# SPACE GRAN NASA

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### **Mission**

The mission of the Michigan Space Grant Consortium (MSGC) is to create, develop, and promote programs that reflect NASA strategic interests and support cooperation between academia, industry, state and local government in science and technology in Michigan. Various opportunities for educational and research funding are available.

# **FY2024 MSGC Funding Snapshot**

\$135,000 for Educational Programs

\$65,000 in Research Seed Grants

\$287,000 NASA Internships & Fellowships

**270** College Students

**4,453** K-12 Students

**271** K-12 Teachers

**24** Publications

**116** Significant Awards

# **Underrepresented Learner**

11% Hispanic or Latino

8% Black/African American or Native American

4% Disability

38% Women



<sup>&</sup>quot;Significant Awards" are defined as college students with either \$3,000+ funding or 160+ hours effort.
"Underrepresented Learner" is defined as unique learners that self-identify into at least one of the following underrepresented categories: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander; Female; Hispanic or Latino; Military Veteran, or Reported having a Disability
\*Reported in NASA STEM Gateway system for FY2024

# **History & Vision**

The National Space Grant College & Fellowship Program was initiated by NASA in 1989. The national network includes over 850 affiliates from universities, colleges, industry, museums, science centers, and state and local agencies. The vision of the Michigan Space Grant Consortium is to foster awareness of, education in, and research on space-related science and technology in Michigan.



Our commitment to equity and inclusion within the Consortium is key to our mission. We strive to contribute to the national need by recruiting a diverse group of students, researchers, and participants for all programs.



















From left to right: University of Michigan CLAWS team visiting the decommissioned Apollo rocket in the NASA Johnson Space Center; Graduate Student Jillian Greene deploying a DIY autonomous floating chamber to monitor greenhouse gas flux from Lake Macatawa, MI; Mahiik Trivedi (HS student, left) and Farah Fehidat (HS student, right) learning how to use a peptide synthesizer for their research project.

# **Graduate Fellowships & Undergraduate Research Grants**

MSGC offers research and public service fellowships to graduate students and undergraduate research grants to students who successfully compete for the award. Students are required to identify a mentor from the faculty research, education, or public service communities, with whom they intend to work. After developing a research plan (including budget) with the mentor, students write and submit a proposal describing their project and how the funds will be used. The fellowship/research grant supported research can occur over the summer, during the academic year, or both.

# **Internships**

MSGC supports both NASA and Industry Internships. Both internship opportunities are educational hands-on opportunities that provide unique research and operational experiences for undergraduate, and graduate students from MSGC affiliated institutions. The internships can occur during the academic year or summer. Students can apply to work at any NASA Center or with MSGC Industry partners.

### **HONES** Hands On NASA Oriented Experiences for Student groups

MSGC supports student groups from MSGC affiliated institutions that engage in hands-on, authentic, science and engineering problem-solving research and development related to NASA Mission Directorate challenges and NASA STEM engagement priorities. Some of our previous HONES groups have comepeted in NASA's Lunarbotics Competition, Solar Car Competitions, Rover Challenges, the Micro-G NExT Challenge and NASA's SUITS Challenge.

### **Research Seed Grants**

MSGC's Research Seed opportunity supports junior faculty and research scientists at MSGC affiliate institutions as well as mid-career and senior level faculty pursuing new areas of research and development relevant to NASA's strategic interests as expressed in NASA's 2022 Strategic Plan. Specifically, research focused on aerospace, space science, and Earth system science. Faculty working in other related science, technology, engineering, and mathematics fields are also eligible to apply. The objective of this program is to support early career research and development necessary to collect preliminary data required to apply for extramural support.

# **Educational Programs**

MSGC supports a suite of educational programs:

- Pre-College Education: Alignment with state and national education standards
- Public Outreach: Likelihood of stimulating STEM literacy and interest
- Teacher Training: Potential to promote innovative training
- Augmentation: Anticipated success in involving underrepresented populations and effective use of budget

# K-12 Incentive Program

The MSGC K-12 Educator Incentive Program is designed to either: encourage teachers to engage in science, technology, engineering, art and mathematics (STEAM) educational enhancement activities, such as conferences and workshops, related to STEAM; or help teachers with the purchase of materials and supplies for innovative instructional initiatives. Preference is given to activities directly related to NASA strategic interests, including aerospace, space science, and Earth system science. Activities in other related STEAM fields, including educational research topics in STEAM, are also eligible for consideration.











