

***SUMMA***

***Strengthening Underrepresented Minorities in Mathematical Achievement***

**Research Experience for undergraduates**

**in Mathematics at MSU**

Interdisciplinary Research in Mathematics and its Applications in Sciences

**Program Dates: Six weeks between June 5 – August 20, 2014**

This program is a part of the National Research Experience for Undergraduates Program ([NREUP](http://www.maa.org/nreup/)) funded by the Mathematical Association of America (MAA), the National Science Foundation Division of Mathematical Sciences (NSF-DMS), and the National Security Agency (NSA).

**Program Director:** Dr. Aihua Li, Department of Mathematical Sciences, Montclair State University

 *Office: Richardson 218, Phone: 973-655-7271, Email:* *lia@mail.montclair.edu*

**Funding:** $4400 per person + meal stipend + commuting stipend + conference travel support**.**

**Potential Research Projects:**

1. Project 1. Randić Connectivity Indices of Graphs
2. Project 2. Graph Theory Applications in Modeling Evolution of Chagas Disease Vectors
3. Project 3. Number Theory applications in Designing Cryptosystems

**Student Responsibility: This is a full-time research internship.**

 Students are expected to spend at least four hours each day on campus during the daily sessions (weekdays).

 Beyond the regular daily meetings with the faculty mentor, each student is expected to spend 2-4 hours each day for independent research or work with group partners.

 Each student will make an oral presentation and submit a final report at the end of the program.

 Students will develop a research paper for publication in the near future.

**Student Qualification**: Undergraduate minority students (African Americans, Hispanics, American Indians, Alaska Natives, and Pacific Islanders) majoring in mathematics; GPA of at least 3.0; U. S. citizen or permanent resident; Commitment for full time research during the six weeks; Interested in mathematics research; Completion of Calculus II and Linear Algebra is preferred, but not mandatory.

Please send in your application (see next page) by May 10, 2014 to Dr. Aihua Li by email or fax (see next page). Please send in your applications as soon as you can. Review of applications will start from the middle of April 2014 until the positions are filled. Please use the application form on the next page.

 Dr. Aihua Li

 Department of Mathematical Sciences

 Montclair State University

**STUDENT APPLICATION**

**SUMMER 2014**

**Program Dates: (Six weeks between) June 5 – August 20, 2014**

**Please complete all the fields. Email the completed form to**

 **Dr. Aihua Li (****lia@mail.montclair.edu****); Or fax to 973-655-7686.**

**Student Information**

|  |  |
| --- | --- |
| Student Name | First Middle Last |
| E-mail Address |  |
| Permanent Mailing Address |  |
| Home Phone |  | Cell Phone (if any) |  |
| College/University Name/City/State |  |
| Major |  | Minor (if any) |  |
| Cumulative GPA |  | GPA in the major |  |
| Expected Graduation Date |   |
| Citizen Status | [ ]  US citizen [ ]  US Permanent Resident  |
| Minority Status  | [ ]  African American [ ]  Latino American[ ]  American Indian [ ]  Native Pacific Islander[ ]  Other |
| List all the Math courses you have already completed or are currently taking. |

**Reference Information**

List one faculty member who we may contact for your recommendation information

|  |  |
| --- | --- |
| Faculty Name |  |
| Title |  |
| Department |  |
| Institution |  |
| Office Phone |  |
| E-mail Address |  |