



# Utah NASA Space Grant Consortium



## Proposal Guidelines for the Faculty Research Seed Funding Program 2024-2025 Grant Year

### Overview

The National Aeronautics and Space Administration (NASA or Agency) is committed to defining and implementing a portfolio intended to drive a coherent and coordinated set of activities devoted to engaging students in science, technology, engineering and mathematics (STEM) through NASA's mission. This portfolio contributes to achieving NASA's STEM Engagement vision to immerse students in NASA's work, enhance STEM literacy, and inspire the next generation to explore.

Central to this effort is a new architecture designed to enable relevant student contributions to NASA's mission and work, driven by requirements from NASA's Mission Directorates. This new structure will align appropriated STEM engagement programs, existing and emerging relevant projects, and activities and products from across the Agency, into an overarching framework and strategy.

The specific objectives of the Space Grant Program are to:

- Create cooperative programs among universities, aerospace industry, and Federal, state, and local governments to foster STEM ecosystems;
- Encourage interdisciplinary training, research, and public service programs related to aerospace;
- Establish and maintain a national network of universities with interests and capabilities in aeronautics, space, and related fields;
- Attract, recruit and train U.S. citizens, especially women, underrepresented minorities, and persons with disabilities, for careers in aerospace science and technology;
- Promote a strong STEM education base from elementary through secondary levels while providing support to teachers in these grade levels toward more effectively improving student academic outcomes;
- Create opportunities that enable student contributions to the development of solutions addressing NASA Mission Directorate challenges; and
- Advance aerospace knowledge and expand related activities.

### Research Seed Funding Opportunity

**Proposals for this opportunity will only be accepted from new and early career faculty (*assistant professor level or recently promoted associate professor level*) at Utah NASA Space Grant Consortium (UNSGC) affiliated institutions.** The intent of the Utah NASA Space Grant Consortium's Faculty Research Seed Funding Program is to help develop core expertise and infrastructure to enable early career investigators to build a sustainable capability in the state which supports NASA's Mission Directorates. UNSGC encourages researchers to focus their research toward NASA priorities while building ties with NASA Centers and aerospace contractors. Selected faculty research projects will provide significant, hands-on, authentic research opportunities for two or more STEM students that aligns with one of the NASA Mission Directorate areas: (1) Aeronautics Research Mission Directorate (ARMD); (2) Spaceflight Operations (SO) & Exploration Systems Development (ESD) (Previously HEO) Mission Directorate; (3) Science Mission Directorate (SMD); or (4) Space Technology Mission Directorate (STMD). Projects that emphasize partnerships with other universities, industry, state and local government, and that include women and underrepresented minorities are particularly encouraged.



The proposal shall specify alignment with one of the NASA Mission Directorate needs (*see Appendix H*). Successful proposals will provide opportunities for students to gain hands-on research and engineering experience. Proposers shall describe how these activities will meet the STEM needs of the state and NASA.

### **Period of Performance**

Each award will begin on May 18, 2024 and conclude on May 17, 2025. Budgets should reflect anticipated expenditures within this time period. Awards are not eligible for renewal. You must expend the allocated funding within the 12-month award period, any unused budget funds as of May 17, 2025 will be returned and re-allocated.

### **Funds Available**

Total funds proposed to be available for new research seed projects is \$75,000 and we expect to award three proposals this year. **Each proposer may request a maximum funding level of \$25,000.** Depending on the number of proposals received and the review of those proposals, your funding may be awarded at an amount lower than your request. **The awarding of proposals is contingent upon UNSGC receiving funds from NASA for the FY 2024-25 funding cycle.**

### **Eligibility**

Faculty employed by Utah Space Grant Consortium institutions are eligible to apply. The list of UNSGC affiliate institutions can be found on our website: <http://www.utahspacegrant.com/about/affiliates/> **Preference will be given to faculty who have not received Space Grant seed funding awards in the past. Faculty who have received funding in the past four years (2019-2023) are not eligible to apply to this seed grant announcement.**

### **Proposal Guidelines**

- **No capital equipment purchases (>\$5,000) are allowed under this program,** materials and supplies are acceptable.
- **All UNSGC funds must be matched at a minimum of 75% (\$18,750 if proposing full amount of \$25,000) from non-federal sources.** Be sure to clearly identify the sources and amounts of matching funds. Examples of qualifying cost share sources include: institutional faculty or student salary match, direct institutional support, waiver of institutional F&A expenses, outside support for student salaries. *Additional voluntary cost share is allowed but will not increase your chance of your proposal being awarded.*
- **All students receiving direct support must be U.S. citizens.**
- **Expenditures for foreign travel are prohibited.**

### **Proposal Requirements & Format**

Proposals should be single-spaced on standard 8 ½ x 11 paper, no smaller than 11-point font and with no less than one-inch margins throughout. The proposal package should include the following elements:

- Internal competitive solicitation proposal submission sheet should be the first page of submission of the entire document. This page specifies the UNSGC opportunity you are applying for as well as which NASA Mission Directorate your proposal is aligned with.
- Cover page – should state the proposal title, principal investigator(s), department and institution, project duration, total amount requested and signatures of the principal investigator, UNSGC affiliate trustee, and other appropriate signatures required at your institution
- Project Abstract – 250 words or less



