

Goldwater Scholarship Letter Writer Workshop

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Agenda

1. Overview of Goldwater Expectation for Scholars
2. Who should write letters? and Overview of research expectations.
3. Criteria to consider.
4. What should the letter address? Questions to Consider.
5. Advice from Goldwater Reviewers.
6. Some Ideas on How to Translate Classroom Talents into Potential Research Skills
7. Advice for Research Mentors
8. Summary
9. Reminder: Letter format and requirements (see Goldwater website)
9. Questions

Who Should Write letters?

1. Research Mentor
2. STEM Course Instructors familiar with the research skills of the applicant
3. Non-STEM faculty write letters?
4. Adjunct faculty write letters?
5. A graduate student/post-doc write a letter?
6. A coach write a letter?

Goldwater Scholarship recommendation letter

Your letter should mainly

Address the Goldwater mission: to identify the nation's next generation of STEM research leaders.

The student research projects can be any of the following:

1. Summer experiences can include both REU or RUI funded research or projects supported by other sources.
2. Academic term experiences in research labs.
3. Laboratory or class-based research projects that lasted several class periods.
4. Students with no research experience can still write a "Research Proposal" as their research essay.

Ask to review the personal and research essays before you write your letter

Undergraduate Research involves the following:

1. Generate a research question, then design experiments/computations to address the research question.
2. Carry out the work, analyze outcomes, revise experiments/computations if results require, and conduct additional investigations.
3. Interpret results and communicate (poster/oral presentations or publications) outcomes to the STEM community.

Stronger applicants contributed to some or all of these steps.

Weaker applicants merely repeated a step over and over again to prepare starting material or to accumulate many computational results.

Goldwater Scholarship recommendation letter

Criteria to address in a Goldwater Scholarship recommendation letter

- Ability and desire to pursue advanced degrees in the sciences and engineering
- Potential for a career in a STEM field eligible for Goldwater
- Demonstrated outstanding academic and research performance, maturity, initiative, motivation and etc.

Goldwater Letter Writer – Items/Questions to Consider

How well do you know the candidate? Have you interacted with the candidate in a research environment? Have you taught the candidate in a class?

Explain the specific contributions the applicant made to the project.

What skills did the applicant acquire or bring to the project?

How would you rate the candidate's communication skills?

How would you rate the candidate's analytical skills?

How does the candidate deal with research adversity?

Goldwater Letter Writer – Questions to Consider

How does the candidate compare to other students that you've taught or mentored or to former students who earned a Ph.D.?

How does the candidate compare to other students who have won national merit scholarships/awards?

How familiar are you with the candidate's career aspirations and rationale for those aspirations?

Can you provide information about the candidate's potential that is not available in the transcript, CV/resume or personal statement?

SUMMARY: Perspective of a Goldwater Reviewer

Advice for all Letter Writers

DO

- Go to the Goldwater Website and read the section: Guidance-Recommendors:
<https://goldwaterscholarship.gov/letter-writing-guidance-recommenders/>
- Provide evidence of the student's ability to think like a scientist
- Compare the student to other Goldwater Scholars or to alumni who have earned Ph.D.'s and are pursuing research careers.
- Compare to prior winners of the nationally competitive STEM scholarships if possible
- Explain how the Goldwater Scholarship will affect the student's trajectory
- Provide specific examples of how the student displays the potential for being a leader in STEM research.



DON'T

- Recap the student's transcript
- Summarize the student's resume
- Make references to the student's demeanor

Some Ideas on How to Translate Classroom Talents into Potential Research Skills

Classroom Talent	Potential Research Skill
Displays curiosity by asking questions	Desires to seek new knowledge and insights.
Delves deeper into course material outside the classroom	Enjoys discovery and seeking knowledge
Answers homework and exam questions in thoughtful and unique ways	Likely to develop novel approaches to research questions
Connects concepts across disciplines	Likely to propose more innovative research questions as a result of a broader perspective
Exhibits resiliency to obstacles in assignments	Able to adapt to setbacks and new information
Is a strong communicator	Able to clearly articulate research questions, findings, and methodologies to others
Exhibits attention to detail	Will have a thorough focus on the nuances of experimental design and data analysis
Can serve as either leader or equal colleague in group settings	Will work effectively with others

Advice for Research Mentors Writing Letter

- Go to the Goldwater website: <https://goldwaterscholarship.gov/letter-writing-guidance-recommenders/> and read the sub-section “LETTERS – FROM RESEARCH MENTORS”.
- The Reviewers will be in your discipline and may be an expert in your research area; so briefly describe your research so it is understandable to the generalist but sufficiently detailed to excite the expert.
- Describe the student’s engagement in the work and involvement in advancing the research. Talk about specific contributions **the Applicant** made to the research agenda. Ask the applicant for details (CV or their contributions) you can use to aid in crafting your letter.
- Describe the independence exhibited by the student.
- Detail the student’s originality, insights, creativity and perseverance with specific examples.
- Help the applicant with his/her research essay—expect multiple revisions. The student is expected to describe what **THEY** did that moved the research forward.

Summary: Draft a letter of recommendation with these guidelines

The nature of your relationship with the student

- How long have you known the student?
- In what capacity?

Your assessment of the student's ability to think like a scientist

- What is the basis for your assessment?
- Have you been able to observe this directly?
- How does the student compare to others in this regard?
- Provide specific examples

The student's career aspirations and how this aligns with the mission of the Goldwater Scholarship

- What are the student's career aspirations?
- Is the student on track?
- How will the GS benefit the student (beyond financially)?

Just as a
Reminder
About
Letter format
and
requirements

- 2 single-spaced pages, or less
- 1" margin on all sides
- 12-point font
- Printed on letterhead, unless prohibited
- Signed
- PDF
- Forward LoR to Campus Representative by campus deadline

Nomination deadline: Jan 30, 2026 (5 PM CT)

but CAMPUS DEADLINES ARE SOONER!!

Questions?

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