

Position Announcement

Graduate Research Assistantships available in Mathematics

Southern Illinois University Carbondale announces openings for two Graduate Research Assistantships

Starting date: August 15, 2011 with potential employment through August 14, 2013

***Length of assistantship to be determined through annual evaluation process**

- **Position Type:** 50% or on average 20 hours per week. This is a research position, thus there are no teaching or grading responsibilities involved.
- **Salary:** Monthly salary approximately \$1,540.00/month plus benefits (10 month appointment)
- **Location:** Carbondale, Illinois

Description of Positions: These positions will be secured through funding from two National Science Foundation grants.

Position #1: NSF “Cohort” research assistant

The purpose of this grant is to develop, administer and research the effects of the Algebra Project® program on high school students’ mathematics achievement. In addition, the research assistant will assist faculty and staff with the administration and planning of a near-peer youth mentoring program, referred to as the Young Peoples Project (YPP). YPP believes that math literacy work is a tool for young people to demand of themselves, their communities and school systems, a quality education that will prepare them for citizenship in today’s technology based society.

Responsibilities will include the following:

- Coach and mentor high school students through the development of YPP math game workshops; These workshops will later be taught to elementary school students.
- Conduct debriefing sessions after each workshop.
- Maintain paperwork and discussion notes (Students Payroll Time-cards, Schedules, Lessons, Debrief Notes, etc.)
- Participate in the development and conduction of leadership and team building activities for high school participants.
- Participate in weekly check-ins with site personnel including fellow research assistants.
- Conduct one-on-one evaluations of each mentored student within your assigned group.
- Review research articles regarding mathematics education and student learning in mathematics.

Position #2: NSF “Bridging Math and Media” (BMM) research assistant

The purpose of this grant is to determine the effects of teaching computer programming on the learning of mathematics in high-school students. In addition, the research assistant will assist faculty and staff with the administration and planning of a near-peer youth mentoring program, referred to as the Young Peoples Project. The project will utilize the SCRATCH programming language (developed at the MIT Media Lab) to enable students to teach and learn digital media creation (via computer programming).

The BMM Project poses three major research questions.

- 1) What math and computer science skills are students able to learn during the project?
- 2) How do students’ attitudes toward math and computer science change after participating in the project?
- 3) How do students act as learners, teachers, leaders, and organizers?

Responsibilities will include the following:

- Coach and mentor high school students through the development of digital media workshops; These workshops will later be taught to elementary school students.
- Conduct debrief sessions after each media workshop.
- Maintain paperwork and discussion notes (Students Payroll Time-cards, Schedules, Lessons, Debrief Notes, etc.)
- Participate in the development and conduction of leadership and team building activities for high school participants.
- Participate in weekly check-ins with site personnel including fellow research assistants.
- Conduct one-on-one evaluations of each mentored student within your assigned group.
- Review research articles regarding mathematics education and student learning in mathematics;

Requirements for both of these positions include:

- Excellent academic record with a BA/BS in mathematics or mathematics education (or equivalent).
- Outstanding verbal and written communication skills.
- Strong interpersonal skills with an ability to relate to high school students.
- The ability to deal professionally with a wide range of people.
- Ability to make sound decisions under pressure and to meet strict deadlines.
- Fluency in English language, writing and speaking.

Effective Date of Appointment: August 15, 2011

Application deadline: Review of applications will begin March, 21, 2011 and continue until the position is filled.

Application Procedure: Apply by submitting a letter of application, resume with references, and the application form available on-line at http://www.math.siu.edu/Grad_Forms/index.html .

Position #1: Send your resume and a letter of application describing your interest in the position to:

NSF Cohorts Research Assistantship
Department of Mathematics
Mail Stop 4408
Southern Illinois University
Carbondale, IL 62901

Position #2: Send a letter of application describing your interest in the position and resume to:

NSF Bridging Math and Media Research Assistantship
Department of Mathematics
Mail Stop 4408
Southern Illinois University
Carbondale, IL 62901

For questions regarding this announcement contact:
Greg Budzban, gbudzban@math.siu.edu

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