LaSPACE Minority Research Scholars (MRS) Program

A NASA SPACE GRANT SCHOLARSHIP PROGRAM

for

UNDERGRADUATE STUDENTS

in

SPACE AND AEROSPACE FIELDS

OFFERED BY

THE LOUISIANA SPACE CONSORTIUM

UNDER THE AUTHORITY OF

THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

APPLICATION PACKET
(Available at http://laspace.lsu.edu/RFP/)

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Application Guidelines

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Louisiana Space Consortium
Department of Physics and Astronomy
364 Nicholson Hall
Louisiana State University
Baton Rouge, LA 70803

Application Guidelines for Space and Aerospace MRS Program
(Available at http://laspace.lsu.edu/RFP/)

PROGRAM SUMMARY

The LaSPACE Minority Research Scholars Program is summarized below:

- Eligible Applicants
  - Undergraduates
  - Groups underrepresented in STEM fields
  - 2.25 GPA minimum
  - Full time student
  - U. S. Citizens
  - Enrolled in STEM fields of study
- Award
  - $5,000. stipend for one year
  - Not concurrent with co-op or internship
- Deliverable
  - Must submit a brief Final Technical Report

INTRODUCTION

The Louisiana Space Consortium is a NASA National Space Grant College and Fellowship Program, in conjunction with the Louisiana Board of Regents, that coordinates programs in research and higher education in pursuit of the Mission *"To enhance Space and Aerospace related research, education, and public awareness throughout the State of Louisiana and thereby promote math/science education, training of professionals, and economic development."*

LaSPACE programs support the President's "Vision for Space Exploration" and works to strengthen and diversify the workforce available to support NASA's Vision and Mission.

The NASA Vision —
To improve life here,
To extend life to there,
To find life beyond.

Programs offered by LaSPACE to develop the aerospace workforce that focus on undergraduates include:

- The LaSPACE Undergraduate Research Assistantships (LURA) - a faculty-mentored research experience for undergraduate students.
- LaACES and HASP Student Satellite Program —special research teams design and fly an aerospace payload.
- Internships - funding for summer internships at NASA Centers, NASA Academies, or NASA USRP (Undergraduate Student Research Program).
- Student researchers participate in LaSPACE (or EPSCoR) sponsored research grants.
- **Minority Research Scholars (MRS)**.

The NASA Mission --
To understand and protect our home planet,
To explore the universe and search for life,
To inspire the next generation of explorers
. . . . as only NASA can.

Program descriptions and applications for all LaSPACE programs can be found on the LaSPACE web site at http://laspace.lsu.edu.

This document describes the Louisiana Space Consortium's "Undergraduate Minority Research Scholars (MRS)" Program. The program provides a $5,000 award for research and study for undergraduate students, who are U. S. citizens, and who are traditionally underrepresented in space or aerospace related fields of study in math, science, or engineering at a college/university that is a Member of the Louisiana Space Consortium. A list of Consortium Member Institutions and respective Campus Coordinators is given in Section I, along with general information about the MRS Program and this application. Section II describes the eligibility requirements, award amount, and selection process. Sections III and IV of this document give requirements and instructions for submission of the application.

The application form is included in Appendix I. The Final Technical Report form is included in Appendix II. The Student Information Form (to accompany the final report) is included in Appendix III.

I. GENERAL INFORMATION

A. PURPOSES OF THE LaSPACE PROGRAM

Succinctly stated, the goals and objectives of the Louisiana Space Consortium, as per the training grant proposal approved by NASA, and the LaSPACE affiliates are:

1. To increase, in quantity and in quality, Louisiana's production of aerospace and related science and engineering graduates and professionals,

2. To enhance in scope, depth, and number, research and development activities in aerospace and related sciences and engineering, and

3. To indirectly increase aerospace and related industries in the state -- not only for economic development but also for economic diversification.

The stimulus and planning activities of LaSPACE, as delineated in the above objectives, have been modeled, in part, after those sponsored by the Board of Regents Support Fund. The enhancement of space and aerospace related research and development, and strengthening the education base, throughout Louisiana is the central mission of LaSPACE.

