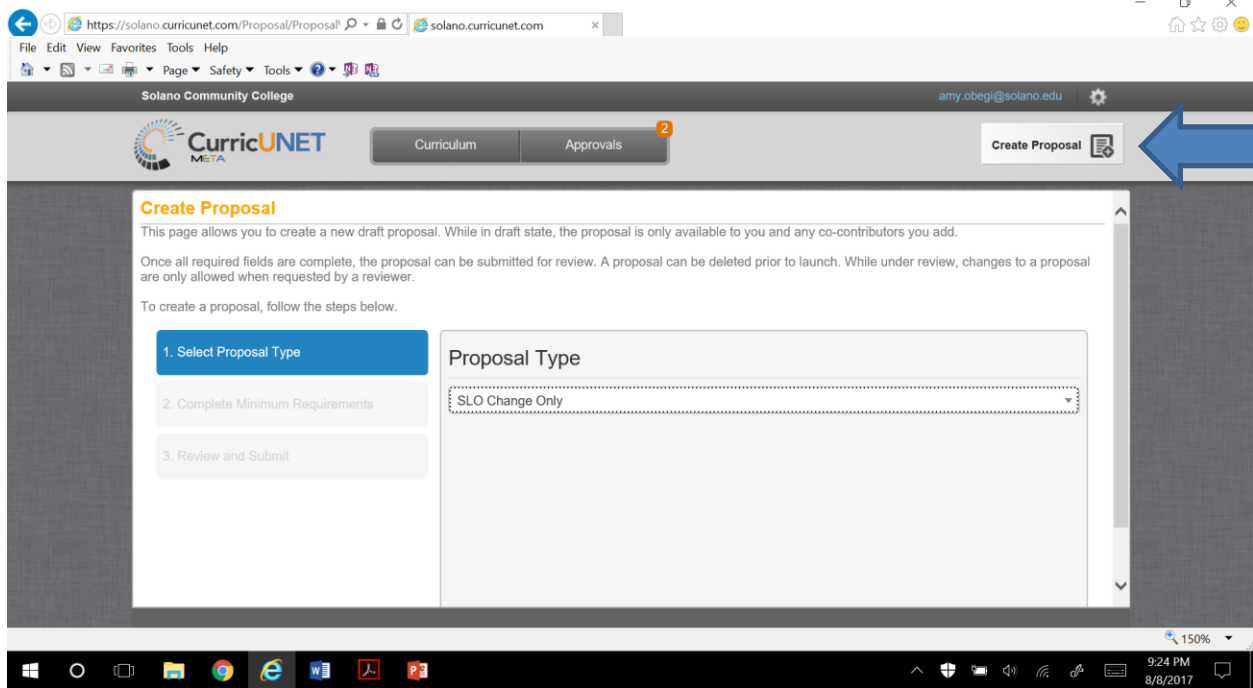
Click "Next", and then follow the prompts to select your subject and search for your course title. Click "Next" again. A proposal summary will display. Click the blue "Create Proposal" box.

Once the proposal has been created it will open the course proposal. Scroll down on the left until you see "Student Learning Outcomes" and click.
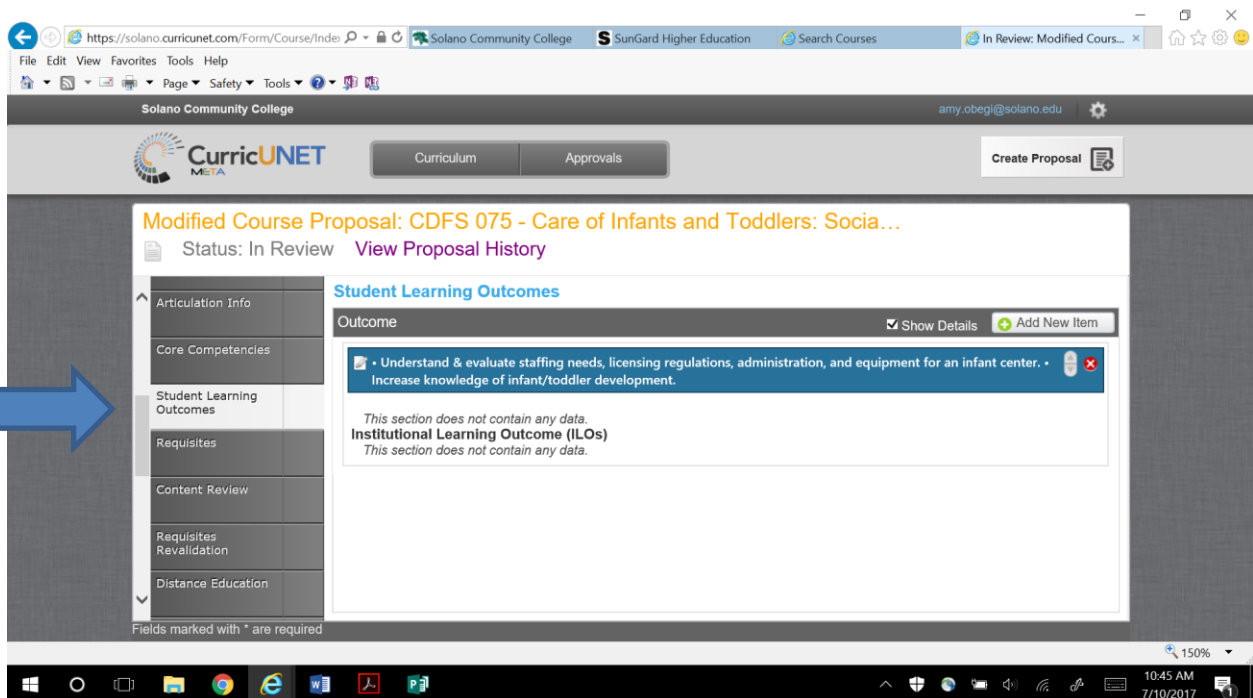
The example of CDFS 075 above is a good example of how the SLOs that were generated are old versions that were clumped together as if the two SLOs were actually one (they are only separated by bullet points and are not separate items). ALSO, you will see the SLOs are poorly written. Both of these SLOs need to be rewritten to be clearer and easier to measure. To fix them, first click on the blue box where the SLOs are written. In this first outcome textbox, write your first SLO for the course and delete the old SLOs.

