

## **Integrating Crystallography in Undergraduate Lab Experiences**

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One of the main missions of the Integrated Molecular Structure Education and Research Center (IMSERC) at Northwestern is to educate Northwestern University students and researchers in a variety of analytical instrumentations. IMSERC teaches Crystallography in a variety of ways. Freshman undergraduates get a taste of powder diffraction. Graduate students and Postdoctoral researchers can take a quarter long class that teaches theory, an introduction to data collection, solving and refining crystal structures with various degrees of issues and then writing an Acta paper. Northwestern even hosts the ACA summer course for chemical crystallography every other year. However, the most unique course is an upper level undergraduate course that teaches the synthesis and characterization of Metal–Organic Frameworks and Zeolites. This talk will focus on a unique lab that uses a variety of instrumentation in IMSERC so that the student can get a taste how to evaluate their material.