ALABAMA SPACE GRANT CONSORTIUM 2019-2020 Fellowship Program

Research Fellowships for Graduate Students



Participating Consortium Members:
Alabama A&M University
Auburn University
The University of Alabama
The University of Alabama at Birmingham
The University of Alabama in Huntsville
University of South Alabama

Alabama Space Grant Consortium Program Office:

The University of Alabama in Huntsville
301 Sparkman Drive, Shelbie King Hall, Room 323
Huntsville, AL 35899
256.824.6800
spacegrant@uah.edu
www.uah.edu/ASGC

Online Application: uah.edu/asgc/applications/fellowship



ALABAMA SPACE GRANT CONSORTIUM Fellowship Program

Program Summary

A Program to Encourage Students at Alabama Research Universities to Pursue Graduate Work in Professional Aerospace Fields.

The Alabama Space Grant Consortium (ASGC), as a participant in the National Space Grant College and Fellowship Program (NSGCFP), invites applicants for NASA Space Grant Graduate Fellowships for study in fields related to space at one of its seven member institutions.

Space related fields include any academic discipline or field of study (including the physical, natural, and biological sciences; engineering; education; economics; business; sociology; behavioral sciences; computer science; communications; law; international affairs; and public administration) that is concerned with or likely to improve the understanding, assessment, development and utilization of space.

A significant goal of the NSGCFP is to encourage interdisciplinary training and research, to train professionals for careers in aerospace science, technology and allied fields, and to encourage individuals from underrepresented groups to consider careers in aerospace fields.

Successful applicants will be individuals whose proposed research or field of study, and career interests are coincident with NASA's aerospace, science and technology programs. Fellowship awards will be based on academic excellence, the quality of the proposed research program or plan of study, the quality of the interdisciplinary approach to achieving the objectives of the proposed program, the merit of the utilization of a NASA field center in carrying out their objectives, the prospects for completion of the project within the allotted time, and an assessment of the applicant's motivation towards an aerospace career.

Fellowship awardees will be required to have their faculty advisor submit a final report, participate in science education outreach activities and conduct an extramural experience at a NASA field center during the fellowship year. A fellowship term lasts for one year (12 months), unless terminated prematurely by either the fellow or the Space Grant office. Unused funds must be returned to the Program office on a pro-rated basis. Graduation, or leaving university for any reason, terminates the award.

Individual graduate fellowships, up to \$37,000 per year, will be awarded annually and may be renewable following a competitive proposal review each year, with an individual limit of 36 months (3 years). Applications for the Graduate Fellowship Program may be submitted at any point during the applicant's graduate career or prior to completion of the undergraduate degree.

All fellowship applicants must be U.S. citizens, full-time students, sponsored by a participating consortium member institution, have at least a 3.0 grade point average on a 4.0 scale, and complete an online application.

General Information

Award Level

Graduate fellowship awards are made initially for one 12-month period and may be renewed annually for a maximum total award of 36 months (3 years). The total Space Grant funds awarded per student will not exceed \$37,000 for 12 months. This award will include \$24,000 for student stipend and up to \$12,000 for tuition/insurance and \$1,000 student travel allowance. Fellows will be expected to devote full-time to graduate study and research during the tenure of the fellowship. Awards are subject to availability of NASA funds.

Renewal Applications

Graduate fellowships may be renewed for two additional years. Competitive proposal review is required for renewal of graduate fellowships for a maximum fellowship award of 36 months. Renewals are NOT automatic. Requests for renewal are to be submitted in the same format as new applicants fulfilling all requirements, but should also include a brief statement outlining the progress and status of the research program or plan of study, documentation of accomplishments and any changes from the original proposed research. The starting date for renewals is on the anniversary of the most recent award.

Eligibility Requirements

The Graduate Fellowship applicant must be:

- A U.S. citizen
- Enrolled full-time in an advanced degree program of study at an ASGC member University or show
 evidence of having met the graduate entrance requirements of the member institution in which the
 applicant proposes to enroll.
- Conducting a specific faculty-mentored research project that has a NASA or aerospace relevance.
- In good academic standing with a GPA of at least 3.0 on a 4.0 scale.
- Not receive funds from any source for work other than defined by the student's approved proposed
 research and plan of study for which the award is made. Supplements to the student's award may be
 made by the home university using funds from any source, provided the amount and source are disclosed
 to the ASGC program office prior to the student's annual beginning date, and provided no service or work
 is required of the student for this supplement, other than that pertaining to his or her approved research
 and study plan. Please contact the ASGC office if there are questions about this policy.]

Graduate Fellowship Application

Applicants must click the "new user registration" button to begin the online application. All applications must be received by **Monday, February 25, 2019**. Letters of recommendation must be submitted by the reference and all transcripts and GRE scores should be submitted by **Monday, March 4, 2019**.