Old SLOs:
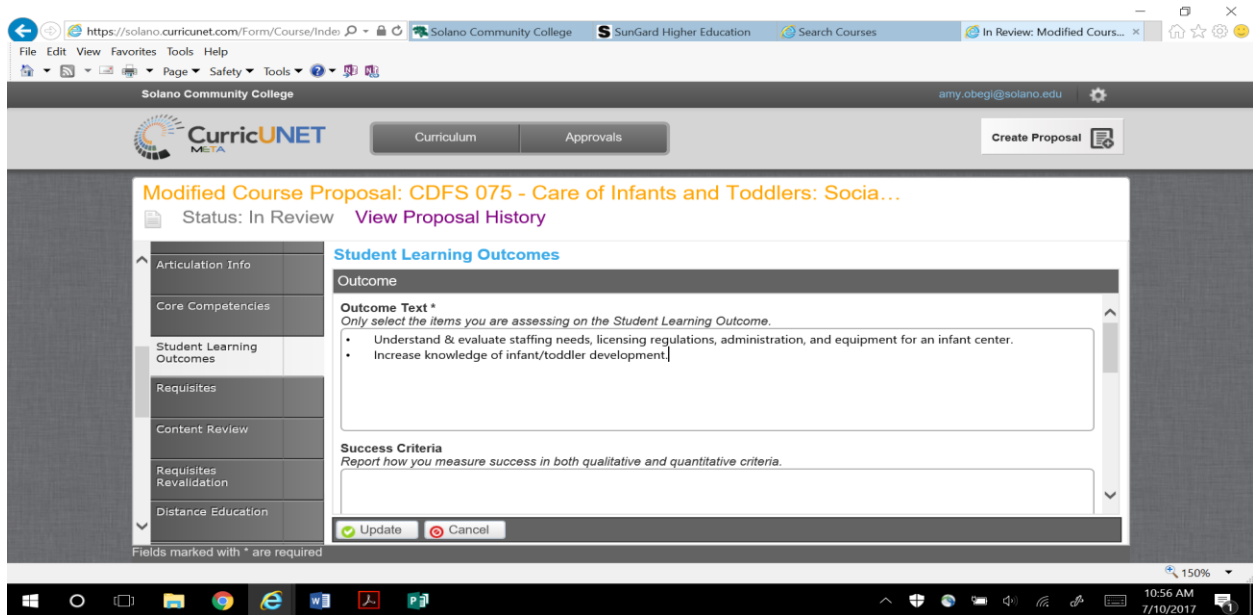
Revised SLO 1 (note how I numbered it 1 for easier retreival later):
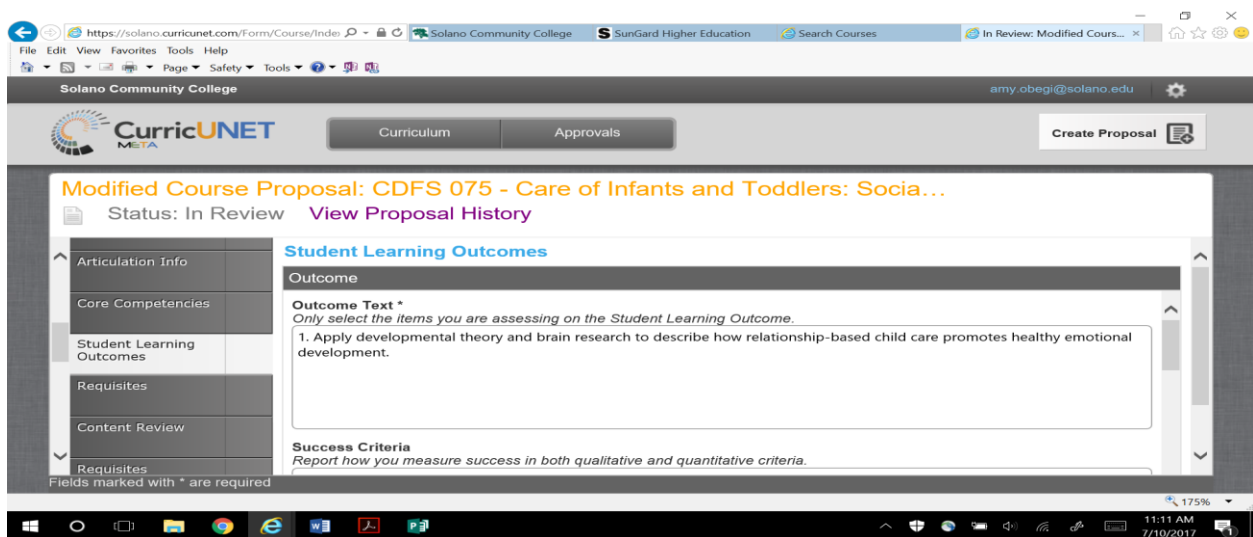
Next, the success criteria needs to be added for the SLO. The success criteria should be written in both quantitative and qualitative form so that it is clear to all students taking the course and all faculty teaching the course what is required to be proficient. See the Assessment Handbook for more details on writing success criteria.
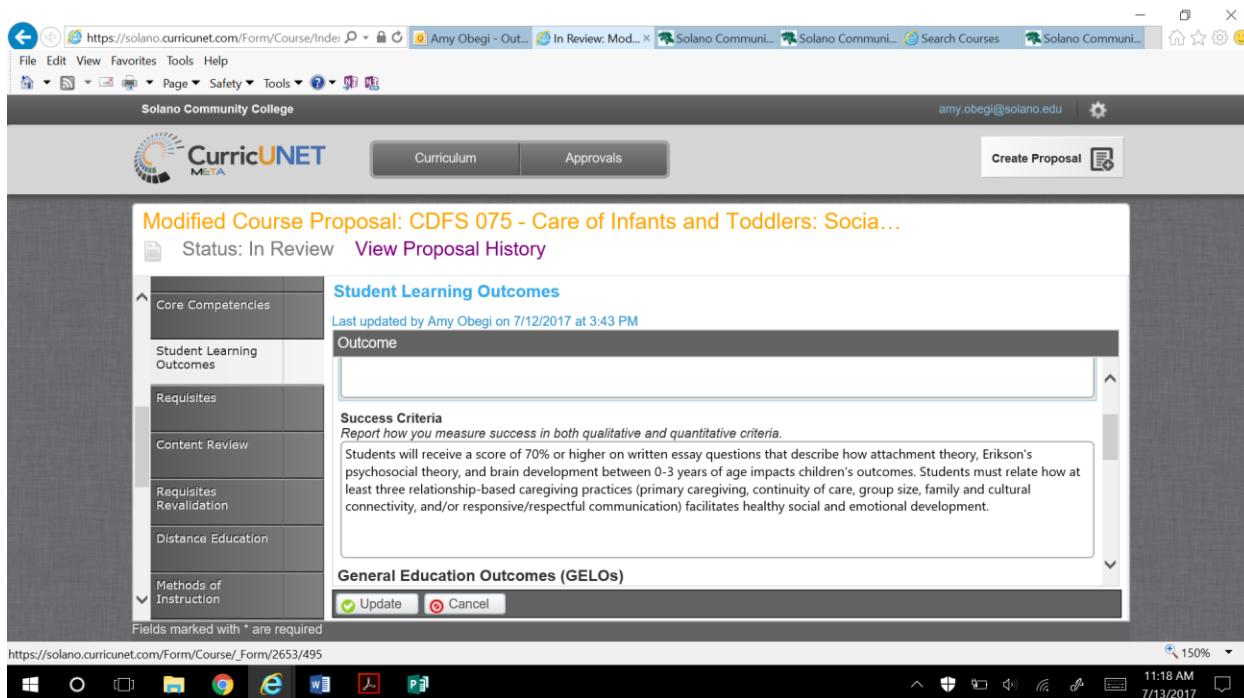
Link to GELOs and ILOs. Scrolling down, the next essential step is to link the SLO to an appropriate GELO (if applicable) and ILO. If the course is not a designated general education (GE) course, choose "No" when prompted. If it is, click "Yes" then choose the one (or possibly two) GELOs that this SLO measures. Then check the ILO the SLO most closely measures*. ONLY click a link if the results of the SLO assessment will be a valid measure for the GELO or ILO. When you are fininished, click the "Update" box. For more details, refer to the Assessment Handbook.

