What are the strengths of your area?:
The Chemistry Department offers challenging courses and works hard to maintain success rates similar to Universities. In most of our courses, the success rates over the past 3 years have either stayed the same or increased. For example: Chemistry 2 has stayed about the same: 73% (2010/11), 44% (2011/12) and then 72% (2012/13). Chemistry 1 has increased slightly: 53% (2010/11), 60% (2011/12) and then 60% (2012/13): along with Chemistry 13, which has also increased: 69% (2010/11) to 100% (2012/13).

The Chemistry Faculty support our STEM majors by attending MESA/SETA meetings and also presenting at those meetings. Larry Callan, Teresa Mendoza and Dave Bird all gave presentations at last year's SETA meetings.

We now have an American Chemical Society Club with Julie Rodriguez and Dr. Michael Springer as Co-Advisors. We have Organic Chemistry students participating in SURGE projects. Larry Callan is leading one of those projects in the area of Organic Chemistry and Mike Springer is interested in beginning a project as well.

We also have many students who win Scholarships and awards and transfer successfully to major universities. We recently had a Chemistry major, Isis Frausto-Vicencio, who has earned various awards including a Jack Kent Cooke Scholarship. She has also completed two internships at JPL in Los Angeles and is now attending UCLA. We have David Berlin, the President of our ACS Club who has completed one Internship at NASA JPL and who has just been chosen to complete a 2 year Internship with them.

What improvements are needed?:
We were able to hire 2 full-time Faculty members last year and currently have 4 full time faculty members. However, we lost a couple of our Adjunct Faculty members and we are still unable to meet the demand for our courses. We currently need to hire either an adjunct faculty member or another full-time faculty member to meet the demand for our courses at all three campuses.

We are always striving to improve our success and retention without compromising our standards. We find this most challenging in our majors courses where we receive many students from local high schools who lack the skills necessary to succeed in a majors level Chemistry course. The Department currently has 2 new Faculty members who will bring new ideas and strengths to the Department. We have already been brainstorming ideas and gathering data on how to improve success in our majors courses.

We could also improve our laboratory safety. We would like to clean and organize the stockroom as well as improve our protocol for student waste disposal.

Describe any external opportunities or challenges:
We would like to offer Internship opportunities to Majors within the local community. Larry Callan is going to look into getting in touch with local businesses and see if they are interested in providing such opportunities for our students.

In general, we are limited by our facilities. We offer Organic Chemistry in a small lab room and we have had to reduce our class size to 18 because of it. We do not have large sinks in our General Chemistry laboratories and struggle at times to properly wash glassware.

Overall Outcome Achievement:
We have completed the 1st of 3 years in our assessment cycle. We assessed Chemistry 1, Chemistry 12 and Chemistry 20 last year. Our course assessments and results can be viewed in the four-column reports downloaded into the Assessments folder of our document repository.

We also assessed our program in chemistry 1 and Chemistry 12, the two courses that are part of our program and are due to be assessed in year 1. The results of those assessments can also be viewed in the Assessment folder of our document repository.

Changes based on outcome achievement:
We will be changing how we do our assessments in year 2. We tried to assess our students with a separate quiz during lecture or lab time. We found that students did not try very hard and feel that it would be better to add questions to the regular exams when the students are being graded for points. So, we will be changing how we assess the SLO's in year 2.

Outcome cycle evaluation:
We have completed our 1st of 3 years of assessment with 100% participation by the Faculty. Chemistry 1 was assessed in the Fall of last year. Chemistry 12 was assessed in the Fall of last year. Chemistry 20 was assessed in the Fall of last year and included participation by all Adjunct Faculty who were teaching the course as well.

All full-time faculty members participated in dialogue days last Spring. We were able to finalize our assessment results, discuss them and input the results in tracdat. The decision was made to change the method of assessment when all three faculty members shared a similar observation about their students taking the
assessment quiz. All three of us agreed that we watched the students give up on assessment questions that were a little challenging because they knew that it didn’t count for points.

We are ready for our second year of assessment. The three courses that are going to be assessed are offered in the Spring semester so we will be finalizing the questions for those in January and using dialogue days to once again discuss the results.

We are also working to educate our newest Faculty members about SLO's, PLO's and assessment so that they too can contribute to this process.

**Action: Increase our course offerings at all three campuses**

Hire another Full-Time Faculty member and more Adjunct Faculty

**Implementation Timeline:** 2015 - 2016

**Start Date:** 08/07/2015

**Status:** New Action

Person(s) Responsible (Name and Position):

- Science Department

  - Priority: High

  - Safety Issue: No

  - External Mandate: No

<table>
<thead>
<tr>
<th>Resource Description</th>
<th>Why is this resource required for this action?</th>
<th>Notes (optional)</th>
<th>Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Chemistry Department is still struggling to meet the demand for its classes at all three campuses. We have 4 full-time Faculty members and a very limited Adjunct Faculty pool. We have a hard time offering enough courses at our main Visalia campus to satisfy the need. And, each semester, we are asked to increase our offerings in Hanford and in Tulare. Are current Faculty members are already stretched thin and can not maintain our offerings at all three campuses without additional help.</td>
<td></td>
<td>Yes</td>
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</tbody>
</table>

**Resource Type:** Faculty- New/Replacement

**Action: Improve Laboratory Safety - Reduce Safety Hazards**

Clean and Organize the Stockroom

**Implementation Timeline:** 2015 - 2016

**Status:** New Action

Person(s) Responsible (Name and Position):

- Robert Urtecho

  - Rationale (With supporting data): Reduce the safety hazards in the stockroom by organizing, cleaning and reducing clutter. We would also like to establish a house-keeping protocol to eliminate tripping hazards and contamination from exposed toxic chemicals.

  - Priority: High

  - Safety Issue: Yes

  - External Mandate: Yes

  - Mandate Explanation: California Law for Waste Management

**Action: Improve Student Chemical Disposal**

Establish a Protocol for Disposing of Student Laboratory Waste

**Implementation Timeline:** 2015 - 2016

**Status:** New Action

Person(s) Responsible (Name)

- Laboratory Technician
Rationale (With supporting data): We would like to establish a clear and easy protocol for students to follow regarding the handling of laboratory waste. This is necessary to eliminate the possibility of a student getting injured or a student dumping a toxic chemical down the sink.

Priority: High
Safety Issue: Yes
External Mandate: Yes
Mandate Explanation: California State Law for Waste Management