



2022-2023
ANNOUNCEMENT OF OPPORTUNITY
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**Unmanned Aerial Vehicle (UAV)
Research Program**

Applications Open: December 9, 2022
Application Deadline: February 20, 2023
Award Announcements: March 31, 2023
Work Period: June 12, 2023 to September 15, 2023*
* Start time for the work period is flexible.
All in-person events conclude August 12, 2023

Awards:

- \$4160** stipend – student research scholarship (maximum four (4) students)
- On-campus housing at Lawrence University provided (optional)

*** Based on availability of funds.*

Purpose: The Wisconsin Space Grant Consortium (WSGC) is looking for four (4) full-time undergraduate students from affiliate member institutions majoring in a science, math, or engineering discipline to join the science team of our Unmanned Aerial Vehicle Science Fellows program. Interested students do not need to have experience, a pre-formed team, or an initial idea for a project. Interested students do need a desire to work with other students to conceive of and carry out a scientific mission using UAVs and remote sensing techniques. Some familiarity with GIS and Remote Sensing will be helpful, but not required. Training for FAA107 certification is provided through the program. The WSGC will assemble the team from selected applicants.

Program: The Unmanned Aerial Vehicle Student Satellite Initiative is an innovative NASA project that provides students an opportunity to conduct earth observing experiments using remote sensing technologies and techniques. Selected students will form a collaborative team of science, data science, and engineering specialists, whose task will be to design and execute a novel scientific study of the earth's surface. Students will be expected to define an important science question or set of questions that might be addressed by UAVs equipped with thermal, near-infrared, and color cameras. Students will design the experiments, fly the mission to collect data, analyze the resulting data, and ultimately prepare a paper for inclusion in the annual WSGC proceedings.

Work period: Students selected for the program will be offered the opportunity to take an FAA Section 107 preparatory course prior to the formal summer research program. If the student successfully passes the exam, the preparatory course and exam fee will be covered by the program. The in-person, team portion of the program begins on approximately June 12, 2023, to August 12, 2023, but the start time is flexible, based on the end of the spring term for each institution. The 10-week summer research will conclude on August 12, 2023, with some final analysis and writing through December. The UAV team members will present their results at the Annual Wisconsin Space Conference in August 2023 and submit a paper to the Proceedings of the Wisconsin Space Conference by September 15, 2023.

Location: Meetings of the team will take place at Lawrence University in Appleton, WI. Students must be able to provide their own transportation to Appleton. A field vehicle is available for transportation to and from study sites. FAA107 training will take place virtually prior to the start of the summer program.

To Apply:

- Register on the WSGC website (<https://spacegrant.carthage.edu/forms/account/login>). Applicants will be prompted to update personal information annually.
- [Sign in](#) and submit the [Grant Application Form](#) (*applicants may apply to multiple funding programs*) and supporting documents.

Application Requirements: Applicants who meet the following requirements can apply for this scholarship by registering and applying online at spacegrant.carthage.edu/about/login:

- U.S. citizen
- Enrolled full-time in, admitted to, or applied to any undergraduate program at a [WSGC college or university](#) (*Students enrolled in a two-year program who declare their plan to be enrolled at a WSGC Affiliate are eligible*)
- At least a sophomore standing as of fall 2022 and must be enrolled through December 2023
- Minimum 2.5 GPA (*Proposals that include a GPA of less than 2.5 will be evaluated on a case-by-case basis*)
- Strong interest in the success of the project (*motivation is more important than experience, with self-motivation and ability to complete work with minimal supervision being absolutely critical*)
- Completed application online (*see Supporting Materials Required with Application below*)

***NOTE:** After the submission deadline, WSGC may request an individual interview via phone or Zoom.

Supporting Materials Required with Application:

- Letter of Interest
- Resume
- Two faculty references (Names, Emails, and Phone Numbers)

See [Tools & Tips](#) for more information on how to create business correspondence and a resume.

The Consortium invites applications for the Unmanned Aerial Vehicle Research Scholarship Program for the 2022-2023 academic year. For consideration, application forms must be complete and be accompanied by supporting documentation. The Consortium especially encourages applications from members of minority groups, women, and persons with disabilities, and from those pursuing interdisciplinary aerospace studies in, but not limited to, engineering, the sciences, architecture, law, business, nursing and medicine. Award winners will be chosen based on academic performance, aerospace-related promise, and the demonstrated interest in pursuing a career in STEM/aerospace. The diverse scientific and engineering needs of the team will also be considered.

Award Acceptance Components: Submit all reports and required documents to the [WSGC application website](#) grant management page under [Manage Applications/Current Grant Cycle Applications/Unmanned Aerial Vehicle](#):

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|--|---------------------------|--------------------------------|
| • Award Acceptance Letter | • Media Release Form | • 2-3 Project Photos (optional |
| • W9 (<i>Carthage College award recipients submit a W4 and I9</i>) | • One-Paragraph Biography | 1-minute video) Featuring |
| | • Professional Photo | Awardee w/Project |
| | • Interim Report | • Final Report |

Complete the following tasks:

- Office of Education Survey must be completed by December 15, 2023
- Present Project at the Annual Wisconsin Space Conference in August
- Submit a Proceeding Paper by Sept. 15th to the [Proceedings of the Wisconsin Space Journal](#)
- Submit a Student Story

Please direct questions about the [Unmanned Aerial Vehicle Research Scholarship Program](#) to:

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Please follow us on     for program updates



This funding opportunity is made available for the pursuit of space-related research and/or activities through the National Space Grant College and Fellowship Program: NASA Educational Cooperative Agreement #80NSSC20M0123. Catalog of Federal Domestic Assistance (CFDA) number for this award is 43.008.

All awards are fully competitive awards of opportunity in which applications are reviewed by the WSGC Technical Advisory Panel and other experts as needed. Awards are made by the Assistant Director based on recommendations from the Associate Director.