

## **MSFC HIGHER EDUCATION STUDENT OPPORTUNITIES**

### **About George C. Marshall Space Flight Center**

From advanced materials, avionics and optics research – to propulsion, robotics and systems engineering, Marshall proves it is more than a rocket center. Marshall has the unique expertise and experience to develop and operate the space systems America needs to get back to the moon, on to Mars and beyond. The Marshall Space Flight Center in Huntsville, Ala., is a key contributor to significant NASA programs, continuing a legacy of accomplishment that includes the Saturn V rocket that launched America's astronauts to the moon; the propulsion system for the space shuttle; and the Hubble Space Telescope. As it has throughout its history, Marshall is again playing a critical role in maintaining America's preeminence in space. The new launch vehicles, the Ares I and the Ares V, are currently under development at Marshall.

### **Student Programs at Marshall**

Marshall conducts programs for college/university undergraduates and for graduate students, including work-study (cooperative education), internships (10 – 15 weeks in summer, fall and spring), fellowships (Graduate Students Researchers Program and Harriet Jenkins) and competitions (Great Moonbuggy Race and University Student Launch Initiative).

#### **Programs for Undergraduates:**

##### **Cooperative Education**

**Internships** such as Undergraduate Student Research Program, NASA Academy, Space Grant Internships, NASA Robotics Academy, Minority

University Research and Education Programs, and Motivating Undergraduates in Science and Technology

**Competitions:** Great Moonbuggy Race and University Student Launch Initiative

#### **Programs for Graduate Students:**

##### **Cooperative Education**

**Internships** such as NASA Academy and NASA Robotics Academy

**Fellowships:** Graduate Student Researchers Program and Harriet Jenkins

**Competitions:** University Student Launch Initiative

#### **Pre-doctoral Fellowships**

Website:

Detailed information on the college/university opportunities listed above can be found at [www.nasa.gov/centers/marshall/education/higher\\_education.html](http://www.nasa.gov/centers/marshall/education/higher_education.html) Click on the program of interest, e.g. Marshall Cooperative Education Program, Great Moonbuggy Race, Marshall Space Grant Research Internship, etc.)

**Undergraduate / Graduate Students**

- **ACCESS (Achieving Competence in Computing, Engineering, and Space Science)**

*Description:* Ten-week paid internship at Marshall Space Flight Center for students with disabilities who have strong backgrounds in science and a desire to pursue technical careers. Reasonable accommodations are made for students to be fully productive members of the technology team.

*Eligibility:* US citizen; enrolled full-time in a four-year accredited institution or graduate school; major in a technical field with a minimum B average.

**Application Procedures: Applications accepted beginning November 1, 2008 with placements being announced by April 30, 2008. No set application deadline.**

URL: <http://www.entrypoint.org>

- **AIHEC (American Indian Higher Education Consortium) Summer Research Experience**

*Description:* Six to ten-week summer internships at Marshall Space Flight Center providing students with hands-on experience in their field of study. Students are provided with a stipend, round-trip transportation, and housing.

*Eligibility:* Enrollment in an accredited Tribal College or University; major in science, technology, engineering or mathematics with a minimum 3.0 GPA.

**Application Deadline: Dates are established through AIHEC**

URL: <http://www.aihec.org/>

- **Exploration Systems Mission Directorate Student Project – All Centers**

*Description:* Ten-week session or part-time (full academic year) placement provides students ESMD-relevant work experience in industry or at a NASA Center to engage in hands-on engineering projects with a mentor.

*Eligibility:* US citizen; junior or senior undergraduate and graduate; enrolled full-time at accredited US college or university; minimum 3.0 GPA; minimum 30 semester hours or 45 quarter hours completed.

**Application Deadline:   October 1, 2008 (Spring 2008)  
  January 28, 2008 (Summer 2008)  
  May 1, 2008 (Fall 2008)**

URL:

<http://education.ksc.nasa.gov/programs/ESMD%20Student%20program.htm>

- **MiSE (Minorities in Science and Engineering)**

*Description:* Ten-week summer internships at Marshall Space Flight Center.

*Eligibility:* Undergraduate students; must attend Oakwood College, Alabama A&M University or the University of Alabama; majoring in science, engineering, mathematics, or technology with a minimum 3.0 GPA.

**Application Deadline: March 1, 2008**

*Contact:* Oakwood College Department of Research (256) 726-7114 or

[Madeline.E.Hereford@nasa.gov](mailto:Madeline.E.Hereford@nasa.gov)

- **MSFC Co-Op (Marshall Space Flight Center Cooperative Education Program)**

*Description:* Regularly alternate semesters at work with semesters at MSFC working in a paid, full-time position directly related to field of study.

