2022-2023 Faculty Competition

Pre-College (PC): Teacher Training (TT)and Hands - On – Training (HOT)

Announcement for faculty at:
University of Nevada, Las Vegas; University of Nevada, Reno; Nevada State College; College of Southern Nevada; Great Basin College; TruckeeMeadows Community College; Western Nevada College; Desert Research Institute

Applications must be submitted by: Monday, March 14, 2022; 5:00 pm PT

Please note that this solicitation has had a high funding rate.

Period of Performance: 08/01/2022-05/31/2023

Tips & Q/A Webinar: Mon, Dec 13, 2021, at 1:00 pm PT

Click here to join the meeting

NOTE: Please open this document in Adobe Acrobat to view attached paperclip resource files relevant to this solicitation.

National Aeronautics and Space Administration (NASA)Space Grant College and Fellowship Training Program
Cooperative Agreement #: 80NSSC20M0043

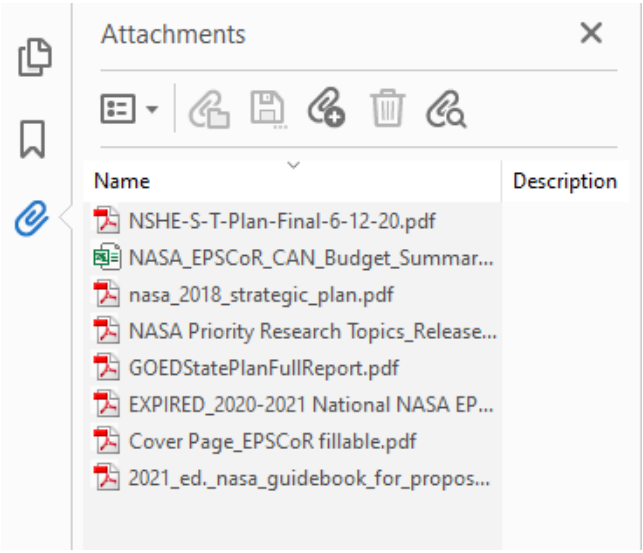
Funding Information and eligibility for PC TT and HOT
The Nevada Space Grant Consortium (NVSGC) seeks to fund 3 Teacher Training and/or Hands-On- Training projects with a maximum federal contribution of $24,666 each. Due to requirements of the Space Grant program, a 1:1 institutional match is required on all awarded funds. The number of awards and funding level are contingent on the requested amount for each proposal and the availability of funds. We will announce the proposals selected for funding prior to our receipt of next year's funds. Please note that potential delays in Congressional appropriations and release of funds may result in late sub-awards. We currently anticipate making sub-awards during Summer 2022.Proposed project period may start on August 1, 2022 and extend through May 31, 2023. (Note: in previous years Teacher Training was labeled as Pre-College Educator and Hands-On-Training was labeled as Informal Education. These two programs are now bundled under the Pre-College Program because both have a primary goal of improving K-12 STEM education.)

1. **Student participation is encouraged and can be included in your overall budget.**
2. Partnership with other Space Grant supported projects, NASA Centers or scientists andbusiness/industry are also encouraged.
3. Diversity and inclusion are integral to NASA mission success and funding a diversecohort of student and faculty that reflect NV demographics is desirable.

It is highly recommended that you contact your Sponsored Projects Office as soon as possible toinform them that you may apply to this solicitation. Please send them a copy of the solicitationwhen you contact them. This will give them time to schedule the proposal with their other work and assist you with the budget and approval process.

Eligibility:
Faculty at any Nevada System of Higher Education institution may apply.

Paperclipped Attachments: Please note, to view all relevant attachments to this solicitation including the budget summary, cover page, NASA Mission Directorates, etc., please open this PDF document in Adobe Acrobat and select the paperclip on the left-hand side of the screen (you may need to click the arrow to expand the panel where the paperclip is located). Any questions regarding the paperclip attachments or on how to access these documents can be directed to Michael Lujan at mlujan@nshe.nevada.edu.



