

# 2007 REU Program at the University of West Georgia

## Program Details

**Program Dates:** The program will run from June 4 through July 27, 2007.

**First Deadline:** To be guaranteed full consideration, complete applications must be submitted by March 23, 2007. If your complete application is received by that date, you will receive an e-mail confirmation of its receipt. If your application is complete after March 23, then you will be considered if we have not yet filled all eight positions.

**Purpose:** The purpose of the program is to provide eight talented and motivated students with an introduction to mathematical research and the opportunity to become researchers themselves.

**Eligibility:** Participants must be United States citizens or permanent residents and should be returning to their undergraduate institutions for at least one semester. Women and minority students are strongly encouraged to apply.

**Benefits:** Participants will receive a \$3200 stipend. They will also be provided with a generous meal plan, on-campus housing, and travel support. They will also be granted access to the University's facilities including computers, parking, and recreational facilities. After the conclusion of the program, the students will be able to attend at least two conferences, with an opportunity to present their own research. It is likely that funding will be supplied for the students' travel to these conferences.

**Research Experience:** The students will be introduced to a variety of tools, techniques, and interesting problems from the areas of combinatorial number theory, combinatorics, and graph theory. Once the students become familiar with a good number of open research topics, they will be matched, based on their level of interest, with specific problems. The students will work in teams of two to three students, and each student will belong to two different teams, so that he or she will delve deeply into two problems. All problems will be "open" research problems - that is, problems that the faculty research directors know to be still unsolved (see our sample problems at [www.westga.edu/~math/REU2007/Sample.pdf](http://www.westga.edu/~math/REU2007/Sample.pdf)). Once per week, the students will attend a research talk presented by a (in most cases, well-known) research mathematician. We are aware of the time constraints and do not expect all the projects to result in professional publications, although we will remain in touch with the students long after the summer program has concluded and certainly will encourage such publication when appropriate. On the other hand, each student will be required to hand in a report by the end of the 8-week period using some technical software such as LaTeX. Another important component of the program will be student participation at meetings. Students will get to present their work, and also have the valuable experience of interaction with other research mathematicians at all levels. The two most significant meetings will be: (1) the AMS/MAA Summer Mathfest, which will be held shortly

after the conclusion of the program, and (2) the Integers Conference in Combinatorial Number Theory, which will take place here at the University of West Georgia in late October.

**Faculty Mentors:** Professors Bruce Landman (the PI) and Abdollah Khodkar are senior faculty who each bring a record of successful mentoring of student research to this endeavor, and they are excited about the prospect of strengthening their degree of involvement in undergraduate research through the 2007 REU program. For more information on the faculty mentors, see <http://www.westga.edu/~math/REU2007/REU07-facultymentors.htm>.