UNIVERSITY of ROCHESTER

UNDERGRADUATE RESEARCH EXPERIENCES

Eligibility varies by program; please visit our website for more information


Ronald E. McNair Program

Funded through a grant from the U.S. Department of Education, the objective of the McNair Program is to increase the numbers of low-income, first-generation, and underrepresented minority undergraduates who pursue PhD degrees and go on to careers in research and teaching at the university level. Students in this program will spend June and July at the University of Rochester conducting research under the guidance of a faculty mentor. Open to students attending institutions with no McNair program.

National Science Foundation
Research Experience for Undergraduates (NSF REU)

Visit https://www.rochester.edu/college/kearnscenter/undergraduate/reu/index.html for more information or email Kearns-REU@rochester.edu

Advancing Human Health, From Nano to Network

Human health is a compelling application space for undergraduate students, particularly for engineering students who can apply their diverse knowledge, experiences and skills to improve an array of human health concerns. Our REU site, advancing human health, from nano to network, will enable students to not only obtain research experience in one aspect of this space, it will also provide the opportunities for all the REU participants to learn from each other about the multidisciplinary research within this area.
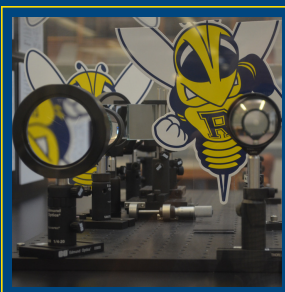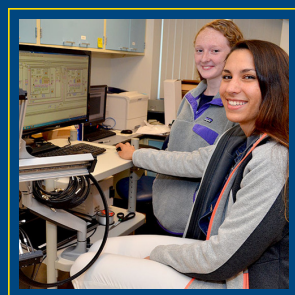
Nano-, Bio-, and Quantum Photonics

Understanding and controlling the most elemental unit of light – the photon – is essential to developing light-based technology as well as evolving critical elements of our nation's defense and security. REU scholars will join the vibrant national community of students, academia and industry actively engaged in all facets of photonics—a community concentrated nowhere in the country as densely and historically as in Rochester, NY. This REU hosted by the Institute of Optics will prioritize members of underrepresented groups, community college students, and students from institutions lacking large STEM research programs.

Visit www.rochester.edu/kearns for more information

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National Science Foundation
Research Experience for Undergraduates (NSF REU)

Department of Physics and Astronomy

Over the summer research period, participants attend a series of informal seminars covering research and related topics, such as preparing for graduate school. The core research experience takes place in the context of research groups working at the University's research facilities. At the end of the program students present their work at an informal symposium. They are encouraged to work with their research advisors toward completion of publications, submission of abstracts, and presentations of their work at professional and student conferences.
(https://www.pas.rochester.edu/undergraduate/reu/index.html)
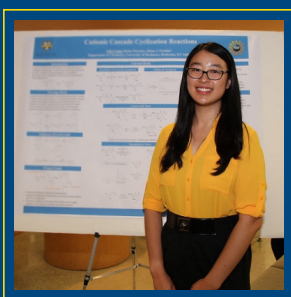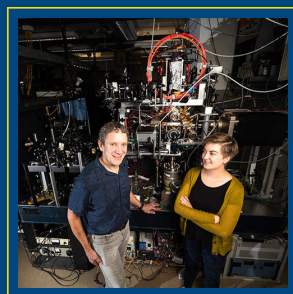
Department of Chemistry

Rochester is a site for the NSF REU program, providing funding for a number of students every summer. As required by NSF policy, the program is open only to domestic students, and preference will be given to students from schools that do not have a PhD program in chemistry. Underrepresented minority students and women are especially encouraged to apply. Summer research students have their own research problem, a specific faculty advisor, and a specific day-to-day graduate student or postdoctoral mentor. Everybody participates in a weekly group meeting, reporting to each other on their research projects and results in oral, poster, and written form.
(http://www.sas.rochester.edu/chm/undergraduate/summer-programs.html#nsf-reu)

Computational Methods for Understanding Music, Media, and Minds

How can a computer learn to read an ancient musical score? What can methods from signal processing and natural language analysis tell us about the history of popular music? Can a computer system teach a person to better use prosody (the musical pattern of speech) in order to become a more effective public speaker? REU students will explore an exciting, interdisciplinary research area that combines machine learning, audio engineering, music theory, and cognitive science. Each student will be mentored by two or more faculty members drawn from Computer Science, Electrical and Computer Engineering, Brain and Cognitive Science, the program in Digital Media Studies, and the Eastman School of Music.
(http://www.sas.rochester.edu/dsc/undergraduate/reu.html)
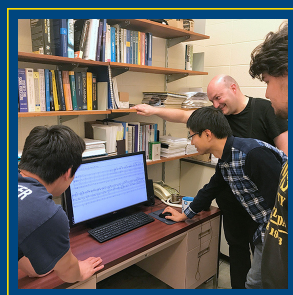
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