Community and School Garden Program (CSGP)

Project Directors: Sallie Marston, School of Geography and Development
Moses Thompson, UA/TUSD Sustainability-School Gardening Coordinator
Morgan Apicella, CSGP Field Coordinator
Sarah Kelly-Richards, CSGP Field Coordinator

“Building Intern Capacity and Program Sustainability through Curriculum Integration”

Agnese Nelms Haury Program in Environmental and Social Justice to provide grant of $10,000 to support stipends and registration fees for up to 12 students to engage with the Community and School Garden Project

We seek funding from in the form of modest scholarships to support the continued development of the Community and School Garden Program (CSGP). In particular, we wish to enhance a new project within the program on curriculum integration. We request scholarships for eleven UA interns who will be trained as garden-based teaching assistants as well as mentors to interns registered for the CSGP course each semester.

The CSGP connects students from scores of units across the UA campus with educators in the Tucson Unified School District (TUSD), to build, grow, and learn from school and other urban community gardens. CSGP also partners with the Community Food Bank of Southern Arizona (CFBSA) to maintain garden sites they have already established at schools. The CSGP collaborates with 15 under-resourced TUSD schools, most of which are in the city’s poorest, minority neighborhoods. The schools range from elementary to high school. Interns are expected to attend a 90-minute classroom lecture/discussion and exercise-oriented session each week, a five-hour weekend training by the CFBSA, and from 3.5 -15 hours per week (based on their registered course units) at their placement sites.

The mission of the CSGP is to enable UA students to participate in the development of the Tucson community, through organized collective action for social justice and a more sustainable world. The CSGP pursues this mission through student engagement meant to promote students’ self-determination, collective well-being, and learning through community.

The CSGP is now five years old and we have been highly successful in enabling groups of 50-70 interns each semester to undertake the following: 1) the basics of desert gardening including the multiple dimensions of sustainable food production practices; and 2) the building and maintenance of ancillary food production systems at schools including rain harvested water collection and water quality testing, chicken coop management, aquaponic system-based growing, heritage tree propagation, regular farmers markets at school sites through training school children and youth to
determine fair pricing, negotiate the intricacies of selling and marketing, and develop and maintain effective composting systems. This year the CSGP is extending the kind of training offered to our interns so they are able to promote the educational opportunities offered by the gardens. This goal means supporting teachers more comprehensively by using the school gardens as experiential learning sites for all grade levels from pre-kindergarten to high school.

Education research has demonstrated consistently that students of all ages who are able to link conceptual learning in the classroom with applied learning outside of it helps them to reason for themselves and understand and solve problems more readily. This year’s CSGP goal is to establish additional training opportunities—both formal, classroom-based trainings as well as informal, workshop-based trainings—to better prepare our current and future interns to support enriched learning opportunities for the 15 pre-K through high school teachers and pupils with whom we have established community engagement collaborations.

The curriculum integration model developed over summer 2014, through an external grant, includes a mentorship component where a group of 10-12 interns will be specifically trained in the Fall semester to become pro-active educational agents. In addition to learning how to implement curriculum integration, these interns will also teach other interns the best practices for linking the content of classroom instruction to lesson plans developed specifically to enable school children and youth to explore that content in the garden space. At all grade levels of elementary school we have already developed classroom curriculum along the following four axes

1. **Biodiversity (the variety of life on Earth) Essential Questions:**
   - How are humans dependent on biodiversity?
   - How is biodiversity affected by human behavior?

2. **Climate (long standing weather patterns) Essential Questions:**
   - How does the sun interact with the earth to produce weather and climate?
   - How does climate affect humans and humans affect climate?

3. **Culture (resources people use to perceive their surroundings) Essential Questions:**
   - How do people make use of their ecosystem for survival?
   - How do people learn about the ecology of their region?

4. **Interconnectedness (being joined or related) Essential Questions:**
   - How are a region’s culture and climate interconnected?
   - How are humans and biodiversity interconnected?

The role of the mentor/interns is to take this curriculum and translate it into garden-based lessons that will support and extend concept-based classroom learning. They will also lead their colleagues in the CSGP course to do the same.
In order to be successful, the mentor/interns will need special training, not only in content but also in leadership. We have 4 scheduled professional development workshops that will ensure they become competent with content, learn the skill of lesson plan development, and learn and practice the skills needed for leadership. In short, all the components are in place for content integration and leadership success. While we have offered one unit of credit for participation in the curriculum integration program, we seek funding from the OS for a strong incentive system to both honor the interns’ sense of commitment and enhance their appreciation for personal professionalization as they dedicate themselves to their own training and a year of mentoring others. We are therefore requesting $800 scholarships for each of the mentor/interns as well as coverage of a $100 registration fee for them to attend a one-day garden-based curriculum development program to be offered by Tucson Village Farm which will introduce them to a range of STEM (Science, Technology, Engineering and Math) garden-based curriculum models as well as help them to learn from and build networks with teachers across Tucson.

We believe the training and mentoring model we have designed has the potential to most easily and effectively spread classroom/garden curriculum integration across the 15 schools we currently serve as our mentor/interns work directly with their colleagues. We also believe this model will: 1) sustain the benefits of teaching and learning across the cohorts of students who will participate in the CSGP in the future; 2) support the enhancement of teaching and learning among teachers, school children and youths, and UA interns; 3) provide a model of collaborative learning that will motivate the participating school children and youth to aspire to a future as university students; and 4) cultivate a growing cadre of young people who recognize that a university education can easily be harnessed both, formally and informally, to serve their communities.

We request funding for 8 undergraduates and 4 graduate students. Approximately 100 CSGP course interns will be indirectly supported by the funding in 2014/15. Of the 9 undergraduates for whom we are requesting funding, 2 are from federally recognized minority groups.

Student Engagement Outcomes Assessment

The impacts and benefits to both students and stakeholders will be measured through formal questionnaires on the value of the workshops administered at the end of each workshop. Interviews with teachers and mentors/interns conducted by the graduate students enrolled in the CSGP course (who will be formally trained to conduct these interviews) will also be conducted. Finally, mentor/interns will be trained in interactive journaling (where mentor/interns from different schools respond to each others’ posts) and will be expected to produce weekly entries to the journals around key impacts/benefits questions that will be collated at the end of each semester and analyzed along with the questionnaires.