NSF REU: Research Experience for Undergraduates

National Science Foundation supported Research Opportunities in Bio-physics and Astronomy for Community College Students

Queensborough Community College is offering Research Experiences for Undergraduates this summer. Students will have the opportunity to participate in current research projects in physics, bio-physics or astronomy and perform independent research supported by the National Science Foundation. Those selected will receive stipends ($5000) and travel support to and from campus. Participants will be required to work on research projects, attend seminars and take quizzes. Participants will be encouraged to present and/or publish their results.
Overview
Undergraduate participation in physics research at Queensborough Community College, a two-year college serving students in the New York City area, has been part of the college’s academic program for over 20 years. Sponsors have included NIH, RIMMS, LSAMP, NASA, NSF and PSC-CUNY. Students work with faculty in the Physics, Biology, Chemistry and Technology Departments on a wide range of projects that aim to broaden their understanding of science and involve them in the acquisition, analysis and presentation of experimental data.

Research Topics
Previous and current investigations include:
- The study of exoplanets, supermassive black holes, active galactic nuclei and hot gas in the Milky Way using data from Hubble, SWIFT, Spitzer, Chandra and the college’s telescope.
- The investigation of transfected cancer cell migration using phase contrast and fluorescence microscopy.

Facilities
- Physics Laboratories
- Laser and Fiber Optics Lab
- Biology Labs and Collections
- Observatory housing a 0.4m reflector with high-resolution CCDs, spectrographs and adaptive optics.
- Academic Computing Center

Research Program Objectives
The chief goals of the program are:
- To introduce students to a variety of current issues in science.
- To define and discuss useful methods.
- To provide instruction in experimental design and efficacy.
- To have meaningful faculty-student discussions on the experimental results.
- To assist with the production of a presentation of each student’s work at a conference.
- To inform students of opportunities at four-year colleges and summer institutes.
**Applications must be submitted no later than April 1, 2015**

Late applications will be considered if we have space remaining in the program

**Application Form for Summer Undergraduate Research Program**

**Physics Applications in Astronomy, Biology & Physics Education Research**

**NSF Research Experiences for Undergraduates – (2015)**

**Department of Physics, Queensborough Community College**

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| City | State | Zip Code | Phone () |

| Permanent Address (if different): |
| City | State | Zip Code | Phone () |

| E-mail Address (Primary) | (Other) |

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<th>College</th>
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<td>Cumulative GPA:</td>
<td>Expected Graduation Date: Month: Year:</td>
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Do you plan to transfer to a four year college? Yes No Unsure

U.S. Citizenship or Permanent Residency is Required.

List Employment Record (if any; begin with current):

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Academic Honors or Awards:

If program dates conflict with your academic schedule, what dates would you be available?

**Applicant’s checklist:**

This application
Official transcript of your academic record
One letter of recommendation
Brief essay – why you want to participate in the program. Please provide information about your background and/or interest in research – what projects have you been involved with in the past, if any, do you prefer experimental or theoretical work. Note: previous research not required.
Applications from students who are members of underrepresented groups are strongly encouraged.
Optional: Ethnicity _______________ Gender _______________

Send Application Materials to: 2015 REU Site Program, c/o Prof. D. Lieberman
Department of Physics, Queensborough Community College, 222-05 56 Ave. Bayside, NY 11364
Fax: (718) 281-5480; e-mail: dlieberman@qcc.cuny.edu

You may scan and email everything including an unofficial transcript to: dlieberman@qcc.cuny.edu in order to meet the deadline but an official transcript and completed application must still be mailed to the address above.

Queensborough Community College is an Equal Opportunity/Affirmative Action Institution