Teacher Training (TT)
The primary focus of the Teacher Training program is to train (pre-service) teachers who plan to teach STEM at K-12 and (in-service) teachers to infuse NASA-related content into K-12 schools. NVSGC is particularly interested in training teachers to provide pre-college students with hands-on science or engineering activities including the development of teams to compete in science and engineering challenges relevant to NASA. NVSGC will also support the inclusion of STEM activities in the curricula ofeducation courses at Nevada K-12 schools. In addition, NVSGC is seeking to support training opportunities for teachers to enhance their knowledge in specific STEM topics to attract students to STEM disciplines. Proposals that highlight the following specific areas of emphasis are strongly encouraged:

- Enhancement of STEM materials and content for pre-college classrooms. This mayinclude hands-on classroom experience.
- Activities should involve a population that is representative of Nevada's diversity.
- Activities should involve the inclusion of Title I schools.
- Collaboration with a NVSGC learning center affiliate is encouraged but not required; affiliatesinclude: Fleischmann Planetarium and Science Center (UNR), Jack C Davis Observatory (WNC), the Planetarium (CSN), the Challenger Learning Center of Northern Nevada and Science Alive(DRI). Collaboration with a museum such as the Discovery Museum is also encouraged.

Hands - On - Training (HOT):
These funds are specifically targeted to provide STEM pre-college student experiences for learning*outside of formal classroom environments*. Proposals that highlight the following specific areas of emphasis are strongly encouraged:

- Extracurricular training and hands-on experience in any of the NASA MissionDirectorate priority topic areas (see attached list).
- Projects developing curricular material and programs to provide pre-college students with hands-on science or engineering activities, including the development of teams to competein science and engineering challenges related to NASA (such as the Human Powered Rover Challenge).
- Proposers are encouraged to involve a population that is representative of Nevada's diversityand inclusion of Title 1 schools.
- Collaboration with a NVSGC learning center affiliate is encouraged but not required; affiliatesinclude: Fleischmann Planetarium and Science Center (UNR), Jack C Davis Observatory (WNC),the Planetarium (CSN), the Challenger Learning Center of Northern Nevada and Science Alive (DRI). Collaboration with a museum such as the Discovery Museum is also encouraged.

Informal education activities *must include*:

- Supplemental materials regarding NASA science or engineering related content.
- HOT content must be based on state educational standards and/or learning objectives. (See: http://www.doe.nv.gov/Standards_Instructional_Support/Nevada_Academic_Standards/Scienc e/)

A web-based meeting (Microsoft 365 Teams) will be held to provide an overview of all

NVSGC Faculty STEM Education solicitations, tips on proposal preparation and Q&A.The meeting will be held on Monday, December 13, 2021 at 1:00 pm PT: Click here to join the meeting

It is highly recommended that you contact your Sponsored Projects Office as soon as possible toinform them that you may apply to this solicitation. Please send them a copy of the solicitationwhen you contact them. This will give them time to schedule the proposal with their other work, and assist you with the budget and approval process.

Student Participation: Is strongly encouraged, but not required.

Pre-College Submissions:
These funds are specifically targeted to stimulate STEM experiences for pre-college students by providing materials and/or training to pre-college teachers or provide direct HOT informal learningopportunities.

NVSGC is particularly interested in enhancement activities associated NASA Mission Directorateresearch priorities (see paperclipped file).

Proposal Guidelines:
As a single PDF file, submit the following documents (1-5):

1. **Cover Page Form (identify this as a Pre-College Teacher Training (TT) or Hands-on-Training (HOT) application): See "See paperclip" attachments for template.**
2. **Results of Prior Nevada NASA Space Grant Consortium or Nevada NASA EPSCoR support (maximum 1 page):** If the lead PI has received NVSGC or Nevada NASA EPSCoR award(s) in the past five years, information on the award(s) is required. The PI should provide the following:
   a. The amount and period of support.
   b. Summary of the results, including tangible outcomes, which could include, but are not limited to: resulting publications; proposals; new collaborations or partnerships; thesis/dissertations; student successes; and engagement of underrepresented groups
3. **CV (2 page maximum)**
4. **Summary of the proposed project (maximum 4 page narrative). Must include the following:Abstract:** 300 words or less summarizing the proposed activity

   Who: Roles and responsibilities of project participants and the anticipated number offaculty and student participants who will benefit from the project. Name all participants that are known at the time of submission.

   What: 1. The objectives, methods and anticipated outcomes of the project.
   2. A plan for sustained or additional institutional support of the project

and resultsafter the project end date.

3. Details regarding industry, other campus, or NASA-Center partners' involvement(this is highly encouraged).
4. Please state if this proposal is in collaboration with another proposal submission.

When: Provide a timeline for the proposed project listing all critical project steps.

Where: Campus(s) and department(s) involved in the project and school district or schoolswhere the curricula and/or project will be available.

How: 1. State how the activity will result in the enhancement of, or provide new materials,procedures, or coursework for pre-college programs.
2. State plans for outreach to under-represented and under-served groups.
3. Provide an evaluation plan that will assess and demonstrate the effectiveness ofthe project.
4. Specify how this proposal is aligned with NASA's Mission Directorate (ARMD,HEOMD, SMD, STMD) priorities (see attached list).

