



## UA/NASA Space Grant Graduate Fellowship Application

### A. APPLICATION COVER SHEET

**Affiliate:** University of Arizona\*

**Project:** Graduate Fellowship Program

*\*Must be US Citizen and accepted by a UA graduate degree program (future student) or enrolled as a full-time graduate student at the University of Arizona upon application. See website for definition of full-time student.*

**First Name:**

**Middle Initial:**

**Last Name:**

**Student ID:**

**Date of Birth:**

**Major:**

**UA Department:**

**Minor:**

**Enrolled for M.S. or Ph.D.?**

**Anticipated Graduation Date:**

**Advisor/Mentor:**

**Current Grad GPA:**

*The information below is used strictly for NASA (Federal) funding and reporting purposes.*

**Demographics:**

- ☐ Native American
- ☐ Pacific Islander
- ☐ African American
- ☐ Hispanic
- ☐ Caucasian
- ☐ All Other Students

**Gender:**

- ☐ Male
- ☐ Female
- ☐ Do not wish to specify

**Person with disability?**

- ☐ No
- ☐ Yes
- ☐ Do not wish to specify

**In-State Student (Arizona Resident)?:**

- ☐ Yes, in-state student
- ☐ No, other state

**Military Service?**

- ☐ No
- ☐ Yes

**Citizenship:**

- ☐ U.S. --U.S. citizenship required

**Local Address:**

**City:**

**State:**

**Zip:**

**Permanent Address (if different):**

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_

**Cell Phone:** \_\_\_\_\_

**Primary Email:** \_\_\_\_\_ **Secondary Email:** \_\_\_\_\_

**Outreach Project Affiliate Partners:**

NASA Center

**Specify:** \_\_\_\_\_

Industry/Contractor

**Company Name:** \_\_\_\_\_

Institution of Higher Education

**Specify:** \_\_\_\_\_

Other Affiliated Partners in Outreach Program

**Specify:** \_\_\_\_\_

**NASA Mission Directorates:** Starting in FY2020, the Arizona Space Grant Consortium (AZSGC) and all NASA Office of STEM Engagement programs will increase efforts to highlight our programs' alignment with NASA Mission Directorates (MDs). All AZSGC-funded projects are required to align with one or more NASA MDs. Please review the information on our website at [https://spacegrant.arizona.edu/students/internships/NASA\\_MD](https://spacegrant.arizona.edu/students/internships/NASA_MD) to find out more about all four NASA MDs. Use the space below to specify up to two MD(s) and the research priority area(s) your project most closely aligns with.

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### B. DEPARTMENT NOMINATION AND APPROVAL OF COST SHARE

The UA/NASA Space Grant Program, in collaboration with the UA Graduate College and the applicant's nominating department, funds six graduate fellowships per year. Space Grant fellowships are offered to those pursuing degrees in Planetary Sciences, Astronomy, Physics, Earth Sciences and Global Change-related fields (Atmospheric Sciences, Geosciences, Hydrology and Water Resources, Geography, Ecology and others), Evolutionary Biology, Mathematics, Remote Sensing and Spatial Analysis, and in space-related fields in any college or field that uses space-related science and tools (e.g. Public Policy, the Social Sciences, Science Education, etc.).

Graduate Fellowships (<https://spacegrant.arizona.edu/students/fellowships>) are for one year, and can be renewed for a second year with sufficient evidence for effort exerted toward meeting an outreach program goal. Awards include a \$16,000 stipend per year for one or two years, full in- or out-of-state tuition and registration fees waivers, student health insurance, and a travel grant of \$750 per year to attend professional conferences. (Though totals vary based on individual circumstances, 2018 fellowship awards ranged in value from \$21,670-\$51,837.) Successful candidates will show a strong commitment to science education.

