2023-2024 Faculty Competition, Round 2
Higher Education: Curriculum Development
(CD) & 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, June 5, 2023; 5:00 pm PT

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

Period of Performance: 08/01/2023-04/09/2024

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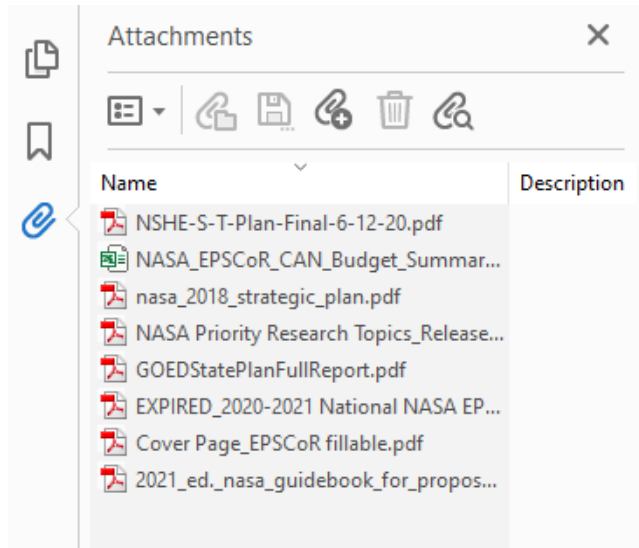resource files relevant to this solicitation.**

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

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 Gibran Chavez-Gudino at gchavez-gudino@nshe.nevada.edu.

Attachments	×
Name	Description
NSHE-S-T-Plan-Final-6-12-20.pdf	
NASA_EPSCoR_CAN_Budget_Summar...	
nasa_2018_strategic_plan.pdf	
NASA Priority Research Topics_Release...	
GOEDStatePlanFullReport.pdf	
EXPIRED_2020-2021 National NASA EP...	
Cover Page_EPSCoR fillable.pdf	
2021_ed._nasa_guidebook_for_propos...	

Funding Information and Eligibility for CD and HOT

The Nevada Space Grant Consortium (NVSGC) seeks to fund five projects for either Curriculum Development or Hands-On-Training. The maximum federal contribution for each project is $25,000. Due to requirements of the Space Grant program, $25,000 institutional match is required on all awarded funds. The total maximum budget amount with match per proposal therefore is $50,000 (maximum $25,000 federal + requisite $25,000 institutional match). The number of awards and funding level are contingent on the availability of funds, but we expect at least four additional projects to be funded. We will announce the proposals selected 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 creating sub-awards during late Summer 2023. Proposed project period of performance may start on August 1, 2023 and extend through April 09, 2024 contingent on when the funds are released.

1. **Student participation is <u>encouraged</u> and can be included in your overall budget.**
2. <u>Partnership</u> with other Space Grant supported projects, NASA Centers or scientists and business/industry are also encouraged.
3. <u>Diversity</u> 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 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.

If your proposal is selected for funding, you will be asked to provide a headshot or photo of you working in the lab/field and sign a media consent form. Your photo will then be posted to the NV NASA Programs website along with your project abstract. If you have any questions or concerns please contact Gibran Chavez-Gudino at gchavez-gudino@nshe.nevada.edu.

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

Curriculum Development (CD):

The primary focus for the Curriculum Development program is to establish new and/or revised courses and materials that infuse NASA content directly related to NASA Mission Directorate priorities (see paperclipped file) within NSHE institutional curricula.

Projects that include development of interdisciplinary classes utilizing or implementing NASA Mission Directorate content as well as senior design courses and senior research projects are encouraged. The goal is to provide college students with NASA science and engineering course content that they would not otherwise receive, which will lead to improved opportunities for careers with NASA and NASA-related businesses. Curricula development projects should have a clear progression from initiation, to classes/content being offered, to becoming part of the institution's curricula. The proposal review will place emphasis on those courses and curricula that target topics directly linked to the attached list of Mission Directorate priorities.

Hands - On - Training (HOT):

The primary focus of this program is to establish new authentic STEM hands-on-training activities for college students that utilize NASA related interdisciplinary content. Topic areas must target topics listed in the NASA Mission Directorate priorities list (attached). Proposals may include the development of teams to compete in science and engineering challenges relevant to NASA.