*The college's GELOs and ILOs were updated and approved by the Solano College Governing Board during summer 2017. Because they are new, every SLO will need to be looked at to see which GELO and ILO the SLO measures. If you have suggestions for adding GELOs or ILOs or improving their wording, there is a suggestion sheet at the end of this packet that can be sent through intercampus mail to Amy Obegi, Room 143. Suggestions will be shared with the Assessment Committee and recommendations will be passed on to the Academic Senate. Mapping is also a good opportunity to see that our courses have outcomes that not only measure department goals, but college goals as well.

Once the first SLO has been updated, you will need to "Add New Item" to do the same process for the second, third, fourth etc. (how ever many SLOs there are). Please note, every course needs to have more than one SLO; the College recommends 2-4 per course.

When the course SLOs, their success criteria and the GELO and ILO mapping is complete for the course, you will need to "Launch" the course. In some cases to launch it, you may need to go to the resources tab and click that the Librarian has not reviewed it. This will give you permission to launch the course.
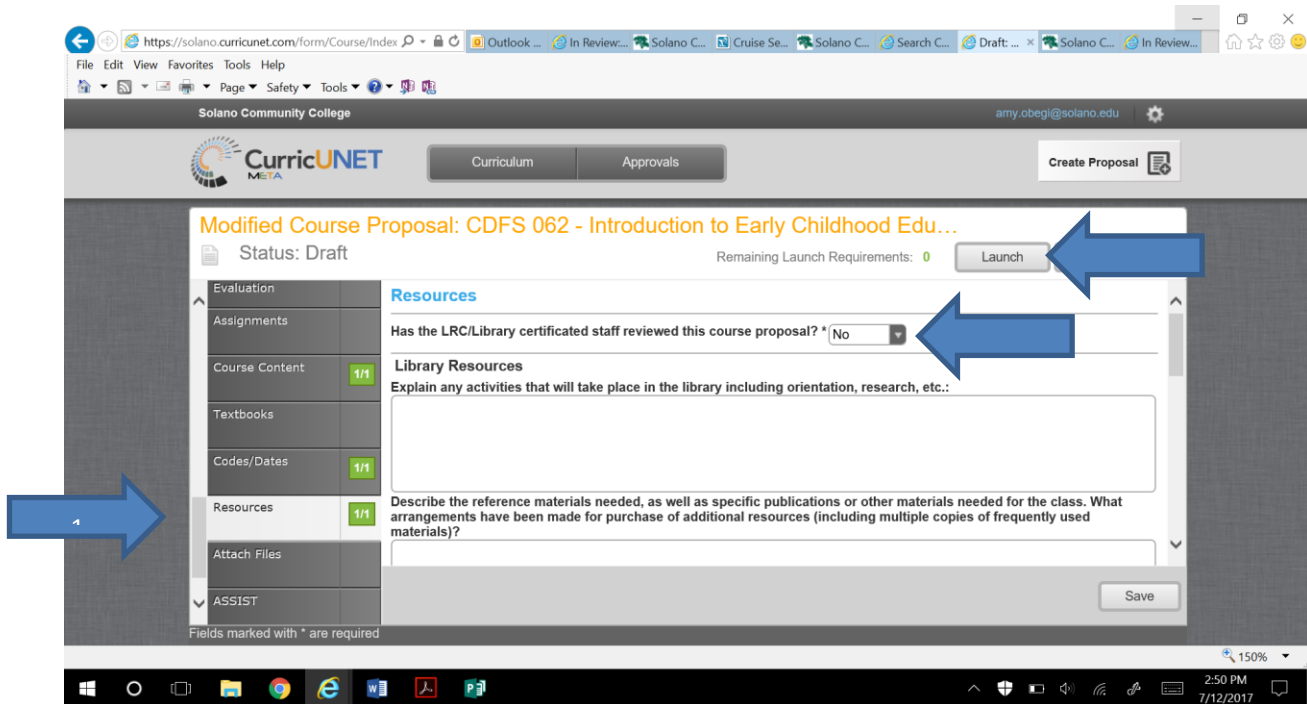
You can save changes to the course modification as you make them (which we highly recommend!). However, once you launch it, changes cannot be made to the document without the Assessment Coordinator sending it back to you upon request.

Please remember it is ESSENTIAL that if you want to expedite approval during the 2017-2018 academic year, you only change information under the Student Learning Outcome tab. If you make other changes, it will need to go through the full curriculum review process.

During the fall 2017 semester the Assessment Coordinator will review SLO changes and submit the approvals on Tuesdays and Thursdays. It is not until the SLOs have been approved through CurricUNET that you will be able to take the next step and assess the student learning outcomes for the course. The next part of this training guide will focus on how to input SLO Assessments.

Inputting SLO Assessments into META

Once your SLOs, success criteria and GELO/ILO maps have been inputted and approved on the curriculum side of CurricUNET META, AND you have assessed your course(s), you will be ready for input on the Assessment Module of META.

Log in to CurricUNET META: https://solano.curricunet.com/ You can also find the link under the faculty tab on My Solano. Your username is your email address and your password is your creation (after you have changed from the ChangeMe1 default).

First, you click "**Create Proposal**"