*Eligibility:* US citizenship; undergraduate or graduate at a college or university; good academic standing with minimum 2.9 GPA; minimum 30 semester hours or 45 quarter hours completed; minimum of three work terms at MSFC.

**Application Deadline: November 1, 2007 (Spring Opportunities)**

**March 15, 2008 (Summer/Fall Opportunities)**

*URL:* <http://coop.msfc.nasa.gov>

- **MSGR (Marshall Space Grant Research) Internship**

*Description:* Ten-week summer internships at Marshall Space Flight Center funded by NASA Space Grant Consortia. Students must apply directly to their state Space Grant office.

*Eligibility:* US citizenship; junior or senior undergraduate or first or second year graduate at accredited US college or university.

**Application Deadline: March 1, 2008**

*URL:* <http://education.msfc.nasa.gov/docs/139.htm>

- **MUST (Motivating Undergraduates in Science and Technology)**

*Description:* Undergraduate scholarship program open to all underrepresented groups, including: ethnic minorities, women, and people with disabilities.

Recipients are awarded half of tuition costs (not exceeding \$10,000) including mentorship program, academic support system, and other resources.

Application is entirely online.

*Eligibility:* US citizen; enrolled full-time at an accredited college or university in the US or Puerto Rico; pursuing a degree in science, engineering, technology, or mathematics with a minimum 3.0 GPA.

**Application Deadline: Opens November 1, 2007 and Closes February 1, 2008**

*URL:* <http://education.msfc.nasa.gov/MUREP/Scholarship.html>

- **NASA Academy - Ames, Glenn, Goddard & Marshall**

*Description:* Ten-week summer program with laboratory research work, group projects, lectures, meetings with experts/administrators, visits to NASA Centers, and space-related industries, technical writing and presentations.

*Eligibility:* US citizenship, permanent residency or citizen of a participating country; junior or senior undergraduate or first or second year graduate in an accredited US college or university; high academic standing with a minimum 3.0 GPA and interest in space programs.

**Application Deadline: January 2008**

URL: <http://academy.nasa.gov>

- **NASA Robotics Academy – Ames, Goddard & Marshall**

*Description:* Ten-week summer internship program for students interested specifically in robotics with priority given to students who have participated in robotics competitions or have taken active interest in robotics in demonstrable ways. Direct guidance on team project and other activities such as: lectures, field trips, and meetings with leaders in the field.

*Eligibility:* US citizen, permanent resident; freshman or sophomore undergraduate with minimum 3.0 GPA; experience in robotics.

*Team Leads:* Advanced undergraduate or graduate students with a curricular background in robotics.

**Application Deadline: January 2008-Dates are established at**

<http://university.gsfc.nasa.gov/interns/>

URL: <http://robotics.gsfc.nasa.gov/>

- **VREO (Visiting Researcher Exchange and Outreach) Program**

*Description:* This Marshall-unique program facilitates the process of establishing on-site and off-site working relationships between university, private sector, and government agency researchers and MSFC scientists, engineers, and technologists.

*Eligibility:* Determined by specific project requests.

**Application Deadlines: None, year-round as requested by MSFC.**

URL: <http://space.hsv.usra.edu/vreo/>

## **UNDERGRADUATE STUDENT ONLY**

- **USRP (Undergraduate Student Research Project) – All Centers**

*Description:* Ten-week summer or fifteen-week fall mentored research experience sessions at a NASA Center. Students will receive a \$5,000 (summer) or \$7,500 (fall) stipend for the research experience plus one round-trip airfare or ground transportation costs to and from the NASA Host Center.

*Eligibility:* US citizenship; enrolled full-time in an accredited US college or university; junior or senior undergraduate majoring in science, technology, engineering, or mathematics with minimum 3.0 GPA.

**Application Deadlines: October 22, 2007 for Spring 2008  
January 31, 2008 for Summer 2008  
February 29, 2008 for Fall 2008**

URL: [http://www.vsgc.odu.edu/Menu3\\_1\\_3.htm](http://www.vsgc.odu.edu/Menu3_1_3.htm)

## **GRADUATE STUDENT ONLY**

- **GSRP (Graduate Students Researchers Program) – All Centers**

*Description:* Mentored NASA research experience and 3 year fellowships for graduate students.

*Eligibility:* US citizenship; admitted to or enrolled in an accredited graduate program at a US college or university; graduate advisor or mentor required; NASA Center based internship is required.

