2019 Barry Goldwater Scholarship Info Session

Presented by Cassidy Alvarado, Director of ONIF
What is the Goldwater Scholarship?

• 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 annually.
  • Junior-level scholarship recipients are eligible for a maximum of two years of scholarship support.
  • Senior-level scholarship recipients are eligible for a maximum of one year of scholarship 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
- 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
- Recommended- undergraduate research experience
### Examples of Fields of Study

<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,</td>
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<td>Immunology, Molecular biology, Biomedical technology</td>
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<td>Chemical Engineering</td>
<td>Research in chemical kinetics</td>
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<td>Chemistry</td>
<td>Research in environmental chemistry, Nutritional chemistry,</td>
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<td>Biotechnology/biochemistry</td>
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<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,</td>
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<td>Statistical population research, Robotics</td>
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<td>Mechanical Engineering</td>
<td>Development of micro and nano technologies</td>
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<td>Physics</td>
<td>Physical oceanography, Alternate energy source, Nuclear physics,</td>
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<td></td>
<td>Theoretical physics, Environmental physics</td>
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In aligning Goldwater’s Fields of Study with those of the NSF Graduate Research Fellowship Program, PSYCHOLOGY is now included in the list of eligible fields.

- Research must be classified as a natural science.
- Sub-fields: Cognitive Psychology, Cognitive Neuroscience, Computational Psychology, Psycholinguistics, Developmental, Experimental or Comparative Neuropsychology, Perception and Psychophysics, Physiological, Quantitative.
- Research considered to be in a social science area WILL NOT not be supported.
Additional Scholarship Information

• 300 scholarships are available
  • Approximately 1200 applications received annually
  • Average applicant GPA is a 3.85
  • Scholars are chosen by region/state
    • Last year CA Institutions had 16 scholars & 22 Honorable mentions
    • Including LMU’s Honorable Mention: Dillon Rinauro ’19, in Biochemistry!
• LMU may nominate up to four students for the national competition
• Login or online application (technical) difficulties
  • Please email goldwater@ScholarshipAmerica.org with any questions
Application Components

• Pre Application- Due November 15, 2018
  • 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. The system will not generate emails.
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 applicants 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* to ONIF by December 10.
Application Components

• Research Essay - Email to ONIF by December 10
  • 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 Formatting
  - 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 the name of 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
  - Save as a PDF file and email to cassidy.Alvarado@lmu.edu by December 10
Application Components

• Short Answer Questions
  • Career goals, Professional aspirations, Motivation, & Personal information
  • Have you regularly participated in research activities associated with your interests in STEM?
  • In the absence of formal research experience, describe briefly any other skills or accomplishments (e.g. posters, presentations, publications, etc.) significant and relevant to this application
Application Components

• **Unofficial Transcript**
  - Should you receive LMU’s nomination, ONIF will upload your transcript to the site
  - If you are a transfer student, your transfer courses must appear on your LMU transcript or you will need to provide ONIF a PDF copy of your transcript(s) from previous institution(s)
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.”
Important Dates

- **November 14:** Applicant Workshop Webinar
- **November 15:** Pre-Application due
- **December 10:** LMU Campus Deadline- ALL app components due
- **January 8-12:** Goldwater Scholarship Committee convenes
- **January 12:** Applicants will learn if they received LMU’s nomination
- **January 25:** Goldwater Scholarship National Deadline
- **Late February:** Nomination packets reviewed
- **March 29:** Scholars/Honorable Mentions announced
Additional Resources

• The Goldwater website
• ONIF website
  • Appointment Scheduler
• Faculty!
• Research mentors
• Penn State’s Goldwater Essay Samples
Questions

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