



## OHIO SPACE GRANT CONSORTIUM

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- Jed E. Marquart, Ph.D., P.E., Director
- Ms. Laura A. Stacko, Program Manager
- Mr. Timothy M. Hale, Program Assistant

### Lead Institution

- Ohio Aerospace Institute (OAI)

### Affiliate Members

- Baldwin Wallace University
- Case Western Reserve University
- Cedarville University
- Central State University (HBCU)
- Cleveland State University
- Kent State University
- Marietta College
- Miami University
- Ohio Northern University
- Ohio University
- The Ohio State University
- The University of Akron
- The University of Toledo
- University of Cincinnati
- University of Dayton
- Wilberforce University (HBCU)
- Wright State University
- Youngstown State University

### Community Colleges

- Cincinnati State Technical and Community College
- Columbus State Community College
- Cuyahoga Community College
- Lakeland Community College
- Lorain County Community College
- Sinclair Community College

### Government Liaisons

- NASA Glenn Research Center
- Air Force Research Laboratory

### Education Outreach Partners

- Cincinnati Observatory Center
- Drake Planetarium & Science Center
- hyQ Academy
- iSPACE, Inc.

Follow OSGC on:



### History:

The Ohio Space Grant Consortium (OSGC) was established in 1989 (along with the original Ohio 12-member universities) by the United States Congress, and is part of the [National Space Grant College and Fellowship Program](#) known as “Space Grant” administered through the [Office of Education](#) at [NASA Headquarters](#). There are 52 consortia, one in each state, the District of Columbia, and the Commonwealth of Puerto Rico. Space Grant is a unique national network of colleges and universities working to expand opportunities for Americans to understand and participate in NASA’s aeronautics and space projects by supporting and enhancing Science, Technology, Engineering, and Mathematics (STEM) through scholarships, fellowships, higher education, research infrastructure, precollege (K-12), and informal education public outreach efforts. The Space Grant National network includes over 1,000+ affiliates from universities, colleges, industry, museums, science centers, and state and local agencies.

The OSGC is currently composed of 24 institutions of higher learning (18 universities (2 HBCUs), 6 community colleges, [NASA Glenn Research Center](#) (GRC) the [Air Force Research Laboratories](#) (AFRL), and various education outreach partners. The OSGC Program Office is located at the [Ohio Aerospace Institute](#) (OAI) in Cleveland, Ohio, and is led by Dr. Jed E. Marquart who serves as the OSGC Director.

### Vision:

The Vision of the Ohio Space Grant Consortium (OSGC) is to enhance opportunities for all Ohioans to participate in NASA Science, Technology, Engineering, and Mathematics (STEM)-related research, education, workforce, and public service programs to build and sustain a diverse, well-prepared technical workforce for NASA and the Nation, and to lead in the promotion and development of aeronautics, space science and engineering, and earth science.



OSGC Fellow Dr. Robert Knapke

### Mission:

The Mission of the OSGC is to advance the Nation’s capability in STEM leading to the continued development of a diverse workforce through NASA-related collaborations within Ohio’s network of scientists, researchers, engineers, and educators at Ohio universities, the Ohio Aerospace Institute (OAI), NASA Centers, the Air Force Research Laboratory (AFRL), and industry that align with the National Space Grant Program goals and objectives. A key component of this activity is to attract and retain students in STEM disciplines with emphasis on increasing participation by women, underrepresented minorities, and persons with disabilities.

### Goals:

#### #1: Develop a diverse STEM workforce in Ohio and the Nation.

- NIFS (NASA Internships, Fellowships, and Scholarships)
  - Competitive scholarship and fellowship program at Ohio universities (includes research project + faculty mentors)
  - Internships [with NASA Centers (focus on Glenn Research Center) and with industry]

#### #2: Engage students and faculty in hands-on STEM research activities.

- Student-Innovative-Creative-Hands-on Project (SICHOP) grants
- Faculty Research/Curriculum grants (aligned to NASA research priorities)

#### #3: Support collaborative STEM research for Ohio faculty and students.

- Student grants
- Faculty Research grants
- Summer research/internship opportunities (2 HBCUs)

#### #4: Increase STEM awareness for Ohio K-12 teachers and students.

- Exposure to NASA Education materials
- Teacher Training Programs and Workshops
- OSGC Mini-grants

#### #5: Encourage informal educational activities promoting STEM.

- OSGC Informal Education grants



Ohio Northern University  
“Bad News Bears”

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## Ohio Space Grant Consortium Key Program Elements