Under proposal type, choose "**Individual Instructor SLO**" under the Assessments heading, and then click "Next"
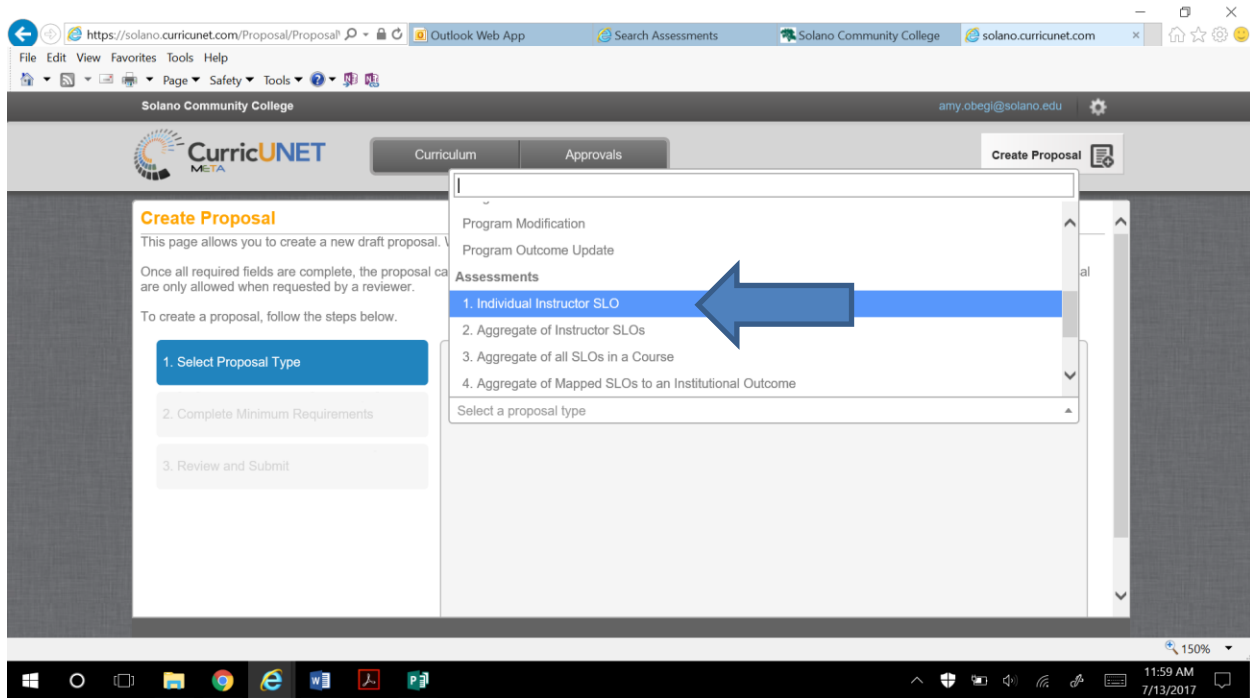
It will prompt you to choose your division (school), your department, and then title your assessment. In order to sort/retrieve assessments please title them as follows: **Course SLO # Term Instructor last name**. For example: CDFS 038 SLO 1 Fall 2017 Obegi. Click "Next"
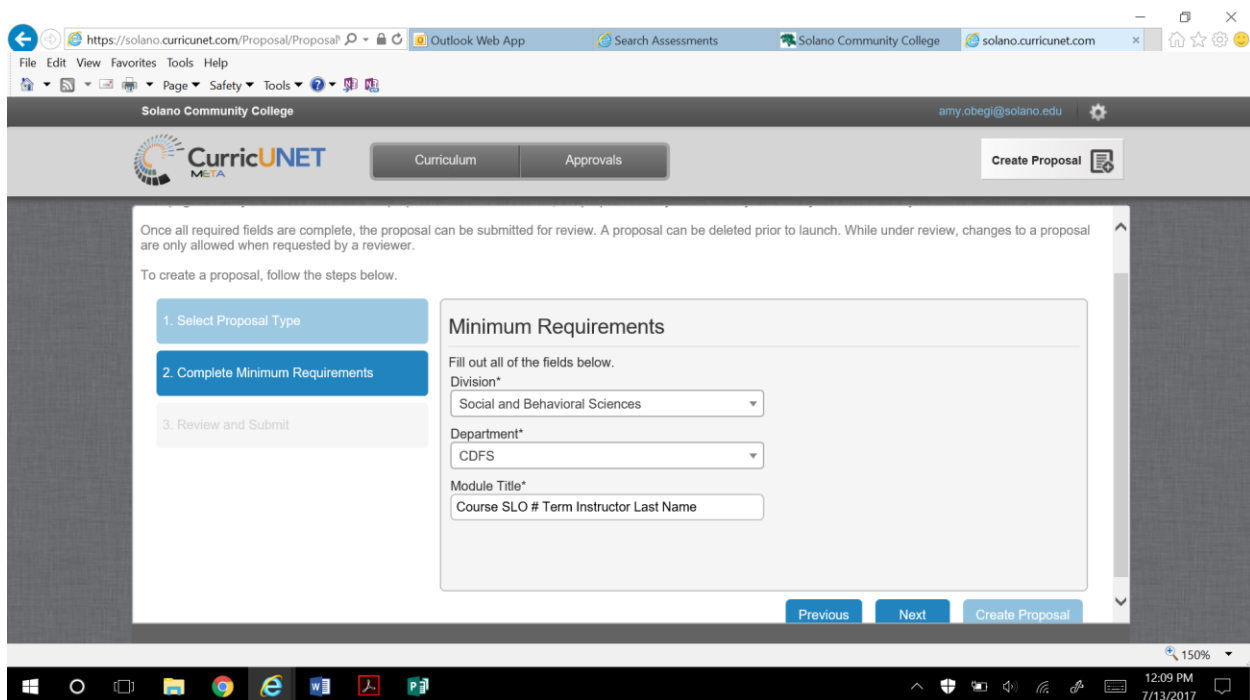
