

Faculty Competition

2020-2021

**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; Truckee Meadows Community College; Western Nevada College;
Desert Research Institute

Applications must be submitted by:

Monday, February 3, 2020; 5:00 pm PT

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

**Tips & Q/A Meetings: Wed, Nov 20, 2019 at 12:00 pm PT and
Thurs, Nov 21, 2019 at 4:00 pm PT**



National Aeronautics and Space Administration (NASA)
Space Grant College and Fellowship Training Program
Cooperative Agreement #: NNX15AI02H



Request for Proposals Pre-College Program

Funding Information and eligibility for PC TT and HOT

The Nevada Space Grant Consortium (NVSGC) seeks to fund three Teacher Training and/or Hands-On-Training projects with a maximum federal contribution of \$25,667 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 that sub-awards will most likely not be released until June 2020. Proposed activities may occur during the fall 2020 semester through spring 2021. (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 and business/industry are also encouraged.
3. Diversity and inclusion are integral to NASA mission success and funding a diverse cohort 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 to inform them that you may apply to this solicitation. Please send them a copy of the solicitation when 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.

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 of education 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 may include 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; affiliates include: Fleischmann Planetarium and Science Center (UNR), Jack C Davis Observatory (WNC),

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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 Mission Directorate 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 compete in 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 diversity and inclusion of Title 1 schools.
- Collaboration with a NVSGC learning center affiliate is encouraged but not required; affiliates include: 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/Science/)

It is highly recommended that you contact your Sponsored Projects Office as soon as possible to inform them that you may apply to this solicitation. Please send them a copy of the solicitation when 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.

Web-based meetings (MS 365 Teams) will be held to provide an overview of all NVSGC Faculty STEM Education solicitations, tips on proposal preparation and Q&A. The meetings will be held on Wednesday, November 20, 2019, at 12:00 pm (PT) and Thursday, November 21, 2019, at 4:00 pm (PT)

<u>Date</u>	<u>Teams Link</u>	<u>Join by Phone</u>
November 20, 2019	Click here to Join	888-278-0296, code 8679806
November 21 2019	Click here to Join	888-278-0296, code 8679806

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Student Participation: Is 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 learning opportunities.

NVSGC is particularly interested in enhancement activities associated NASA Mission Directorate research 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 application): All Forms are attached.

2. Results of Prior Nevada NASA Space Grant Consortium or Nevada NASA EPSCoR support (maximum of 600 words): 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: 500 words or less summarizing the proposed activity

Who: Roles and responsibilities of project participants and the anticipated number of faculty 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 results after 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 schools where 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 underrepresented groups

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3. Provide an evaluation plan that will assess and demonstrate the effectiveness of the 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 calculate unrecovered 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 and **must be completed using the attached template.**

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, but may not exceed \$5000 annually across all projects administered by NVSGC. Note: a post-trip summary 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 proposal submission by NVSGC; typically the purchase of computer equipment is prohibited.
- 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/2020-2021-pre-college-faculty-competition/> by the deadline of: **Monday, February 3, 2020, at 5:00 pm, PT.**
- Incomplete proposals as well as proposals submitted after that date and time will not be reviewed.
- PDF should be named: **NVSGC_PC_TT** or **HOT_(your last name).**

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 have measurable outcomes. (25 pts max)
2. Alignment of the proposal with NASA's Mission Directorate priorities. (25 pts max)
3. Plan for engaging students, particularly underrepresented groups. (10 pts max)
4. Anticipated impact on STEM education. Plans for evaluating effectiveness and sustainability of the proposed activities. (25 pts max)
5. Budget and timeline is appropriate for scope of work and well justified. (10 pts max)

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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 economic interests. To do so, NASA will increase outreach efforts to encourage and motivate people, especially young people, from diverse and underserved communities."

With this in mind, 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 principle investigator of each successful submission. PI's will 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 funding and/or significant engagement (≥ 160 contact hours) for all undergraduate, graduate, and or post-doctoral participants. An excel form will be provided.
- Information to be provided in the report includes:
 - o Project participants (i.e. Faculty, students, etc...) provide titles, roles, demographics;
 - o Highlights and results of the project activities (photos of activities are encouraged);
 - o Progress of the proposed activity(ies) as requested;
 - o 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. participants and/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);*
 - o Results from project evaluation and sustainability planning; and
 - o Publications, presentations, papers, reports, posters, proposals submitted, new websites 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/>