B. PUBLIC NATURE OF APPLICATIONS SUBMITTED IN LaSPACE PROGRAMS

Once an application is received in the LaSPACE office, it becomes public record. Although the LaSPACE staff will not disseminate applications to individuals other than to reviewers, applicants should be aware that, if a request for information is made by the public (e.g., a representative of the news media), a copy of the application, by law, must be provided.

C. LaSPACE PROGRAM ADMINISTRATION AND CAMPUS COORDINATORS

Specific questions concerning this document and the requirements set forth herein should be directed to the applicant's LaSPACE Campus Coordinator listed below, or to the LaSPACE assistant director:

T. Gregory Guzik, Assistant Director
LaSPACE MRS Program
Department of Physics and Astronomy
Nicholson Hall – 364
Louisiana State University
Baton Rouge, LA 70803
Phone: 225-578-8697
E-mail: guzik@phunds.phys.lsu.edu

This is also the address to which completed applications should be sent.

The following list comprises the LaSPACE Consortium Member Institutions and their respective Campus Coordinators:

Dillard University	Dr. Abdalla Darwish	504-816-4840
Grambling State University	Dr. Matthew F. Ware	318-274-2687
Louisiana State University	Dr. Keith Gonthier	225-578-5792
Louisiana Tech University	Dr. Dick Greenwood	318-257-2302
Loyola University	Dr. Creston King	504-865-3644
LSU Agricultural Center	Lyda C. Gatewood	225-578-8231
LSU Shreveport	Dr. Laura Whitlock	318-797-5238
McNeese State University	Dr. Giovanni Santostasi	337-475-5759
Nicholls State University	Dr. Chadwick H. Young	985-448-4879
Northwestern State University of Louisiana	Dr. Austin L. Temple Jr.	318-357-6699
Southeastern Louisiana University	Dr. Nick Norton	985-549-3740
Southern University and A & M College	Dr. Michael A. Stubblefield	225-771-3290
	Dr. Diola Bagayoko	225-771-2730
Southern University in New Orleans	Dr. Joe Omojola	504-368-0589
Tulane University	Dr. Mark J. Fink	504-862-3568
University of Louisiana at Lafayette	Dr. Terrence L. Chambers	337-482-6517
University of Louisiana at Monroe	Dr. Lisa Colvin	318-342-1036
University of New Orleans	Dr. Kenneth Holladay	504-280-6124
Xavier University of Louisiana	Rachel Cruthirds	504-520-5600

D. NASA MISSION DIRECTORATES

The NASA program of discovery and development has been re-organized into Mission Directorates, following the President's announcement of the new "Vision for Space Exploration." All NASA subprograms must relate to and support one or more of these Directorates. Likewise, all programs supported by LaSPACE must also support these new NASA Directorates. In addition, all Space Grant programs must align with and support the *Vision for U. S. Space Exploration* - - see (www.nasa.gov/pdf/55583main_vision_space_exploration2.pdf).

The current Mission Directorates are:

- **Aeronautics** - - *Enable a safer, more secure, efficient, and environmentally friendly air transportation system.*
- **Exploration Systems** - - *Direct the identification, development, and validation of exploration systems and technologies.*
- **Science** - - *Exploring the Earth-Sun system, our own solar system, and the universe beyond.*
- **Space Operations** - - *Extend the duration and boundaries of human space flight to create new opportunities for exploration and discovery.*

The NASA Mission Directorates identify what NASA does and for whom, focusing on the ends, not the means. Each Mission Directorate has a unique set of goals, objectives, and strategies that addresses the requirements of its primary external customers. Although NASA's broad mission

is driven by the Space Act, the specific programs that are conducted within its directorates, and the priorities placed on them, are driven by the directives of the Administration and Congress, and, therefore, change over time. Current specific content for the Mission Directorates is presented within their own Strategic Plans available on the web. (http://www.education.nasa.gov/about/nasaent/index.html.)

E. OFFICE OF EDUCATION AND DIVERSITY

In addition to the Directorates, NASA's **Office of Education** coordinates education efforts from K-16, including educational products and technology. The Education Office's goal is "to inspire the next generation of explorers" and to develop the Workforce that will lead NASA into the exploration era.