On the next screen, choose "Create Proposal" and a new proposal will generate. Please note, you will be creating a new proposal for each SLO that you are assessing for the course. Fill out all the
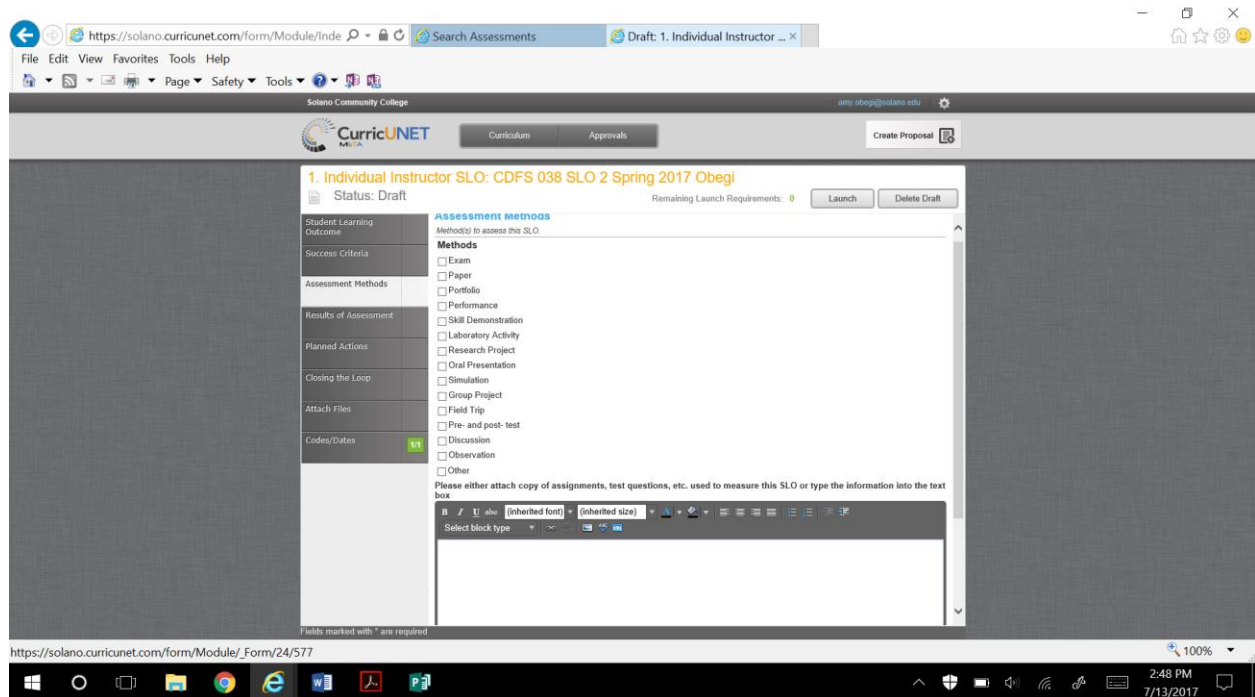
information requested. You can only assess multiple sections of the same course if the all the descriptive information is the same (for example two ENGL 001 day face-to-face courses on the Fairfield campus). **You are encouraged to "Save" as you move through the assessment.**
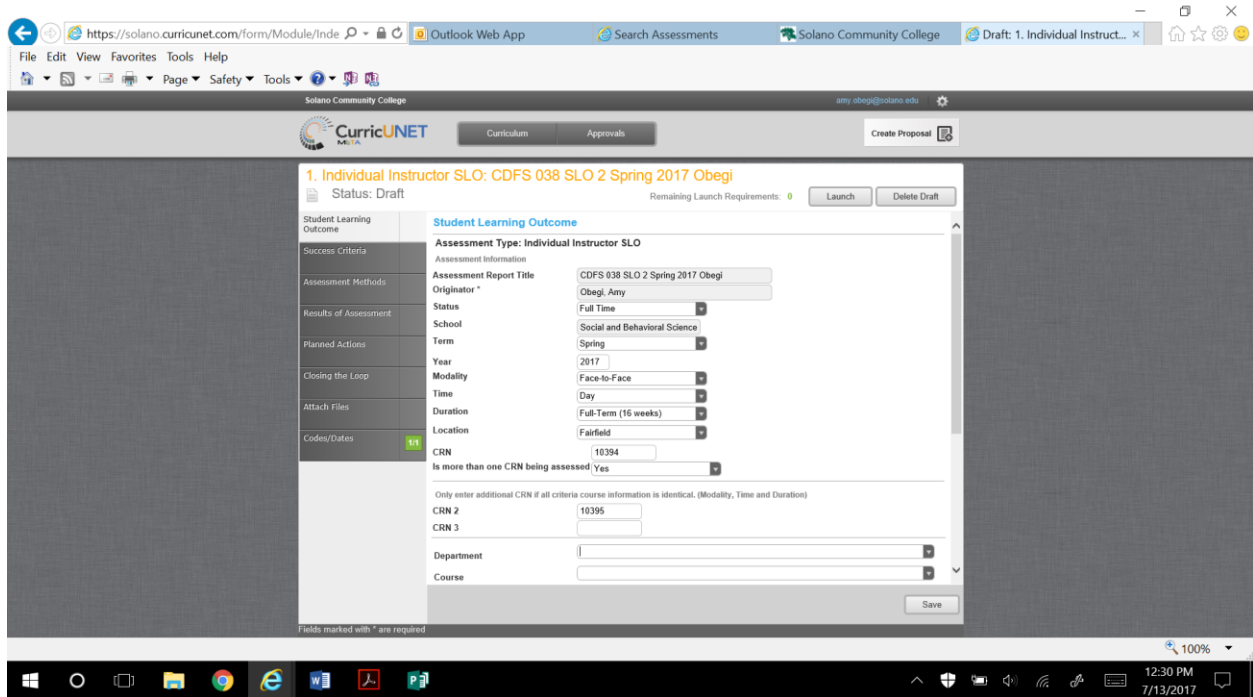