These awards are funded with Space Grant and UA Graduate College monies, plus a required department cost-share. Specifically, **Space Grant provides:** \$10,000 stipend, out-of-state tuition waiver, and student health insurance. **Departments provide:** \$6,000 stipend, in-state tuition/registration fee waiver, and \$750/year travel funds.

**Final Application:** The application form, transcripts (unofficial or official), two letters of recommendation, and any letters of support from those cooperating in the proposed education outreach effort should be submitted to your department for review and the **appropriate signatures required below**. Final applications are **due by March 23, 2020** and are to be sent via email to Michelle Coe (Arizona Space Grant Consortium manager | [macoe@lpl.arizona.edu](mailto:macoe@lpl.arizona.edu)) as one PDF document. Applicants or departments can submit the final application. Applicants will be notified of awards by **April 20, 2020**.

For further information or questions, please contact Michelle Coe at (520)621-8556, or email [macoe@lpl.arizona.edu](mailto:macoe@lpl.arizona.edu).

**DEPARTMENT NOMINATION AND APPROVAL OF COST SHARE:**

\_\_\_\_\_  
(Official Department Signature)

\_\_\_\_\_  
(please print signatory name)

nominates \_\_\_\_\_ from the Department of  
(student's name)

\_\_\_\_\_ for a **2020-2021** Space Grant  
(Department)

Fellowship and agrees to provide the cost-share noted above. \_\_\_\_\_  
(date)



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### C. PROJECT PROPOSAL GUIDELINES

The UA/NASA Space Grant Program, in collaboration with the UA Graduate College and the applicant's nominating department, funds six graduate fellowships per year to exceptional graduate students *interested in promoting the understanding of space-related research to the public*. Space Grant Fellowships are offered to those pursuing degrees in Planetary Sciences, Astronomy, Physics, Earth Sciences and Global Change-related fields (Atmospheric Sciences, Geosciences, Hydrology and Water Resources, Geography, Ecology and others) Evolutionary Biology, Mathematics, Remote Sensing and Spatial Analysis, and in space-related fields in any college or fields that use space-related science and tools (e.g. Public Policy, the Social Sciences, Science Education, etc.).

Applicants are asked to propose a 1-2 year project focused on educational outreach, knowledge transfer, technology transfer, science for society, and/or the promotion of science, technology, engineering and mathematics (STEM) to those traditionally underrepresented in STEM.

In keeping with National Space Grant College and Fellowship Program goals, Space Grant Fellows will develop a project that promotes the understanding of space-related research to the public through original research and outreach efforts. Successful applications tend to partner with existing educational programs (e.g. primary/secondary schools, science museums, parks/forests/reserves, 4-H and other Cooperative Extension agents, etc.). Examples include:

- developing curricular and/or educational outreach materials designed to communicate science to a specific audience (all precollege-related program materials should align with Arizona and/or National Math, Science, Geography or Technology Standards);
- developing a web application with science education and/or knowledge transfer;
- developing skills in science writing and journalism;
- developing a demonstration project and associated educational materials for an existing educational program;
- developing a program that encourages those traditionally underrepresented in science, technology, engineering, and mathematics to learn more about these disciplines and/or pursue associate careers;
- designing and carrying-out some other creative science, technology, engineering, and/or mathematics outreach project;

Links to descriptions of fellowship projects from 1995 to the present can be found at <https://spacegrant.arizona.edu/students/fellowships/years>.

**Project Description** (maximum of 4 pages, including graphics but excluding references)

Margins: 1 inch, minimum

Font: 12 pt. minimum, Times New Roman

Title: (maximum 10 words or 100 characters, with spaces)

Headings: Please use the headings listed below.

**A. Problem**

- What is the nature and significance of the educational challenge you propose to address?
- Describe your target audience (numbers, demographics, etc.).
- Who are your institutional partners?<sup>1</sup>
- Briefly mention why you personally are motivated and qualified to address this challenge (i.e., your academic, research and/or professional experience, goals and/or philosophy).

