NASA Florida Space Grant Consortium
2025-26 Dissertation and Thesis Improvement Fellowship (DTIF)

ABSTRACT

The NASA Florida Space Grant Consortium (FSGC) plans to award Master's Thesis and Doctoral Dissertation and Thesis Improvement Fellowships (DTIF) in areas of space science and engineering. Proposals must align with one or more of the five NASA Mission Directorates (see Appendix A). These grants provide partial support (funds cannot be used for salaries and/or tuition) of Master's Thesis and Doctoral Dissertation research for improvement beyond the already existing project. This fellowship is open to US citizens only. Permanent Residents are not eligible.

PROGRAM DESCRIPTION

Proposals whose focus falls within topics of interest to NASA (See appendix A) would be considered for evaluation. The duration cannot be more than one year, and the maximum fellowship amount is $5000. **Since this is a fellowship, indirect costs are disallowed**.

DTIF awards are intended to provide supplemental funds for items not normally available from the student's university or other sources. Funds are not intended to provide the total costs of a student's thesis or dissertation research. Allowable items include travel to specialized facilities or field research locations and professional meetings, use of specialized research equipment, purchase of laboratory supplies and services not otherwise available, the hiring of field or laboratory assistants, fees for software licenses (valid for the duration of the fellowship period only), and rental of environmental chambers or other research facilities.

Funds also may be used for textbooks, journal subscription (valid for the duration of the fellowship), or dissertation preparation or reproduction. Funds cannot be used for salaries and/or tuition.

Award Information

- Anticipated Type of Award: Standard Grant
- Estimated Number of Awards: 7 to 8
- Anticipated Total Funding Amount: $40,000
- Award Amount: Up to $5000 per fellowship

Eligibility Information

Who May Submit Proposals:

Students from institutions who are affiliates of FSGC (see Appendix B) are eligible for the fellowship. **The students must be US citizens. Permanent residents are not eligible.**

A student must have advanced to candidacy for a Ph.D. degree before the submission deadline to be eligible to submit a proposal. For Master's fellowship, the student must be enrolled in a Master's program with thesis. **Non-thesis Master's students are not eligible for this fellowship**. A statement that the student has advanced to candidacy for a Ph.D. (or student is enrolled in a Master/s program with thesis), signed and dated by the department chairperson, or graduate dean, or similar administrative official is required. The proposal must be submitted through regular

organizational channels by the dissertation advisor(s) on behalf of the graduate student. The student must be enrolled at a U.S. institution and must be a US citizen. Permanent residents are not eligible.

The student is expected to be the principal author of the application, with minimal assistance from the faculty advisor. By submitting the application for consideration, the student and faculty advisor certify that the student was the principal author of the application.

Who May Serve as PI: The student's dissertation advisor must be the PI. The funds will be awarded to the PI. The PI does not have to be a US Citizen.

Eligible Fields: All nominees shall be enrolled in masters or doctoral programs with the intent of pursuing "space" research broadly defined to include aeronautics and astronautics, remote sensing, atmospheric sciences, and other fundamental sciences and technologies relying on and/or directly impacting space technological resources. Included within this definition are space science, earth observing science, space life sciences, space medicine, space policy, law, and engineering, astronomy and astrophysics, space facilities and applications, and space education. All proposals must be aligned with one or more NASA's Mission Directorates (Appendix A).

Limit on Number of Proposals per Organization:
There are no restrictions or limits.

Limit on Number of Proposals per PI or Co-PI: Two per PI/student

PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

The proposal must be single- or double-spaced, using standard size (8 1/2" x 11") paper, in no smaller than 12-point font with a minimum of 1" margins on all sides for each page. Use an easily readable font face (e.g. Geneva, Helvetica, Times Roman). All pages must be numbered. No supplementary materials will be accepted, and over-length proposals will not be submitted for merit review.

1. Cover Page (1-page max)
   Project Title on the Cover Page should reflect the thesis or dissertation work of the student. List the primary dissertation advisor as the PI.
2. Project Summary (maximum 250 words). Please include the title, faculty advisor name, name of the student and the NASA's Mission Directorate that the project is aligned.
3. Project Description (maximum 1000 words excluding figures and tables and references)
   The proposal should include a brief description of the overall dissertation / thesis project, including its scientific significance, and how it provides a context for the new work to be supported by the DTIF (if applicable). Please point out the closest NASA Mission Directorate to which your project relates (see Appendix A). Also mention the present source(s) of funding for the dissertation or thesis (fellowships, Research Assistantship, Teaching Assistantship, etc.).

