Materials Research Institute Undergraduate Fellowship

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The Materials Research Institute has established a premiere undergraduate fellowship experience, providing 100+ contact hours on state-of-the-art analytical capabilities within a world class shared user facility (MCL/2DCC). The mentorship from our senior staff scientists helps to promote discovery, professional development, and innovation in these early career scholars (1st-2nd year undergraduates). Shared user facilities are a place of convergence across many disciplines, which enables these early career academics to sample a wide variety of research and set their career course. We are looking for partners interested in further enabling this program who would like to contribute to the development of the future workforce.

The experiences of our six undergraduate fellows are shared here in a five-minute video linked through the QR codes. The areas of responsibility included front-end website development for a nationally centralized instrument management webpage funded through the National Science Foundation, assisting research on multi-million dollar TEM systems, polymers research across many spectroscopy techniques (FTIR, XPS, UV-Vis, Raman), preparation and analysis of powder XRD, SOP development and management of He pycnometry & mechanical testing, sample preparation through ion milling (FIB, Ar ion mill), development of image analysis SOP’s, and in-situ oxidation study through XPS. Through the support of the MRSEC, these fellows also found inspiration to implement a new device into our facility that helps reduce wasted energy from our fume hoods.