

## Barry M. Goldwater Scholarship Guidance for Candidates

The purpose of this document is to assist students in completing their application materials for the Goldwater Scholarship. The guidance and suggestions provided below are based on information gleaned from Goldwater Foundation representatives and from lessons learned from past Goldwater applicants, both successful and unsuccessful. These suggestions are keyed to specific parts of the Nominee Information Form.

### **Timeline**

October Goldwater on-line application will be available at [www.act.org/goldwater](http://www.act.org/goldwater). Students who plan to apply in 2009-10 should register on-line and then send an e-mail to Ricki Shine ([rshine@clemson.edu](mailto:rshine@clemson.edu)) *Make sure you read the document entitled "2010 Bulletin of Information"*

October Students should talk to professors and research advisors about letters of recommendation. Each applicant needs 3 letters. At least 1 (more if possible) must be from a research mentor. The rest should be from professors who know the student well and can comment on his/her potential as a researcher. (Note: Students who are having difficulty coming up with 3 recommenders should meet with Ricki Shine to brainstorm about possibilities.)

**NOTE: DO NOT ENTER NAMES OF RECOMMENDERS INTO YOUR ON-LINE APPLICATION UNTIL RICKI SHINE TELLS YOU TO DO SO!!**

November 15 Deadline to submit the names of recommenders by email to Ricki Shine ([rshine@clemson.edu](mailto:rshine@clemson.edu)). Your email should include the names of all 3 recommenders, their email address, and a short description of how they know you (what, how, how long, etc.)

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December 1 Deadline to submit a hard-copy of the completed Goldwater application including the Essay (typed, journal style – 2 columns – no more than 2 pages) to Ricki Shine. Submit by 4pm in 105 Tillman Hall.

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Week of Dec 14 The internal nominating committee will meet to select Clemson's 4 Goldwater nominees.

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December 21	All applicants will be notified of their status.
January 26	Final version of nominees' Goldwater applications must be posted on-line by 4pm.
January 29	Goldwater applications will be submitted by Ricki Shine
Late March	Goldwater Scholars announced

**General**

- Practice zero tolerance for misspellings, typos, errors of grammar and syntax. It is recommended that you first create Word documents so that you can make use of spell-check.
- **When completing your application materials on line, do not list the names of the people who will be writing your letters of recommendation until directed to do so by Ricki Shine.**
- A hard copy of all parts of your Nominee Information Form and the Nominee's Essay are due in the Honors College Office, 105 Tillman Hall no later than **December 1, 2009**.
- Drafts of all three letters of recommendation (Independent Evaluation of Nominee) are due in the Honors College Office) no later than **December 1**. Once you have given Ricki Shine the names of your recommenders, you do not need to worry about your letters of recommendation; she will make sure they arrive on time.

**Schooling**

- Credits required for graduation: see the curriculum guide for your major in *Undergraduate Announcements*.
- Class standing (sophomore or junior) is based on time to graduation, NOT credits earned. As a general rule, "sophomore" means you have two full years left to graduate, "junior" one full year.
- If you have attended colleges or universities in addition to Clemson, estimate your cumulative GPA as best you can. *Note: The average GPA of Goldwater winners is 3.9 with a tight standard deviation. Although GPA is not the primary factor in the Goldwater competition, candidates with a "low" GPA (3.7 or less) are not likely to be successful unless their applications are truly exceptional.*
- At Clemson 4 is equivalent to A+.
- Except in the most unusual of circumstances, check Ph.D. as the highest degree you plan to pursue. If you cannot honestly say that you intend to earn a Ph.D., you should not apply. If you check M.D., you need to be aware that this could be a red flag unless you also check Ph.D. (to indicate a combined M.D./Ph.D. program). If you do so, your application needs to

make a convincing case that the M.D./Ph.D. is a gateway to a research career, not one in private medical practice.

- Describe your career goal in two strong, declarative sentences. Be as specific as you can. Show clear, definite intent and avoid being speculative or wishy-washy (“I might want to...,” “I could see myself doing...”). Make sure your plans reflect your commitment to a research career, as opposed to medical practice or business management.
- Coursework: To conserve space it is acceptable to use abbreviations for course titles as long as they are easily understandable (e.g., Engr. for Engineering, Bio. or Biol. for Biology). However, do NOT use Clemson course abbreviations and numbers (e.g., ECE 401). Note: If you are nominated, this section will need to be changed, so that “currently enrolled” courses are those you are taking in the spring semester (when nominations are forwarded to the Goldwater Foundation).
- Awards, Honors, Scholarships: Do not list scholarships offered by other institutions that you did not accept. Also, be careful in citing awards that may be of suspect significance. A few honors and awards that are meaningful and prestigious count more than a long list of accolades.