Each gray tab on the left of the screen links to a page that must be completed. Under the **Success Criteria** tab, you will notice the success criteria automatically generates from the curriculum side. You should attach a rubric of the success criteria to this page.
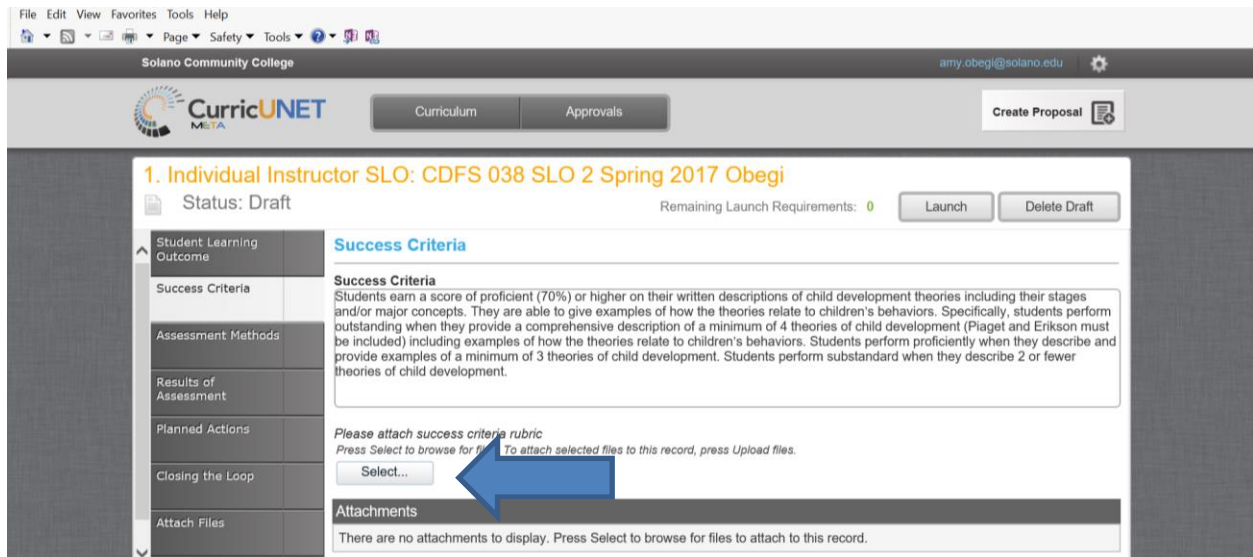
Under the **Assessment Methods** tab, click the method(s) that were used to assess the SLO. Then either copy into the textbox or attach the assignment, test questions, etc. that was used to assess the SLO.

