

Nevada NASA Space Grant Consortium

National Space Grant College and Fellowship Program

REQUEST FOR PROPOSALS: 2009 Workforce Development Awards



Nevada System of Higher Education
755 E. Flamingo Road
Las Vegas, NV 89119-7363

CLOSING DATE
Friday, May 1, 2009

Introduction

The Nevada NASA Space Grant Consortium (NvSGC), as a participant in the National Space Grant College and Fellowship Program, is accepting proposals for in-state workforce development programs directed at the development of NASA's Aerospace Science and Engineering workforce. NvSGC seeks to fund several (three to five) projects in the range of \$10,000-\$80,000 with this solicitation and anticipates up to \$200,000 in total funding to support these awards. Due to the requirements of the program, a 1:1 match (in kind or otherwise) is required on the current awarded funds.

Pertinent Dates

Date of Announcement: **March 16, 2009**

Proposal Due Date: **May 1, 2009**

Target Award Dates: **June 1, 2009**

Background

NvSGC is working to expand opportunities for Americans to understand and participate in NASA's aeronautics and space programs by supporting and enhancing science, engineering education, research and outreach programs. We currently offer opportunities throughout the Nevada System of Higher Education (NSHE) to participate and become educated in NASA's programs and enterprises through the following general programs:

- Student scholarships and fellowships
- Competitive research awards.
- Competitive higher education awards

NvSGC currently supports workforce training, education and research in topics that include astrobiology, astrophysics, planetary geology and geophysics materials research, life support systems designs, satellite construction and deployments and robotics development. NvSGC strives to build upon and expand beyond these areas in order to better contribute to NASA's overall balanced scientific missions and Vision for Space Exploration.

Nevada continually works to contribute to the training and retention of students and faculty in NASA-related careers to enable a strong workforce that will be able to implement NASA's programs and meet national objectives. The NvSGC program is specifically charged with developing enhanced higher education activities that lead to the **engagement and employment** of students in the nation's aerospace science and engineering workforce.

Purpose of the Competition

The purpose of the competition is to utilize NvSGC's higher education activities for enlarging and enhancing the resource pool ("pipeline") of well-prepared higher education graduates and faculty that stay connected to, or become involved with, NASA as employees, contractors, or principal investigators. In support of NASA's vision and mission, this competition will increase

the diversity and number of highly qualified individuals who are knowledgeable of and have had experienced in NASA's missions.

Initiative Examples

Examples of relevant workforce development programs and activities include, but are not limited to, the following types of activities:

- Team development and participation in NASA-relevant engineering design challenges (Such as: University Rocket Launch Competition, University Student Launch Program, American Astronomical Society CanSat competition, the Great Moon Buggy Race, the Mars Societies University Rover Challenge, etc.
- Development of college or university-industry partnerships that train multiple higher education students (including pre-service teachers) in aerospace business development activities
- Summer training workshops for in-service or pre-service science teachers
- Summer training or research workshops
- Summer science or engineering orientation workshops for undergraduates
- Faculty externships in aerospace industries or NASA centers that are then used to enhance higher education curricula and hands on training programs

Award Duration

NvSGC and NSHE's Sponsored Projects Office seek to administer these awards in the summer and fall of 2009 and anticipate these awards will have a duration of up to one year.

Review Criteria

Successful proposals selected under this competition will be based on:

- The involvement of college students in hands-on programs
- The engagement of underrepresented groups
- The quality of the overall proposed program for workforce training
- The relevance to developing NASA's and Nevada's aerospace science and technology higher education programs and industries.
- Relevance to the faculty's department, college, institutional or NSHE's goals and objectives.
- The plan or potential for sustainability past the duration of the initial award
- The level and potential for partnering with industry
- The level of partnering with NASA Centers.
- The qualifications of the applicants
- Appropriateness of budget or resource allocations

Proposals must effectively and quantitatively demonstrate the proposed workforce development program can impact the recruitment, retention, graduation and/or on-going affiliation of a diverse pool of well-trained scientists and engineers as part of the NASA pipeline.

Consistent with NvSGC procedures and policies, these awards will be completed with the aim of increasing the diversity of students, faculty and researchers from underrepresented groups and underserved communities in NASA-related disciplines.

Eligibility Requirements

Eligible applicants for a NASA Space Grant Award must be (1) a faculty member in good standing of the Nevada Systems of Higher Education (2) be in good standing with NvSGC and Nevada NASA EPSCoR Programs (3) have the approval of the faculty's institution's Office of Sponsored Projects.

Disposition of Unused Funds

If the project is terminated earlier than anticipated, or does not use all funds by the end of the project period, any unused funds must be returned to the sponsor.

Reporting

Reporting will be required. Programs will be responsible for working with the central NvSGC office to provide a webpage where the program will be described and progress will be documented. In addition, a written and web-based report will be required. Reporting is the responsibility of the principle investigator. The deadlines for the written final reports are typically in February. Information to be furnished in the report includes the highlights and results of project, the progress of the student(s) involved (including initial longitudinal tracking of students that graduate), and plans for program sustainability and follow-on work. This information is used for required reporting to NASA Headquarters. Failure to report will lead to ineligibility for applying for subsequent awards.

