

## **STEM Faculty Fellows Program 2009-2010 PROGRAM GUIDELINES**

### **Program Overview & Description**

The STEM Faculty Fellows Program supports faculty who wish to develop and submit external grant proposals that enhance Science, Technology, Engineering and Mathematics (STEM) research and program development. Its purpose is to encourage innovation and collaboration in five key areas:

- **Program Development for Pathways into STEM Careers;**
- **Student Retention and Success in STEM Disciplines;**
- **STEM Equipment and Infrastructure;**
- **STEM Education Enhancement (including Math/Science Teacher Recruitment and Preparation);**
- **Research in a STEM Discipline.**

As part of the STEM Faculty Fellows Program, Research Administration and the STEM Center will provide:

- **Three units (3 WTU) of assigned time to the lead author (either Fall 2009 or Spring 2010);**
- **Help in identifying and working with potential funding sources;**
- **Help in assembling a team of collaborators or contributors, if needed;**
- **Support for concept development, proposal writing and budget development.**

### **Eligibility Requirements**

- Tenured and tenure-track Sacramento State faculty are eligible to apply;
- Past STEM Fellows may re-apply with a different project idea and if all requirements have been met for their previous award.

### **Fellow Application Process**

To be eligible for review, proposals must include, in a maximum of two (2) pages:

1. An abstract and a description of the scope of the project and its outcomes;
2. The anticipated benefits to campus STEM activities;
3. Potential funding\* agency(ies) and relevant proposal due dates;
4. Any anticipated support from other sources for the project.

*\* Include a copy of the program announcement (current RFP or a past RFP that will be repeated)*

**The deadline for receipt of proposals via email to [research@csus.edu](mailto:research@csus.edu) is noon on May 26th, 2009.  
Awards will be announced by mid-June. No late proposals can be accepted.**

### **Application Review**

Applications will be reviewed by the STEM Executive Committee using the following criteria:

- A. 70% - The scope of the project and its benefits to college and campus STEM activities**
- B. 30% - The likelihood of external funding and project completion**

Please note that your application will be read by individuals with some general knowledge of your program area, but who may not be from your discipline. The STEM Executive Committee is comprised of:

1. *Vanessa Sheared, College of Education*
2. *Emir Macari, College of Engineering and Computer Science*
3. *Jill Trainer, College of Natural Sciences and Mathematics*
4. *Scott Gordon, College of Engineering and Computer Science*
5. *Thomas Landerholm, College of Natural Sciences and Mathematics*
6. *David Earwicker, Office of Research Administration, Academic Affairs*

### **Awarded Fellows Project Reporting Requirements**

- Submission of a complete proposal to an external funding agency, within a negotiated time frame, is a required condition for Fellows;
- Fellows may be asked to present to the campus community at a STEM forum during 2009-10;
- Awardees will be asked to submit a brief one-two page report on their experience in preparing and submitting the external grant proposal. Alternatively, if the proposal has not been submitted by May 1, 2010, an equivalent project report describing the work accomplished is to be submitted to the appropriate Dean.
- This accountability requirement ensures that the Fellow has accomplished the work outlined in the application and has met any dissemination requirements. The edited report or components may be included in STEM reports or related campus materials.

### **Key STEM Areas for 2009-10**

#### **1. Program Development for Pathways to STEM Careers**

This includes efforts aimed at recruiting a large, diverse population of STEM majors and providing a seamless transition into and out of Sacramento State STEM disciplines. Such efforts may involve building partnerships with K-14 educational institutions, innovative recruiting methods, engaging CSUS faculty, staff, and students in outreach activities, expanding diversity, K-12 curricular development, and other methods of guiding middle and high school students towards STEM-related courses.

#### **2. Student Retention and Success in STEM Disciplines**

This includes efforts aimed at creating a supportive educational environment that retains students in the STEM disciplines through graduation, and then assists them towards success in STEM careers. Such efforts may involve program development, facilitating campus interdisciplinary partnerships, innovative advising or mentoring techniques, offering STEM-related internships, alumni involvement, etc.

#### **3. STEM Equipment & Infrastructure**

This may include efforts aimed at developing programs and funding streams to assist in securing equipment and enhancing facilities for STEM education, curricular updates, pedagogical research, and collaborations with government agencies or regional industries to update campus science and technology facility capacities to expand undergraduate research.

#### **4. STEM Education Enhancement (including Math/Science Teacher Recruitment and Preparation)**

This includes efforts aimed at addressing the need for more and better math and science K-12 teachers, and expanding awareness of teaching as a career option. Such efforts may involve in-service to K-12 STEM teachers, directing students towards teaching at an early age, innovative ways of identifying future teacher candidates, etc.

#### **5. Research in a STEM Discipline**

This may include individual or collaborative proposals to advance research agendas or new directions of inquiry in concert with priorities established by funding agencies.