Starting and Maintaining an Academic Year Undergraduate Research Program:

Purposes for such programs and Finding students

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Some Purposes for Doing Undergraduate Research
Prepare students to pursue advanced degrees

- Help students gain acceptance to graduate school
- Help them feel ready for graduate school
- Help them transition and succeed in graduate school
- Similar benefits for certain jobs
Motivate Classwork

• Show students that mathematics lives beyond their textbooks

• Motivate students to elect additional math classes

• Motivate students to major in mathematics
  – Future math teachers
Expose students to life-long learning

• Knowledge is alive and changing

• “Leading-edge” continues to shift and move
Introduce Students to Our Profession

• Enrich students’ views of academia

• Serve as role models
Provide Enriching Experience

• Foster close relationships
  – Between students and faculty
  – Among students

• Sense of belonging can help with retention, engagement, overall happiness
Invigorate Own Research

• Mentoring undergraduate research CAN help your own research program

• Choose problems carefully

• Have high expectations for slow and steady progress

• Learn something new
Have fun!

• Mentoring undergraduate research can be just as fun and enriching for the faculty member!
Finding Students
Your classes

- Upper-level electives
- Introductory courses
- Everything in between
Talk in your Classes

• Find ways to mention your research (or at least someone’s research!) in every class you teach

• Do this over and over…
Guest Lectures

• Bring in a collaborator (find one!) to speak to your students

• Have a “special topics” day where you give a research-related talk
Projects

• Add projects or other self-directed activities to your classes

• Watch to see who thrives
Personally Approach Students

- Even if they have not shown any interest in your attempts to recruit, personally approach them!

- Approach students before vacations when they might mention this to parents

- Do not overlook the enthusiastic but “not great” student
Give a Talk

• Math Club

• College Colloquium Series

• Organize Something on Your Own!

• Bring pizza or cookies
Make Pretty Flyers

• Bring them to course fairs
• Bring them to your classes
• Post them on your door
• Post them on bulletin boards
Formalize Your Group

• Find collaborators

• Make a name for your group

• Students beget students
  – Make it fun!
  – Make it important!