Undergraduate Research

Loyola Marymount University
Los Angeles, CA

July 2015
Our Mission

At LMU, undergraduate research is broadly defined as a project or creative activity that enables individual students or groups of students to investigate a clearly structured research question, apply methods of exploration and analysis to generate findings, and share the result of those findings publicly. Guided by their distinguished faculty mentors, students stand at the boundaries of disciplinary and interdisciplinary inquiry or push toward the threshold of the unknown.

How do students get involved? The pulse of undergraduate research flows through the Office of Undergraduate Education which offers support and opportunities for students in any major to engage in a research project. Students may participate in the Undergraduate Research Opportunities Program (UROP) or the Summer Undergraduate Research Program (SURP) and they present their research at a discipline-based conference, the Undergraduate Research Symposium, and co-authored publications. In 2014-2015, 568 students participated in one or more of these faculty mentored programs.

Why is Undergraduate Research important? Engaging in undergraduate research is a transformational experience and highly beneficial to students, faculty and the greater university community. Studies show that students involved in undergraduate research achieve higher grades, are more intellectually curious, and have a deeper understanding of their chosen field of study. Through this activity, students develop marketable skills that make them more competitive for prestigious national and international fellowships, post-baccalaureate employment and admission to graduate and professional school.
The Undergraduate Research Opportunities Program (UROP) was introduced to LMU in 2010. Since then, UROP has had a **518% growth**, reaching 68 participants in 2014-2015. UROP encourages undergraduates to participate in faculty- mentored research and creative activity during the academic year through work study, academic credit, or voluntarily. Grants are available on a limited and competitive basis. Financial support includes funding for research materials or travel funds for students to present their work at a discipline-based conference. Participation in UROP is an intense and intentional program designed to provide students with insight into the research process.

**UROP 2014 Class Standing**

- **Senior**: 68%
- **Sophomore**: 6%
- **Junior**: 26%

Dr. Vandana Thadani meeting with students to discuss research projects.
UROP 2014-2015

**Gender**
- Male: 47%
- Female: 53%

**College**
- BCLA: 32%
- CBA: 2%
- CFA: 3%
- FTV: 0%
- CSE: 63%

**Ethnicity**
- American Indian or Alaska Native: 0%
- Asian: 10%
- Black/African-American: 7%
- Hispanic/Latino: 28%
- Multi-Race: 4%
- White: 46%
- Non-Res./International: 4%
- First Generation: 20%

**Most Represented Majors**
- Mechanical Engineering: 32%
- Biology: 18%
- Psychology: 15%
- Economics: 4%
- Chemistry: 4%
- Electrical Engineering: 4%

Dr. Tina Choe mentoring her student in the lab.
The Summer Undergraduate Research Program (SURP) enhances undergraduate education by providing financial support for students wishing to engage in faculty-guided research opportunities and creative activity during the summer. SURP is a residential program in which students live together on campus. They attend workshops and presentations given by faculty and gather for social events organized by the student coordinators.

*SURP has grown by 1590% from 2010 to 2015.*
In 2015, 169 students, mentored by 80 faculty, participated in SURP. 66% of SURP students lived on-campus.

### Gender
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<tbody>
<tr>
<td>Male</td>
<td>37%</td>
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<tr>
<td>Female</td>
<td>63%</td>
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### College
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<tbody>
<tr>
<td>BCLA</td>
<td>27%</td>
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<tr>
<td>CBA</td>
<td>5%</td>
</tr>
<tr>
<td>CFA</td>
<td>6%</td>
</tr>
<tr>
<td>FTV</td>
<td>4%</td>
</tr>
<tr>
<td>Seaver</td>
<td>58%</td>
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### Ethnicity
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<tbody>
<tr>
<td>American Indian or</td>
<td>0%</td>
</tr>
<tr>
<td>Alaska Native</td>
<td></td>
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<tr>
<td>Asian</td>
<td>14%</td>
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<tr>
<td>Black/African-American</td>
<td>10%</td>
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<tr>
<td>Hispanic/Latino</td>
<td>32%</td>
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<tr>
<td>Multi-Race</td>
<td>4%</td>
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<tr>
<td>White</td>
<td>33%</td>
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<tr>
<td>Non-Res./International</td>
<td>7%</td>
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<tr>
<td>First Generation</td>
<td>18%</td>
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*SURP awards include summer housing.*

**Class Standing**

- Freshman: 5%
- Sophomore: 22%
- Junior: 45%
- Senior: 28%

*Based on completed units as of Fall 2014*
SURP is an intellectual community of learners in which leadership, critical inquiry, and communication (written and oral) skills are enhanced.