Inquiries

Questions concerning the preparation and submission of proposals or the administration of this program should be addressed to the NvSGC office.

Proposal Format and Content

Each proposal must contain the following items: cover sheet, abstract, description of project and budget.

- **Cover Page (form in Appendix)**
 - Signature of Applicant
 - Signature of Office of Sponsored Projects/Programs

- **Abstract** - The abstract, not to exceed 250 words, must describe the objectives of the proposed project and the methodology to be used.

- **Description of Proposed Project, Program or Research** – must not exceed 6 typed, single-spaced pages. Text should be no smaller than 11-point font and should be written on one side only with one-inch margins.

For full consideration the following sections should be addressed in the Description of Proposed Project, Program or Research:

1. **Project description** – Description of the proposed project including:
 - Specific goals and objectives that contribute to the “education and employment” steps in NASA’s education portfolio.
 - The plans for engaging underrepresented groups.

- The plans for partnering with NASA Centers or personnel (if applicable).
 - The qualifications of the applicants to implement the proposed workforce training program.
 - Relevance of this work to the faculty's department, college and institutional plans.
 - The plan for sustainability past the duration of the initial award.
2. **Project relationship to NASA** – Describe how the project ties to NASA and will contribute to the development of the current or future NASA and aerospace industry workforce (employees, contractors, principal investigators).
See NASA's 2006 strategic plan. Copy and paste the following link into a browser to obtain the document:
http://www.nasa.gov/pdf/142302main_2006_NASA_Strategic_Plan.pdf
- Also see NASA's centennial challenges <http://centennialchallenges.nasa.gov/as> examples of current engineering competitions that are “*designed to tap the nation's ingenuity to make revolutionary advances to support the Vision for Space Exploration.*”
3. **Project evaluation plan**– Describe what metrics will be used to evaluate the projects successes in meeting its goals and describe plans for initial longitudinal tracking of participants.
4. **Dissemination plan** – Describe plans for dissemination of opportunities for students, educational materials, products or activities (papers, talks, or media to be developed).
- **Budget and Budget Justification**– A budget and budget summary are required and must be completed using the forms provided. Dollar amounts proposed with no explanation may reduce proposal acceptability. Direct labor costs should be separated by titles or disciplines with hours, hourly rates, and total amounts of each. Proposed travel should include the number of trips, destination, duration, etc. All budgets must be initialed by the applicant institution's Office of Sponsored Projects.

All reasonable costs are allowable with the following exceptions:

- a. No foreign travel may be charged.
- b. No equipment may be purchased; this also includes desktop equipment.
- c. Funds may not be used for construction or remodeling of facilities.
- d. Only direct support of US-citizens is allowed.
- e. All funds are required to be matched 1:1.

Acceptable Cost-Sharing Items

Due to the requirements of the program, a 1:1 match (in kind or otherwise) is required on the current awarded funds. Cost sharing or matching may consist of the following cost elements used to further project objectives.

- Salaries of faculty or staff who are paid by the university, and who devote a percentage of their compensated time to a sponsored project, without receiving reimbursement from the sponsor.
- Fringe benefit costs associated with contributed effort as described above.
- Indirect costs unrecovered, including rent and occupancy costs, where the sponsor does not prohibit the use of indirect unrecovered as cost sharing. Other direct costs, such as supplies, equipment, non-capitalized assets, or travel that are paid for from allowable funding sources.
- Project costs financed by cash contributions by the recipient, or by cash from third parties.
- Contributions of services and property donated by recipient or third parties (non-federal public agencies and institutions, private organizations and individuals), provided that the values are established in accordance with the applicable cost principles.

Proposal Submission

Proposals must be received electronically by Friday May 1, 2008 by 5:00 p.m. PST to nvsg@dri.edu and chris.fritsen@dri.edu.

Proposals and Specific Costs need to be in MS compatible program (*WORD 97 or newer*), and budget form needs to be in Excel (template attached).

Contacts for More Information

Christian Fritsen, PhD, Nevada Space Grant Director, Desert Research Institute, 2215 RaggioParkway, Reno, NV 89512, chris.fritsen@dri.edu, 775-673-7487

Leone Thierman, Nevada Space Grant Program coordinator, nvsg@dri.edu, 775-673-7674

Michele Dewey , Nevada EPSCoR and Space Grant Research Administrator, michele_dewey@nshe.nevada.edu, 702-862-5589

APPENDIX: FORMS

Cover Page

Nevada NASA Space Grant Consortium National Space Grant College and Fellowship Program

Workforce Development Awards 2008

Name of Project: _____

Principal Investigator: _____

Institution Name: _____

Mailing Address: _____

Department: _____

City: _____ State NV Zip Code: _____ - _____

Phone: _____ E-mail: _____

Funding Requested:\$ _____

The principal investigator certifies the accuracy of the information in this proposal, and certifies that he/she is a faculty member of the Nevada System of Higher Education (NSHE) during the period covered in the attached proposal.

X

PI/Applicant Signature

Date

(please print name here)

X

Office of Sponsored Projects/ Programs/Business Manager

Date

(please print name here)

