



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

Applicants must submit the following materials together in **one envelope** to the Department of Computer and Mathematical Sciences (CMS) by **Wednesday, December 1, 2010 at noon (room S716)**.

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 S716 and label the package “UBM Program – Dr. Tecarro.” Incomplete applications will not be considered. **Deadline: Wednesday, December 1, 2010 at noon (room S716).**

PART 1. PERSONAL and CONTACT INFORMATION

1. Social Security No. _____ 2. UHD Student ID _____
2. Date of Birth _____
3. Full Name _____
4. 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 UBM Program?
Poster/Flyer NSF-UBM 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 the UBM homepage (<http://www.uhd.edu/academic/colleges/sciences/cms/UBM/index.html>) 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).

_____ **Modeling the influence of soil physical and chemical factors on fungal communities along Buffalo Bayou**

Faculty: 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), Dr. Volodymyr Hryniv (CMS) and Dr. Lisa Morano (NS)

_____ **Building a diatom succession model for a fresh water marsh**

Faculty: Dr. Ron Barnes (CMS) and Dr. Brad Hoge (NS)

_____ **Mathematical Modeling of Interacting Signaling Pathways During Neural Development in Vertebrates**

Faculty: Dr. Edwin Tecarro (CMS) and Dr. Akif Uzman (NS)