5. Budget and Budget Justification: There is a 1:1 institutional match requirement. Please calculateunrecovered F&A, as applicable, as part of the institutional match. Please work with your campus Sponsored Programs Office/Business Officers to determine the institutional match. A budget and budget summary are required. See "paperclip" attachments for template and example.

Dollar amounts proposed with no explanation may reduce proposal acceptability.

Budget – A signed budget by your institutional representative (SPO, Grants, Contracts, etc.). **Budget Justification** – Proposed travel should include the number of trips, destination, duration,etc. Student participants must be identified individually.

All reasonable costs are allowable ***with the following exceptions:***

a. Foreign travel related to the goals of Space Grant might be allowed with prior approval, butmay not excel $5,000 annually across all projects administered by NVSGC. Note: a post-tripsummary report must be prepared and submitted by NVSGC to the National Space Grant Program Office within 10 days.
b. Equipment may be included in the budget, but must be approved in advance of proposalsubmission by NVSGC; typically the purchase of computer equipment is prohibited. Purchase of any telecommunications equipment produced by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company or any subsidiary or affiliate of those entities or any entity owned or controlled by or connected to the government of the People's Republic of China (PRC) is unallowable.
c. Funds may not be used for construction or remodeling of facilities.

SUBMISSION GUIDELINES must be followed exactly.

- Proposals must be uploaded as one (1) complete PDF file (above mentioned documents 1-5) by your SPO, Grants & Contract, Business office, etc.at

https://nasa.epscorspo.nevada.edu/funding/2022-2023-pre-college-faculty-competition/ bythe deadline of: **Monday, March 14, 2022, at 5:00 pm, PT.**

- Incomplete proposals as well as proposals submitted after that date and time will notbe reviewed.
- Proposals must be submitted using 1-inch margins, 12 pt. font in Times New Roman.
- PDF should be named: **PI Last Name_PI First Name_NVSGC_PC_TT or HOT**

Evaluation and Award Criteria: The screening and selection process will include statewide representatives from NSHE institutions and will focus on the following areas:

1. Clear, concise, well-written proposal with specific goals and objectives that havemeasurable outcomes.
2. Alignment of the proposal with NASA's Mission Directorate priorities.
3. Plan for engaging students, particularly underrepresented groups.
4. Anticipated impact on STEM education. Plans for evaluating effectiveness andsustainability of the proposed activities.
5. Budget and timeline is appropriate for scope of work and well justified.

Diversity: Diversity and inclusion are integral to the mission success of NASA. To stay competitive in today's global marketplace, we must have "an organizational culture and work environment where the best and brightest minds – employees with varying perspectives, education levels, skills, life experiences, and backgrounds – work together to achieve excellence and realize individual and organizational potential. NASA strives educate a more diverse American public on the need for robust space and aeronautics programs and their value in advancing the U.S. scientific, security, and economicinterests. To do so, NASA will increase outreach efforts to encourage and motivate people, especially young people, from diverse and underserved communities."

Proposals to NSHE for Space Grant Consortium Competitions should broadly aim to enrich and engage faculty and students that reflect the demographic diversity in Nevada.

Reporting: Reporting will be required for all funded proposals.

- Reporting is the responsibility of the principal investigator of each successful submission. PI'swill be responsible for working with the NVSGC program office and all project participants to provide text and data through an Excel reporting form.
- Profiles/identifier information must be reported for all students receiving significant fundingand/or significant engagement (≥ 160 contact hours) for all undergraduate, graduate, and orpost-doctoral participants. An excel form will be provided.
- Information to be provided in the report includes:
    - Project participants (i.e. Faculty, students, etc…) provide titles, roles, demographics;
    - Highlights and results of the project activities (photos of activities are encouraged);

- Progress of the proposed activity(ies) as requested;
- Indirect and Direct Participants information: You will need to capture the total number of direct and indirect attendees reached via your activity(ies). *Direct participants are individuals who are direct beneficiaries of the activity (i.e. participantsand/or attendees who may have registered for the activity) indirect participants are individuals who indirectly benefit from the NASA activity and/or can only be estimated(i.e. Students participating in revised courses that are developed);*
- Results from project evaluation and sustainability planning; and
- Publications, presentations, papers, reports, posters, proposals submitted, newwebsites etc. This information is required for reporting to NASA Headquarters.

Contact Information:

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More information about NV Space Grant may be found at:
https://nasa.epscorspo.nevada.edu/