California Space Grant Consortium
STEM Pipeline Program Announcement
Announcement Date: November 25, 2013
Proposal Due Date: January 10, 2014
Performance Period: February 1, 2014 – December 31, 2014

The California Space Grant Consortium (CaSGC) will provide “seed” support for the 2013-2014 fiscal year to CaSGC affiliate institutions for a number of innovative STEM Pipeline projects relating to “Human Capital” pipeline issues within NASA and the nation. These include educational (Higher Education, Precollege, and Public Outreach), research, and hands-on training that will positively impact the aerospace workforce pipeline. The CaSGC STEM Pipeline Program provides funds to CaSGC affiliates (competitively reviewed and selected) that propose projects that not only foster world-class aerospace-related research but also provide an effective shared resources environment for Space Grant STEM Pipeline education and career development.

Innovative STEM Pipeline Projects Must:

- Address a critical aerospace-related STEM pipeline need in California;
- Provide a means for efficient and effective dissemination of results (through websites, social media, newsletters, journal articles, and presentations, for example);
- Promote interdisciplinary (science and engineering) teaming;
- Seek partnerships across the pipeline (K-12 through higher education) with special attention to the inclusion of California Community Colleges, particularly Minority Serving Institutions (MSIs);
- Incorporate novel approaches to encourage the participation of science and engineering students from underrepresented ethnic or gender groups. Diversity efforts can include reaching out to student organizations on your campuses such as the Society of Women Engineers (SWE), National Society of Black Engineers (NSBE), Society of Hispanic Professional Engineers (SHPE), Association for Women in Science (AWIS), American Indian Science and Engineering Society (AISES) as well as STEM diversity organizations such as Mathematics Engineering Science Achievement (MESA) and California Alliance for Minority Participation in Science, Engineering and Mathematics (CAMP) to recruit underrepresented students;
- Obtain matching resources from industry, state agencies, educational institutions, and community organizations; and
- Take responsibility for documenting the quantitative outcomes (demographics of project participants; funds from non-federal sources contributed toward project costs), impacts (how your

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1 It is preferred for the majority of the project to be completed by August 25, 2014 however the full performance period can be through December 31, 2014.
2 Underrepresented minorities in STEM (Science, Technology, Engineering, and Math) include Blacks, Hispanics, Native Americans, and Pacific Islanders.
3 Obtaining funding from CaSGC comes with the responsibility of accepting reporting duties. For every project partially supported by CaSGC funds, progress reports must be submitted throughout the year in response to CaSGC requests. Any students involved in the project must be documented, and conditions for scholarships given must be clearly stated. By the end of the project, each funded group must complete a summary report of the entire project.
project has benefited the students involved; any new programs created as a result of this project, and longitudinal tracking of the program (providing contact information for each student awardee so the CaSGC office can contact student for post-graduation career information). Also required are timely responses to CaSGC project summary requests (for CaSGC input into NASA’s OEPM (Office of Education Performance Measurement) System).

Note: The proposals are NOT official university proposals that have to be submitted through your Contracts and Grants Offices. The CaSGC STEM Pipeline Affiliate Program will be handled entirely within the CaSGC organizational structure. However, if your university requires submission through a contracts & grants office or similar entity, please adhere to those requirements. CaSGC will provide STEM Pipeline seed funding in the same manner as providing scholarship and fellowship training grants to the affiliates. As with all Space Grant Funds, no indirect costs are allowed and the funds may only support students/faculty/staff that are U.S. citizens.

This CaSGC STEM Pipeline Program is open to any faculty at current California Space Grant affiliate institutions, however proposal submission must be through the affiliate Campus Director. For a list of affiliate institutions and affiliate Campus Directors, please visit the following link: http://casgc.ucsd.edu/?page_id=27.

Note: The STEM Pipeline Affiliates Program is different from the Workforce Development Program in that the STEM Pipeline Program includes Informal Education/Public Outreach, Precollege, and Higher Education program elements whereas the Workforce Development Program only includes the Higher Education program element.

Examples of STEM Pipeline Projects:

- Partnerships with informal education organizations (e.g. science centers and museums) to:
  - Engage and educate students, educators and the general public on aerospace-specific STEM content areas. Includes providing your own aerospace-related content expertise as well as drawing from NASA lesson plans and classroom activities.
  - Provide STEM experiential learning opportunities using an inquiry-based/project-based learning approach.
- Partnerships with organizations on your campuses that focus on encouraging underrepresented pre-college students (minorities & women) to select STEM careers.
- Partnerships with Colleges of Education to support new and/or revised STEM courses targeted to College of Education students (i.e. STEM courses for non-STEM majors) and involvement of subject-matter experts with College of Education workshops.
- Professional Development opportunities targeted at middle-school in-service educators.

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4 For Informal Education / Public Outreach, the metrics used to determine the success of your project include: a. Number of visits to any websites set up for your project, b. Numbers of General Public and student participants, c. Production of articles and features in the media (remember to state your project is sponsored by the California Space Grant and NASA), d. Attendance at any community projects, and e. Participant testimonials regarding your program.

5 For an example of NASA lesson plans and classroom activities, please visit:
   http://www.nasa.gov/audience/foreducators/Alpha_index.html#UnPxnFMlqQL
   http://www.nasa.gov/audience/foreducators/spacelife/home/index.html#UnPxF1MlgQK
- Precollege and Higher Education STEM Challenges\textsuperscript{6}—creative applications of NASA-related STEM that encourage learners to demonstrate knowledge of STEM while enhancing innovation, critical thinking, and problem solving skills.
- Higher Education curriculum development and dissemination with increased participation of community colleges.

**Proposals must include the following five elements:**

1) **Summary Information** submitted in our Survey Monkey data collection form. This form will collect your proposal abstract and fiscal contact information. Please do not neglect to fill it out; proposals submitted without completion of the form may not be evaluated:
   https://www.surveymonkey.com/s/CaSGC_Affiliate_Proposals.

2) **Cover Page**: Include proposal title, principal investigator name and contact information.

3) **Proposal Main Body**: This must be brief, six pages or less. The projects seeded by these Space Grant funds must meet the rigorous standards of evaluation and reporting associated with the National Space Grant program.

4) **Budget Narrative and Details**: Space Grant funds may only account for a part of the total budget of the project. Total budget may include a portion of PI’s salary to show matching funds applied to the project. No equipment, food, or clothing may be purchased with Space Grant funds. Remaining funds may be sought from other industry, government, or community sources. Projects will only be funded up to $8,000. Proposals that include a community college partner will be funded up to $10,000. Student awards from this grant may be no more than $2,000 per student.

5) A brief summary of the outcomes of your past STEM Pipeline projects. Please include number of students involved, diversity statistics, partners, publications, outreach, and use of a multiplier approach (if applicable) where funded students reach out to a larger number of unfunded students.

**Proposals will be evaluated on the following criteria:**

- Originality
- Project Outcomes, Documentation, and Dissemination of Results
- Interdisciplinary Teaming
- Diversity (Individuals or Organizations)
- Matching Resources
- Past Project Performance (as described in element number 5 above)

After completing the Survey Monkey form, please submit proposals via email to:

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Director – CaSGC  
Assistant Director – CaSGC  
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\textsuperscript{6} For an example of STEM Challenges, please visit:
https://www.nasa.gov/education/SoI/STEMchallenges/#.UnP4eVMlgQJ
http://www.nasarealworldinworld.org/About.aspx
http://www.nasa.gov/roverchallenge/home/index.html/#.UpOHetJwp8E