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The University of Illinois Chicago

IDEAL Get Ready for Research Workshop
November 11, 2025

What is an REU?

- Research Experience for Undergraduates (REUs) are summer programs usually lasting around 2 months (6-10 weeks) meant for undergraduates to get hands on experience with math research.
- These usually consist of intensive study of topics through lecture and interaction (e.g., reading papers, homework, etc) along with student research (usually in a group setting with a faculty advisor/mentor) on research question(s).

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- Travel and room and board are usually covered or at least subsidized by the program.
- Most REUs have a stipend for students and some have specific per diems or meal allowances.

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"Keep in mind that the experience of working on open problems is more important than the specific topic in which you work... Most of the fundamental qualities of doing research transcend the field of inquiry: doing background reading and journal searches, trying simple cases, getting stuck and frustrated, discovering key connections and patterns, finding flaws in arguments and starting over, writing up results and presenting them to others, and feeling the exhilaration of mathematical discovery." - Deb Bergstrand

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- Some are geared towards original research, others may be aimed at learning advanced math.
- Their focuses can be in computation, applied math, pure math, and even industry research.
- Some are very structured with organized lecture courses, homework. Others can be hands off where it is up you (and your group) to schedule work time and the meetings with your faculty advisor/mentor.
- The goal for many REUs is to answer a research question and have a publishable paper at the end. But if you don't get to that point, that's okay.

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- Note that the first postings are In October and roll through January. Applications are due in February-April, and sometimes on a rolling basis. [Look at past years so you can see in advance which ones you may be most interested in.]
- The NSF that funds a lot of these REUs cannot fund International students. Some schools are funded by the NSF, but will fund International students through different set of funds and there are some REUs that run independent of the NSF. (Cal Tech, Cornell, MIT, ICERM, NIMBIOS, RIPS)

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Organizers for REUs are generally looking for "mathematical maturity."