Please read all program guidelines including applicant eligibility and reporting requirements before submitting your application. The application must be submitted online and information must be complete or the application will not be reviewed. Applications may be submitted prior to completion of the senior undergraduate year or at any time during the applicant's graduate career. Beginning graduate students must show evidence of having met the entrance requirements of the member institution in which they propose to enroll, including GRE scores. Graduate students at a member institution may apply for an award at that institution or at another member institution. Full-time graduate students from a college or university that is not a member of the consortium are eligible to apply for awards if they are able to meet the entrance requirements of the consortium member university at which the applicant proposes to study. After an online preliminary screening by the Campus Director, applications for final consideration will be reported by the Campus Director to the Consortium Director for review by the ASGC Management Team. Successful applications will be announced in mid-May. Awards are subject to availability of NASA funding. Proposed

starting dates for new awards will generally be expected to coincide with normal semester, quarter, or other accepted academic term starting dates. The key components of the application are discussed in more detail below:

- Student Resume: A brief resume of the applicant must be submitted as a PDF in the online application. The student's resume should include a short summary of education, training and accomplishments both inside and outside the educational world.
- Transcripts & GRE Scores: Unofficial transcripts from all institutions and from the current institution with most recent grades are required and can be submitted as a PDF in the online application. Applicants must submit one transcript from each institution of higher education attended, whether as an undergraduate or graduate student. If the applicant does not have a PDF conversion tool, links to free online PDF converters are provided within the application. Applicants <u>MUST</u> also submit one "official" copy from the current institution with most recent grades and one "unofficial" of your GRE scores (if required by your institution) to the Program Office by **Monday, March 4, 2019** for verification purposes.
- Letters of Recommendation: Applicants are required to provide the names and contact information for two references of which one must be the student's faculty advisor. The faculty advisor must provide a recommendation as to the acceptability of the student for the program, a clear statement of the advisor's willingness to supervise the student, and the nature of any past or present experience with the student. A second letter of recommendation must also be provided. The letters should be addressed to the appropriate campus director. The online application system will contact both references via email to request a letter of recommendation on behalf of the applicant. References will be provided with a link to submit the recommendation. For the application to be complete, both letters of recommendation must be submitted by Monday, March 4, 2019. AL Space Grant suggests applicants contact the references listed and inform them in advance they will receive an email requesting this information on their behalf from notices@spacegrant.org.
- Proposal Title & Abstract: Each proposal must have a title and the abstract, not to exceed 400 words, must describe the objectives of the proposed research program or plan of study and the methodology to be used and can be submitted as a PDF in the online application.
- Description of Proposed Research Project: A full statement written by the student in consultation with
 their advisor that identifies and relates the key elements of the proposed research and/or plan of study is
 required and can be submitted as a PDF in the online application. The statement should describe the
 background, relevance and objectives of the proposed research or study. A few technical references may
 be included in this section. The statement should reflect the interdisciplinary nature of the studies
 necessary to the understanding of complex aerospace issues. An extramural, aerospace-related workstudy experience at a NASA field Center must be included.
 - NASA Extramural Experience: An extramural NASA experience is required sometime during the fellowship year. The details are to be worked out with the faculty advisor and NASA lab facility where the student plans to participate in a research activity. It is advisable that a NASA contact be found prior to submission of the fellowship proposal. Names and locations of NASA field centers are:
 - Ames Research Center CA
 - Armstrong Flight Research Center CA
 - Glenn Research Center OH
 - Goddard Space Flight Center MD
 - Jet Propulsion Laboratory CA
 - Johnson Space Center TX
 - Kennedy Space Center FL
 - Langley Research Center VA
 - Marshall Space Flight Center AL
 - Stennis Space Center MS

- Science Education Outreach: Fellows are expected to be involved in ASGC outreach activities. Proposed activities may take advantage of local opportunities and should involve the student's transmitting their knowledge and enthusiasm of science, math or technology to children or general audiences. These activities will differ from campus to campus and a specific assignment will be made after consultation with the ASGC campus director.
- Schedule of Target Dates (to be included as part of proposed research project): The starting and
 completion dates for the proposed research program or plan of study, including the expected date for
 completion of the formal degree program, should be identified realistically. Any time expected to be
 spent at a NASA facility, including the required extramural experience, should be taken into consideration
 in establishing the target dates. The fellowship is to last for a one-year timeframe.
- Budget: A 12-month budget (not to exceed \$37,000) must be prepared by the student's Office of Sponsored Programs/Research Administration Office at their respective university and should include the following:
 - o The \$24,000 student stipend for 12 months.
 - Expenditure plan for up to \$13,000 (\$12,000 to include tuition/insurance and \$1,000 for student travel).

