

**CENTER FOR INSURANCE EDUCATION  
HOWARD UNIVERSITY  
SUMMER ACTUARIAL PROGRAM  
June 17, 2012 – July 7, 2012**

**Nature of Overall Program**

The Summer Actuarial Program is an educational enrichment experience in mathematics, statistics, computers, business, and actuarial careers for exceptional mathematics high school juniors. The program is funded by the Joint CAS/SOA Committee on Minority Recruiting, insurance companies, actuarial consulting firms, and Howard's Center for Insurance Education. It is devoted to helping strong mathematics students improve their skills and providing information about business and actuarial careers.

**The Educational Program**

The curriculum for this program is built around these topics:

- Statistics and Probability
- Matrices
- Life Contingencies

Each of these topics is important in actuarial mathematics. These topics are coordinated with instruction in the use of personal computer systems.

The main topics in each of the course units are given below. This is an intensive program of studies but within the grasp of a talented student with a good command of high school algebra. For computer instruction, students will be grouped by computer ability. No prior computer knowledge is assumed.

*Probability and Statistics*

Random and other species of sampling mean, median, standard deviation  
Sampling distributions  
Probability distributions  
Reliability and sources of error in statistical studies

*Matrices*

Vectors and matrices  
Algebraic and geometric properties of matrix operations  
Matrix models of population growth  
Eigenvalues and Eigenvectors

## **Eligibility**

- **High school students who will graduate in 2013 and who will have completed three years high school mathematics by June 2012.**
- **Program seeks students with mathematics PSAT scores of approximately 60 (SAT 600) or higher**
- **Have excellent high school grades**
- **Strong recommendations from the math chairperson or teacher**

## **Living Arrangements**

Participants will be housed in dormitory facilities on Howard University's campus. Four to seven tutor/counselors, who will reside in the dormitory with the participants, will assist the students in both academic and personal concerns. In addition, staff members of the Dean of Residence Life will be present in the dormitory at all times.

With the exception of scheduled cookouts, picnics and other sight-seeing activities, all meals for participants will be provided by University Food Services in the Blackburn Student Center. Participants are to remain on campus for the entire program and are not allowed to keep a car on campus.

## **Program Cost and Financial Assistance**

The Society of Actuaries, the Casualty Actuarial Society, actuarial consulting firms and insurance companies have provided funds for full scholarships for minority students. This covers tuition, room and board, educational material and recreational costs. Transportation costs to and from the school are not included. Non-minority students are welcome to participate in the program and may seek scholarship funding through local organizations and companies.

## **Recreation**

The focus of the program is on serious academic learning but there is time for recreation. There are scheduled recreational activities, such as swimming, basketball, bowling and videos.

## **Actuarial Career Information**

Students learn about actuarial careers through reading informational materials provided by the program, speaking with guest Actuaries, and field trips to actuarial offices.

## **Faculty**

There will be a Director of Instructions, as well as an Assistant Director of Computer Instruction.

## Application Procedure

A complete application consists of:

1. The Student Application Form (with signature indicating parent's consent).
2. The Student Nomination Form from principal or Math Department Chairperson.
3. A transcript of the applicant's high school records.
4. A letter of recommendation from a math teacher who is familiar with the student's work.

Letters of recommendations can be sent separately from the application packet. All applicants will be acknowledged.

Applications should be **postmarked no later than April 1, 2012** to guarantee consideration. (Late applications will be accepted and considered contingent upon availability of openings.) Outstanding candidates may receive early acceptance.

**Notification of successful candidates will be made by May 18, 2012. Those invited to participate will have until June 1, 2012 to indicate acceptance.**

If there are any questions, please contact Tya N. Boyden on (202) 806-1518 or by e-mail at [tboyden@howard.edu](mailto:tboyden@howard.edu).

All mail should be sent to:

**Howard University School of Business  
Center for Insurance Education  
2600 6<sup>th</sup> Street NW, Suite 222  
Washington, DC 20059  
Attn: Tya N. Boyden**

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Student Application Form**

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1. Email Address \_\_\_\_\_ 2. Date of Birth \_\_\_\_ - \_\_\_\_ - \_\_\_\_ 3. AC Telephone \_\_\_\_ - \_\_\_\_ - \_\_\_\_ 4. Sex \_\_\_\_\_

5. Name \_\_\_\_\_  
Last/Family First M.I.

6. Address \_\_\_\_\_  
No. and Street City/State Zip Code

7. When do you expect to graduate from high school? Month \_\_\_\_\_ Year \_\_\_\_\_

8. \_\_\_\_\_  
High School Name AC/Telephone

\_\_\_\_\_   
No. and Street City/State Zip Code

9. Major Academic Interest:

10. Hobbies & Other:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

11. List Math Course Taken:

Grade Received:

Name of Teacher:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

12. Briefly describe your participation in Math and Science activities, both in and out of school. (Use the back of this sheet if additional space is needed.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Parent: \_\_\_\_\_

Parent Signature: \_\_\_\_\_



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School Nomination Form**

Note: The school principal **or** chairperson of the Math Department should complete this form.

I am pleased to nominate \_\_\_\_\_ to participate in your Summer Actuarial Program. On national examinations, the student's record is as follows:

	Year Taken	Verbal Score	Math Score	Total
PSAT	_____	_____	_____	_____
SAT	_____	_____	_____	_____
ACT	_____	_____	_____	_____
OTHER	_____	_____	_____	_____

Recommendations or comments concerning the student (Optional)

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Please type or print the following information:

Name:	_____	School:	_____
Signature:	_____	Address:	_____
Title:	_____	Date:	_____