

UM Science, Technology, Engineering, and Math Summer Research Experience for Undergraduates (STEMS REU) Program

The objective of the program is to provide educational science research opportunities at the University of Mississippi to undergraduate students who are seeking research experiences and considering a career in research or academia.

Eligibility: All undergraduate students

Selection: Applicants rank-order the **sponsoring faculty's** labs/projects they wish to join (Drs. Erik Hom, Wei-Yin Chen, Chalet Tan, David Colby, Robert Doerksen, or Hoang Le). The sponsoring faculty consider the applicants' rankings and select students from the application pool that fit best to a specific research project in their labs. If a student is selected by more than one lab, the Program Director will make the final decision on the lab the student will join, and the other sponsoring faculty will have another chance to select a different student from the applicant pool.

Award: \$3,000 Funding will come from the sponsoring faculty's research funds. The sponsoring faculty will also provide \$100 per student to fund the extracurricular activities portion of the program. Participating students are not allowed to take courses at UM for the duration of the program.

Duration: 10 weeks (up to 40 h/week) of education, networking, and research activities

The program provides students with opportunities to learn about cutting-edge STEM-related topics, develop presentation and communication skills, and practice networking skills, as well as opportunities to explore and develop their interest in cutting-edge STEM-related research. The program aims to educate students beyond lab specifics and nurture students for successful careers in STEM, graduate, and/or professional programs. We will administer a test on general STEM awareness in week 1 and week 5 and a satisfaction poll at the end of the program. We will collect institutional and personal email addresses to be able to keep in touch with the graduates of the program. We will also issue a standard survey each year to track the graduation, publications/presentations, awards, and entry into graduate/professional programs of the students who graduate from the program.

Schedule: The program will run from May 30 to August 7, 2017. Each student is associated with a specific research project, on which he/she will work closely with the sponsoring faculty and other researchers. In addition, all students will participate in the following activities:

Mondays (1–2 pm): Lectures on cutting-edge STEM-related topics will be taught by the following faculty:

Sponsoring Faculty:

Dr. Erik Hom (Department of Biology)
Dr. Wei-Yin Chen (Department of Chemical Engineering)
Dr. Chalet Tan (Department of Pharmaceutics and Drug Delivery)
Dr. David Colby (Department of BioMolecular Sciences)
Dr. Robert Doerksen (Department of BioMolecular Sciences)
Dr. Hoang Le (Department of BioMolecular Sciences)

Contributing Faculty:

Dr. Saumen Chakraborty (Department of Chemistry and Biochemistry)
Dr. Jonah Jurss (Department of Chemistry and Biochemistry)
Dr. Nicole Ashpole (Department of BioMolecular Sciences)
Dr. Cole Stevens (Department of BioMolecular Sciences)

Wednesdays (1–2 pm): For the first 8 weeks, the students will give presentations on literature STEM-related topics in a journal club setting. During the last 2 weeks, the students will give a 15-minute presentation on the research they have been conducting in the program. The effectiveness of individual presentations will be evaluated each week, and feedback will be provided to each student.

Fridays (1–2 pm): The students will interact with and get to know one another and, when appropriate, gain career assistance, in a networking setting. Refreshments will be provided. There will be a welcoming event in the first week of the program and another major social event, such as a BBQ at a nearby park, during the program. On the last Friday of the program, the students will have a gathering lunch with the faculty.

Submission Guidelines:

- Application form
- Resume
- Letter of interest from the applicant including a justification for why they are interested in acquiring research experience and what the student hopes to gain from program participation (Limit 250 words)
- Copies of academic transcripts
- Students may participate in the program for up to 4 summers, depending on the selection from the sponsoring faculty
- All application materials should be sent as a single pdf file to the Program Director, Dr. Hoang Le (hle@olemiss.edu) by May 20, 2017

Processing: The application pool will be forwarded to the sponsoring faculty, and they will opt to sponsor the students best fit to a specific research project in their labs. Announcement of selected students will be made on May 25, 2017.