Goals

The abbreviations for faculty names used below are: JB = Jeff Bradbury, SB = Sean Bonness, RL = Rena Lou, AM = Amy Moskun (or other new faculty), CS = Cheryl Shimazu, LW = Linda Waldman, Olga = stockroom manager (Olga Dukhovny), Coordinator = whoever the current coordinator of that course is and Chair = whoever is the current chair.

Ref	Goal	Action to be Taken	Steps	Date	Person
W1, W3, T10, O3	Investigate and develop means to improve student success in Chem 110.	Research fifth unit in Chem. 110	Investigate to see whether getting a 5-unit course will help student success.	Fall 2017	RL
			Investigate which schools in our area have a 5 unit Chem. 110 and which do not?	Fall 2017	RL
			Ask the other schools what is the success rate at the schools that do have a 5 unit Chem. 110	Spring 2018	RL
			Compare rates of success and completion for various chemistry 110 unit courses.	Fall 2018	RL
			Find out what do these schools do with the time for that fifth unit.	Spring 2019	RL
		Research to see if we need to increase math prerequisite	Request more data that relates student success and completion in Chem 110 to their prerequisite math courses in math.	Fall 2017	CS
			Evaluate data to correlate math level with completion and success in chem. 110	Fall 2018	RL

			Investigate whether other schools have a higher math prerequisite and how that affects success	Fall 2017	RL
			Correlate the success and completion rates at schools have a higher math prerequisite and compare to our school.	Fall 2017	RL
		Learn about our students through surveys	Come up with ideas/ questions for surveys	End of Fall 17	CS
			Write survey questions and conduct preliminary survey	End of Spring 18	CS
			Administer pre-post surveys	Pre-post per semester for 2 years	CS
			Compare success rate of students that have had prior chemistry (chem. 100, high school chem. Previous chem. 110) to those that have not.	End of Spring 2020	SB
			Analyze survey data	End of Spring 2020	CS/SB/AM
		Learn about students through exams and quizzes comparing 2 courses (110 and 111).	Collecting data (110 quizzes, 110 final exam grades, 111 quizzes and exams that are reviews).	Each semester for 2 years	SB
			Use 3 data points on dimensional analysis/stoichiometry (first taught, 110 final, 111)	Each semester for 2 years	SB
			Analyze student work and look at most common student	End of fall 19	SB

			mistakes is there a "silver bullet" that could improve scores.		
			Try to find the "predictor" of student success or failure in chem. 110.	End of Spring 20	SB
		Correlate SLOs to success	Select SLOs that are student success indicators.	End of Fall 17	JB
			Write SLOs that incorporate student success indicators.	End of Spring 18	JB
			Discuss when we want to collect SLO data (at different times or only on the final?)	End of Spring 18	JB
			Collect data on revised SLO's.	End of Spring 19, and annually thereafter.	JB/coordinator
			Analyze how new SLO performance correlates with grades and student success.	Fall 2022	JB
			Analyze the main SLOs that are causing student failure and develop strategies to improve success.	Fall 2023	JB
		Improve training of adjuncts	Collect a list of misconceptions or common errors for all 4 slo's and use this to train our adjuncts and improve our lecture outlines.	Fall 2017	JB/coordinator
			Give adjuncts a list of common errors and how to teach to help students	Fall 2018	JB

			improve which becomes a preventative procedure		
		Computer programs and technology	Edit 110 nomenclature & titration labs as needed.	Fall 2017	RL
			Research ways to use iPads and computers more and if we add a fifth unit use them in discussion.	Fall 2020	JB
			Incorporate Vernier technology into the 110 labs.	Spring 2018	CS
W2 W4	Determine if Chem. 105 should be scrapped, rewritten or left alone.	Align chem. 105 with current NGSS standards and find the correct number of units for student needs.	Meet with new Teacher TRAC coordinator to discuss future enrolment and needs for a Chem. 105.	Fall 2017	JB
			Meet with Cal State Long Beach Science education faculty to discuss chem. 105 future	End of Spring 2017	JB
			Research NGSS standards	Fall 2018	JB
			Make a decision about Chem. 105: Either rewrite chem. 105, if needed. Or remove class from catalog if needed.	Fall 2020	JB/LW
W2 W4 T1	Maintenance/ replacement/ acquisition of equipment (in coordination with the stock room)	Have a single form to request for equipment	Create desired/needed equipment form that includes links to requested items and contacts for quotes. Keep on Google Drive/Google Docs for all departmental members to access and edit.	End of Fall 2017	LW/Chair
			Review as department to prioritize needs	Annually, for DUAP	LW/Chair

		Develop a plan for maintenance (e.g. analytical balances)	Inventory current instrumentation in Google doc. Include maintenance needs in inventory (Call companies if needed)	S 2018	AM/Olga
			Assign point person for each piece of equipment and include in inventory list	S 2018	AM
		Replacement schedule	Contact manufacturers for expected lifetime of each type of equipment.	S 2018	AM
			Keep a running Excel/google doc log of purchased equipment, expected lifetimes and anticipated replacement dates and costs (update/review annually).	Monthly	LW/Chair
			Keep a running log of equipment that needs to be replaced due to damage. All of department can edit and discussed at dept. meetings.	Monthly	LW/Chair
		Building maintenance	Course coordinator takes care of the room in coordination with the stock room	As needed	All Coordinators Olga
			General maintenance requests for Building/ bathrooms doors etc.	As needed	LW/Chair
W3 O3	Scheduling for departmental courses	Know our students (their schedule,	Develop student survey to determine our "majors" needs	yearly	CS

		etc.); better understand our student population	Develop student survey to determine number of attempts students have made before entering majors sequence and nursing chemistry classes	yearly	CS
			Analyze data from surveys	yearly	CS
			Correlate surveys + success data	End of Spring 2018	CS
			Correlate surveys with major requirements (chemistry course requirements for their majors)	End of Spring 2018	CS
			Follow a pipeline of students to see how long program actually takes	End of Spring 2018	CS
			Determine the % of students that actually move from 110 to 111 and 111 to 112 and 112 to 211 and 211 to 212.	End of Spring 2018	CS
			Develop a mathematical formula to help predict future course offering need approximately 2-3 semesters based on average data.	End of Spring 2018	CS
			Look at balancing course offerings annually courses from various angles.	End of Spring 2018	CS
		Increase our Adjunct pool	Reach out to local universities. Develop contacts in local universities (CSULB, CSUF, UCI, etc.). Identify community	Continually	LW/All

			college teaching programs		
			Request PT faculty availability earlier	End of Spring 17	LW
		Increase the number of full time faculty	Write a faculty request with data from surveys	Fall 18 and annually	LW