**Application Deadline: February 1, 2008**

*URL:* <http://fellowships.hq.nasa.gov/gsrp/nav/>

- **Harriet G. Jenkins Predoctoral Fellowship Program (JPFP)**

*Description:* Three year fellowship and mentored NASA related research.

*Eligibility:* underrepresented minority graduate students enrolled full time at an accredited US college or university

**Application Deadline: February 1, 2007**

*URL:* <http://www.uncfsp.org/jpfp>

## **POST-DOCTORAL OPPORTUNITIES**

- **NPP (NASA Postdoctoral Program)**

*Description:* National competition to identify outstanding scientists and engineers for tenure as guest researchers at NASA Centers.

*Eligibility:* Recent postdoctoral scientists and engineers and experienced senior scientists and engineers are eligible.

**Application Deadlines: March 1, 2008, July 1, 2008, and November 1, 2008**

*URL:* <http://nasa.orau.org/postdoc/>

## **COMPETITIONS**

- **The Great Moonbuggy Race**

*Description:* Held annually in April. Students design, build and race collapsible Moonbuggies. Vehicles are expected to be “proof-of-concept” and engineering test models rather than final production models.

*Eligibility:* The design may be developed by large teams; however, only six-person teams may register for the race.

**Applications Deadline: February 1, 2008**

*URL:* <http://moonbuggy.msfc.nasa.gov>

- **MSFC USLI (University Student Launch Initiative)**

*Description:* Students design, build and test reusable rockets with associated scientific payload. Vehicles are designed to reach an altitude of one mile above

ground level. Actual vehicle performance, design and other criteria are used to evaluate vehicles. Rockets are launched at MSFC in the spring.

*Eligibility:* Students must submit a proposal according to proposal request guidelines.

**Proposal Deadline: October 8, 2008**

*URL:* [http://education.msfc.nasa.gov/docs/127\\_usli.htm](http://education.msfc.nasa.gov/docs/127_usli.htm)

## **VOLUNTEER OPPORTUNITIES**

- **Student Volunteer Service Project**

*Description:* Provides qualified students a means to volunteer their services to MSFC, gain work experience and knowledge, and engage in early career exploration on a nonpaying, voluntary basis at MSFC during a specific time and under the direction of a designated center employee.

*Eligibility:* US citizen; at least 16 years of age; at least a junior in high school and show outstanding promise in all areas of academic study or activities, particularly science subjects.

**Application Deadline: (accepted Feb. 1 – April 15)**

*URL:* <http://education.msfc.nasa.gov/docs/034.htm>

## **QUICK LINKS/OTHER RELATED LINKS**

### **ACT NOW – OPEN STUDENT ANNOUNCEMENTS**

*URL:* [http://www.nasa.gov/audience/forstudents/5-8/features/Act\\_Now\\_Students.html](http://www.nasa.gov/audience/forstudents/5-8/features/Act_Now_Students.html)

**EXPRESS Mailing List** – Generates announcements about various ongoing educational projects sponsored by NASA Headquarters.

*URL:* [www.nasa.gov/education/express](http://www.nasa.gov/education/express)

### **MSFC Higher Education Home Page**

*URL:*

[http://www.nasa.gov/centers/marshall/education/higher\\_education.html](http://www.nasa.gov/centers/marshall/education/higher_education.html)

### **NASA Education Home Page**

*URL:* [www.nasa.gov/education](http://www.nasa.gov/education)

**PODCASTS** NASA Student Opportunities podcast series that connects high school and college students with learning opportunities inside the Agency.

*URL:* [www.nasa.gov/nso](http://www.nasa.gov/nso)

Interested in finding a Federal job? Want to work for NASA?  
Quick Steps

Employers in the Federal Government post their opportunities on the USA Jobs website. Follow these ***three simple steps***:

Step 1: Go to <http://www.usajobs.opm.gov/> to “Create a Resume” and establish your account:

- Post resumes
- Have jobs emailed to you

Step 2: Search for Jobs

- Just enter your desired job information and [search](#) the database of jobs.
- You can search by keyword (e.g. Job title, Agency Name, Vacancy Announcement number); location; job category; salary range, and pay grade.
- You can also submit your resume online instantly for a specific Announcement Number.

Step 3: Manage your career

- There is a wealth of [information and advice](#) on the USAJobs website about obtaining a job in the Federal Government.
- If you are a first time applicant for NASA employment, we recommend that you review NASA's [Applicant Guide](#) which provides invaluable information to assist you in preparing your resume. The Guide is located on the NASAJobs website ([www.nasajobs.nasa.gov](http://www.nasajobs.nasa.gov)) under “Job Information.”