2015 SURP Events:

- SURP Welcome BBQ
- Library Workshop: Working with Google Scholar
- SURP Hike and Lunch @ Escondido Falls
- Sciences Workshop: Working with the Web of Science
- Humanities Workshop: Working with and in an Archive
- Workshop: Taking Your Research International
- Trip to the Getty Center
- Workshop: Posters and Presentations
- Speed Dating, Research Style
- Presentation: From Research to Resume
87% of students, who completed the SURP Questionnaire, plan to continue their research in the upcoming academic year.

56% of students, who completed the SURP Questionnaire, plan to pursue graduate school after graduation.

“The top three reasons students get involved in SURP:

• Improve my research/creative skills
• To find or pursue a specific interest in their field.
• To improve their understanding of their field.

“...It was wonderful and I plan to apply next year because of the immense resources it offers in the fields of research and the outstanding professors I get to work with.” – SURP student
The **Annual Undergraduate Research Symposium** (URS) provides a professional opportunity for undergraduates to present what they have learned through their research experiences to a larger audience. The Symposium showcases the creative and critical accomplishments of student/faculty research partnerships. Faculty-mentored research and creative activity are an integral component of the education at LMU. Presentations include projects from all academic disciplines and encourage interdisciplinary discourse, allowing students to learn from each other about a broad range of exciting research topics.

*The Undergraduate Research Symposium has grown by 85% from 2010 (179 students) to 2015 (331 students).*
Undergraduate Research Symposium
2015 Demographics

331 students, mentored by 133 faculty, presented their research at The Seventh Annual Undergraduate Research Symposium.

Gender
Male 42%
Female 58%

College*
BCLA 28%
CBA 4%
CFA 14%
FTV 3%
CSE 51%

Ethnicity
American Indian or Alaska Native 0.3%
Asian 12%
Black/African-American 6%
Hispanic/Latino 23%
Multi-Race 6%
White 47%
Native Hawaiian or Other Pacific Islander 0.3%
Non-Res./International 6%

First Generation 11%

*Numbers represent primary major.

Class Standing

Based on completed units as of Fall 2014
53 undergraduate fields of study were represented at the 2015 Symposium.

Most Represented Majors in 2015

- Biology: 15%
- Mechanical Engineering: 11%
- Political Science: 10%
- Health and Human Sciences: 8%
- Bio Chemistry: 5%
- History: 4%
- Civil Engineering: 4%
- Dance: 4%
- Studio Arts: 3%
- Performance at Arts Showcase.

*Student presenting his research during the oral session.*

*Student presenting his research during the poster session.*
A majority of students (90%) felt their experience:

- Increased their self-confidence in their field of study.
- Helped them to think creatively in their field.
- 90% of students rated their Symposium experience as “Outstanding” or “Good”.
- Over 56% of students, who completed the Assessment Questionnaire, plan to apply to graduate or professional school within three years of graduation.
### Interactions with their Faculty Mentor…

<table>
<thead>
<tr>
<th>Statement</th>
<th>Number of Respondents</th>
<th>Percent of Respondents “Strongly Agree” or “Agree”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treated me with respect.</td>
<td>115</td>
<td>98%</td>
</tr>
<tr>
<td>Provided me with constructive feedback.</td>
<td>115</td>
<td>97%</td>
</tr>
<tr>
<td>Assisted me when I was having difficulty.</td>
<td>115</td>
<td>93%</td>
</tr>
<tr>
<td>Encouraged me to communicate my thoughts and ask questions.</td>
<td>115</td>
<td>92%</td>
</tr>
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### Reasons for getting involved in the Symposium…

<table>
<thead>
<tr>
<th>Reason for getting involved in the Symposium…</th>
<th>Number of Respondents</th>
<th>Percent of Respondents “Very Important” or “Important”</th>
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</thead>
<tbody>
<tr>
<td>Improve research/creative skills.</td>
<td>115</td>
<td>87%</td>
</tr>
<tr>
<td>Improve the understanding of their field of study.</td>
<td>115</td>
<td>87%</td>
</tr>
<tr>
<td>Enhance resume.</td>
<td>115</td>
<td>85%</td>
</tr>
<tr>
<td>Enhance graduate school application.</td>
<td>115</td>
<td>77%</td>
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