**2021-2022 Goldwater Scholarship Campus Application Form**

**Campus Deadline for Submission of Application: 13 December 2021**

Please note: If you are nominated by the College, you will be provided access to the official form. **IMPT:** **You may need to use Internet Explorer to complete the form.** **If you experience difficulty, please respond on a separate sheet and enter “see attached” in the text box for that question.**

**APPLICANT INFORMATION**

Name: Click here to enter text.

Lafayette Email: Click here to enter text.

Cell Phone: Click here to enter text.

Citizenship: [ ]  US Citizen [ ]  Permanent resident (green card holder)

Class: [ ]  Junior [ ]  Sophomore

Undergraduate major(s): Click here to enter text.

Cumulative GPA on a 4.00 scale: Click here to enter text.

**CAREER GOALS/PROFESSIONAL ASPIRATIONS**

1. **Career Goals**

In 1 or 2 sentences, describe your career goals (Example: “PhD in Molecular Biology. Conduct research in biomedical science and teach at the university level.”]. This statement will be used in publications if you are selected as a scholar or honorable mention. **[200 character limit including spaces]**

Click here to enter text.

1. **Professional Aspirations**

Expand on the above brief statement to more fully describe your career goals and professional aspirations. Indicate which area(s) of mathematics, science or engineering you are considering pursuing in your research career and specify how your current academic program and your overall educational plans (both undergraduate & graduate, and postdoctoral if appropriate) will assist you in achieving this/these goal(s) and aspirations. Your response should include current and future academic programs/research, honors thesis, independent study, internships, scholarship/fellowships, etc. that will contribute to achieving your career goal(s), as well as specific plans and identified programs and faculty for graduate school at the PhD level. **[3000 character** **limit including spaces]**

Click here to enter text.

1. **Motivation**

Describe an activity or experience that has been important in helping shape or reinforce your desire to pursue a research career in STEM. **[1500 character limit including spaces]**

Click here to enter text.

1. In what way did Covid-19 or other hardships affect your research career plans and did those events alter your ability to pursue those plans? If Covid-19 did not influence your plans, simply state that there was no effect. [**1500 character limit including spaces**]

Click here to enter text.

1. **Personal Information**

Goldwater Scholars are representative of the diverse economic, ethnic, racial and occupational backgrounds of families in the US. Describe any social and/or economic impacts you have personally experienced that have influenced or affected your education – either positively or negatively – and describe how you dealt with them. **[1500 character limit including spaces]**

Click here to enter text.

**RESEARCH ACTIVITIES**

1. **Research Activities: List up to 5 in reverse chronological order, from most to least recent. These STEM research activities may have taken place at Lafayette or elsewhere.**

**NB: Doing research in this case excludes routine course required research**. However, it should be noted that “research” can take on many different forms. Experimentalists will often engage students in larger, ongoing projects while the more theoretically inclined fields may have students work more independently.

In addition to “lab work”, research activities include literature reviews, talking with faculty/PIs, and developing ideas.

In the text boxes below, provide a description for each activity using the following format (NB: there is a 1000 character limit with spaces ONLY for the “Description” section):

Title of Research Activity #1

* Start Date
* End Date (can be ongoing)
* Hours per week (Academic Year)
* Hours per week (Summer)
* Name(s) and Title(s) of Research Project Mentor(s) as well as their affiliation (university, college, research organization) **[list up to 3]**
* Description of the research including a discussion of YOUR role in and contributions to the research as well as the skills you acquired by working on this project. **[1000 character limit including spaces; if necessary use outline format or phrases—you do not need to use full sentences or fleshed out prose]**
* Publications/Presentation Citations (e.g., (co-)authored written reports, abstracts, papers, posters or talk presentations at scientific/departmental meetings, etc., including those in preparation, under review, or anticipated)

**Click here to enter text.**

Title of Research Activity #2

* Start Date
* End Date (can be ongoing)
* Hours per week (Academic Year)
* Hours per week (Summer)
* Name(s) and Title(s) of Research Project Mentor(s) as well as their affiliation (university, college, research organization) **[list up to 3]**
* Description of the research including a discussion of YOUR role in and contributions to the research as well as the skills you acquired by working on this project. **[1000 character limit including spaces; if necessary use outline format or phrases—you do not need to use full sentences or fleshed out prose]**
* Publications/Presentation Citations (e.g., (co-)authored written reports, abstracts, papers, posters or talk presentations at scientific/departmental meetings, etc., including those in preparation, under review, or anticipated)

**Click here to enter text.**

Title of Research Activity #3

* Start Date
* End Date (can be ongoing)
* Hours per week (Academic Year)
* Hours per week (Summer)
* Name(s) and Title(s) of Research Project Mentor(s) as well as their affiliation (university, college, research organization) **[list up to 3]**
* Description of the research including a discussion of YOUR role in and contributions to the research as well as the skills you acquired by working on this project. **[1000 character limit including spaces; if necessary use outline format or phrases—you do not need to use full sentences or fleshed out prose]**
* Publications/Presentation Citations (e.g., (co-)authored written reports, abstracts, papers, posters or talk presentations at scientific/departmental meetings, etc., including those in preparation, under review, or anticipated)

