

BUDGET JUSTIFICATION

The three-year budget details a request of \$395,447 for the REU site of PI Dr. Liping Wang, Associate Professor of Civil and Architectural Engineering and Construction Management and co-PI Dr. Jill Keith, Associate Professor and Department Head of Family & Consumer Sciences at the University of Wyoming, submitted to Division of Engineering Education and Centers, Research Experiences for Undergraduates (REU) Program.

A. Senior Personnel

Funds are requested to support for the PI, distributed among the PI, co-PI, and other research mentors in years 1-3 of the project (years 1-3, \$10,584, \$10,794, \$11,018).

3-year total: \$32,396

B. Other Personnel

Funds are requested for the summer support of one Ph.D. level student research assistant (RA), whose research will focus on resource-efficient controlled environment agriculture (CEA). The RA will assist the PI and co-PI in coordinating REU participants' research experiences. The stipend support for the RA during the three years is \$5,946, \$6,065, and \$6,186. Other Personnel Professor Brent Ewers from Botany Department serves as a mentor for the REU site. Funds are requested and distributed for Professor Ewers in years 1-3 are \$759, \$776, and \$783.

3-year total: \$20,515

C. Fringe Benefits

Fringe allotments for Dr. Wang (PI), Dr. Keith (co-PI), and other research mentors in years 1-3 are \$4,639, \$4,732, and \$4,827 based on a faculty fringe benefit rate 40.9%. The graduate student also requires funds for fringe benefits based on the rate 2.8% for the graduate student (years 1-3: \$167, \$170, and \$173).

3-year total: \$14,708

D. Participant Support Costs

REU Participants

Funds requested for the support of selected students participating in ten-week research experiences in summer sessions are \$93,200 per year for years 1-3. There are eight students participating in the REU program each year. The funds support the REU participants for the ten weeks (stipend: \$700/week/person; accommodation: \$400/week/person; travel: \$650/person).

3-year total: \$279,600

E. Other Direct Costs – Included in MTDC

Project Evaluation

Funds requested for the project evaluator Dr. Tim Slater are \$3,000 per year for years 1-3. Dr. Slater from the College of Education at UW is our REU project evaluator and serves as a consultant in this project. Dr. Slater carried out project evaluations for REU programs in other universities such as the University of Hawai'i.

Training

Funds of \$800 per year for years 1-3 are requested for culture training: The CEAFREU team including mentors and students who will directly interact, communicate, and engage Native American and tribal communities are required to attend the mandatory training for Indian Culture Awareness. The team will participate in online group training such as the Native American Cultural Competency and Awareness offered by Dr. Deana Dartt, the Founding Director of Live Oak Consulting.

3-year total: \$11,400

F. Other Direct Costs – Not Included in MTDC

Graduate student tuition and fees

Funds are requested for tuition and fees for the graduate students in the summer (years 1-3: \$555, \$555, and \$555).

3-year total: \$1,665

G. Indirect Costs

Indirect costs are requested at the rate of 44.5% of modified total direct costs in years 1-5 based on the University of Wyoming DHHS Federal Rate Agreement (years 1-5: \$11,523, \$11,720, and \$11,920).

3-year total: \$35,163