Moving on to the **Results of Assessment** tab, state the number of sections the assessment includes (will usually be one), the number of students enrolled in the course, the number of students that were assessed, and then the number that met the success criteria. The percentage successful will automatically generate.

Next, there is a textbox to detail additional quantitative and qualitative information about the results. Under the quantitative box, the instructor may want to note the percentage of A's, B's, C's, etc., if grades were evenly distributed, or if most got high scores or just made it to proficiency. It can make a big difference in our thinking about success if we note most students received 95% versus 70%. Next, in the qualitative textbox detail the particular strengths and weaknesses you noted during the assessment. Were there certain types of questions students were more or less successful on? Were there particular concepts the students struggled with?
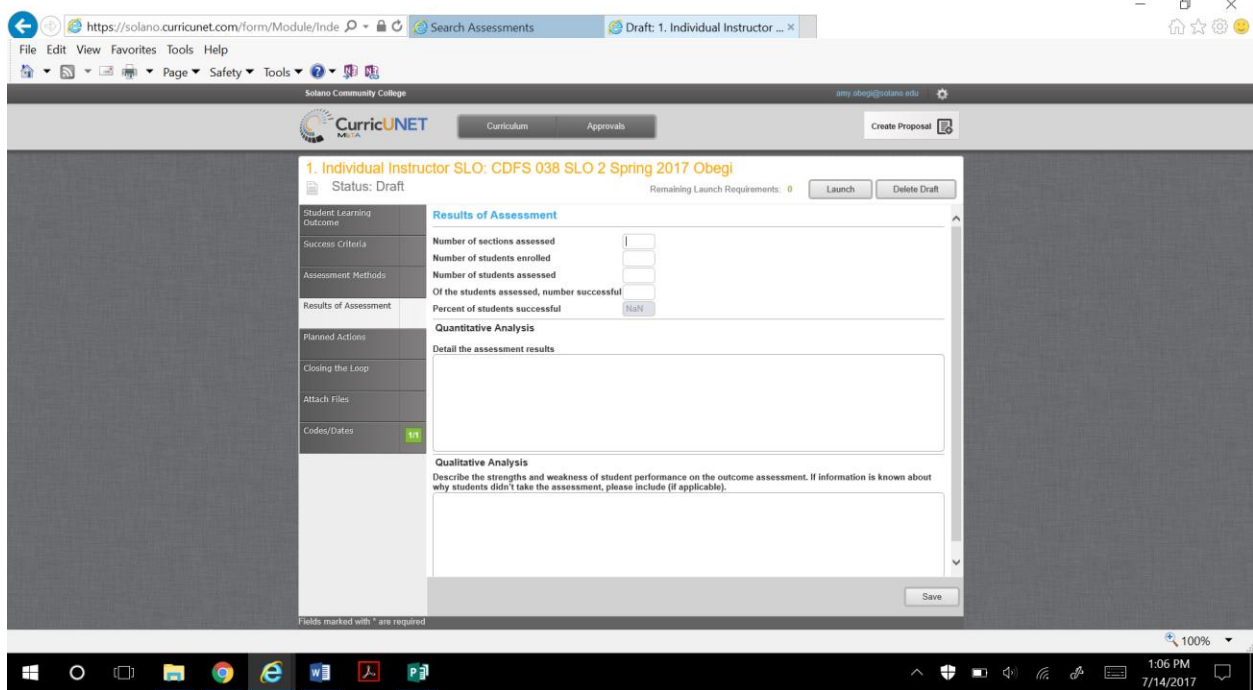
The **Planned Actions** page addresses what you want to do **in the classroom** to improve student success on the SLO and what you believe **the department/college** can do to improve success. Check the box(es) that apply and then comment in the textbox about what you will specifically do (or want done). If no changes are necessary, check that box, but also indicate what activities you did in the classroom that helped students achieve success. Completing this section is important for the integrated planning process.
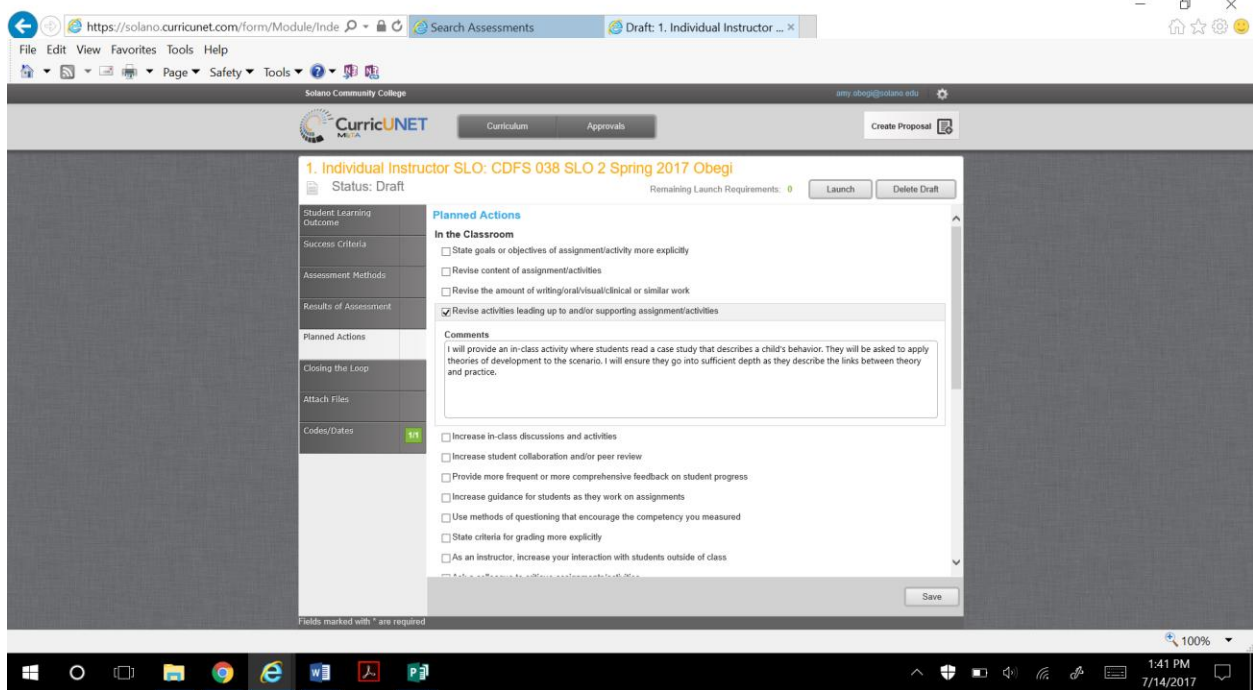
