



2020-2021 MSSGC GRADUATE FELLOWSHIP PROGRAM

The Mississippi Space Grant Consortium (MSSGC) is soliciting applications for the 2020-2021 Graduate Fellowship Program. The Fellowship program is open to graduate students who are U.S. citizens and will be enrolled in a program of full-time study at one of the MSSGC universities. Students may apply prior to entering or anytime during their graduate program. Eligibility is not limited to science and engineering majors. Any field of study that includes coursework related to research or interest to NASA is eligible.

Title: MSSGC Graduate Fellowship Program

Sponsored By: Mississippi Space Grant Consortium

Submit Applications to: nmurray@olemiss.edu

APPLICATIONS MAY NOT BE SUBMITTED IN PAPER FORMAT

Key Dates

1. Release/Posted Date: **December 11th, 2019**
2. Application Due Date: **March 9th, 2020, 11:59pm**

******* No late submissions will be accepted *******

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Section 1. Details

1.A. INTRODUCTION

In 1988, Congress enacted the NASA National Space Grant College and Fellowship Program to address scientific and technological workforce needs and the national decline in scholastic achievement, especially in math and science. NASA's Space Grant funds education, research, and public service education in all 50 states, the District of Columbia, and Puerto Rico through a network of 52 university-based Space Grant Consortia with over 700 participating affiliates.

The NASA/Mississippi Space Grant Consortium (MSSGC) consists of seventeen (17) Mississippi Space Grant colleges and universities: Alcorn State University, Coahoma Community College, Delta State University, Hinds Community College, Itawamba Community College, Jackson State University, Meridian Community College, Mississippi Delta Community College, Mississippi Gulf Coast Community College, Jones County Junior College, Mississippi State University, Mississippi University for Women, Mississippi Valley State University, Northeast Mississippi Community College, Pearl River Community College, University of Mississippi, and University of Southern Mississippi.

A major goal of the MSSGC is to help produce the engineers and scientists of the future. While opportunities for careers in STEM have expanded, the number of talented students pursuing degrees in mathematics, engineering, and the sciences has been declining. To encourage talented individuals to pursue STEM fields of study, the MSSGC established the Graduate Research Fellowship program.

The Mississippi Space Grant Consortium provides a competitive Graduate Research Fellowship program, funded by NASA, with the following goals:

1. Encourage undergraduate students in STEM fields of study to continue to the graduate level.
2. Promote graduate STEM research while recognizing high academic achievement and promise.
3. Increase participation of underrepresented minorities, females, and students with disabilities in aerospace-related careers.
4. Implement the goals of the Mississippi Space Grant Consortium (MSSGC) and the National Aeronautics and Space Administration (NASA).

1.B. PERIOD OF AWARD

Awards will be announced mid-April, 2020, with funding provided to students through their MSSGC affiliate university for the 2020-2021 academic year beginning with the Fall 2020 semester.

1.C. NUMBER AND SIZE OF AWARDS

The MSSGC Director anticipates funding up to eight (8) awards of \$22,000 each.

Fellowships are \$22,000 *add-on awards*, designed to supplement and enhance basic graduate research support, such as graduate research assistantships, graduate teaching assistantships, and non-federal scholarships and fellowships. Awards are renewable up to a total of three years for students making satisfactory research, academic progress, and K-12 outreach. Awardees will be required to certify through their academic department that basic research support is being provided before funds are released.

1.D. ELIGIBILITY

The Fellowship program is open to graduate students who are U.S. citizens and will be enrolled in a program of full-time study at one of the MSSGC universities. Students may apply prior to entering or anytime during their graduate program. Eligibility is not limited to science and engineering majors. Any field of study that includes coursework related to research or interest to NASA is eligible.

Successful scholarship recipients are expected to have a grade point average of at least 3.0 on a 4.0 scale. Priority for fellowship awards will be given to those who do not receive other federal fellowships such as NASA Graduate Student Research Program Fellowships, National Science Foundation Fellowships, etc. Since an important purpose of this program is to increase the participation of underrepresented minorities, females, and persons with disabilities in aerospace-related careers, the MSSGC especially encourages applications from these students.

1.E. GUIDELINES

Applications must be received via email by March 9, 2020, 11:59 pm. All application files should be compiled into a single PDF document and submitted via email to the MSSGC Director: nmurray@olemiss.edu. Awards will be announced mid-April, 2020, with funding provided to students through their MSSGC affiliate university for the 2020-2021 academic year beginning with the Fall 2020 semester.

Awardees must provide a photo and biographical information upon selection; inform the MSSGC of changes of addresses and respond to academic and employment follow-up surveys for MSSGC Fellows.