It is a national priority to increase diversity in the Science, Technology, Engineering and Mathematics (STEM) marketplace, from university students to employees. Traditionally, minority groups and women have been underrepresented in the STEM disciplines as students and faculty as well as in the workplace after graduation. LaSPACE is committed to addressing this priority and utilizing its programs, to the degree possible, to increase the diversity among its awardees.

II. THE LaSPACE UNDERGRADUATE MINORITY RESEARCH SCHOLARS PROGRAM

A. OBJECTIVES

A recent initiative under the LaSPACE Fellowship/Scholarship Component, the MRS Program helps address the challenge to strengthen the educational base among member institutions, in concert with state and NASA needs, based upon an analysis of institution roles and expectations.

The MRS sub-program is designed to help attract more minority students to STEM fields at LaSPACE institutions. The Objectives are (i) to promote diversity in STEM education, (ii) attract/retain U. S. undergraduates in STEM fields, and (iii) to involve more consortium institutions and students in Space Grant.

There are good, potential STEM students who are not eligible, for a variety of circumstances, for the state's college tuition program (TOPS), and therefore have difficulty in obtaining a higher education. The MRS subprogram will provide a means to aid such students and, hopefully, retain them in higher education. MRS program Requirements include a high school diploma with a 2.25 GPA, admission to a LaSPACE campus, U. S. citizenship, minority status, and a STEM education program plan. MRS students are expected to spend time working on a research project with one or more faculty members.

B. ELIGIBILITY

To be eligible to apply for a LaSPACE MRS Supplement, an applicant must meet each of the following criteria:

1. An applicant must be a U.S. Citizen.

2. At the time of application, the student must be currently enrolled full-time at a LaSPACE Designated Consortium Member Institution.

3. The degree curriculum of the applicant must be in STEM (Science, Technology, Engineering, Mathematics) subjects applicable to space- or aerospace-related fields or programs.

4. An applicant must pursue his/her degree on a full time basis, and be registered for each semester. Awards **cannot** be concurrent with co-op semesters or summer internships.

C. NUMBER, DURATION, AWARD AMOUNTS, REAPPOINTMENT AND REPORTING

A LaSPACE MRS supplement carries an annual award of $5,000. for students. Applications are reviewed on a first-come, first-served basis. There is, currently, no proposal deadline.

LaSPACE expects to fund 2 - 5 MRS Awards per year. MRS Award funds will be transferred to the applicant's LaSPACE college or university, either via subaward (if the applicant is not on the LSU campus) or by transfer of funds from the LaSPACE office account at LSU to the applicant's department account if the applicant is on the LSU campus. The institution will assume responsibility for administering and distributing these monies according to its standard procedures. **The applicant's Faculty Mentor will serve as PI for the subaward or account and will be responsible for the stewardship of the funds.** It is understood by all LaSPACE member campuses that these funds are to be used primarily for tuition, fees and stipends to the student recipient, and, only if necessary, for other research project assistance.

The term of the award is normally 12 months, and recipients may be required by their institution to register for each semester (quarter) in order to expend the funds or receive a stipend. Check the procedures at your institution.

After an award term has expired, applicants may apply for another supplement in order to continue their progress toward the degree and promising research. Renewal is contingent upon satisfactory progress, timely submission of the Final Technical Report, and the continued fulfillment of the eligibility criteria. Reappointment is, of course, contingent on the availability of funds.

A Final Technical Report will serve as the contract deliverable. The format for this report is given in Appendix II. These reports are due at the end of the contract term or at the time of graduation, whichever comes first. **Failure to submit this report is grounds for elimination from future LaSPACE programs, or forfeiture of funds.**

The report is important not only to document the accomplishments made possible by the NASA funding, but it also serves as a mechanism to collect the metrics, outcomes, and longitudinal tracking data that LaSPACE is required to report on all participants and projects undertaken by the Space Grant Program.

D. MATCHING FUNDS/COST SHARING and INDIRECT COSTS

The MRS program does not require match.

F & A (Indirect) charges are waived for MRS awards as per the NASA grant. Each student is encouraged to discuss the application with the local LaSPACE Campus Coordinator or his/her mentor/advisor.

