

UCONN | SCHOOL OF ENGINEERING

## Top Reasons to Join Materials Science & Engineering Hands-on Lab Experience







New and exciting changes have arrived in the department of Materials Science and Engineering by way of laboratory renovations. Thanks to financial support from both the School of Engineering (SoE) and the Department of Materials Science and Engineering (MSE), the undergraduate teaching laboratories received more than \$160,000 for equipment upgrades in the last two years.

The MSE undergraduate labs have been improved upon by the addition of new equipment, including a hydraulic press, band saw, and vacuum oven. A new computer lab boasting a suite of modeling software, including the widely used CES Edupack, will supplement the department's course *Material Selection and Design*.

The new equipment, in addition to three one-credit and one three-credit hands-on laboratory courses, work in tandem to create a truly state-of-the-art education for MSE undergraduate students. Supplementing these courses and new lab equipment is the work of students and faculty members on enhancement of the lab experience. Mr. Adam Wentworth (MSE Lab Manager – UConn MSE B.S., 2009, and MSE M.S., 2011) and Ms. Alexandra Merkouriou (MSE junior), for example, have already developed new lab modules on the synthesis, characterization, and measurement of properties of high-temperature superconducting yttrium barium copper oxide ceramics. "All of our new equipment will expand the opportunities for undergrads to work with all classes of materials, enhancing their hands-on experience in the lab, thus promoting and broadening their materials education", states Ms. Merkouriou.

MSE Department Head Dr. S. Pamir Alpay notes the positive effect that such improvements will have both within the Department and the School of Engineering as a whole: "These additional facilities will significantly enhance MSE's capability to support a wide range of senior capstone design projects. The laboratories and equipment will also be made available to students from all departments within the School of Engineering who are working on senior design projects."

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