**B. Technical Approach**

- What are your methods and how will you address the proposed educational challenge?
- List the *major* educational materials, data, technology, and/or research results you plan to use in your educational outreach effort and their source.<sup>2</sup>
- Why is your approach appropriate? (e.g., proven track record and/or grounding in accepted education/knowledge transfer/pedagogic theory).<sup>3</sup>
- Note any permissions / approvals that might be required.

**C. Timetable**

- Summarize the major tasks / phases of the project.
- Identify milestones and/or critical paths in the task schedule.

**D. Expected Outcomes**

- Estimate/quantify the impact of your proposed project.

**E. Evaluation**

- For education activities, how will learning be assessed?
- For educational materials, how will effectiveness be determined?
- For the overall project, how will impact be measured?<sup>4</sup>

**F. Sustainability Plan**

- What steps will you take during the project to help ensure that its impact can be sustained beyond the fellowship period?

**G. References Cited** (not included in page limit)

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<sup>1</sup> Proposals that partner with an existing educational program must carefully delineate between what is already provided by the program and what you will introduce that is *new* to the program.

<sup>2</sup> Though not required, it is encouraged that at least some of the science, data, or technology involved in the project come from NASA or NASA-funded initiatives.

<sup>3</sup> Any pre-college oriented program materials should align with Arizona and/or national math, science, writing, geography, and/or technology standards.

<sup>4</sup> This could be the adoption of an innovation or technology, a sought-after change in behavior, a broader understanding of a concept or idea, and/or the spread of an idea/knowledge/technology to a larger audience.



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### D. REFERENCE FORM

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**Name of Applicant:** \_\_\_\_\_

**Name of Referee:** \_\_\_\_\_

Thank you for agreeing to write a reference for the above applicant. Please ensure that you reply on a separate sheet of headed university/institution notepaper and sign the reference. Please address the following questions in your reference letter, attach your letter to this sheet, and return it to the applicant via email or hardcopy for transmission to Space Grant.

1. How long and in what capacity have you known the applicant?
2. What are your impressions of the applicant's interest/motivation in promoting the understanding of science, technology, engineering and/or mathematics to the public?
3. What are your impressions of the applicant's proposed outreach project?
  - a. Are the applicant's objectives compelling and are the methods appropriate?
  - b. Is the project feasible and is it achievable while the applicant pursues their graduate degree?
4. Please very briefly comment on the applicant's self-reliance and independence, academic abilities, and professional goals as they relate to proposed outreach project.

Your assistance is greatly appreciated.



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3. What are your impressions of the applicant's proposed outreach project?
  - a. Are the applicant's objectives compelling and are the methods appropriate?
  - b. Is the project feasible and is it achievable while the applicant pursues their graduate degree?
4. Please very briefly comment on the applicant's self-reliance and independence, academic abilities, and professional goals as they relate to proposed outreach project.

Your assistance is greatly appreciated.





## **UA/NASA Space Grant Graduate Fellowship Application**

### **E. LETTER OF SUPPORT FORM (OPTIONAL)**

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Successful applicants often establish a relationship with an organization or institution (i.e., a school, museum, park/forest, or an existing educational program) as they develop their outreach project proposal. These applicants identify an "educational outreach advisor" representing this organization or program who will provide an initial letter of support that indicates their willingness to cooperate with the applicant's proposal.

**Name of Applicant:**

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**Name of Partner Organization:**

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**Name of Partner Organization Advisor:**

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Thank you for agreeing to write a letter of support for the above applicant. Please ensure that you reply on a separate sheet of headed institution/organization notepaper and sign the letter. Address the following questions in your reference, attach your letter to this sheet, and return it to the applicant via email for transmission to Space Grant.

1. What are your impressions of the applicant's proposed outreach project?
  - a. Are the student's objectives compelling and are the methods appropriate?
  - b. Who will be impacted?
  - c. Is the project feasible and achievable in the time frame given?
2. Please indicate your willingness to support the applicant's project.