

General Information

The University of Missouri is home to more than 33,000 students and 2,000 faculty. We are in the middle of a state that's in the middle of the country seeking the farthest reaches of what is possible. Our diverse and thriving campus is nestled in the heart of downtown Columbia serving all walks of life. The perfect blend of small town and flourishing city, Columbia is consistently rated among the top places to live in the nation. This is where opposite ideas attract, grand challenges are explored every day, and where rigorous study meets the real world.

All programs run May 27 - July 26 with travel days on May 27th and July 26th (9 weeks). Students live in on-campus air-conditioned housing (students will have a roommate), and receive a meal plan paid by the program. Programs provide travel to and from Columbia. The Materials Science & Engineering REU provides a stipend of \$5000 (minus taxes.)

Coordinated by the MU Office of Undergraduate Research, the **Undergraduate Research Internship Program** hosts 100+ students from institutions across the nation. Interns in the program participate in **educational and social activities** and numerous outings planned by the interns themselves creating a vibrant, inclusive, and welcoming summer community. Under the guidance of an MU faculty mentor, students work on their own projects in collaboration with graduate students, lab technicians, and post-doctoral researchers and will showcase their results at a **poster Forum on July 24th**.

Eligibility

Applicants must have completed **at least one year of full-time college enrollment prior to June 2025**. Students should be pursuing a **major in fields related to the program** for which they are applying. Students graduating before December 2025 are not eligible. Students must be **citizens or permanent residents of the U.S.** See information on individual programs for additional requirements.

Application Information

The deadline to apply is February 16, 2025. Students must complete the [application](#) and provide: an **unofficial transcript** (including Fall 2024 grades); **letters of recommendation** (two preferred); **a resume**; and a **personal statement** indicating career plans, prior research experience, and research interests.

Applicants will be notified around April 3rd.

Educational Programming

As part of the program, students participate in a full series of evening and small group seminars designed to provide information about research, career preparation and options, and scientific ethics. Weekly small group seminars provide opportunities for students to focus on a topic and engage in discussion with peers and faculty.

Mandatory orientation sessions will be held May 28th and 29th.

Past Evening Seminar Topics:

- "Diversity and Cultural Competency in Research", Dr. Charles Nilon (Natural Resources), Dr. David Mendoza (Plant Sciences), Dr. Janlo Robil (Biological Sciences)
- "Insulin & your nerves: Myelin to multiple sclerosis", Dr. Michael Garcia (Biological Sciences)
- "Making Research Relevant: Why the Models Matters", Dr. Tim Evans (Veterinary Pathobiology)
- "Nanostructure Materials for Tissue Engineering", Dr. Sheila Grant (Bioengineering)
- "21st Century Paleontology: Functional morphology & evolution of the reptile head", Dr. Casey Holliday (Anatomical Sciences)
- "The Neuropsychology of Spirituality: Identifying the Neurologic Mechanisms of Mysticism after Traumatic Brain Injury", Dr. Brick Johnston (Health Psychology)

Faculty Mentors

Students should list up to 8 faculty with whom they are interested in working on their application. **Note:** There is some program overlap for many mentors. Please check to ensure that mentors participate in the program(s) for which you are applying.

*Please visit departmental websites for comprehensive lists of faculty members & their research before completing your application.

MU and Columbia Communities

The MU Office of Undergraduate Research, and therefore the Summer Research Internship Program, is committed to fostering **an inclusive community of researchers**, free from discrimination and harassment as defined in MU's Student Standard of Conduct and Human Resources policy. As visiting students on the MU campus, participants in the Summer Research Internship Program join current MU students, faculty, and staff in holding the following values as the foundation of our identity as a community: **Excellence, Respect, Responsibility, and Discovery**. Upon this, we strive to build a comprehensive, engaging learning experience for all persons involved in this program.



The future of materials research demands a workforce whose interdisciplinary academic and research

training extends from materials design, to manufacturing, and to characterization. To achieve this, we must move beyond the rigid, traditional approaches of materials science and engineering educational programs into truly creative spaces where innovation is allowed to occur. Our REU Site focuses on the most fundamental and foundational elements of creativity: creative thinking and creative expression.

This REU Site is designed to address the urgent need for innovation in materials research in the U.S. by interweaving a proven creativity training program into the framework of the traditional research and professional development activities. This REU Site fills a critical gap in workforce development in materials design and manufacture, and address a national need for researchers who can solve complex, interconnected problems by training researchers to think creatively from an early stage. This is particularly critical for advanced functional materials, which are often micro- or nanostructured, and built through either self-assembly or complex fabrication processes, due to their unique and complex structure-function relationships, and their potential use in applications critical to human health and

Faculty Mentor:

- Reginald Rogers
- Mahmoud Almasri
- Sheila Grant
- Liqun (Andrew) Gu
- Karl Hammond
- Jian (Javen) Lin
- Matt Maschmann
- Brett Ulery
- Zheng Yan
- Matthias Young

Department:

- Biomedical, Biological & Chemical Engineering
- Biomedical, Biological & Chemical Engineering
- Biomedical, Biological & Chemical Engineering
- Biomedical, Biological & Chemical Engineering
- Biomedical, Biological & Chemical Engineering
- Mechanical & Aerospace Engineering
- Mechanical & Aerospace Engineering
- Biomedical, Biological & Chemical Engineering
- Biomedical, Biological & Chemical Engineering
- Biomedical, Biological & Chemical Engineering



Students will receive:

- Stipend of \$5,000 (minus taxes)
- On-Campus Housing (dorm room, two students per room) valued at \$1,500
- Meal Plan, valued at \$1,100
- Travel to/from Columbia, Missouri* *(Please see website for details and expense limitations.)*

**Visit the
program
website!**



<https://tinyurl.com/MUREUMaterialsScience>

Biomedical, Biological & Chemical Engineering
engineering.missouri.edu/academics/bbce/

Mechanical & Aerospace Engineering
engineering.missouri.edu/academics/mae/