

Education and Leadership

I. Experiential Learning for Post-Secondary Students

Summary

This initiative aims to provide undergraduate and graduate students with experiential learning opportunities to develop diverse knowledge and skills, link theory and practice, integrate information and principles from diverse sources, and gain holistic comprehension of sustainable agriculture and food systems and related issues. This work takes advantage of ASI's Student Farm and Russell Ranch facilities and staff to provide students with diverse learning experiences through a variety of mechanisms including internships, course activities and independent projects, including research activities. In addition, numerous partners off- and on- campus will provide additional opportunities for direct learning experiences in all aspects of the agri-food system, including explorations of their environmental, economic and social aspects.

Problem statement/ Baseline

- Students need to develop deeper and more integrated understandings of agriculture, environmental and social issues to be able to address future opportunities and challenges related to sustainability.
- Issues of sustainability require holistic understanding of complex systems; this understanding is difficult to attain without direct experiences in such systems that include opportunities for skill development, integrative thinking, linking theory and practice, critical thinking and problem solving.
- Existing programs and facilities at UC Davis and elsewhere have unmet potential to help students develop in these ways.

Structural issues/ Broad drivers shaping change

- Increasingly, incoming college students have little direct experience with agriculture, food systems or the environment; this limits their ability to develop knowledge, skills and understanding in these realms.
- Even students with some knowledge and experience in one these areas often lack them in others, as well as important practical skills and problem solving abilities.
- It is difficult to create new programs and facilities to provide students with experiences to develop such knowledge, skills and understanding, particularly in the current economic and educational environment.
- Undergraduate curricula in agriculture at Land Grant institutions are typically dominated by didactic teaching and passive learning.

Strategic opportunity

- Student interest in experiential learning about sustainable agriculture is growing rapidly in California, nationally and globally.
- Educators working in agriculture, food and sustainability increasingly recognize the need to include more experiential learning in curricula.

- External stakeholders indicate experiential learning and the skill development (e.g., communication and working with others; practical skills related to diverse aspects of the agri-food system) should be given high priority.
- There are numerous potential collaborations with individuals and entities in agriculture, food and related fields to provide off-campus learning opportunities
- Colleagues on campus and nationwide have relevant knowledge, ideas and resources to share and many are willing to work collaboratively to improve educational methods.
- ASI's Student Farm (SF) and Russell Ranch (RR) are unique sites with resources of land, infrastructure and talented, experienced staff (and the Bowley Center provides modern classroom and lab space immediately adjacent to the SF).
- The emerging Sustainable Agriculture and Food Systems major proposal includes significant experiential learning through internships, course activities, etc.

Desired outcomes

- Large numbers of college graduates have experience-based knowledge, skills and integrative understanding of agricultural and food systems and sustainability.
- Students focusing in this area graduate as professionally competent innovators, communicators and collaborators; they are well prepared to apply their talents to solve real-world problems. These graduates will include those who work in diverse areas of the agri-food system, members of the next generation of farmers, and future leaders in these and other areas of society.
- Students become informed and engaged life-long learners; their personal and civic decisions have positive impacts locally and globally.
- Experiential learning is more commonly and effectively used and integrated into post-secondary institutions; faculty incorporate experiential learning into courses and curricula and students take advantage of existing opportunities for experiential learning and create new ones.

Key Partners

- Undergraduate and graduate students in agricultural, environmental and human sciences, education and other areas at UC Davis and beyond
- Teaching faculty, administrators, academic advising and other staff involved in experiential education at UC Davis and collaborating educational institutions
- Internship and Career Center and others promoting students' learning experiences
- Collaborating farms, ranches, businesses, agencies, non-profit organizations, etc. who host and mentor student visitors and interns
- International programs offices at UC Davis and elsewhere which coordinate students' participation in experiential learning opportunities
- UCCE and others working in adult education
- Foundations and other financial supporters

Activities

- Student Farm (SF) ongoing learning projects (Market Garden, Ecological Garden, Children's Garden's Program, Project Compost) provide students with staff-guided opportunities in diverse aspects of sustainable agriculture and food systems via internships, volunteer and paid positions and formal courses.

- SF & Russell Ranch (RR) provide opportunities for more independent student internships and special projects, including undergraduate and graduate research. These include both field-based, natural science focused projects and community-based, social science focused projects.
- SF and RR facilities, equipment and personnel are maintained and enhanced so they remain accessible and dynamic educational sites.
- SF and RR host and assist with diverse experiential learning activities for various undergraduate and graduate courses.
- Sustainable Agriculture & Food Systems (SA&FS) major will incorporate numerous experiential learning activities through multiple required courses and on- and off-campus internships.
- ASI will provide logistical coordination, mentoring and academic guidance for students in SA&FS and other majors involved in internships, field trips, class projects and other experiential learning activities.
- ASI collaborates with colleagues and other programs to provide sustainable agriculture experiential learning opportunities for international students and US students interested in international agricultural development and related fields
- ASI collaborates with farms and supporting organizations which provide apprenticeships to individuals exploring careers in urban farming and gardening and those interested in rural farming (e.g., “Farmer Corps”) by providing educational resources and other resources and services.

Resources needed for 5 years

Total need: \$1.01 million¹

- SF field staff & expenses devoted to facilitating experiential learning: \$650K¹
- Student employees assisting staff in this work: \$125K¹
- Internship Coordinator/Advisor for SA&SF major: \$135K
- Needed improvements to facilities and equipment: \$100K

Current extramural funds: \$50K

Additional need: \$960K¹

¹Not included above: \$350K dedicated to this initiative from Student Farm state funding or income from crop sales (5 year total)