### Undergraduate Scholarships:

Award approximately 50 **Junior and Senior Scholarships** (\$3,500), and 8-10 **Community College Scholarships** (\$1,000) to students in Science, Technology, Engineering, or Mathematics (STEM) disciplines at an Ohio Space Grant Consortium affiliate institution. Award 2 **Special Scholarships** in memory of two former OSGC Directors: 1) Kenneth J. De Witt NASA / Ohio Space Grant Consortium Scholarship at The University of Toledo; 2) Paul C. K. Lam Memorial Scholarship at The University of Akron



### Graduate Fellowships:

Award 6-8 competitive fellowship awards to students in STEM disciplines at any of the Ohio Space Grant Consortium affiliate institutions offering graduate programs. **Master's Fellowships** are \$13,000 per year and are supplemented with \$3,000 of university funds during the first year, plus tuition waiver (total stipend is \$16,000 per calendar year; the second year is \$6,500 for 6 months and supplemented with \$1,500 of university funds, plus tuition waiver. The maximum duration of the fellowship is 18 months.) **Doctoral Fellowships** for current awardees are \$15,000 per year and are supplemented with \$5,000 of university funds, plus tuition waiver (total stipend is \$20,000 per calendar year for a maximum duration of 3 years). No new Doctoral Fellowships are currently being awarded at this time.



### Pre-Service Teacher Scholarships:

Award 15 **Pre-Service Teacher Scholarships** (\$2,000) to students seeking licensure in Science or Math at OSGC affiliate institutions with Colleges of Education. Each scholar will plan and conduct an educational project or activity under the guidance and approval of a campus advisor/mentor incorporating NASA educational materials into a K-12 lesson plan or activity. Students also participate in a hands-on workshop held at OAI conducted in cooperation with NASA Glenn Research Center Office of Education personnel.

### Student Internships at NASA Centers/Industry:



Support 5-6 students selected for a summer internship at a NASA Center, NASA Academy, or with industry. Students are required to be majoring in STEM at an Ohio university (3.0 GPA), or reside in Ohio.

### Mini-grants to Ohio K-12 Teachers:

Offer mini-grants up to \$1,000 to support innovative projects and programs from any discipline demonstrating space-related interests. Mini-grants support K-12 math, science, or computer projects and are available to all Ohio K-12 teachers. Approximately 8-10 mini-grants are awarded annually.



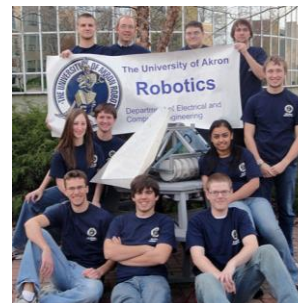
### Grant Opportunities for Ohio Faculty, Educators, and Students:

Offer grant funding to support innovative programs and research demonstrating STEM-related interests. Grants are awarded in the areas of Higher Education, Research Infrastructure, Precollege, and Informal Education. Approximately 10-15 grants are awarded annually. The types of grant opportunities are:

- **Faculty Research Initiation Grant Proposal (FRIGP)** – is specifically meant as "seed funding" for untenured faculty to support new, innovative research to provide necessary results for a regular research grant opportunity with a funding agency (i.e., NASA, NSF). Funding is restricted to one year.
- **Curriculum Innovation Proposal (CIP)** – to support new, innovative curriculum development to support the development of STEM higher education in areas supported by NASA. Curriculum developments that can be shared with other schools are preferred.



- **Student-Innovative-Creative-Hands-on Project (SICHOP)** – to aid in funding for undergraduate student "hands-on" projects. This can be an individual or a group project. A faculty mentor is required.
- **Informal Education Innovation Proposal (IEIP)** – to support informal education activities that support STEM education in areas supported by NASA. Collaborative proposals involving multiple participants and ones that can be shared with other organizations are preferred.



### Student-led Balloon Satellite/Rocket/UAS/Design Programs:

Increases student exposure to design requirements of space hardware and provides opportunities for students to experience hands-on STEM activities.

Practical team-building skills are developed as students prepare for the future STEM workforce. Funding is provided to student-led Balloon Satellite/Rocket/UAS/Design programs to member universities. To date, Central State, Lorain County Community College, Miami University, Ohio Northern University, The University of Akron, University of Cincinnati, University of Dayton, The Ohio State University, The University of Toledo, and Wright State all have active student-led teams.



Central State University



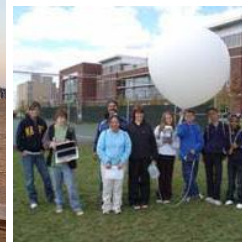
Lorain County CC



Miami University



Ohio University



The University of Akron



Wright State University