

American Mathematical Society

The AMS Epsilon Fund

Program Announcement
For Summer, 2006

Application Deadline: December 15, 2005
Award Announcements: February, 2006

www.ams.org/outreach/Epsilon.pdf

Epsilon Fund • Membership and Programs Department • American Mathematical Society
201 Charles Street • Providence, RI 02904-2294 • 800-321-4267, ext. 4170
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The AMS Epsilon Fund

PURPOSE

The AMS Epsilon Fund has been established to help support summer mathematics programs for mathematically talented high school students. The goal of the program is to aid and promote programs that support and nurture mathematically talented youth in the United States, and to make these opportunities available to the broad pool of all mathematically talented high school students living in the United States. Although we hope that this will motivate students to pursue a career in mathematics, the real purpose is to help create a body of individuals who have struggled with challenging mathematics and developed an appreciation for and confidence in their ability to take on rigorous intellectual pursuits.

The Epsilon Fund seeks to fund programs that follow the basic model that has proved so successful in the past: the programs should run over a period of multiple weeks during the summer, bring in at least twenty high school students with mathematical talent, and generally be directed by mathematicians. Funding will not be given to individual students; rather, grants will be given to the program, with a substantial portion of the grant earmarked directly for tuition scholarships for students. This year, the fund will have a maximum grant amount of \$15,000 per program and fund perhaps five programs. Even though this may fall far short of actually meeting the costs of these programs, we hope it can provide the critical marginal funds that can make it possible for these programs to survive.

Within these broad guidelines, many different models of programs will be considered eligible. Programs that focus on any area of mathematics, pure or applied, of narrow or broad focus, are welcome. Programs that are specifically targeted to one high school year (e.g. 9th graders), or to mathematically talented women or minorities are welcome to apply. Programs that concentrate on problem solving or mathematical research or both are welcome to apply. Even "summer" is not a firm requirement, though it is expected that most, if not all, will take place during the summer. Programs that use undergraduates or graduate students along with mathematicians in their teaching are particularly encouraged.

We recognize that there is no magic formula that makes the best math programs. That said, our first and main objective is to support programs that are most successful in nourishing mathematically talented youth.

Programs that have run successfully for at least a year are given preference for funding over new programs. The selection committee, in an effort to encourage new programs, would like to be as flexible as possible with the understanding that

funds are limited and recently begun programs will have to show evidence of a good fit between their plans and the Epsilon program.

All programs are encouraged to make an extra effort to attract members of under-represented groups. It is our belief that true mathematical talent lives in students in rural areas as well as cities, lives in students of both genders and of all colors.

AWARDS

The Epsilon Fund intends to award grants this year of no more than \$15,000 each to five or more Mathematics programs, with the intent that half of each award should be earmarked for scholarships and half for general support of the program. Awards are normally for one summer only; a new application can be made each year for support. However, if you would like your program to be considered for a two-year award, please indicate this on the application in the budget section.

To receive an award, applicant programs for year 2006 must have a proven track record of at least one year, and preferably more. Programs must be physically located in the United States or Canada.

It is expected that award notifications will be made by the end of February, 2006. Notification of awards will contain any restrictions on the use of the funds, and instructions on reporting. A final report will be required.

Awards will also be announced in a Spring issue of *Notices of the AMS*.

PUBLICITY FOR MATH PROGRAMS

The AMS web site features a list of known summer programs for mathematically talented high school students (www.ams.org/outreach/mathcamps.html); this document is also available for downloading as a pdf brochure. Please provide this web address in the publicity brochure or web site for your program, if possible. If everyone does so, all programs will benefit.

The AMS occasionally produces a flyer which is mailed to many high schools in the United States, pointing to our mathcamps web page.

HOW TO APPLY

An application must include the following components. See the detailed instructions in this booklet.

Part 1: Application/ contact information form. Submit one copy of this form.

Part 2: Materials. Submit five sets of these, if possible.

Part 3: Program description questions. Answers to all questions in Part 3 should be on one document. Submit one copy.

Part 4: Budget information. Submit one copy.

Part 5: Letter of recommendation. Have the writer submit one copy directly to the AMS, at the program address below.

Applications must be received at the AMS office by December 15, 2005.

Send the application package to the following address:

Mailing address:

Epsilon Fund
Membership and Programs Department
American Mathematical Society
201 Charles Street
Providence, RI 02904-2294

Telephone: 401-455-4170

Applications will not be accepted by fax.