- Project Narrative (3 pages max) – to include an Introduction, Project Objectives, Key Personnel, Student Participants, Implementation Strategy, Alignment to NASA Mission Directorate and to the UNSGC Mission, Potential for Follow-on Funding, and statement of commitment to the Utah Space Grant Consortium that all reporting on this project will be completed on time and submitted as required. (see Reporting Requirements section below)
- Budget (1 page max) – clear, concise budget including matching support documentation, the budget must reflect a clear alignment with the content and text of the proposal. Institutions submitting a proposal are expected to waive F&A costs.
- Curriculum Vitae – attach a curriculum vitae for each principal investigator

***Proposal and budget cannot exceed four pages in length, excluding cover page, abstract, and curriculum vitae. The concise length of the proposals will enable expediting the review and award process. Please submit the proposal as one pdf file with completed proposal submission sheet as the first page of the package, naming the file LASTNAME\_FIRSTNAME\_ResearchSeed.***

**PLEASE NOTE:**

***Funds will be paid through your Space Grant affiliate (existing subcontract) with the PI being the Space Grant Trustee at your institution. It is the responsibility of your institution to transfer funds internally from your Space Grant affiliate to your research account.***

## **Evaluation and Selection Process**

Each proposal submitted will be evaluated using the following criteria:

1. Scientific and technical merit of the proposed project as given by the project goals and specified project outcomes, realizing interdisciplinary research projects collaborating with other universities, industry, and state and local government are highly encouraged. (30%)
2. Degree to which the proposed work contributes to one of the NASA Mission Directorates (see Appendix H). Proposals will also focus on projects that can contribute to building future research and innovative activities in Utah. (30%)
3. Key personnel technical proficiency and collaborations plus degree of significant student involvement, measured in terms of value ( $\geq$  \$3,000) or participation ( $\geq$  160 hrs) or impact on student's academic achievement and employment. (10%)
4. Probability for the investigator(s) to carry out the research plan and achieve the stated goals, the potential for follow-on funding, and the commitment to provide required reports and data on time. (10%)
5. Appropriateness of budget to carry out the project. (10%)
6. Degree to which the project contributes to the UNSGC strategic goal of increasing diversity in the STEM workforce and contributes to the UNSGC network. (10%)

## **Fixed Timeline**

January 31, 2024	Release of Call for Proposals document
April 3, 2024	Proposals due, 5:00 p.m.

## **Proposed Timeline**

April 8-26, 2024	Proposals reviewed
May 1, 2024	Award notifications anticipated
May 18, 2024	NASA Space Grant funding year 5 begins*
November 1, 2024	Bi-annual reporting update due
February 15, 2025	Preliminary results reporting due
June 15, 2025	Final report and results submitted



*\*NASA Space Grant funds for the next cycle have a start date of May 18, 2024, however, we will likely receive our NASA funding award at a later date than this if history repeats itself. UNSGC will only be able to make awards and issue subcontracts upon receipt of our NASA award. Therefore, the availability of funds could be delayed past the planned timeline shown above.*

## **Reporting Requirements**

Reporting requirements must be firmly adhered to with reports submitted on time and containing accurate data. UNSGC will send requests for data well in advance of due dates and all efforts must be made to convey the program details and data results to UNSGC so that we can properly report the required data on all funded programs and projects to NASA and adhere to our overall grant reporting requirements. A final project report will due June 15, 2025, with a semi-annual reporting update needed by November 1, 2024, and preliminary reporting details needed by February 15, 2025. Each report shall describe progress toward meeting proposed objectives, findings and results of research being performed, demonstration of positive student research experiences, alignment to NASA Mission Directorate, report details of any publications and/or presentations, and discuss any publicity about the project/event.

Additionally, faculty researchers agree to cite UNSGC as a source of funding in all publications resulting from the funded research. References to UNSGC funding should utilize the phrase “...supported in part through the Utah NASA Space Grant Consortium, NASA Grant # 80NSSC20M0103.”

Students participating in a faculty research project as direct awardees must complete a Student Data Award Form. Student demographic data is required to be submitted to the NASA Office of STEM Engagement through the Gateway reporting system. In addition, all significantly funded students will need to be longitudinally tracked through education and employment as a requirement of this NASA grant.

Students participating in a faculty research project will also be encouraged to prepare a paper and/or poster and make a presentation at the Annual Space Grant Fellowship Symposium to be conducted in May 2025.

## **Submission Procedures**

By April 3, 2024 5:00 p.m., the submitting institution or proposed faculty PI will submit an electronic file of the complete proposal (pdf) via electronic mail to:

Kim Olson, Program Manager, Utah NASA Space Grant Consortium  
[kim.olson@utah.edu](mailto:kim.olson@utah.edu)

This application package is also posted on the UNSGC Website under “For Educators/Researchers” at: <http://www.utahspacegrant.com/for-educators/>

## **Appendix H**

The following pages in “Appendix H – Research Priorities for NASA Mission Directorates and Centers” comes from the National Space Grant College and Fellowship Program Opportunities in NASA STEM FY 2020-2024 Solicitation. Please use these guidelines in preparing your proposal and aligning your proposed research within these parameters.