



#### **OHIO SPACE GRANT CONSORTIUM**

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### 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
- $\bullet \ Drake \ Planetarium \ \& \ Science \ Center$
- 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 25 Affiliates (24 institutions of higher learning (18 universities

(2 HBCUs), 6 community colleges, <u>NASA Glenn Research Center</u> (GRC) the <u>Air Force Research Laboratories</u> (AFRL), and various education outreach partners. The OSGC Program Office is located at the <u>Ohio Aerospace Institute</u> (OAI), a non-profit organization serving as the Lead Institution in Cleveland, Ohio, and is led by Dr. Andrew Gyekenyesi who serves as the OSGC Interim Director.



#### Vision:

The Vision of the Ohio Space Grant Consortium is to continue Ohio's legendary aviation history from the Wright Brothers pioneer beginnings to a future filled with endless exploration and discovery for students, educators, and all Ohioans.

#### Mission:

The Ohio Space Grant Consortium's Mission is to provide opportunities for all Ohioans to engage in NASA Science, Technology, Engineering, and Mathematics (STEM)-related research, education, and public service programs to foster a diverse, well-prepared, future technical workforce for NASA and the Nation.

## 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)
  - o 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"

Continued on Page 2 . . .

# **Key Program Elements**



# Student Awards - 100 per year (all awardees must be U.S. Citizens) **Graduate Fellowships:**

- •Master's 1 Fellowships (\$20,000 plus tuition waiver) Open to students enrolled in a STEM discipline at an Ohio Affiliate university offering graduate programs
- •Master's 2 Fellowships (\$8,500 plus tuition waiver) Open to students continuing in Year 2.

#### **Undergraduate Scholarships:**

- •Junior and Senior Scholarships (\$3,500) Open to students enrolled in STEM at an Affiliate university
- •Community College Scholarships (\$1,000) Open to students enrolled in STEM at an Affiliate community college
- •Pre-Service Teacher Scholarships (\$2,000) Open to students majoring in Education and seeking licensure in Science or Math at an Affiliate university with Colleges of Education
- •Special Scholarships In memory of two former OSGC Directors (\$1,000)

# Student Internships at NASA Centers / Industry / University:



Open to students enrolled in a STEM discipline who have been selected for a Summer / Spring / Fall internship at either a NASA Center, industry or university. Students are required to attend an Ohio university, 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 per year.

### **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 and require 1:1 in cost share. Approximately 20 grants are awarded per year. 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 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/Robotics/Rocket/Underwater

Robotics/UAS/Design programs to Affiliate universities. To date, Case, Western, Cedarville, Central State, Cleveland State, Kent State, Lorain County Community College, Miami University, Ohio Northern University, Ohio State, Ohio University, Sinclair Community College, The University of Akron, University of Cincinnati, University of Dayton, The University of Toledo, Wright State, and Youngstown State all have active student-led teams.



Central State University



Lorain County CC





Ohio University



The University of Akron



