# SEE-Beyond AWARDS---Advice for Mathematics Students

## APPLICATION PROCESS

SEE-Beyond Awards invite students to explore new techniques, technologies, or modes of inquiry or expression; to apply their academic-year learning to real-world challenges; and to clarify the interrelationship between their educational and post-baccalaureate goals. Awards may be used to support:

- field or laboratory research in an area of the student's choice, with the permission of the host institution and research sponsor;
- internships with clearly defined learning goals that complement the student's academic plan;
- artistic residencies, workshops, apprenticeships, or productions.

Awardees will receive a **$4,000** stipend for a significant summer experience of 6 –10 weeks. Experiences of shorter duration will be considered with proper justification. Funds may be used at the student's discretion to cover participation fees or tuition, travel expenses, and summer room and board. SEE-Beyond Awards may be used to access opportunities anywhere in the world, except in countries with State Department travel warnings or advisories. SEE-Beyond Awards may not be used to fund job shadowing opportunities or work experience of little academic value or summer student-faculty research at Skidmore. Students receiving a SEE-Beyond Award agree to reflect on learning outcomes by way of a final written report.

The information that follows serves as a springboard for ideas for a **mathematics** major thinking about developing a SEE-Beyond proposal. For specific application information and deadlines, refer to the SEE-Beyond Website:
http://www.skidmore.edu/see-beyond/resources/index.php

**Research Experiences**
The American Mathematical Society maintains a detailed list of Research Experiences for Undergraduates (REU's): http://www.ams.org/programs/students/undergrad/emp-reu. REU's carry their own stipend and are therefore not eligible for SEE-Beyond funding. However, students may find this website helpful in developing a proposal for an independent research project.

Another research experience that is also funded is administered by the Mathematical Association of America: the National Research Experience for Undergraduates Program (NREUP) is designed for minority students.

**Internships**
Many companies and government agencies have paid internship programs. Students can use a SEE-Beyond award to independently fund themselves for an internship. Possible locations to look for internships include government agencies, insurance companies, software companies,

public health departments, national labs, pharmaceutical companies, mathematics journals, and national mathematics and statistical organizations. The following list of prospective links is just a starting point!

***Please note, internet links may change overtime—if hyperlinks below do not work, try searching keywords, such as "internships," "summer," or "research," with the following organizations.***

**Software and Web-Based Companies:**
Apple
Google
Mathworks (creators of Matlab)
Microsoft
Wolfram (creators of Mathematica)

**Museums:**
Math Midway (traveling exhibition from Museum of Mathematics)
Museum of Mathematics

**Government Agencies:**
Centers for Disease Control and Prevention
Department of Defense
Department of Energy
Department of Homeland Security
Federal Reserve Board
NASA's Research Centers
National Security Agency

**Professional Societies:**
The professional mathematics and statistics societies maintain detailed websites with well-developed sections on undergraduate student opportunities. These are a great resource to see advertised positions as well as for brainstorming independent projects.
American Mathematical Society (AMS)
American Statistical Association (ASA)
Association for Women in Mathematics (AWM)
Mathematical Association of America (MAA)
Society for Industrial and Applied Mathematics (SIAM)

**Teaching:**
Undergraduate students can share their knowledge and love of math through education programs throughout the United States and abroad by volunteering or working as a teaching assistant. Check out the following programs. See-Beyond funding could be used for travel and

living expenses at these locations or to design a new project affiliated with a teaching organization.
National Association of Math Circles
Teach for America
World Teach

**Summer Programs:**
Students can use SEE-Beyond funding to support travel to participate in a mathematics program abroad or explore advance mathematical topics in more depth at a summer institute in the US.

Budapest Semesters in Mathematics (summer program)
Modern Mathematics International Summer School
Park City Math Institute Summer Program for Undergraduates
Summer Program for Women in Mathematics
Summer Undergraduate Applied Mathematics Institute

If you are interested in applying for SEE-Beyond funding, please speak with a math professor to brainstorm other possible ideas.