### **Programs and Activities**

- Research Activities: This is an extremely important part because it sets up the rest of the application by proving the depth of your involvement -- past and present -- in research. If you cannot cite specific and concrete examples of previous and current research, you should not apply. The examples you describe should show evidence of independent work, project design and significant results. Merely working in a lab and performing primarily custodial or routine duties (washing beakers, recording data, etc.) is not considered research. Also, do not cite internships and Co-op work assignments unless they demonstrate clear evidence of research activity.
- Other Activities: Although the scholarship is awarded on the basis of scientific endeavors, it is important to show a diversity of interests. If necessary, use brief parenthetical explanations when the name of the organization or activity may not clearly convey the nature of the activity/organization and the extent of your involvement.
- Professional Aspirations: As with your two-sentence statement of career goals, you need to be direct, clear, definitive and focused. You do not need to state with absolute certainty what you expect to be doing 25 years from now, but you also should not appear to be vacillating. The main thing you need to get across in this essay is a sense of trajectory. No beating around the bush. Show how your career goals connect with your educational plans. Winning candidates are those who in addition to stating that they want to get from point A to point B, can also clearly and succinctly articulate a plan to get there. In expressing your aspirations, be realistic and avoid being either too general or overly ambitious (“I intend to cure cancer”) or too narrow (“I plan to be a professor at John Hopkins University and conduct research on genetic disorders in female pileated woodpeckers”).
- Motivation for Math, Science, or Engineering Career: What you need to get across here is a sense of how, when and why your interest in a science or engineering career took root. The examples you use should be related to a significant activity or experience that engaged you as

an active participant. Avoid using stories rooted in childhood - (“When I made my 3<sup>rd</sup> grade butterfly collection I knew that I wanted to be an entomologist”.)

- Personal Information: Past experience in working with Goldwater applicants shows that this is the most confusing part of the application, because it seems to be asking for two (or more) different things. A good way to approach this item is to answer the question, “What makes you an interesting person?” You might want to tell about serious interests, talents and activities outside of science (e.g., music, studying history or foreign languages, community service, international study/travel, sports). A successful Goldwater applicant a few years ago used this space to talk about his hobby growing different kinds of squash. Another wrote about his love of military history. In short, provide evidence of your well-roundedness.

### **Nominee’s Essay**

This is the most straightforward part of the application, yet for most applicants, it is the most difficult part. What often makes it a tougher assignment than it needs to be is that applicants fail to practice “impression management.” In other words, they are over the top in showing off how much science they know. You will spare yourself a lot of agony if you simply take the instruction literally – “Discuss a significant issue or problem in your field of study that is of interest to you.”

Be direct and get to the point quickly. Here is a test. Imagine the members of the selection panel equipped with pairs of scissors. If they were to cut off and throw into the trash all but the first paragraph, would that first paragraph clearly and succinctly get across what you want to say? In short, write like a reporter would in writing a story for a newspaper. The first paragraph should say what, who, why.

Write with a scientifically learned audience in mind. The panel that reads your application will consist of Ph.D.s in fields related to, but not necessarily squarely centered in, the specific area of your research interest. For this reason, it is important that your essay not be so technical and laden with jargon that only experts in the subject will be able to understand you.

The subject of your essay does not have to be related to what you write about in your essay on your Research Activities. In fact, it might help for you to show breadth by writing about something different. If you stick to the same general subject as your previous research, it is important that the essay not be a lengthier version of that essay.

The essay should not be simply a summary of your undergraduate research. In other words, be future-oriented and visualize for the reader the research horizons beyond the work you are currently doing.

Convey enthusiasm, excitement and personal engagement. The essay is primarily about the scientific problem of interest to you, but it is also about YOU and how you see yourself involved in finding a solution.

For your references and footnotes, emphasize reputable and preferably hard-copy publications from leading journals and other scientific literature. 3-5 should be enough.

## Other Nomination Materials

1. Transcripts. For purposes of the campus committee's review, you do not need to have transcripts by the December 1 deadline. If you are nominated, it will be your responsibility to secure transcripts from your high school and from other colleges you may have attended. The Honors Office will obtain your Clemson transcript from the Registrar's office at no cost to you.
2. Letters of Recommendation. The Goldwater application requires three letters of recommendation (called Independent Evaluation of Nominee) written by persons who can attest to your promise for a career as a science, mathematics or engineering researcher. These letters are crucial to your success as a Goldwater applicant. In fact, the Goldwater Foundation states that weak letters of recommendation are the "**#1 reason for nomination failure.**" You should consult with Ricki Shine about who you should ask to write letters for you. **AND** don't insert names of recommenders in the on-line application until Ricki instructs you to do so.

If at any point in this process you have questions, or if you would like someone to look over your drafts, please do not hesitate to contact Ricki Shine ([rshine@clemson.edu](mailto:rshine@clemson.edu)).

Good luck!