4. Budget and Budget Justification
   The total funds requested should not be more than $5000. **Matching is encouraged but not required**. **Since this award is a fellowship, indirect costs are not allowed**. Please state how the funds will be used. If the funds are for travel to present a paper in a conference or workshop, please mention the name of the conference and approximate costs for the travel (including airfare and/or mileage and hotel stay). Please note that you cannot request funds for international travel. If funds are requested for software licenses or journal subscription, they must be valid only for the duration of the fellowship. If the funds requested are for material and/or supplies, please describe the materials/supplies.
5. Resume
6. One letter of recommendation (from dissertation/thesis advisor or committee member).
7. A statement that the student has advanced to candidacy for a Ph.D. (or student is enrolled in a Master/s program with thesis), signed and dated by the department chairperson, or graduate dean, or similar administrative official
8. Most current transcripts

Performance Period: The performance period cannot be for more than 1 year. The starting date can be as early as August 5, 2025.

B. Due Dates

- Notice of intent (not binding): Email the title of the research and abstract (250 words) to fsgc@ucf.edu by April 14, 2025.
- Electronic submission of Proposals due by May 30, 2025. Hardcopies are not required.
- Anticipated award announcement: July 28,2025

C. Proposal Submission requirements

Register for an FSGC online account at www.floridaspacegrant.org and upload the proposal along with the letters, resume, transcripts, and GRE scores (if applicable). Registration simply requires an e-mail address and the creation of a username and password. The email address must be your university email address.

D. Reporting Requirements:

A final report (not more than three pages) is due within one month of the end of the grant. The report must include the technical work done because of the award, presentations at any conferences or workshop. Please include a list of publications because of this fellowship.
All publications should acknowledge the support of NASA through the Florida Space Grant Consortium. Copies of all publications resulting from the grant should be sent to the FSGC.

E. Contact

Please email the FSGC Director, Dr. Jaydeep Mukherjee (jaydeep.mukherjee@ucf.edu) if you have any questions about the proposal.

A Proposal submitted to NASA Florida Space Grant Consortium
For the AY 2025-26 Dissertation and Thesis Improvement Fellowship (DIF)

Proposal Title:

Nominator's Name and Email: _____

Nominees's Name: _____

Department/University: _____

Address: _____

_____

Nominator's Email: _____ Phone: _____

Budget Request: [See instructions.]
BUDGET REQUEST
NASA Institution TOTAL

Please identify which category is applicable to your project (check one most appropriate):
___ Science Mission Directorate (SMD)
___ Exploration Systems Development Mission Directorate (ESDMD)
___ Space Operations Mission Directorate (HEO)
___ Space Technology Mission Directorate (STMD)
___ Aeronautics Mission Directorate (ARMD)

Beginning Date: _____ Ending Date: _____

_____
(Signature) Nominator (Signature) Department Head

_____
Name: Name:

_____
Title: Title:

_____
Date: Date:

_____
(Signature) University Official*

_____
Name

_____
Title:

_____
Date:

The University certifies the authenticity of the supporting documents and of the commitment to the institutional fund matching for the fellowship.

Appendix A. Strategic Framework for NASA

I. NASA Mission Directorates

NASA's Mission to pioneer the future in space exploration, scientific discovery, and aeronautics research, draws support from four Mission Directorates, each with a specific responsibility.

- Aeronautics Research Mission Directorate (ARMD): Research conducted by ARMD directly benefits today's air transportation system, the aviation industry, and the passengers and businesses who rely on aviation every day. ARMD scientists, engineers, programmers, test pilots, facilities managers and strategic planners are focused on aviation's future. They design, develop and test advanced technologies that will make aviation much more environmentally friendly, maintain safety in more crowded skies, and ultimately transform the way we fly. NASA's aeronautics research is primarily conducted at four NASA centers: Ames Research Center and Armstrong Flight Research Center in California, Glenn Research Center in Ohio, and Langley Research Center in Virginia (https://www.nasa.gov/directorates/armd/)

- The Science Mission Directorate (SMD) The Science Mission Directorate (SMD) is an organization where discoveries in one scientific discipline have a direct route to other areas of study. This flow is something extremely valuable and is rare in the scientific world. NASA Science missions circle the Earth, the Sun, the Moon, Mars, and many other destinations within our Solar System, including spacecraft that look out even further into our universe. (https://science.nasa.gov/)

- The Human Exploration and Operations (HEO)
  Please note that NASA has organized its Human Exploration and Operations Mission Directorate into two areas: Exploration Systems Development (https://www.nasa.gov/directorates/exploration-systems-development) and Space Operations (https://www.nasa.gov/directorates/space-operations-mission-directorate).

  The Exploration Systems Development Mission Directorate defines and manages systems development for programs critical to NASA's Artemis program and planning for NASA's Moon to Mars exploration approach. ESDMD manages the human exploration system development for lunar orbital, lunar surface, and Mars exploration.