MSSGC Fellows are asked to act as a resource to a local K-12 teacher in a STEM area for ten hours per week during the K-12 school year. The MSSGC Director in collaboration with the Univ. of Mississippi Center for Math and Science Education (CMSE) will host a one-day training seminar that is designed specifically to prepare the Space Grant fellows to work with K-12 teachers as a resource. This training is mandatory for all MSSGC fellows and will be held in August of 2020.

If a Fellow terminates his/her academic programs during the award period, the Affiliate University is required to return a prorated share of the fellowship award to the MSSGC. Fellowship funds are non-transferable.

Section 2. Proposal Submission Instructions

2.A. CONTENT AND FORM OF APPLICATION

2.A.i. General rules

- A.** Incomplete applications will NOT be considered. Late applications will NOT be considered. Applications containing plagiarized or incorrect information will NOT be considered. Non-compliant applications will NOT be considered.
- B.** The applicant must compile all application documents into a single PDF file. The completed PDF document must include (a) the letter of interest, (b) the description of proposed research and plan of study, (c) the letter of recommendation, (d) the applicant's resume, and (e) the applicant's unofficial transcripts.

- C. The text of (a) and (b) above must be no smaller than 11-point font, single-spaced, with at least 1" margins on all sides.

2.A.ii. Letter of Interest (2 page maximum)

The applicant should provide a cover letter to describe why they are interested in this NASA funded fellowship. Outreach to K-12 is a significant component of the MSSGC fellowship. The successful applicant will specifically address their interest in the K-12 component, what he/she hopes to gain from this component, any applicable experience, and how it may positively impact future academic/professional goals. A general plan for what outreach activity will be performed is encouraged but not required. Address this cover letter to the “MSSGC Director.”

2.A.iii. Research Description (2 pages maximum for items A through E)

Remember, reviewers will have appropriate knowledge, but will likely not be experts in your field. Write in a way that is understandable to those in other disciplines, define terms where necessary, explain issues clearly, and proofread carefully. Include (1) information that will clarify your project; (2) the main project goal or purpose of your project; (3) need for this project to be conducted; (4) any preliminary results that you may have; and (5) an explanation for how the applicant’s plan of study supports their research goals. The successful applicant will make a strong case for how their proposed research relates to NASA objectives. NASA’s mission and areas of interest are described in http://msspacegrant.org/docs/FY2020_NASA_AreasOfInterest.pdf. The research description should include:

- A. **Abstract:** (200 word limit) Give a thorough but basic overview of the project background.
- B. **Objectives:** Describe the objectives, the expected outcomes and impact. Describe the relevance of the proposed work to NASA.
- C. **Statement of Work:** List and describe the specific tasks of your project. Explain the methods that will be used to complete the tasks. Briefly list any facilities, equipment or other resources you will have at your disposal for the completion of the described project.
- D. **Timeline:** Include a timeline of your planned research.
- E. **References Cited:** (does not count toward page limit) Please use the same style for all citations – APA, MLA, etc.

2.A.iv. Letter of Recommendation

Applicants should submit one letter of recommendation from a university faculty member in the student’s discipline.

2.A.v. Resume (2 pages maximum)

Applicants should submit a short resume of education, significant accomplishments, research to date, and other relevant information.

2.A.vi. Transcript

An unofficial transcript with grades up to date is required. The undergraduate transcript is required. The graduate transcript is only required for those who have already completed graduate course work.

2.B. SUBMISSION DEADLINE

Proposals should be submitted by **March 9th, 2020, 11:59 pm.**

2.C. SUBMISSION REQUIREMENTS

Submit the complete application as a single PDF document via email to nmurray@olemiss.edu.

Applicants will compile all required parts of the application package (2.A.ii through 2.A.vi above) into **one** PDF document.

For questions, contact the MSSGC Director, Dr. Nathan Murray, The University of Mississippi, University, MS 38677, nmurray@olemiss.edu, 662-915-3190.

Section 3. Proposal Evaluation

Each application is reviewed by multiple reviewers. The reviewers are faculty from MS Space Grant institutions throughout the state. The applications are scored with the following rubric

- Research Plan (50 pts)
 - Communication (Clarity, Style, Effectiveness) of the Research Plan (15 pts)
 - Realistic Goals (10 pts)
 - Relevance to NASA (15 pts)
 - Potential Impact (10 pts)
- Outreach Plan
 - Engaging Outreach Plan (20 pts)
 - Leadership and Outreach Potential (10 pts)
- GPA (10 pts)
- Strength of Recommendation (10 pts)