An expense plan for the required extramural experience must be approved by the Consortium Program Office and the costs must not exceed the expenditure limits stated above. In a request for renewal, include in the budget plan the amount of any unused funds remaining from previous awards. The budget can be submitted as a PDF in the online application.

Awardee Requirements

Awardees are required to submit a final report (via email) to the ASGC Program Office (spacegrant@uah.edu) at the end of their award period, participate in an extramural experience at a NASA field center and conduct science education outreach activities.

Information to be furnished in the final report should include:

- Summary of research performed include location of research and mentor.
- Future plans describe future education and career plans. If you know where you will be working upon graduation, please include this contact information.
- Important results of your experience, e.g., awards and honors, presentations (poster/oral), reports or articles published, thesis, etc.
- A brief summary of your NASA interaction and your outreach program.
- Photographs of your project please submit (via email) up to three .JPEG images of your research experience. Make sure that you are part of some of the pictures.

Addtionally, awardees must:

- Provide a photo and biographical information upon selection;
- Inform the ASGC Program Office of changes of address; and
- Respond to academic and employment follow-up surveys administered by ASGC Program Office as required by NASA.

Disposition of Unused Funds

If a student is unable to complete their academic program in the year of the award, a prorated share of fellowship funds must be returned to the ASGC Program Office at UAH and their fellowship will be terminated. Fellowship funds are not transferable.

Inquiries

Questions concerning the preparation and submission of applications and the administration of this program may be directed to the appropriate campus director or to the ASGC Program Office at UAH.

Equal Opportunity

Applicants for the Graduate Fellowship Program will be considered for appointment as NASA Space Grant Fellows without regard to race, creed, color, age or handicap.

Acknowledgement

Any written materials supported in part from this award shall acknowledge the ASGC NASA Training Grant #NNX15AJ18H.

Management and Administration

The Alabama Space Grant Consortium is composed of seven Ph.D. granting universities in the state of Alabama: Alabama A&M University, Auburn University, The University of Alabama, The University of Alabama at Birmingham, The University of Alabama in Huntsville, University of South Alabama and Tuskegee University. The Alabama Space Grant Program is administered by The University of Alabama in Huntsville.

The Consortium Director and a Campus Director on each of the seven campuses constitute the Consortium Management Team. The names, addresses, and phone numbers are as follows:

Director: L. Dale Thomas, Ph.D., P.E. The University of Alabama in Huntsville 301 Sparkman Drive, SKH 322 Huntsville, AL 35899 256.824.4243 dale.thomas@uah.edu Assistant Director: Debora K. Nielson The University of Alabama in Huntsville 301 Sparkman Drive, SKH 323 Huntsville, AL 35899 256.824.6800 debora.nielson@uah.edu

Campus Directors:

Alabama A&M University

Aaron L. Adams, Ph.D., Asst. Professor Dept. of Mechanical Engineering ETB 316 Normal, AL 35762 256.372.4128 aaron.adams@aamu.edu

Auburn University

David G. Beale, Ph.D., P.E., Professor Dept. of Mechanical Engineering 3418-C. Wiggins Hall Auburn University, AL 36849-5341 334.844.3336 bealedg@auburn.edu

The University of Alabama

Semih M. Olcmen, Ph.D., Professor Dept. of Aerospace Eng. & Mechanics 240 Hardaway Hall Tuscaloosa, AL 35487 205.348.4997 solcmen@eng.ua.edu

The University of Alabama at Birmingham

Yogesh K. Vohra, Ph.D., Professor Dept. of Physics & Assoc. Dean HHB 577, 1530 3rd Avenue South Birmingham, AL 35294-1152 205.934.6662 / 205.975.3675 ykvohra@uab.edu

The University of Alabama in Huntsville

Gerald R. Karr, Ph.D., Professor Emeritus Dept. of Mechanical & Aerospace Eng. O.K. Technology Hall, N257 Huntsville, AL 35899 256.824.6330 gerald.karr@uah.edu

The University of Alabama in Huntsville

Francis J. Wessling, Ph.D., P.E., Professor Dept. of Mechanical & Aerospace Eng. O.K. Technology Hall, N270 Huntsville, AL 35899 256.824.5020 wesslif@uah.edu

University of South Alabama

John W. Steadman, Ph.D., P.E. Dean, College of Engineering 150 Jaguar Drive, Shelby Hall 2114 Mobile, AL 36688-0002 251.460.6140 jsteadman@southalabama.edu

Tuskegee University

Gregory V. Murphy, Ph.D., Professor Head, Dept. of Electrical & Computer Engineering 316 Luther H. Foster Hall Tuskegee, AL 36088 334.727.8995 gymurphy@tuskegee.edu