Tier 3 narrative; Agricultural Education and Communication Department

a. Teaching, Learning, Scholarship

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

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

Current initiatives between the School of Education, the Journalism Department, Brock Center, and our current relationship with most all departments in the CAFES point to our interconnectedness across campus. We expect this interconnectedness to continue, and we look forward to being of service to a broad range of innovations and projects.

The Agricultural Education and Communication Department has always placed a high premium on partnerships, both across campus, with the agricultural industry, and with the 9-14 academic community. We believe that our partnerships will help us to respond to the needs in the industry and to have the flexibility to make changes that are responsive to political and cultural influences.

Our 9-14 and higher education partners look to us as leaders in Agricultural Education statewide. The Common Core, STEM, Next Generation Science Standards (NGSS), and English Language Development (ELD), are all new initiatives that will impact our program in the future. Our teacher candidates can become conduits to 9-12 and higher education, carrying information to and from the field. Furthermore, in the area of Ag Communication, we expect to see increased needs in our candidate’s ability to work effectively in the social media environment. We expect our scholarship to continue to be applied, drawing from and adding to a variety of collaborations.

We must also maintain a strong college farm laboratory that will allow our students to gain practical hands on experiences in production agriculture and ornamental horticulture. We need mechanics and engineering shops for which to train our future teachers. We need digital equipment and infrastructure that will allow our Ag communicators to develop their skills in technical writing and broadcast journalism.

2) How should Learn by Doing incorporate new learning needs, opportunities and technologies (in your field, etc.)?

Having available, current, up to date technologies is vital to supporting Learn by Doing. In education and communication particularly, we need an infrastructure that at least mirrors, and if possible leads, the infrastructure found in the 9-12 academic community, and industry environments in which our graduates are employed.

We have a vision of an extensive social media lab in the near future that will allow us to better support learning needs and implement practices needed by our graduates.

3) How does the teacher-scholar model fit (again in your field, etc.)?

A key question when considering the programs that we offer (both undergraduate and graduate programs) and the students we would like to serve in the future, is how we support the teacher-scholar model and how we evaluate faculty who work within it.

The university support of the teacher-scholar model seems, at this time, to be very programmatic for new faculty (or at least for those who have yet to reach promotion to the rank of Professor with tenure). Many instructional facilities on campus are in desperate need of updating; they reflect a system in which instruction takes place in a vacuum from both discipline and scholarship. Although
our department has an excellent facility now (10-100) for most of our department course offerings, we are challenged to keep it on the cutting edge of technology needed for the students of the future. The teacher-scholar model calls on faculty to integrate their instruction with their research and other scholarly practices. The real challenge for faculty is finding the time necessary to do the research and writing that must be done for publications, while at the same time, teaching a full-load of courses, advising students, supervising teacher candidates in the field, and providing other avenues of service to the department, CAFES, the university.

We anticipate an increase in applied research in Ag Communications as it relates to industry and consumer access to technical information. There is a growing interest in how society uses the various communication channels to make decisions affecting agriculture.

b. Learning Environments

*What learning environments should Cal Poly develop or modify to accommodate (1) new modes of teaching and learning, (2) Learn by Doing, and (3) the teacher-scholar model in the future? Please respond in terms of the qualitative characteristics of the facilities and other spaces (including technology) critical to your programs and students:*

1) **Formal, scheduled or organized instruction,**

   We need facilities that will provide students with opportunities to practice the essential skills needed for their future careers. We need agricultural units that will provide for hands on instruction and the development of production skills within the students. We need access to the world of resources via strong internet linkages. We need work spaces that will allow students to work collaboratively and in settings using the latest technology that mirrors what industry is using at the time.

2) **Informal student learning outside the classroom or laboratory, and**

   Students will need group work areas, including access to the library resources at the university. We’ll need large meeting rooms for offering conferences, and other outreach opportunities for the students to practice delivering their work products.

3) **The teacher-scholar model.**

   The learning environments that we develop are and should be generative for both students and teachers. Effective teaching and effective scholarship are both self-reflective activities; our learning environments should be supportive of reflection in and reflection on instructional and scholarly action.

