Interdisciplinary Training for Undergraduates in Biological and Mathematical Sciences

Sponsored by the National Science Foundation

The UHD UBM program seeks to enhance undergraduate education and training at the intersection of the biological and mathematical sciences. The program will prepare undergraduate biology or mathematics students for graduate study and careers in fields that integrate the mathematical and biological sciences. Students who participate in this program will receive a stipend for research and related educational activities.

Eligibility Requirements

In order to be considered for this training program, applicants must meet the following minimum requirements:

- Be a citizen or permanent resident of the US.
- Be a declared major in mathematical or life sciences at UHD
- Minimum 2.5 Grade Point Average

Application Procedures and Deadlines

All applicants must submit the following materials together in **one envelope** to the Department of Computer and Mathematical Sciences (CMS) by **Friday, October 19, 2007 at noon (room S705)**.

The application must materials include:

- An application form
- A sealed letter of recommendation from at least one CMS or Natural Science (NS) faculty member familiar with your academic work.
- A current UHD transcript and department-verified copies of transcripts of all colleges attended

UBM Application Form

INSTRUCTIONS: *Please read the questions on this application carefully. Answer all the following questions and submit this form* ***together*** *with all your transcripts (unofficial copies are accepted) and sealed letter of recommendation. Bring the completed application package to S705 and label the package* ***"UBM Program – Dr. Tecarro."*** *Incomplete applications will not be considered.* ***Deadline: Friday, October 19, 2007 at noon (room S705)***

PART 1. PERSONAL and CONTACT INFORMATION

1. Social Security No._____ 2. UHD Student ID_____
3. Date of Birth _____
4. Full Name _____
5. Gender_____ 6. Nationality_____
7. U.S. Citizen? □Yes □No If no, Permanent Resident? □Yes □No
8. Ethnicity/race: □Hispanic or Latino □Non-Hispanic and Non-Latino

   □ Native American □Asian □ African-American

   □ Native Hawaiian or Other Pacific Islander

   □White/Caucasian □Other

9. Address_____

   Home Phone_____ Cell/Other_____

10. Email Address_____

11. Emergency contact: Full Name: _____

    Relationship_____ Contact Number(s)_____

PART 2. EDUCATIONAL INFORMATION

12. Semesters attended at UHD_____
13. Major _____ Minor _____
14. College GPA _____ / Major GPA _____
15. Expected college graduation date_____

PART 3. SUPPLEMENTAL INFORMATION

16. Are you currently employed? □ Yes □ No
    Employer: _____ Position: _____
    Working Hours/week: _____
17. How did you initially hear about UHD Scholars Academy?
    □ Poster/Flyer □NSF-UMB website □ Teacher (please specify his/her name)_____ □ Other (please specify name and/or event)_____

I certify that this information is complete and accurate to the best of my knowledge. I authorize the UHD UBM Selection Committee to review my application. If accepted, I further authorize use of photos and release of information deemed necessary for publications by the university and UBM Training Program.

Signature:_____ Date: _____

Send application materials to:
University of Houston-Downtown, Dept of Computer and Mathematical Sciences, S705, One Main Street, Houston, TX 77002. Write "Attention: UBM Program – Dr. Tecarro"

Research Projects: Go to Special Programs at the Department of Natural Sciences homepage (http://www.dt.uh.edu/academic/colleges/sciences/naturalscience/NS_spec_programs.html) and click on the UBM Program wherein you will see descriptions of the projects currently available in the UBM Program. You are encouraged to discuss the projects with the investigators prior to submitting this application. Prioritize the projects for which you are interested numerically in decreasing order of preference (e.g., 1 = top choice).

_____ **Fungal Population Dynamics in Coastal Tallgrass Prairie Systems**
Facutly: Dr. Shishen Xie (CMS) and Dr. Phil Lyons (NS)

_____ **Stress Analysis of Bacterial Biofilms**
Faculty: Dr. Youn-Sha Chan (CMS) and Dr. Poonam Gulati (NS)

_____ **Mathematical Models of Pierce's Disease**
Faculty: Dr. Jeong-Mi Yoon (CMS) and Dr. Lisa Morano (NS)

_____ **Physiological and Evolutionary Significance of Geographic Variation of Gestation Time in Vespertilionid Bats**
Faculty: Dr. Steve London (CMS) and Dr. Aaron Krochmal (NS)

_____ **Mathematical Modeling of Interacting Signaling Pathways During Neural Development in Vertebrates**
Faculty: Dr. Edwin Tecarro (CMS) and Dr. Akif Uzman (NS)