E. SELECTION OF APPLICATIONS

Applications are accepted on a first-come, first-served basis. All applications that meet the eligibility requirements and guidelines established for this Program will be reviewed and rated based upon the extent to which they meet specific criteria and ranked according to the following:

- STEM and Aerospace relevance of the student's planned program, including research participation.
- Support of LaSPACE research, education and workforce development objectives.
- Applicant's need, including post-hurricane related needs, if applicable.

Successful applicants will be notified by letter and e-mail, with a copy to the Faculty Mentor/Campus Coordinator.

F. FINAL TECHNICAL REPORT

LaSPACE requires a Final Technical Report and Final Financial Report on all funded projects. Additionally, LaSPACE reserves the right to review projects and/or require additional reports whenever such actions are deemed necessary or are requested by sources supporting LaSPACE. The reporting requirements will be delineated in the contracts negotiated with each campus. The Applicant and Faculty Mentor are **jointly responsible** for ensuring that these reports are submitted to LaSPACE within 30 days of the expiration of the award. The student/mentor is responsible for the Final Technical Report (the form is given in Appendix II). The institution prepares the final financial report.

All publications, presentations, patents, etc. that emanate from the work supported by this subcontract shall cite the support of the Louisiana Space Consortium and NASA under grant NNG05GH22H.

III. PROCEDURE AND DEADLINE FOR SUBMISSION OF APPLICATIONS

Each application must be submitted by a faculty member on behalf of, or in collaboration with, the student. This faculty member can be the student's advisor, research mentor or the LaSPACE Campus Coordinator. This faculty member - - the Faculty Mentor - - will act as the Principal Investigator for the subaward or the subaccount and is responsible for advising/helping the student throughout the year, including, if necessary, assigning the student a small research task/project to be accomplished.

For this program, applications are accepted **at any time**. There is no deadline. MRS applications for consideration under this Program can be submitted to: The LaSPACE MRS Program, Louisiana Space Consortium, at the address listed previously (only original is required)

OR

Proposals may be be submitted electronically, as a PDF file, to eads@phys.lsu.edu. In this mode, the signed cover page should be scanned and included in the PDF file.

If a proposal is submitted electronically without the signed cover page, then that signed page must be received by fax (225-578-1222) or courier or mail within a week of the electronic submission.

IV. REQUIREMENTS AND FORMAT FOR APPLICATIONS

Additional copies of these application guidelines are available from the LaSPACE Office. Applicants are encouraged to talk with their Campus Coordinator or faculty advisor as the application is developed.

The following format and requirements for applications must be followed. Applications which do not adhere to these guidelines will be returned for non-compliance and will not be considered further.

A completed application must include the following:

STUDENT APPLICATION FORM:

1. A properly executed (signed original) LaSPACE MRS Application Form (Appendix I), including:

- Cover pages (signed).

- Description of Education plan, current status and projected schedule.

- Plans for participation in research.
- Statement of the Space/Aerospace relevance of the program. (See descriptions of the NASA Mission Directorates.)
- Discussion of the "need" for this award (including any hurricane related or special needs).
- Professional Goals post graduation.
- Related work experiences.
- List of Scholarships, Awards, Honors, Recognition.

FACULTY MEMBER LETTER OF RECOMMENDATION:

2. A letter of recommendation from the faculty member who will be the Faculty Mentor is required. This letter (or e-mail) should attest to: a) the enrollment of the applicant in a STEM program; b) a brief description of the involvement of, or interest of, the applicant in space or aerospace related programs; c) the applicant's need for the award to further his/her undergraduate education, and d) a commitment to work with the student as Faculty Mentor.

   This letter may be submitted via e-mail.

APPENDIX I

MRS APPLICATION FORM

(REPRODUCE AS NEEDED)

LaSPACE MRS APPLICATION FORM

Date of Submission: _____

NAME: _____ _____Male _____Female
Last First MI

Current Address: _____

_____ U.S. Citizen: _____ Yes _____ No

_____ Date of Birth: _____

Phone: _(_____)_____ Place of Birth: _____

Cell Phone: _(_____)_____ FAX (if any): _(____)_____

Permanent Address: _____ Permanent Phone: _(_____)_____

(if different from above) _____ Current E-mail: _____

Check at least one of the following underrepresented minority groups in science and engineering that applies to you.