  The Space Operations Mission Directorate maintains a continuous human presence in space for the benefit of people on Earth. The programs within the directorate are the heart of NASA's humans space exploration efforts, enabling Artemis, commercial space, science, and other agency missions through communication, launch services, research capabilities, and crew support.

- Space Technology Mission Directorate (STMD). Technology drives exploration and the space economy. NASA's Space Technology Mission Directorate (STMD) aims to transform future missions while ensuring American leadership in aerospace. STMD develops, demonstrates, and transfers new space technologies that benefit NASA, commercial, and other government missions. https://www.nasa.gov/space-technology-mission-directorate/

Please visit each NASA organization website to find detailed information about current projects and current areas of interest.

II. NASA Research Areas of Interest

NASA research priorities are defined by the Mission Directorates—Aeronautics Research, Science, Human Exploration and Operations, and Space Technology. Each Mission Directorate covers a major area of the Agency's research and technology development efforts. Research priorities for each of the Mission Directorates can be found at the following locations:

Aeronautics Research Mission Directorate (ARMD)

Researchers responding to the ARMD should propose research that is aligned with one or more of the ARMD programs. Proposers are directed to the following:

- ARMD Programs: https://www.nasa.gov/aeronautics/armd-solicitations/

Science Mission Directorate (SMD)

Detailed information on SMD research priorities is available at the following URLs:

- NASA Science Strategy: https://science.nasa.gov/about-us/science-strategy/
- Web pages for scientists and engineers who plan to propose or have submitted a proposal to a research solicitation from the Science Mission Directorate. https://science.nasa.gov/researchers
- Funding Opportunities: Grant Solicitations https://science.nasa.gov/researchers/sara/grant-solicitations

Human Exploration and Operations (HEO) Mission Directorate

Please note that NASA has organized its Human Exploration and Operations Mission Directorate into two areas: Exploration Systems Development (https://www.nasa.gov/directorates/exploration-systems-development) and Space Operations (https://www.nasa.gov/directorates/space-operations-mission-directorate).

For exploration Systems Development programs, please go to https://www.nasa.gov/directorates/exploration-systems-development and scroll down to ESDMD Programs.

For Space Operations programs, please go to https://www.nasa.gov/directorates/space-operations-mission-directorate and scroll down to Areas of Focus.

Space Technology Mission Directorate (STMD)

For the Space Technology programs, please go to https://www.nasa.gov/space-technology-mission-directorate/ and click on "Program and Initiatives".

III. NASA's Technology Transfer Program

NASA's Technology Transfer Program ensures that innovations developed for exploration and discovery are broadly available to the public, maximizing the benefit to the Nation.
https://technology.nasa.gov/

APPENDIX B
FSGC Affiliates

Universities and Colleges

Bethune-Cookman University (Dr. Masood Poorandi) (poorandm@cookman.edu)

Broward College (Dr. Rolando Branly) (rbranly@broward.edu)

Embry-Riddle Aeronautical University (Dr. Terry Oswalt) (oswaltt1@erau.edu)

Eckerd College (Dr. Nazarré Merchant) (merchann@eckerd.edu)

Florida Atlantic University (Dr. Frederick Bloetscher) (fbloetsc@fau.edu)

Eastern Florida State College (Dr. Mevlut Guvendik) (guvendikm@easternflorida.edu)

Florida Gulf Coast University (Dr. Michael Fauerbach) (mfauerba@fgcu.edu)

Florida Institute of Technology (Dr. Marco Carvahlo) (mcarvahlo@fit.edu)

Florida International University (Dr. Berrin Tansel) (tanselb@fiu.edu)

Florida Polytechnic University (Dr. Kais Jribi) (KJribi@floridapoly.edu)

Florida State University (Dr. Alan Hanstein) (alan.hanstein@challengertlh.com)

Florida A&M University (Dr. Charles Weatherford) (charles.weatherford@famu.edu)

Miami Dade College (Dr. Carlos Genatios) (cgenatio@mdc.edu)

University of Central Florida (Dr. Yunjun Xu) (Yunjun.Xu@ucf.edu)

University of Florida (Dr. Josephine Allen) (jallen@mse.ufl.edu)

University of Miami (Dr. Qingda Yang) (qdyang@miami.edu)

University of North Florida (Dr. Nirmal Patel) (npatel@unf.edu)

University of South Florida (Dr. Stephanie Carey) (scarey3@usf.edu)

University of West Florida (Dr. Amrita Gautam) (amishra1@uwf.edu)

Other Organizations

Astronauts Memorial Foundation (Mr. Thad Altman) (taltman@amfcse.org)

Kennedy Space Center (Ms. Patricia Gillis) (patricia.j.gillis@nasa.gov)

Orlando Science Center (Ms. Jill Goddard) (JGoddard@OSC.ORG)

Space Florida (Mr. Trevor Jones) (tjones@spaceflorida.gov)