

Team Experience and Competition Grant Program 2021-2022 Academic Year

Project Period: Nov. 1, 2021 to July 15, 2022

REQUEST FOR PROPOSALS

2021-2022 Student Team Experience and Competition Grant Program

NC Space Grant awards funding to undergraduate/graduate teams to help them participate in national competitions either sponsored or sanctioned by NASA or another science technology, engineering, and math (STEM) related organization or industry. Examples of such competitions are NASA Student Launch Initiative, NASA Human Robotics Competition, Shell Eco-Challenge, AUVSI SUAS, etc. Competitions should be in the fields of science, technology, engineering or mathematics (STEM) and complement the academic studies of team members.

NC Space Grant invites faculty Principal Investigators (PIs) to propose collaborative team work experiences toward a challenge or competition, which must be named in proposal and take place within the period-of-performance of this award. NC Space Grant recognizes that some competitions may be modified (i.e., virtual or remote competition) due to the impacts of COVID-19. All proposers must adhere to state and college/university COVID-19 policies and for classwork, teamwork, labs, travel and any other competition/challenge guidelines. NC Space Grant should be notified of any impacts and changes in the proposed scope of work due to COVID impacts.

Teams should be interdisciplinary in composition. Team members within different majors, departments, and/or with skills such as business and marketing, communications and social media, and education and outreach are encouraged. NC Space Grant strongly encourages teams to recruit and include members with diverse backgrounds and perspectives in alignment with our values of diversity, equity, inclusion, justice and accessibility (DEIJA).

NC Space Grant anticipates supporting up to 10 team competition grants of up to \$5,000 each contingent on available funding and strength of proposals.

Proposal Guidelines

All proposals must include the following information in the order noted below. Proposals not meeting these requirements may not be considered.

Project Content (not to exceed 10 pages):

1. Summary of the Team Competition

Proposers shall state the defined goal or objective of the competition/challenge. Proposers must provide an active web link to the competition/challenge that will take place during the award period-of-performance (POP). NC Space Grant understands that some competition dates may extend slightly beyond the POP (e.g., into late August), which must be noted in the proposal.

2. Project Description

Proposers shall provide a description of their project and how it meets the goal or objective of the competition/challenge.

Proposers shall describe significant tasks, milestones, requirement check-ins and competition dates. Images and tables are allowed to support the narrative.

3. Description of Team Goals and Learning Objectives

Proposers shall provide one of the following.

A. For returning teams, a summary of the team's past participation, lessons learned and planned adjustments, modifications, etc. for this cycle.

B. For new teams, a description why the particular competition/challenge was selected and what the team hopes to learn and accomplish.

4. Alignment to a NASA Mission Directorate

Proposers must describe how their project is aligned to a <u>NASA Mission Directorate</u>. NASA Mission Directorates include:

- Aeronautics Research
- Human Exploration and Operations
- Science
- Space Technology

5. Summary of Team Composition and Member Recruitment

A narrative description and/or a table with student team information, e.g., names, majors and/or skills sets (e.g., electrical engineering, computer programming, biology, atmosphere science, etc.) and/or team roles and responsibilities (e.g., club president, team leader, task lead, documentation lead, social media lead, public outreach coordinator, etc.) is required. Teams are encouraged to consider roles for non-STEM team members, such as fundraising, outreach and education, communications and social media, etc.

If the composition of the team is unknown at the time of proposal submission, the proposer MUST describe anticipated student recruitment efforts. NC Space Grant values diversity, equity, inclusion, justice and accessibility (<u>DEIJA</u>) for team members. Teams with diverse composition will be more favorably reviewed.

Refer to the section below, **Required Reporting**, for the Student Data Table and other reporting requirements. Please note that student data tables are <u>required</u> for all NASA funding and reporting under this grant.

6. Outreach Plan

Outreach is not required in all competition/challenge guidelines; however, it is the mission of NC Space Grant to engage and inspire the next generation of explorers. Therefore, teams that include an outreach component to pre-college and/or public audiences will be more favorably reviewed. Proposers should include a description of in-person outreach and/or online/remote learning tools (proposers must strictly adhere to COVID-19 policies at their institutions and for targeted outreach). This is an opportunity for teams to be creative, such as using an authorized YouTube channel, an online demo or launch, shared open-source materials, etc.

Additional Required Content (no page limit unless otherwise noted):

- 7. Curriculum Vitae of the Faculty Principal Investigator (PI)/Advisor (two pages max)
- 8. **Letter of Support** from the Department Chair/Head that outlines the importance of the proposed project to the department and/or the direction of the university.
- 9. **Budget and Budget Narrative** that includes a required one-to-one (1:1) cost match (use budget template in Appendix A). Funds can be used to purchase supplies and materials to support the team project, cover registration, and/or pay travel expenses. NASA grant funds cannot be used to purchase equipment. NC Space Grant does not allow facilities and administrative (F&A) costs.

Unrecovered F&A costs may be used for required cost-matching. We strongly recommend that cost-match not exceed the \$5,000 award since proposers will be obligated to report all proposed cost-match. Pls are responsible for following all internal institutional guidelines for committing to cost-share, including necessary approvals.

Eligibility

- A faulty member or instructor must be the Principal Investigator (PI), although strong student involvement and leadership is the intention of this grant, including in proposal writing.
- Proposals will be accepted from teams at accredited higher education institutions only within the State of North Carolina.
- Team members must be enrolled in an academic degree program.
- The competition must occur during the 2021-2022 academic year or the summer of 2022.
- Some competitions require that team members be full-time students and/or U.S. citizens. Applicants should review all competition or program requirements and make sure the entire team is eligible to participate before submitting this proposal.
- Release of funds is contingent upon acceptance into competitions/challenges for those with a competitive application process.

