Funding & Grants

Finding external funding through grants and proposals can be essential to supporting undergraduate research and your research program. There are a number of funding agencies who encourage the addition of undergraduate researchers as support to the research proposal. A number of the resources detailed below focus on grant writing tips for science and engineering, but can be applicable as well to other academic areas. They are available from the UROP library, GT Library, or on-line. UROP library materials can be checked out by coming to the UROP office. Please contact UROP for availability.

The Georgia Tech Office of Sponsored Programs is a very valuable resource for all seeking funding. All proposals must be routed through their office before leaving Georgia Tech. On their website, they offer proposal writing guides, lists of funding opportunities or funding search engines, OSP sponsored workshops, and other pertinent information for submitting grants through Georgia Tech.

Other offices on campus may be able to help in proposal writing, submission, or funding source ideas. For example, CETL offers help in crafting proposals with an educational intent.

We also list a few funding agencies and other web-links that discuss funding and grants that may be of interest at the end of this document. They were current as of 11/4/2009.

* Ahern-Rindell, Ami, and Stith, Brad. **Grant Writing Workshop: Biology**.

  Good PowerPoint presentation summary especially for sciences grant writing with notes on how to include undergraduate research assistants.

  Available From: UROP Office

* Birgbauer, Eric, et al. **Advice on External Funding for Undergraduate Research: Lessons from the 2007 CUR Dialogues**. Powerpoint, 2007.

  Presentation with top 10 tips in grant proposal writing.

  Available From: UROP Office

* Bolek, Catherine, and Forsythe, Ronald. "**Funding: What You Need to Know About Grant Writing**." Council on Undergraduate Research Quarterly Vol. 29 Iss. 1 (2008): pp. 9-13.

  Hundreds of thousands of grant awards are made annually by government agencies, foundations, private sources and, increasingly, from the business sector. Most awards are made to universities and research institutions for the purpose of supporting scholarly work while a smaller number are awarded to community organizations, businesses and individuals. The good news is that with a set of clear goals and objectives and some technical assistance from your home institution's business or sponsored research office, most faculty members can be successful grant writers. The following information contains a brief introduction to grantsmanship.

  http://www.cur.org/Quarterly/mar08/Spring08UMES.pdf

* Chin, Jean. "**Most Common Questions About NIH-AREA Grant Applications** " Council on Undergraduate Research Quarterly Vol. 24 Iss. 3 (2004): pp. 111-119.

  The AREA (Academic Research Enhancement Award) program at the NIH (National Institutes of Health) was started in 1985 by Congressional mandate to support research at non-research intensive institutions. These primarily undergraduate institutions have educated about half of the biomedical researchers in the United States. The AREA, or R15 program, is a renewable NIH mechanism for biomedical and behavioral research projects. However, it is not a training or institutional grant. Instead, the R15 is a research grant to support a specific research project developed and proposed by a faculty investigator at an eligible institution. The goals of the program are to: Strengthen the research environment at institutions that are not research intensive; Expose students, especially undergraduates, at such institutions to biomedical research; and Provide support for meritorious research at these institutions. In this article, some of the most common questions asked about the AREA application process are addressed. These questions cover issues typically raised in discussions between investigators and program staff at NIH. It is assumed that the faculty investigator will select a significant, novel question or hypothesis and approaches with which to answer the question or test the hypothesis.

  http://www.cur.org/Quarterly/mar04/mar04p111_119.pdf

* Friedland, Andrew J., and Folt, Carol L. **Writing Successful Science Proposals**. New Haven: Yale University Press, 2000.

  This guide to writing successful science research proposals presents writing the research proposal as a very doable and attainable process. It explains many of the unknowns such as how to organize the proposal, what to include in each section, how to further expand your ideas regarding significance statements and linking objectives and hypotheses, choosing titles, and rethinking, revising and resubmitting if the proposal request is declined. This guide is perfect for all new researchers, from undergraduates to post-docs, starting their career and required to write a formal research proposal.

  Available From: UROP Office, GT Library

* Przeworski, Adam, and Salomon, Frank. **The Art of Writing Proposals**: Social Science Research Council, 1995.

  This relatively short (8 pages) guide to writing proposals is an excellent resource to consult when starting the writing process. What is nice about this specific guide is that the examples given are from the humanities and social sciences. However it is relevant for all academic areas. The authors state that they want to give grant competitors a more even start by making explicit some of those normally unspoken customs and needs. It starts by asking the reader to remember that every proposal reader constantly scans for clear answers to three questions: What are we going to learn as the result of the proposed project that we do not know now? .•Why is it worth knowing?.•How will we know that the conclusions are valid?

  http://www.ssrc.org/workspace/images/crm/new_publication_3/%7B7a9cb4f4-815f-de11-bd80-001cc477ec70%7D.pdf

* Silyn-Roberts, Heather. **Writing for Science and Engineering Papers, Presentations, and Reports**. Oxford ; Boston: Butterworth-Heinemann, 2000.

  This is a practical guide to all aspects of post-graduate documentation for engineering, science and technology students, which will prove indispensable to readers. Writing for Science and Engineering will prove invaluable in all areas of research and writing due its clear, concise style. The practical advice contained within the pages alongside numerous examples to aid learning will make the preparation of documentation much easier for all readers.

  Available From: GT Library

Other Non-Georgia Tech websites

http://grants.gov/ - The United States federal government central storehouse for information on over 1,000 grant programs and provides access to approximately $500 billion in annual awards.

http://www.neh.gov/ National Endowment of the Humanities

http://www.neh.gov/news/humanities/2008-07/GrantWriting.html From the NEH on how to write a NEH funded grant.

http://www.nsf.gov/funding/ - National Science Foundation

http://www.reinventioncenter.miami.edu/resfunding.htm - From the University of Miami Reinvention Center (a national center focusing on undergraduate education at research universities).

http://ls.berkeley.edu/?q=graduate/grant-writing-resources - From the College of Letters and Science at University of California Berkeley.

http://www.hfsp.org/how/ArtOfGrants.htm - This website was written by Jacob Kraicer who has been successful in obtaining peer-reviewed funding and further served on a number of national and international reviewing bodies for some 30 years. He was responsible for the administration of a peer-reviewed research grants program for four years that processed 1600 research grant applications.

Please note that this is not an exhaustive list of possible funding sources or websites on grant writing or funding.