For both the **CD** and **HOT**, the NASA Office of STEM Engagement (NASA OSTEM) Space Grant solicitation states that all funded projects must be directly relevant to one or more Mission Directorate priorities. Please clearly state how the proposed effort will address a priority from the attached list.

Proposal areas of interest should address one or more of the following:
- Development of programs and new curriculum to provide students with a knowledge base leading to successful employment in at a NASA Center or a NASA-related industry
- Provide engaged, interdisciplinary learning by integrating state-of-the-art facilities and equipment (e.g., 3D printers, panoramic displays, and immersive individual displays)
- Incorporate faculty workshops, web posts, newsletters and other media that broaden the information provided to NSHE institutions about successful higher education content developed with Space Grant funding
- Enhance outreach efforts to recruit more students representative of Nevada's diversity into STEM programs
- Explore current NASA Mission Directorate topics. For HOT proposals, one option is the development of teams that engage or participate in NASA-relevant engineering design challenges (such as: NASA Student Launch Program, CanSat competition, Human Exploration Rover Challenge, the Mars Societies University Rover Challenge, etc.).
- Create Programs that train multiple participants on how to access and utilize unique NASA assets for terrestrial, planetary or astrophysics research.
- Develop college- or university-industry partnerships that train multiple higher education students (including pre-service teachers) in NASA-relevant topics such as aerospace science and engineering topics

- Engage multiple participants in hands-on activities or research workshops
- Develop STEM summer orientation workshops for undergraduates
- Lead to or support faculty externships in aerospace industries or NASA centers that are then used toenhance higher education curricula and hands on training programs

NOTE: Collaboration with other NSHE faculty is encouraged, but not required. If you have questions about the goals of this solicitation, please contact Eric Wilcox at eric.wilcox@dri.edu

Proposal Guidelines
As a single PDF file, submit the following information (1-5):
1. **Cover Page Form (identify this as a Higher Education CD or HOT application.) All forms are attached.**
2. **Results of Lead PI 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, period of support and date of final report submission.
    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:**

Title and Abstract: 300 words or less summarizing the proposed activity

   Who: Roles and responsibilities of project participants and the anticipated number of facultyand student participants benefiting 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) where the curricula and/or project will be available.

   How: 1. State how the activity will result in the enhancement of, or provide training, new materials, procedures, or coursework for your campus programs.
   2. Provide an evaluation plan to assess the effectiveness of the CD/HOT project.
   3. 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 $25,000 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.

Note: The budget guidance for this solicitation was amended to correct an error on February 27, 2023.

*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 $5,000 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 general 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 <u>must be followed exactly.</u>
   - Proposals must be uploaded as one (1) complete PDF file (above mentioned information, items 1-5) by your SPO, Grants & Contract, Business office, etc.
   - Proposals must be typed, single spaced with 1-inch margins, 12 pt. font, and in Times New Roman.
   - **https://nasa.epscorspo.nevada.edu/funding/2023-2024-cd-hot-faculty-competition-round-2/** by the deadline of: **Monday, June 5, 2023, at 5:00 pm, PT.**
   - Incomplete proposals as well as proposals submitted after that date and time will not be reviewed.
   - PDFs should be named: **PI Last Name_First Name_NVSGC_CD or HOT** Submissions that are incomplete will not be reviewed and no late submissions will be accepted.

<u>All required submission forms are "paperclip" attachments to this solicitation. You must download and open through Adobe Acrobat to be able to see them.</u>

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.

2.   Alignment of the proposal with NASA's Mission Directorate priorities.
3.   Plan for engaging students, particularly under-represented and under-served groups (HOT).
4.   Anticipated impact on STEM education. Plans for evaluating effectiveness and sustainability of the proposed activities.
5.   Budget and timeline are 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 economic interests. 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 toenrich 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'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 ($\geq$ 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. 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);*
  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.

     Note: If final reports are not submitted, the evaluation of future proposals to NV Space Grant and NV NASA EPSCoR may be impacted.

Contact Information:

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