APPLICATION

PART I. Cover page

a. Make a cover page listing the following information:

“Application for AMS Epsilon Fund Grant”

Name of applying program:

Institution which sponsors the program (also give location of the program, if different):

Name of individual serving as the applicant for this grant:

Position of applicant in the program (e.g., Director, etc.):

Complete mailing address:

phone:

fax:

e-mail:

URL:

Deadline for applications for YOUR program, to be held in 2006:

Number of students expected to enroll in Summer, 2006:

Total program budget:

Amount of tuition and fees to be paid by each student (for a student who does not receive financial aid):

Length of program (in weeks):

b. On a separate sheet, submit an abstract:

Write the abstract. Please provide a 1-3 paragraph description of your program, suitable for posting on the AMS website, so that interested students can learn about your program, and how to apply.

Add the answer to this question. Do we have your permission, regardless of whether your program receives a grant from us this year, to publicize the existence of

your program (contact information given above, plus the abstract) to interested students on the AMS website? All of the information you provide on the rest of your application will remain confidential.

If necessary, give contact information for public use. Name contact person for students/parents who are interested in the program, and any contact information for them which is different from above. This will replace the contact information (given above) on the public web site, but not in the application files.

PART 2. Materials

We are most interested in your interactions with your students. Enclose copies of the following when available (five sets, if possible), prominently numbered with the numbers indicated below. If it is not clear from the materials, please add a short description of when the material was produced and for whom it was intended.

- (1) Application form for prospective students (very important!)
- (2) Brochure(s) about program
- (3) Daily schedule of activities (one or two pages)
- (4) Listing of courses with descriptions
- (5) Sample problem sets (samples only, complete program not needed)
- (6) Other material (e.g., newsletter) giving further sense of your program

No class notes, please. TOTAL amount of material to be submitted in this section SHOULD NOT EXCEED 25 PAGES, per set.

PART 3. Program description

Please provide answers to the following 8 questions about your program. If relevant, you may respond by referring directly to the materials supplied in Part 2.

- 1) Mathematical content
 - a) Describe the areas of mathematics to be explored in your program and the main program activities.
 - b) Explain how any additional program activities enhance the mathematical thinking of the students. Do some of your planned activities have other goals (for instance, career awareness, or an interdisciplinary focus)?
- 2) Application procedure. Describe your application procedure, including criteria for admission and recent data on the total number of applications and the percentage accepted. How do students typically find out about your program? If there are geographical or other eligibility restrictions please describe.
- 3) Student body. Give whatever summary data is available on the students from the past year or years of your program, including the number of students, their ages, entering grade in September, and where they are from (local, statewide, national,

international). Indicate whether characteristics of the student body are likely to change in the 2005 program. Have you attempted to track the educational paths of past students? If so, present that information here.

- 4) Diversity
 - a) If your program has run in previous years, please tell us how successful you have been in attracting a diverse student body. Discuss both your applicant pool and who actually attends your program. What has worked for you in the past, and what was tried that hasn't seemed to work so well?
 - b) Describe any diversity outreach plans for the coming year. Is there anything we at AMS can do to help?
- 5) Assistants. Do you use undergraduate and/or graduate students as assistants in your program? If so, describe their role.
- 6) Faculty. Describe your faculty. Are they from your own institution? Give an indication of their professional background.
- 7) Scholarships. List the costs each student is expected to pay. Is your program residential or commuter, or both? Describe your current scholarship offerings. In most cases one half of Epsilon grants are earmarked for scholarship and the remainder for general purposes. If this is not suitable for your program (e.g., no tuition) please explain.
- 8) Other. If you feel there are important and unusual aspects of your program, or of the impact that this grant would have on your program, that have not been covered in these questions, please describe them here.

PART 4. Budget information

A table is required showing the anticipated expenses of your 2006 program, broken down into categories, with additional columns to indicate the source of funds (tuition, expenses borne by the sponsoring institution, or specific grants) for each item. The table should indicate how this grant would be used. If some items such as postage and clerical assistance are provided by the institution, and difficult to estimate, please omit them from the grid and add a brief paragraph explaining them. Also, if it would be useful and appropriate for your program to be considered for a two-year award, please add a note to that effect.

PART 5. Letter of Recommendation

This letter should come from someone with an active knowledge of mathematics and of your program - preferably a faculty member or a graduate student assistant - but not a high school student in the program. The recommender should respond to the following request:

“The --- program is applying to the AMS Epsilon Fund for financial support. Please describe your interaction with the program and give us your frank assessment of its successes and failures in nurturing young mathematical talent.”

The recommendation writer should submit the letter directly to the AMS at the following address, by December 15, 2005:

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