**Click here to enter text.**

Title of Research Activity #4

* Start Date
* End Date (can be ongoing)
* Hours per week (Academic Year)
* Hours per week (Summer)
* Name(s) and Title(s) of Research Project Mentor(s) as well as their affiliation (university, college, research organization) **[list up to 3]**
* Description of the research including a discussion of YOUR role in and contributions to the research as well as the skills you acquired by working on this project. **[1000 character limit including spaces; if necessary use outline format or phrases—you do not need to use full sentences or fleshed out prose]**
* Publications/Presentation Citations (e.g., (co-)authored written reports, abstracts, papers, posters or talk presentations at scientific/departmental meetings, etc., including those in preparation, under review, or anticipated)

Click here to enter text.

Title of Research Activity #5

* Start Date
* End Date (can be ongoing)
* Hours per week (Academic Year)
* Hours per week (Summer)
* Name(s) and Title(s) of Research Project Mentor(s) as well as their affiliation (university, college, research organization) **[list up to 3]**
* Description of the research including a discussion of YOUR role in and contributions to the research as well as the skills you acquired by working on this project. **[1000 character limit including spaces; if necessary use outline format or phrases—you do not need to use full sentences or fleshed out prose]**
* Publications/Presentation Citations (e.g., (co-)authored written reports, abstracts, papers, posters or talk presentations at scientific/departmental meetings, etc., including those in preparation, under review, or anticipated)

Click here to enter text.

1. **In the absence of formal research activities respond to the following:**

Describe any skills or accomplishments that are significant and/or relevant to your application (e.g., analytical, lab, presentation skills, etc.). In your response, demonstrate intellectual curiosity in other ways (e.g., independent investigation of theory or of an issue(s) related to your field of interest—this may have been for a club/organization like SEES, EWB, etc., relevant course assigned research/experimentation, plans for securing research through upcoming EXCEL, Independent Study, Volunteer Lab Assistance (for another’s EXCEL), NSF-REU or other summer research or internships with industry or other university/college research groups, relevant employment, etc.) **[1000 characters including spaces]**

**Click here to enter text.**

1. **Math majors, respond to the following:**

If you are a **math major** or have otherwise participated in national or regional mathematics competitions like the Barge or Putnam exams, please be sure to include this information and your scores, if available.

**Click here to enter text.**

**OTHER ACTIVITIES (List up to 5)**

In order of importance to you, **list up to 5 activities** in which you have participated, such as athletics, clubs, public service, publications (e.g., newspapers, online blogs), special interest groups, theatre productions, forensics, Model UN, student government, Landis or other programs, etc.

For each of the activities, **include the following: (a) Organization Name; (b) Organization type: international, national, college, community, other; (c) Your Role/Involvement; (d) Leadership Position(s), and (e) Dates of your Involvement.**

Other Activity 1

Click here to enter text.

Other Activity 2

Click here to enter text.

Other Activity 3

Click here to enter text.

Other Activity 4

Click here to enter text.

Other Activity 5

Click here to enter text.

**RECOGNITIONS: AWARDS, HONORS & SCHOLARSHIPS (List up to 5)**

List and briefly describe (including dates) any awards, honors and/or scholarships you have received over the last 4 years in chronological order.  **Include award description and award year/s.**

Recognition 1 Click here to enter text.

Recognition 2 Click here to enter text.

Recognition 3 Click here to enter text.

Recognition 4 Click here to enter text.

Recognition 5 Click here to enter text.

**OTHER NON-RESEARCH ACCOMPLISHMENTS and SKILLS (this could be anything):**

Click here to enter text.

**\*\*SUBMIT AS SEPARATE DOCUMENTS THE FOLLOWING 3 ITEMS\*\***

1. **RESEARCH ESSAY: Not to exceed 3 pages, using Ariel or Times New Roman font no smaller than 12-point, and 1” margins on all sides. The essay should include appropriate bibliographic information and references. It may include diagrams, figures, charts, etc.**

The essay should be carefully thought-out and well researched. It should discuss a significant issue or problem in your field of interest.

The Goldwater Foundation expects you to work closely with your faculty or research mentor/s as you develop and finalize your essay.

**Covid-19 Considerations:** The Goldwater Foundation is acutely aware that Covid-19 has delayed, canceled, or severely restricted many traditional research experiences. Rather than viewing the situation brought about by Covid-19 as a setback, the Foundation sees this as an opportunity that enables students to understand that research does not just exist within a traditional research lab but encompasses all the steps that create and disseminate new knowledge.

Faculty and students are encouraged to think broadly and look for collaborative work that might include in-depth literature reviews, analysis of existing data sets, computation studies, among others. Additionally, the research essay might propose a new experiment that tackles an important and interesting question in your field of interest. We also anticipate that there will be students who use this opportunity to purse independent research (e.g. a student who is developing a data-driven website that tracks global Covid cases to study the impact of travel restrictions or a student who is investigating the efficacy of novel cleaning methods for N95 masks).