_____American Indian
_____Black
_____Hispanic
_____Native Alaskan (Eskimo or Aleut)
_____Pacific Islander (Polynesian or Micronesian)
_____Disabled (Describe nature of disability as part of question #3.) _____
_____

Institution _____

Academic Discipline: _____

Major Field: _____ Minor Field (if applicable): _____

Faculty Mentor: _____
Name E-mail

_____
Campus Address

_____
Campus Phone Campus Fax

Last Name: _____

On a separate sheet, please briefly respond to each question below.

1. Describe your education plan, accomplishments to date, a brief time-table for completion of your degree, and your plan for research.

2. Describe the Space/Aerospace relevance of your program.

3. Describe your 'need' for this award.

4. Briefly describe your professional goals after graduation.

5. List any work experiences, scientific research activities, or outside interests relevant to your field of study. Include any publications, patent applications, conference presentations, etc.

6. List scholarships, academic honors, scientific or engineering student leadership roles, honorary societies, awards, and any other recognition relevant to your field.

Signature of Student Applicant _____ Date _____

Signature of Faculty Mentor _____ Date _____
(PI of the Award)

Signature of Authorized Institutional Official _____ Date _____

Return to:

T. Gregory Guzik, Assistant Director
LaSPACE MRS Program
Department of Physics and Astronomy
Nicholson Hall – 364
Louisiana State University
Baton Rouge, LA 70803
Phone: 225-578-8697
E-mail: guzik@phunds.phys.lsu.edu

APPENDIX II

FINAL TECHNICAL REPORT FORM

LaSPACE Minority Research Scholars
Final Technical Report

I. Contact Information

Date: ______________________________

Name: _____________________________
Current Mailing Address:
____
____
____
Daytime Phone: _____________________
Fax Number: ________________________
Home Phone: ________________________
E-Mail: ____________________________

Division/Department: ________________
University: _________________________
____
Name: _____________________________
Address: ___________________________
____
____
Phone: _____________________________
E-mail: _____________________________

- -

II. Coursework

Report for Period: ____________________ Degree Title: ________________
Projected date when degree is expected: ____

Courses Taken (if applicable):

Course Name	Course Number	Hours	Completed/Grade

III. Research (Please attach a discussion that describes your research project, methods, results, and include any presentations/publications/reports. (You must cite support from your LaSPACE award on any presentations/publications/reports.)

IV. Other Activities (Please Describe)

(Attach additional sheets if necessary.)

Faculty Mentor Signature Date

Please return to: T. Gregory Guzik, LaSPACE MRS Program, Department of Physics and Astronomy, Nicholson Hall – 364, Louisiana State University, Baton Rouge, LA 70803, Phone: 225-578-8697, E-mail: guzik@phunds.phys.lsu.edu

APPENDIX III

STUDENT INFORMATION FORM

Student Information Form

(The following is the information we must collect for each student participating in a LaSPACE Space Grant or NASA EPSCoR program.)

Name:

Permanent Address: _____

_____

_____

Permanent Telephone: _____ Permanent e-mail: _____

Current Telephone: _____ Current e-mail: _____

Citizenship: _____

Project in which participated: _____

Faculty advisor/mentor: _____

University: _____

Gender: _____ M _____ F Ethnicity*: _____

Do you have a disability that limits a life activity? _____ Yes _____ No

(*Caucasian; African-American; Hispanic; Asian; American Indian/Eskimo/Aleut/Fillipino)

Undergraduate: _____ Yes _____ No

If Yes: Year in School: _____

Major: _____

Anticipated Graduation date (mo./yr.): _____

Post-graduation plans (if known): _____

Graduate Student: _____ Yes _____ No

If Yes: Degree Sought: _____

Major: _____

Anticipated Graduation date (mo./yr.): _____

Post-graduation plans (if known): _____

_____

Note: No individual student data will be reported. NASA receives only aggregate data.