Tier 3
Enrollment Planning Narrative Cal Poly Wine and Viticulture Department

a. Teaching, Learning, Scholarship

For the academic programs you expect to offer and the students you expect to serve:

Programs: Wine and Viticulture major integrating wine business, viticulture and enology.
Students: California, US and International

1) What effective approaches to teaching and learning are emerging in your field and related interdisciplinary areas?

The wine and viticulture major is a uniquely multidisciplinary major. Its mission is to ensure the long-term economic viability and sustainability of the California wine industry in the global marketplace by providing the industry with leaders that are educated using hands-on learning integrating the key aspects of the industry: business, enology and viticulture. All students study the basics of enology, viticulture and wine business. They choose to concentrate in one of the areas. All students participate in internships.

The wine industry is dynamic and global. In the future, internationalization of education is will enhance learning. Research by Cal Poly professors has shown:

“The internationalization of higher education can come through a variety of forms, from attracting a diverse student population to distance learning where students take courses from overseas schools. Largely defined “as the process of integrating an international, intercultural, or global dimension into the purpose, functions or delivery of postsecondary education”, there are other opportunities to bring the world into even traditional face-to-face courses (Knight, 2003, p. 5). High school students in Japan collaborated through teleconference with a Florida class on mutual projects and assignments in 2002 with significant benefits relating to contextual-based learning and student motivation (Loveland et al., 2004). However, difficulties in communication and the nature of distance learning technologies themselves arose (Loveland et al., 2004). New Zealand health science students used email to contact physiotherapists in developing countries concerning a fictional scenario they had been given, allowing them to gain a better appreciation of differences in their field across countries and cultures (Williams and Blaney, 2000). Intercultural dialog in higher education has been shown to contribute to conflict management and resolution, even in high conflict regions (Bergan and Van’t
Land, 2010). The outcomes related to an internationalized curriculum are vast (including the ability to think globally, awareness of cultural perspectives, and a value of diversity) and occur even when internationalization is done through technology (Fallows and Steven, 2000; Leask, 2004; Patterson et al, 2011).

Constructivist pedagogies involve actively engaging students in learning as opposed to students passively receiving information from an instructor. Within the constructivist theory, social constructivist theorists believe that the social aspect of learning is essential (Richardson, 1997). Similarly, Schleicher (2012) reiterates in his TED talk that education based on delivered wisdom to be one of the past while education based on user-generated wisdom is the approach that will prepare students for the jobs of the future.

Discussion boards facilitate peer learning and allow students to be influenced by their peers (Fung, 2004). The uses for discussion boards as a tool for engaging students and allowing peer-to-peer engagement and learning are measurable (see Hendrickson, 2009). Discussion boards are believed to facilitate collaborative and social learning, but have also been linked to improved communication skills and higher levels of critical thinking (Wilson and Fairchild, 2011). In addition, Pena-Shaff et al. (2005) found a positive relationship between online participation in discussion boards and student satisfaction in the course.

Student engagement is positively linked to desirable learning outcomes, including both critical thinking and grades (Carini et al., 2006). One of the ways to get students engaged is by making the material relevant for them. Linking course concepts to current events and the news is an approach to making the material relevant, thus leading to student engagement and ultimately, student learning (Kember et al., 2008). Prior research has shown the powerful teaching impacts associated with using current events to teach course concepts (Grise-Owens et al., 2010).” (Higgins et. al. 2013)

2) How should Learn by Doing incorporate new learning needs, opportunities and technologies?

Use technology to deliver current information and the ability to discuss the information between students in Cal Poly classes and classes in other universities in the US and around the world.

Research by Cal Poly professors has shown:

“Through an online discussion tool with a group of university students in Ireland and the United States, student engagement increased, students learned from each other, written communication improved, and critical thinking skills improved. Technology made the
internationalization of these two marketing courses, virtually seamless. What once may have been impossible is now readily available to instructors of higher education. There are challenges related to the timing of the courses, finding willing international collaborators, and language barriers, but this case provides one example of a global classroom created through social media that led to many of the internationalization learning outcomes promised in the teaching literature. “

Agriculture is global, and the need for students studying agriculture to have an international perspective may be even more relevant than for other disciplines.” (Higgins et. al. 2013) Mechanization of harvesting and wine making is advancing. Students will have hands-on learning in our Trestle Vineyard and Center for Wine and Viticulture using state of the art equipment donated by industry. In addition, internships will provide students with state of the art learning. Use of technology is self-support through donors.

3) How does the teacher-scholar model fit?

Faculty collaboration with students and the use of state of the art technology will enhance learning and publication of applied research.

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<th>b. Learning Environments</th>
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<td>What learning environments should Cal Poly develop or modify to accommodate:</td>
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Please respond in terms of the qualitative characteristics of the facilities and other spaces (including technology) critical to your programs and students:

(1) New modes of teaching and learning.
   1) Formal, scheduled or organized instruction.
      a. Attract a faculty and student body to reflect the state demographics
      b. Need updated and maintained
         i. classrooms
         ii. labs
         iii. equipment
         iv. winemaking facilities
         v. vineyards
         vi. wine business databases
         vii. computer and mobile technology
         viii. Presentation and industry meeting spaces
         ix. Funding for fieldtrips
      c. Provide faculty support for adoption of new technology
2) Informal student learning outside the classroom or laboratory,
   a. Clubs
   b. Field trips
   c. International programs
   d. Enhance faculty ability to create online material
3) The teacher-scholar model.
   a. Assigned time for publication
   b. Research funds for student assistants

(2) Learn by Doing,
   1) Formal, scheduled or organized instruction.
      a. Attract a faculty with industry experience
      b. Need updated and maintained
         i. classrooms
         ii. labs
         iii. equipment
         iv. winemaking facilities
         v. vineyards
      c. Provide faculty support for adoption of new technology
2) Informal student learning outside the classroom or laboratory,
   a. Clubs
   b. Field trips
   c. International programs
   d. Enhance faculty ability to create online material
3) The teacher-scholar model.
   a. Assigned time for publication
   b. Research funds for student assistants

(3) The teacher-scholar model in the future
   1) Formal, scheduled or organized instruction.
      a. Attract a faculty with industry experience
      b. Need updated and maintained
         i. classrooms
         ii. labs
         iii. equipment
         iv. winemaking facilities
         v. vineyards
      c. Provide faculty support for adoption of new technology
2) Informal student learning outside the classroom or laboratory,
   a. Clubs
   b. Field trips
   c. International programs
   d. Enhance faculty ability to create online material
3) The teacher-scholar model.
a. Assigned time for publication
b. Research funds for student assistants

Reference