**Helpful notes from Goldwater Foundation:** In all cases, you should demonstrate “ownership” of the research discussed in the essay. Selection committees want to see that you “think and behave like scientists.” One way for you to demonstrate this is for you to put forward ideas for new research based either on what you have been doing or to suggest entirely new (i.e., not based upon your current/past research experiences) lines of study explaining, at least in part, how the skills you have acquired are useful to the research proposal. “Showing correlation between what’s been done (skills that have been acquired” and what is to be done (new line of work) will strengthen the overall essay.”

As with any research proposal, the essay should put forward a question, present the relevant literature, present a hypothesis, outline the research methodology and discuss anticipated results.”

Whether building upon previous/ongoing research in which you have engaged OR putting forward a proposal for research in which you have not already been involved but in which you are interested, the essay should convey your interest and ability to carry out the project.

Space in the research essay should be used judiciously. Balance the various elements of the essay so that no one section dominates the essay. Include a bibliography/references that includes up-to-date, refereed journal articles. Use diagrams and figures only as appropriate.

**If building upon past/current research in which you have been engaged, the essay should include:**

* a description of the issue or problem,
* a discussion of the research methodology
* a discussion of your findings
* a description of YOUR contributions to the research and the specific skills/expertise you developed
* a description of future work your data suggests or work that still needs to be done to complete the current project, and
* an interpretation of obtained/expected results

**If you are developing an idea in which you have NOT previously engaged, the essay should include:**

* a description of an idea for a research project that could have a significant impact on an issue or problem of interest to you
* a description of the methodology that you would use, and
* a discussion (and interpretation) of anticipated results

The content and style of the essay will be important to the success of your application. You should assume that the reader is knowledgeable in the STEM fields and will have the expertise to read, review, and understand that complexities of your research and field of specialty. If the essay involves research in which you are or were involved, you should indicate if you are or were the sole researcher or if you collaborated with others.

1. **A detailed CV/Resume: No page limit.**
2. **The names and email addresses of your 3 recommenders.**
	* **IMPT: Be sure to provide each of your recommenders with the copy of our Information for Recommenders sheet found at the end of this document or on our website.**
	* **Please also direct your recommenders to the following Goldwater Advice for Recommenders link:** [**https://goldwaterscholarship.gov/letter-writing-guidance-recommenders/**](https://goldwaterscholarship.gov/letter-writing-guidance-recommenders/)

**Information for Goldwater Recommenders**

**(Advice From National Selection Committee)**

**Please Share This Information With Your Recommenders!**

**Recommendation Letter Advice and Instructions for Submission of Letters**

* Please submit your Letter of Recommendation electronically as an email attachment to [goldbeja@lafayette.edu](file:///%5C%5Csamba.lafayette.edu%5Cshared%5Cdoc%5CScholarships%20and%20Fellowships%5C2014-2015%20Application%20Cycle%5CGoldwater%5CWebsite%20Materials%5Cgoldbeja%40lafayette.edu) or [externalscholarships@lafayette.edu](file:///%5C%5Csamba.lafayette.edu%5Cshared%5Cdoc%5CScholarships%20and%20Fellowships%5C2014-2015%20Application%20Cycle%5CGoldwater%5CWebsite%20Materials%5Cexternalscholarships%40lafayette.edu) by **13 December 2021.** The letter should be signed and on letterhead. **It MUST be attached as a WORD document.**
* Letters of recommendation must adhere to the following formatting instructions:
	+ Up to 2 pages only
	+ 1” margins on all sides
	+ Any font no smaller than 12-point
	+ Letters must be signed and on letterhead
* **Goldwater selection committee readers expect detailed letters containing the following information:**
* Letters should concentrate on the applicant’s motivation and potential for a research career. (It is OK for an applicant to be a ‘nerd’; the applicant’s success in your course is assumed).
	+ Letters should indicate how the applicant demonstrates that s/he is able to “make meaning from science” – e.g., from learning effective benchmark practices to a commitment to and passion for STEM practices.
	+ Applicants who have not engaged in research at the time of application may demonstrate intellectual curiosity in other ways, including discussions with you on research or theory.
	+ Applicants may also demonstrate their abilities and potential by meeting significant responsibilities, involvement in STEM student organizations, relevant employment or internships, etc.
* Letters must speak to/about the applicant’s research and be consistent with the applicant’s claims throughout his/her application.
* Letters that compare applicant to others who have gone on to outstanding PhD programs/research careers can be beneficial.
* For more information please visit the Goldwater Scholarship **“Letter Writing Guidance - Recommenders”** link at <https://goldwaterscholarship.gov/letter-writing-guidance-recommenders/>

**Questions?** Please contact Dean Goldberg at externalscholarships@lafayette.edu or goldbeja@lafayette.edu.