Ohio State Dots the “i” in Real-World Instruction

The Ohio State University’s Experiential Entrepreneurship Education Program – Uniting College Academics and Work-Based Learning through Corporate Partnerships

MODEL SUMMARY

A new program of The Ohio State University’s Center for Design and Manufacturing Excellence in the College of Engineering ties college-level academics to real-world learning opportunities. The Experiential Entrepreneurship Education (E3) Program, launched in August 2017, provides students the opportunity to engage in a structured industry and entrepreneurial work-based learning experience that enhances their academic program, ensuring that graduates leave the university with work-ready skills.
PROGRAM DESIGN

Established in 2014, the Center for Design and Manufacturing Excellence (CDME) operates within Ohio State's College of Engineering and Office of Research, providing the university's industry partners with integrated design, commercialization and manufacturing solutions. Utilizing the technical talents and experience of the university's faculty and centers in collaboration with full-time staff engineers, CDME's mission is to support small and mid-sized regional manufacturing companies in bringing their innovations to market. The E3 Program puts Ohio State students into the mix to respond to the demands of manufacturers seeking new talent, while fueling students' growing interest in applied innovation.

E3's first cohort of 30 student employees, mostly engineering majors, works part-time at CDME in the innovations lab, which has full design, rapid prototyping and light manufacturing capabilities. Students are hired employees, working up to 16 hours a week during the academic year with central Ohio manufacturers. Students are mentored by a host of industry professionals with extensive engineering, business development and marketing backgrounds.

Ultimately, students can earn up to 2,000 hours as paid employees during their academic program, while also pursuing their studies and apprenticing under CDME engineers and program managers to develop creative solutions to real-world business challenges on behalf of CDME corporate partners and clients.

NUTS AND BOLTS

- **Paid Positions:** Students are paid standard university wages for work completed on industry projects throughout the program, which aids in offsetting the costs of their academic programs.
- **Certification Programs:** In addition, students have the opportunity to participate in industry-recognized certification programs that promote experiential learning and hands-on education. These programs are offered in collaboration with industry partners to prepare students to work on the project teams. Training is offered in the areas of integrated systems design (LabVIEW), data capture and systems integrity (ThingWorks), robotics and advanced manufacturing (Rockwell Automation) and data analytics and visualization (SAS), among others.

- **Career Placement:** Through the live projects, participating students develop close working relationships with industry partners, providing accelerated career opportunities, including internships, priority access to hiring managers and enhanced placement and advancement potential.
- **Calling All Students:** E3 leverages existing facilities, equipment, experience and operations of Ohio State's colleges, departments and research centers, attracting a diverse representation of students from across a broad range of majors. Sophomore, junior, senior and graduate students are encouraged to apply to the E3 program.
- **Industry Involvement:** The program has attracted interest and investment from central Ohio manufacturers both large and small, including startup businesses. FANUC, a global leader in manufacturing automation and robotics, has made a sizeable commitment to the Center in advanced manufacturing training. National Instruments is offering systems engineering software licenses and training for E3 students, while Honda has provided a significant amount of equipment and numerous student internship opportunities. CDME will serve as a partner training site for FANUC and National Instruments clients in the region. Other partners include Honda, Lincoln Electric and Rockwell.

PROGRAM RESULTS

Current predictions forecast 150 students enrolled in the program in 2018.