

**U.S. DEPARTMENT OF ENERGY**  
OFFICE OF NUCLEAR ENERGY, SCIENCE AND TECHNOLOGY



**Nuclear Engineering and Health Physics  
Scholarship Program**

**Student Deadline for Applications for 2007-2008**  
**January 31, 2007**

**Awards Announced April 2007**

Administered by:  
The Medical University of South Carolina (MUSC), Special Programs Office through a Cooperative Agreement with the South Carolina Universities Research and Education Foundation (SCUREF)

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**ACADEMIC YEAR: 2007-2008**

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## **INTRODUCTION TO THE NUCLEAR ENGINEERING AND HEALTH PHYSICS SCHOLARSHIP PROGRAM**

This program is complementary to the Nuclear Engineering and Health Physics Fellowship Program and, like the Fellowship program, it is designed to meet the Department of Energy's (DOE) mission to support nuclear engineering education, enhance the number of trained personnel for the maintenance and development of nuclear power technology, and support nuclear science and technology missions within DOE laboratories. Increasing costs for higher education and a high demand for nuclear engineers and health physicists have had a negative impact on the number of well-qualified students seeking degrees in fission technology. However, current and planned uses of fission reactors for energy generation emphasize the importance of the availability of appropriately educated, highly qualified nuclear engineers and health physicists with undergraduate degrees. This scholarship program is designed to encourage talented students to continue their education in an academic area related to nuclear energy or health physics. The intent of this scholarship program is to provide support to undergraduate students, assist in preparing students for leadership roles in fission technology, and enhance the broader objective of advancing fission energy through the educational efforts of the scholars.

### **RELATED TECHNICAL AREAS**

The DOE has ongoing research and development programs with a need for highly trained scientists and engineers. The objective of the Nuclear Engineering and Health Physics (NE/HP) Scholarship program is to help the department achieve these goals. Some of these areas include:

**NUCLEAR ENGINEERING** technical areas include; the nuclear fuel cycle; nuclear reactor safety and safeguards; nuclear materials science and engineering (including space reactors); nuclear reactor engineering; advanced concepts in nuclear engineering; and radiation interaction and detection.

**HEALTH PHYSICS** technical areas include; radiation interaction, detection, and dosimetry; radiation protection standards and regulations; biological effects, risk assessment and ALARA (As Low As Reasonably Achievable radiation exposure) concepts; facility design and nuclear safety; radiological emergency management; environmental monitoring and assessment; and nuclear waste management. This program is not intended to support medical physics.

## **APPLICATION PROCEDURES**

### **ELIGIBILITY**

Students who are currently enrolled in undergraduate nuclear engineering or health physics programs are eligible to apply for this scholarship program. The program is open to students who will be sophomores, juniors, or seniors by September 2007. An applicant may apply for either the Nuclear Engineering component or the Health Physics component of the program, but **not** both. The award is limited to the duration of the undergraduate program, typically 36 months for sophomores, 24 months for juniors and 12 months for seniors. A scholarship appointment will not exceed 36 months.

Applicants must be either U.S. citizens or permanent resident aliens. It is the policy of the Medical University of South Carolina (MUSC) to recruit and select participants without regard to race, age, gender, religion, color, national origin, physical or mental disability, or special disabled or Vietnam Era Veteran status.

## APPLICATION DEADLINE

Application forms will be available from approximately September to January of each year. Applications from previous years or from other scholarship programs may not be used. Completed applications will be accepted until January 31<sup>st</sup> for scholarships commencing the following September.

Electronic applications can be found at <http://www.musc.edu/specialprograms>

An application is made up of the following sections:

1. Application
2. Three professional letters of reference
3. Current Official Transcripts (from **all** schools attended)
4. \*Official SAT or ACT Scores (ETS reporting code is 5949) (ACT reporting code is 6586)

\* We will accept (a) SAT and ACT scores that are sent directly from the testing service, (b) scores on an official high school or college transcript, or scores sent to us directly by the applicant on the official testing service report form.

*Please Note:* All parts of the application must be received at the Special Programs Office at the Medical University of South Carolina (MUSC) by January 31, 2007.