Period of Performance

The period of performance for this project is Nov. 1, 2021 to July 15, 2022 (≈ nine months). NC Space Grant understands that some competition dates may extend beyond the POP (e.g., into August), and that must be noted in the proposal.

Required Reporting

Please note that reporting requirements have been changed from previously released RFPs due to changes within NASA's Office of STEM Engagement reporting requirements, which NC Space Grant is obligated to meet.

1. A student participant data table is required. Data tables shall be submitted in accordance with NASA reporting guidelines and due dates. Therefore, student data tables must be submitted to NC Space Grant by **Feb. 15, 2022**.

NOTE: The collection and submission of student data is a REQUIREMENT of the NASA Office of STEM Engagement in order for NC Space Grant to receive annual funding. As a result, all NC Space Grant funded projects MUST report student participant data (names, dates of birth, gender, ethnicity, email address and field of study, etc.). To protect Personally Identifiable Information (PII), NC Space Grant utilizes reporting systems that are FERPA compliant and meet or exceed the United States Department of Education Privacy Technical Assistance Center and the Student Privacy Policy Office data security recommendations.

2. A progress report is due at the end of the academic year, May 31, 2022. This report should include a description of progress toward significant tasks, milestones, requirement check-ins, etc. If the competition has taken place, results should be reported, as well as feedback from students (e.g., qualitative data or quotes) about their experience. The report shall also note any changes to the student

participant data table. NC Space Grant should be notified of any impacts and changes in the proposed scope of work due to COVID impacts.

3. A final report due no more than **30** days after completion of the period of performance (i.e., no later than Aug. 15, 2022). Pls should add on to their existing Progress Report, such as competition results (i.e., don't start a new report, just add on to the Progress Report that you already submitted and rename it as "Final"). The report should also include any last changes to the student participant data table. Please note that some competition dates will take place after the grant period of performance. In those cases, teams MUST submit an amendment to their final report following the challenge or competition. NC Space Grant should be notified of any impacts and changes in the proposed scope of work due to COVID impacts.

Awardee Expectations

- All proposers MUST strictly adhere to the State of North Carolina and college/university COVID-19 guidance for classwork, teamwork, labs, travel and other relevant policies and procedures. Safety first!
- The PI and designated team members shall collaborate with the NC Space Grant communications specialist to develop and implement a plan to share progress and experiences, including but not exclusively on social media, in print and on the NC Space Grant website. You can reach the NC Space Grant communications specialist, Lee Cannon, at lacannon@ncsu.edu.
- The PI and designated team members shall make activity and results public via social media during and after their projects, using accessible social media accounts and consistent hashtags (e.g., #yourteamname and/or #ncspacegrant).
- NC Space Grant shall be given credit for sponsoring the activity in all printed materials (e.g., logo, social media, etc.). Logos can be obtained from Lee Cannon at lacannon@ncsu.edu.
- Teams are strongly encouraged to participate at the NC Space Grant Space Symposium, Apr. 8, 2022. Teams are encouraged to set up a model or demonstration of their project. There is no registration cost to attend the symposium for designated students who will run the model or demo. However, grant funds awarded through this opportunity are considered sufficient to cover travel costs to the symposium, including transportation of any equipment.
- NC Space Grant is **required** by NASA to keep in touch with all recipients of significant awards (≥\$3,000 monetary award, ≥400 contact hours, or a combination of both) *at least* until they receive their first job after receiving their highest degree. If students receive financial support and/or greater than support through this program, they are expected to keep in touch with NC Space Grant for some time after the completion of the project. The minimum information needed is an updated email address.

Proposal Submission

- Proposals shall be received no later than 6 p.m. EDT on Monday, Oct. 11, 2021.
- Proposals must be submitted by the faculty advisor, who will serve as the Principal Investigator, as a single PDF file via the NC Space Grant online submission system. Submissions must be signed by the PI's university's Office of Sponsored Research.

• Proposals should be one-sided, single-spaced on standard 8 ½ x 11 paper, no smaller than 12-point font and with no less than one-inch margins throughout. Text restrictions are inclusive of all illustrations, tables, charts, exhibits, etc. All pages must be numbered sequentially.

Award announcements will be made on approximately Oct. 25, 2021. Projects selected for funding will receive a sub-award through the PI institution's Office of Sponsored Research.

Contact

For questions related to this solicitation, please contact:

Sandy Canfield Assistant Director NC Space Grant (919) 515-5943 srcanfie@ncsu.edu

APPENDIX A: BUDGET TEMPLATE

Period of performance: November 1, 2021 to July 15, 2022 Maximum budget request: \$5,000 1:1 cost match required

BUDGET DESCRIPTION:

Enter University Here
Enter Faculty Advisor and Team Leader Names Here

	NASA Funding	Cost Share***	Total
Salaries	х		
Travel			
Supplies and materials*			
Services	х		
Equipment	х		
Student Salaries/Stipend	x		
Other (Explain)**			
Indirect Costs***	x		
	NASA Funding	Cost Share	Total
TOTAL:	\$0	\$0	\$0

^{*} Funds are limited to supplies and materials and travel only.

^{**} Registration expenses should be categorized as 'Other'.

^{***} The NC State University/NASA National Space Grant College and Fellowship Program do not allow facilities and administrative costs. Unrecovered facilities and administrative costs may be used to meet the required cost-match.

^{****} NC Space Grant does not recommend exceeding the cost-share requirement.