**Questions to be addressed:**

a. How can the teacher-scholar model and collaborative research and partnerships help Cal Poly both anticipate future needs and develop innovative responses (in general, and in your discipline)?

   **In general:**

   Current initiatives between the School of Education, Journalism Department, the Brock Center, and with other departments in the CAFES point to our interconnectedness across campus. We expect this interconnectedness to continue, and we look forward to being of service to a broad range of innovations and are excited about the opportunities to enhance our student’s knowledge, skills, and attitudes in reply to industry demands.
In educational disciplines:

The Agriculture Education Department has always placed a high premium on partnerships, both across campus and within the CAFES, and with the local K-14 community. We believe that our partnerships will help us to respond to the evolution of the field and to have the flexibility to make changes that are responsive to political and cultural influences, and especially to meet the needs of the greater agricultural industry. The Agricultural Education and Communication department needs to, and does, stay agile in maximizing opportunities for students.

Our K-14 and higher education partners look to us as leaders in Common Core, STEM, Next Generation Science Standards (NGSS), English Language Development (ELD), and the content area of agricultural education. We expect our scholarship to continue to be strongly field based, drawing from and adding to a variety of collaborations.

We are expected to work closely with the California Department of Education to deliver a professional development contracts for all secondary agricultural teachers in the state. With increased efforts being placed to develop and support Career Technical Education, we expect to see an increase in the scope of our workload, and augmentations to the dollar amount of the contracts.

b. What social/learning environments and curricula should Cal Poly develop or modify to connect academic and social life in the future? (How should your discipline change? What new fields should emerge? How should your discipline interact with other fields?)

In addition to Cal Poly and CSU organizations, we answer to state and national bodies in developing curriculum. For example, our single subject and Ag Specialist credential programs are accredited by the California Commission on Teacher Credentialing (CCTC) and the national board, NCATE. Our undergraduate program in Ag Science must respond to changes and requirements for accreditation. Our Master of Agricultural Education is part of the Cal Poly program accredited by NCATE. As such, our programs are closely tied to educational trends that will take place in the future. Most importantly, we need to maintain close connect with industry via Advisory Councils and utilize other opportunities that get faculty off campus to consult with educational agencies, and private organizations that need our graduates.

c. How should Learn by Doing incorporate new learning needs, opportunities, and technologies (particularly in your discipline)?

Of paramount importance is the ability of our students to have mastered the basic technical skills needed for their degree. This varies by programs in the department. For example, Ag Communication majors need skills in writing, editing, and using basic software. Whereas the Ag Education students need basic agricultural skills in livestock production, plant production, Ag mechanics, etc. As technology increases, our students must be allowed to embrace new skills in such a manner that will help them to be competitive and successful in the job market.

d. What should the leading polytechnic university of the future look like?

The polytechnic university of the future should support our students in such a way that our graduates are sought after in the marketplace because of the knowledge, skills, and attitudes they have developed during the undergraduate and graduate programs. We must maintain our previous competitive advantage. In the past this has been our graduate’s ability to quickly get up to speed in the workplace, provide leadership, and be ability to produce a high quality product.

Multiple pathways and entry points are important, particularly in our graduate program. More flexibility should be offered to our students in starting, working through, and completing their programs. A leading polytechnic university should free itself from a traditional September to June
model and move toward a year-round calendar. Flexible models of faculty and staffing need to go along with this.

**Tier 3 Considerations**

- **Academic Mix** (including state-support/self-support funding)
  - Program mix/college shares (program headcount; FTES including GE and support)
  - Undergraduate/post-baccalaureate/graduate mix (by college)
  - CA resident/domestic non-resident/international student mix (by college, by level)

- **Teaching and Learning** (in general and by program, level)
  - Learn by Doing; Teacher-Scholar
  - Pedagogy/learning modes (e.g., engaged learning, undergraduate research, community service, internships/field placements, technology, session structure)
  - Infrastructure and information systems implications

- **Co-curricular Learning** (in general and by program, level)
  - Discipline-based activities; student life more generally
  - Residential community

- **Student Success** (in general and by program, level)
  - Retention, graduation rates; preparation at entry, achievement gaps; student diversity (gender, ethnic orientation, financial means)