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?**

- Currently, there are no interdisciplinary areas that are taught in FSN. Current minimum requirements for programs leave little flexibility for these types of opportunities. If unit requirements needed for graduation are increased or the number of GE units decreased, there are some very clear synergies that could be explored in many departments across campus (Kinesiology, Statistics, Business, Engineering, Graphic Design, etc.) to provide interdisciplinary experiences for all of our FSN students.

- Hands on learning and experiences, some provided by Cal Poly’s Learn by Doing philosophy in the context of the current coursework, others by professional internships, extracurricular activities such as College Bowl competitions or Product Development competitions, scholarly/volunteer opportunities provided by the department clubs are on the increasing. Current faculty are using innovative teaching technologies (student driven experimental designs, execution, and analysis) to demonstrate FSN principles.

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

- Brick and Mortar – Both the Food Science and Nutrition disciplines need physical research facilities to incorporate any new technologies or opportunities.

- Equipment – Both the Food Science and Nutrition disciplines require physical, chemical, sensory, and physiological analysis related equipment/instrumentation. Current equipment/instrumentation range is not sufficient to deliver our students with the hands on technical depth required of current graduates. Additionally, the current equipment/instrumentation requires updating or maintenance and there is no budget to care for what we have properly.

- Campus Shared Equipment - Even if equipment is purchased, how will the priority of use and cost of shared maintenance be distributed? Thus, what department’s graduate students will be using it on the “graveyard shift” with no instrument technician or assistance available and in the event of instrument misuse or damage in this situation, who is responsible for repair/replacement charges? What is the prioritization of use for in class learn by doing activities, scholarly activities, or third party project contract work being conducted by faculty?

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

- Clear alignment in both departmental disciplines from the aspect of senior project opportunities, class industry related projects, and advancement of the current state of knowledge for existing faculty.
• Limitations – Balance of teaching-research time, meaningful assistantships to recruit well qualified graduate students during the first year of project work, physical facilities, and “state of the art” equipment.

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,

• Brick and Mortar – Both the Food Science and Nutrition disciplines need physical research facilities to incorporate any new technologies or opportunities.
• Equipment – Both the Food Science and Nutrition disciplines require physical, chemical, sensory, and physiological analysis related equipment/instrumentation. Current equipment/instrumentation range is not sufficient to deliver our students with the hands on technical depth required of current graduates. Additionally, the current equipment/instrumentation requires updating or maintenance and there is no budget to care for what we have properly.

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

• Financial support and brick and mortar space to further facilitate the hands on learning and experiences, provided by Cal Poly’s Learn by Doing philosophy in the context of the current coursework, others by professional internships, extracurricular activities such as College Bowl competitions or Product Development competitions.

3) The teacher-scholar model.

• Brick and Mortar – Both the Food Science and Nutrition disciplines need physical research facilities to incorporate any new technologies or opportunities.
• Equipment – Both the Food Science and Nutrition disciplines require physical, chemical, sensory, and physiological analysis related equipment/instrumentation. Current equipment/instrumentation range is not sufficient to deliver our students with the hands on technical depth required of current graduates. Additionally, the current equipment/instrumentation requires updating or maintenance and there is no budget to care for what we have properly.
• Clear Guidance and Support from Upper Management – Balance of teaching-research time, meaningful assistantships to recruit well qualified graduate students during the first year of project work, physical facilities, and “state of the art” equipment required to allow the current and future faculty increase the opportunity for teacher-scholar excellence to be fostered and or maintained.