

PLU College of Natural Sciences



**SUMMER
RESEARCH
101**

Nov. 22, 2024

Rieke 103B

Prof. Neal Yakelis

10:30-11:00 AM

PLU Dept. of Chemistry



KFC

amazon



Summer jobs



keepcalmspotetsy.com

**student
painters**
House Painting

**Hold on! I can get a
summer job doing
scientific research?**

NSF REU ♦ SULI ♦ SURF ♦ SURP ♦ INTERNSHIPS

SUMMER UNDERGRADUATE RESEARCH PROGRAMS and INTERNSHIPS

- Typically run 8-10 weeks
- Full-time positions, pay approx. \$5000-7000
- Often housing stipend or arrangements are included
- Often travel is covered if out of state
- Provide opportunity to learn about grad school & careers
- **MOST ARE HIGHLY COMPETITIVE, so you have to apply BROADLY.** ex. 8-12 apps in CHEM is common
- You will receive many rejections. That is very normal.
- Program admissions stats differ a lot based on geographic desirability, institution prestige, and discipline. ***Apply broadly.***
UCLA vs. WVU, cancer research vs. mathematical biology, etc.

Application Process: November - March

1. Discern and explore opportunities

2. Talk to PLU professors – Letters of Rec.

3. Prepare a STEM-focused resume

4. Personal Statement

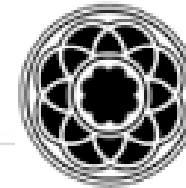
5. Download unofficial transcripts

6. Apply, apply, apply, apply, apply.

1. Discern and explore opportunities

Division of Natural Sciences

🏠 // Summer Undergraduate Research Program



PACIFIC
LUTHERAN
UNIVERSITY

Natural Sciences Summer Undergraduate Research Program



- ◆ <http://www.plu.edu/nsci/undergraduate-research-program/>
- 10 weeks (June - early Aug)
- PLU faculty members mentor students
- Weekly lunch professional skill development
- Current stipend \$6512/10 weeks
- **Application launches early February 2025**

1. Discern and explore opportunities

◆ https://www.nsf.gov/crssprgm/reu/reu_search.jsp

National Science Foundation (NSF)

Research Experiences for Undergraduates (REU)

- 10 weeks (like PLU program)
- Faculty/grad student/postdoc mentors
- Professional skills and social activities
- Housing often included (dorm, shared house)
- Stipend \$5000-\$7000
- Application deadlines vary, **but start in Dec.**
- Some targeted programs (first-years, underrepresented groups, etc.)

1. Discern and explore opportunities

◆ **Other federal agencies to explore**
Google with “undergraduate research” or “summer research” or “internships”

- NIH (National Institutes of Health)
- Department of Energy (SULI)
- USGS
- NOAA
- EPA
- Department of Defense
- Department of Homeland Security
- National Cancer Institute
- Centers for Disease Control (CDC)
- Others – explore!



1. Discern and explore opportunities

◆ Individual companies/institutes

Google with “undergraduate research” or
“summer research” or “internships”



FRED HUTCH™



BOEING



Microsoft



ALLEN
INSTITUTE

Seattle
BioMed

Freedom from Infectious Disease



2. Talk to PLU professors – Letters of Rec.

- Set up an appointment to chat with some STEM professors, advisors, or mentors about your interests and goals. Maybe alumni via LuteLink?
 - Before selecting letter-writers, reflect upon: What would a professor write about you?
- What happens when a professor writes a letter behind *the curtain*?
Longest step and most work – writing a letter
Super easy/quick – submitting it to lots of programs.

3. Prepare a STEM-focused resume

- STEM COURSES YOU HAVE TAKEN OR ARE TAKING Jan/Spr
- RESEARCH and LAB PROJECTS
- LAB TECHNIQUES AND INSTRUMENTS
- SOFTWARE KNOWLEDGE

See examples on web page ...

5. Download unofficial transcripts

- PLU from Banner (print as PDF)
- Any two-year community colleges or other institutions

4. Personal Statement

Ex: Personal statement writing prompt for summer research programs:

Describe your primary motivations for wanting to participate in this summer research program. Identify three faculty members whose research you are interested in, and briefly explain why.

How do I start writing one?

How do I avoid clichés?



❖ *What's your story in science?*

- What has inspired you?
- What are you most curious about?
- Who has inspired you?
- Why is studying science meaningful to you?
- Why did you come to PLU to study science?
- What goals do you consider?

❖ *How do your specific life experiences shape who you are as a student now & the impact you want to have in the world?*

Personal Statement Tips

Audience = Potential research mentors (PhDs) reviewing apps

1. Answer the questions that are asked of you
2. Tell some short stories within it. Narrative is powerful.
3. Be reflective – what impact did experiences have on you?
4. You and your story inform your goals. Make connections!.
5. Concentrate on your introduction – the hook!
6. Do your web research. Mention specific groups, projects, and articles that are interesting to you. Remember your audience is the mentors looking for motivated students.
7. Aim for a perfect final draft. Grammarly? Proofreaders like faculty, Writing Center, and Career Connections.
8. Avoid clichés. “I like science and want to help people.”