Finally, if you have previously assessed this SLO, fill out the textbox under the **Closing the Loop** tab. This asks you to reflect on the planned actions you implemented based on the results of the last assessment; did they impact student success? How? If this is your first assessment write "N/A"
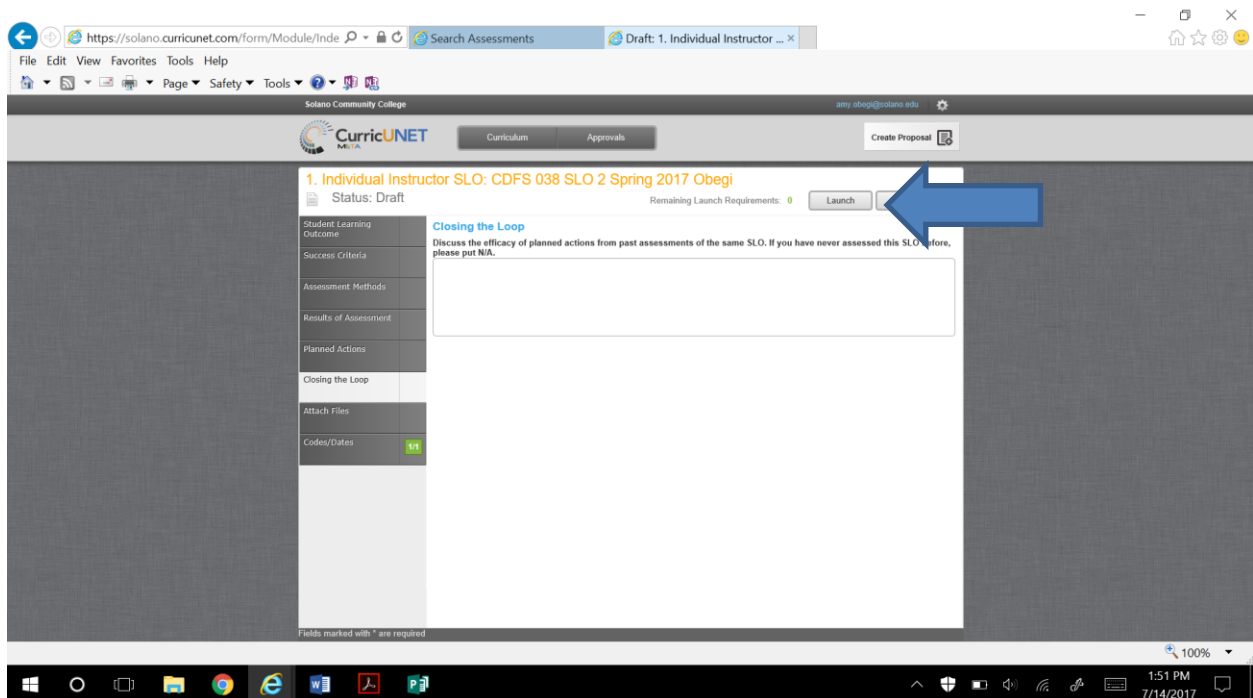
Once the entire assessment is completed, you will need to click the "**Launch**" box. Once launched, the assessment cannot be altered unless the faculty member submits a request to the Assessment coordinator (or someone else with CurricUNET editing rights) to have it sent back to them.

Once the first SLO assessment is complete, the faculty member will need to start again by clicking "Create Proposal" and go through the process again for SLO 2, and then again for SLO 3, etc.

SLOs are to be assessed twice within a six year program review cycle, following the college's assessment schedule (new courses need to be assessed the first semester they are taught). Full-time faculty should assess at least 3 courses during each assessment year and adjuncts at least one course, which will require coordination among faculty to ensure all courses get assessed. Please refer to the Assessment Handbook for further details and contact your school coordinator and/or assessment coordinator with questions.

GELO and ILO Feedback

Name_____   Date_____

Discipline_____

If you are mapping your GELOs and ILOs and find you have suggestions for adding new outcomes, changing the wording of outcomes, or deleting outcomes you believe should be omitted, please provide your suggestions on this form. They will be considered by the Assessment Committee as part of the GELO and ILO evaluations. Thanks for your help!

GELO suggestions:

ILO suggestions:

Please forward this form through intercampus mail to Amy Obegi, Room 143