Mail completed applications to:

Medical University of South Carolina  
Special Programs Office, NE/HP Scholarship  
19 Hagood Avenue, HOT 304-H4  
P.O. Box 250851  
Charleston, SC 29425

Phone: (843) 792-1469  
Fax: (843) 792-0235  
Email: [cardern@musc.edu](mailto:cardern@musc.edu)

Please include the scholarship program name on **all** of your correspondence to MUSC.

## **SCHOLARSHIP OBLIGATIONS**

### **ENROLLMENT**

During the scholarship period, scholars are expected to be registered and enrolled as full-time undergraduate students.

### **TERMS OF APPOINTMENT**

Each scholar must agree to the conditions outlined in the letter of appointment.

### **ANNUAL RENEWAL OF SCHOLARSHIP**

During the scholarship appointment period, scholars will be required to complete a Scholarship Renewal Application regarding academic performance and course of study. This application must be completed by January 31<sup>st</sup> of each year. In addition, continuing evaluation of the scholarship program continues for five years after the scholar has completed the program and periodically thereafter. Scholars must inform MUSC's Special Programs Office of their current addresses and must complete any evaluation/assessment questionnaires sent by MUSC for program information and/or evaluation. Renewal forms can be found at <http://www.musc.edu/specialprograms>.

### **PROGRAMS AT PARTICIPATING UNIVERSITIES**

Scholarship awardees must attend a university that is designated as a participating university in the Nuclear Engineering/Health Physics Scholarship Program. A list of participating universities and university scholarship coordinators is included on page seven (7) of this booklet. Scholarship coordinators may be contacted directly by interested applicants for in-depth information regarding specific nuclear engineering or health physics programs. All participating universities must undergo an application process. A university's inclusion as a participating university represents the Department of Energy's acknowledgment of the strength of its program.

*Note:* Scholarships may only be held at DOE-specified institutions appearing on this list.

### **EVALUATION OF APPLICATIONS**

Upon receipt, each application is checked by the program coordinators to ensure that the applicant meets the basic criteria for the program and has supplied all necessary application materials. If time permits, the staff will attempt to contact applicants who have submitted an incomplete application. However, it is the applicant's responsibility to check with MUSC to ensure that an application is complete.

After an application is reviewed and designated complete, it is submitted, along with all other complete applications for review by a panel of experts. The review panel is composed of university and DOE facility personnel who are directly responsible for instruction and research in either nuclear engineering or health physics. The panel evaluates each application and recommends award recipients. Applications are reviewed on the basis of grades, courses taken, SAT or ACT scores, career and goals statement, and references. Other factors, including geographical criteria and professional personnel needs of the DOE nuclear engineering and health physics research program, are also considered. The Department of Energy reviews the panel's recommendations as well as the applications and approves the final selection.

The number of awards given each year is dependent on the number of graduating scholars currently in the program and available funding. Some applicants, who did not receive an award,

are selected for “Honorable Mention” status. This status recognizes their achievement and places them on a list for a possible award should additional funding become available.

After the Department of Energy approves the award recipients, MUSC notifies applicants of their award status. Notification usually occurs in April. Once scholarships are awarded MUSC handles the administration of the scholarship for DOE. Questions about stipends, internship assignments, travel, etc. should be referred to the Special Programs Office at MUSC.

### **PROGRAM BENEFITS**

Scholars receive an annual stipend in the amount of \$2,000. Stipends are paid in two increments in October and February of each year. Stipends are mailed directly to the scholars. A limited amount of funding may be available for scholars to participate in summer internships at DOE facilities throughout the United States. The scholar must contact MUSC regarding the appropriate forms required for securing an internship appointment.

### **CONFERENCE TRAVEL**

Scholars have the opportunity, if funding is available, to attend national or international conferences. Reimbursement for conference travel is only approved when the student is presenting a paper or poster. Requests for travel funds should be made in writing to the Special Programs Office at MUSC at least two months before the anticipated travel dates.

### **PUBLICATION ACKNOWLEDGMENT**

DOE, SCUREF, and MUSC encourage scholars to publish reports and articles in scientific and engineering journals. The scholar must submit any articles, reports, or theses to MUSC concurrently with the submission for publication. The publications must show the joint affiliation of the scholar with the university and, if appropriate, with the laboratory in which the research was conducted, and should acknowledge scholarship support. Travel request forms can be found at <http://www.musc.edu/specialprograms>

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