

Consortium: Florida

Lead Institution: University of Central Florida

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Consortium website URL: <http://fsgc.engr.ucf.edu>

Affiliate members:

- Bethune-Cookman University
- Brevard Community College
- Eckerd College
- Embry-Riddle Aeronautical University
- Florida A&M University
- Florida Atlantic University
- Florida Gulf Coast University
- Florida Institute of Technology
- Florida International University
- Florida State University
- University of Central Florida
- University of Florida
- University of Miami
- University of North Florida
- University of South Florida
- University of West Florida
- Astronauts Memorial Foundation
- Higher Education Consortium
- Kennedy Space Center
- Space Florida
- Orlando Science Center

Program Description: The National Space Grant College and Fellowship Program consists of 52 state-based, university-led Space Grant Consortia in each of the 50 states plus the District of Columbia and the Commonwealth of Puerto Rico. Annually, each consortium receives funds to

develop and implement student fellowships and scholarships programs; interdisciplinary space-related research infrastructure, education, and public service programs; and cooperative initiatives with industry, research laboratories, and state, local, and other governments. Space Grant operates at the intersection of NASA's interest as implemented by alignment with the Mission Directorates and the state's interests. Although it is primarily a higher education program, Space Grant programs encompass the entire length of the education pipeline, including elementary/secondary and informal education. The Florida Space Grant Consortium is a Designated Consortium funded at a level of \$590,000 for fiscal year 2007.

Program Relevance to NASA: Space Grant consortia build human capital and research expertise to support NASA programs and missions, expand NASA's expertise and educational networks, and bring knowledge and awareness of space to a broad range of constituents in every state. In Florida, FSGC works very closely with the Kennedy Space Center by funding seed research projects in technological areas relevant to KSC. In addition, undergraduate students from Florida universities have the opportunity to work with KSC engineers and scientist during the summers.

Program Benefits to the State: FSGC works very closely with Space Florida, a public-private partnership responsible for promoting and developing Florida's aerospace industry, to support the expansion and diversification of education, research, and workforce development. FSGC does this by collaborating with Space Florida to provide internships to students, seed funding to university researchers and opportunities for student collaborations in hand-on projects.

Program Goals:

- Fund research with strong student involvement that supports NASA's Mission Directorates (Aeronautics Research, Space Exploration, Science, and Space Operations) with an emphasis on Space Exploration and Science.
- Create public programs that support literacy in science, engineering, technology, and mathematics for the citizens of Florida.
- Increase interest and learning in the areas of science, engineering, technology, and mathematics, using the challenge of NASA's Mission Directorates
- Recruit women, underrepresented minorities, and the disabled for careers in math, science, engineering and technology.
- Encourage interdisciplinary education and training, research, and public service programs related to aerospace and encourage collaborative development programs among universities, industry, and federal, state, and local governments.
- Facilitate the post-graduate training of K-12 teachers

Program Accomplishments:

- Placed 22 students as interns at the Kennedy Space Center, jointly with Space Florida, and placed 4 students at other NASA centers. The intention is to provide

opportunities/work exposure to both undergraduates and technicians to experience and consider future careers in the KSC environment, and related space and aeronautical industries in Florida

- Awarded 17 grants to faculty researchers from 6 universities to conduct research relevant to NASA and Kennedy Space Center. The intention of this annual program will be to combine both Federal and State funds for projects that diversify Florida's space industry and research, while at the same time, supports statewide aerospace workforce developments.
- Received grants from the Kennedy Space Center and the US Department of State to conduct 2 week workshops for education majors in the US and teachers from overseas embassy schools. Also received a grant from GE foundation to train teachers at the Exploration Station
- FSGC manages the Educators Resource Center and Exploration Station at the Kennedy Space Center Visitor Complex

Student Accomplishments:

- FSGC Intern Nathaniel Ambler (UCF) working with the NASA / Shuttle Processing Division / Fluids & Liquid Propulsion Division with his mentor Ms. Janira Ramos, has been performing research on a proposal to assist KSC save millions of dollars each year on helium waste. Their research results have created a plan to re-bottle 90% of the helium for reuse. They were awarded a \$100,000 grant by KSC to continue the work.
- Two of FSGC's Undergraduate Academy participants recently were offered jobs after completion of their Academy. Heidi Glaudel, from ERAU, joined USA and Brenna Martin from UCF joined the Air Force. This was a result of her interaction with Major Black from the Patrick Air Force Base. Major Black was one of the advisors for the Academy program.
- 46 undergraduate and graduate students and 8 faculty representing 5 universities (University of Florida, University of Central Florida, Florida Institute of Technology, Embry-Riddle Aeronautical University, and Florida International University) are participating in the 4th Florida University Nano satellite Design Competition
- 2 students with the Florida High School/High Tech Program are on two FIRST robotics teams and together one sees for the other where needed and the other hears and explains things to him. One student is hearing impaired and the other is sight impaired. Together they were primary team members on "The Pirates of Palm Bay" FIRST Tech Challenge Team 509.