2021 Goldwater Scholarship Informational Webinar

Presented by Cassidy Alvarado, Director of ONIF
What is the **BARRY GOLDWATER SCHOLARSHIP & EXCELLENCE IN EDUCATION FOUNDATION**?

- Founded 1986 to honor Senator Barry Goldwater, who served his country for 56 years as a soldier and statesman, including 30 years of service in the U.S. Senate.
- The purpose is to alleviate a critical current and future shortage of highly qualified scientists, mathematicians, and engineers.
- Created to encourage outstanding students to pursue research careers in mathematics, the natural sciences, or engineering and to foster excellence in those fields.
Scholarship Benefits

- Each scholarship covers eligible expenses for undergraduate tuition, fees, books, and room and board, up to a maximum of $7,500
  - Junior level scholarship recipients are eligible for a maximum of two years of support
  - Senior level scholarship recipients are eligible for a maximum of one year of support.
- It is possible to accept the award, but not the money
Eligibility

• Current Sophomore or Junior standing
• Intentions of pursuing a career in research (PhD or master’s for engineering)
• 3.0 Cumulative GPA or above (Recommended 3.75+)
• Be a United States citizen or a permanent resident
• Recommended: undergraduate research experience

• Students who plan to pursue a PhD/MD are eligible for a Goldwater Scholarship only if they plan a research career rather than a career as a practicing physician with emphasis on the clinical practice of medicine and patient care
COVID-19 Changes

Grades impacted by COVID-19:
• Students have the option to submit their cumulative GPA at the end of fall 2019 or their GPA at the end of spring 2020 or fall 2020 as long as either GPA meets the 3.0+ requirement

Research expectations:
• Students are encouraged to participate in any faculty-mentored research experiences, including lit reviews, design of experimental protocols, analysis of existing data sets, computational studies, and writing research proposals

Two new application questions:
1. Has COVID-19 or other hardships affected your research career plans?
2. (Completed by campus representative) How has LMU responded to the pandemic, such as how grades were handled, how long laboratories and field experiences were closed to undergrads, and relevant info that is unique to the student’s individual challenges

Read more here.
# Fields of Study Examples

<table>
<thead>
<tr>
<th>Undergraduate Major</th>
<th>Career Objectives</th>
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<tbody>
<tr>
<td>Astrophysics</td>
<td>Astronomy</td>
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<tr>
<td>Applied Science</td>
<td>Medical research</td>
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<tr>
<td>Biology</td>
<td>Agricultural/environmental science, Genetic engineering, Immunology, Molecular biology, Biomedical technology</td>
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<tr>
<td>Chemical Engineering</td>
<td>Research in chemical kinetics</td>
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<tr>
<td>Chemistry</td>
<td>Research in environmental chemistry, Nutritional chemistry, Biotechnology/biochemistry</td>
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<tr>
<td>Computer Science</td>
<td>Artificial intelligence research</td>
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<td>Electrical Engineering</td>
<td>Solid states research</td>
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<tr>
<td>Mathematics</td>
<td>Applied math in operations research, Math analysis or topology, Statistical population research, Robotics</td>
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<tr>
<td>Mechanical Engineering</td>
<td>Development of micro and nano technologies</td>
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<tr>
<td>Physics</td>
<td>Physical oceanography, Alternate energy source, Nuclear physics, Theoretical physics, Environmental physics</td>
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Additional Scholarship Info

• ~300 scholarships are available
  Intentions of pursuing a career in research (PhD or master’s for engineering)
• 1223 applications received & 496 awarded in 2019
• Average applicant GPA has been 3.85
• Recommended: undergraduate research experience

• LMU may nominate up to four students for the national competition
• A fifth student may be nominated if they are a transfer
• Login or online application (technical) difficulties, email goldwater@ScholarshipAmerica.org
Application Components

◎ Pre-Application Due December 1, 2020
  ○ Create your online account
  ○ Complete pre application, including:
    ◇ Basic biographical info
    ◇ Names & emails of prospective recommenders (3)*

◎ If you meet the eligibility requirements, ONIF will accept your pre-application, triggering access to the remaining application components

*You can change your recommenders after this date.
Application Components

• 3 Letters of Recommendation
• The strongest letters of recommendation come from those who know and who have served as a research mentor for the student
• Letters from non research mentors should come from individuals who know the student well and can provide specific examples of attributes that will contribute to the applicant’s ability to have a successful research career
• A letter of recommendation from an individual outside the sciences, engineering, or mathematics is not as likely to convince a Goldwater reviewer that the student is headed toward a STEM research career
• Discuss via in person meeting using ONIF’s LOR Request Form
• Letters must be emailed or mailed to ONIF by December 28, 2020
Application Components

Research Essay- Email to ONIF by December 28, 2020

- The strongest Research Essays students submit are based on a prior research project
- Include a description of the issue or problem, a discussion of the research methodology, and discussion of your findings
- Clearly state what YOUR specific contributions to the project were and indicate what specific skills/expertise you developed
- If you have not been involved in a research project, you can develop your Research Essay on a “proposed” research project
- Put forward a possible research problem, discuss an idea for a research project that could have a significant impact on the issue or problem, describe the methodology that you would use and discuss anticipated results
Application Components

Research Essay Format

- Single spaced
- Use 12 point Arial font
- Margins should be 1 inch on all sides
- Page length, including bibliographic information & references, must not exceed 3 pages
- Include your name and your academic institution in the header at the top of each page
- May be formatted in either one or two columns on a page
- As appropriate, utilize graphs, tables, and figures to explain or clarify results
- Figure and caption options may use 10 point Arial font
- If mathematical equations are used, LaTeX or other document preparation software may be used to properly format the equations
Application Components

Short Answer Questions

- Career goals, Professional aspirations, Motivation, & Personal information
- Research activities
- Research skills
Application Components

Unofficial transcript(s)

- Should you receive LMU’s nomination, ONIF will upload your transcript to the site.
- Transfer course grades must appear on your LMU transcript, or you will need to provide ONIF a PDF copy of your transcripts from previous institutions.
Past Candidate Feedback

• “Research experience was described as limited with no products at this time…”

• “The reviewers did not find the letters of reference helpful…none of the letters really describe [the student’s] potential for becoming a research scientist and they do not offer any real evidence of this potential.”

• “The essay should be written either as a manuscript for publication or as a research proposal.”

• “I don’t feel [the student] did a very good job of justifying the need for the MD degree to do what [the student] wants to do.”
Application Timeline

December 1:  Pre Application due
December 28:  LMU Campus Deadline, **ALL** app components due
January 11-15:  Goldwater Scholarship Committee convenes
January 15:  Applicants learn if they received LMU’s nomination
January 15-31:  Nominated students continue to edit their essays
January 31:  Goldwater Scholarship National Deadline
Late February:  Nomination packets reviewed
Late March:  Scholars/Honorable Mentions announced
Additional Resources

◎ Goldwater website
  ○ Application tips

◎ ONIF website
  ○ Fellowships advisement appointments
  ○ Email fellowships@lmu.edu to access the Goldwater Blackboard site (repository of resources)

◎ LMU Faculty
Questions

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