

The College of Technology



The Coatings Research Institute uses a variety of equipment. This apparatus was photographed in 1983.

The prospectus for the creation of a College of Technology – written in 1979 – notes a “burgeoning need in the area of applied technologies,” as one of many reasons that the EMU Board of Regents should establish a College of Technology. The College became a reality in 1980.

The prospectus included other justifications for the Board’s action:

1. The University’s immediate service area has an identifiable need for more technology graduates.
2. No other college or university is now meeting this need adequately in southeastern Michigan.
3. Current student demand for more technology programs is high, especially from employed non-traditional students and community college graduates.
4. Changing technologies in the future will demand increasing numbers of technology graduates.
5. Placement of technology graduates in satisfying, high-paying jobs is almost certain.
6. Heavy reliance upon existing University programs and personnel and upon an interdisciplinary approach to technology education makes the new college cost effective.
7. Historically, EMU has been at the forefront in industrial education and in recent years in industrial technology, and the creation of a College of

Technology will have an equally salutary effect upon its teacher preparation program in industrial education as well as on the applied technology programs.

Item six in this list of justifications is particularly interesting, since it points to existing programs – programs that in fact originated from one small course offered in 1901.

“Instruction in Manual Training began at this institution in a very small way,” Carroll A. Osborn wrote in 1962 about the early years of Industrial Education. “Miss Alice I. Boardman was the first instructor. She began her work in the fall of 1901 and taught continuously until her retirement in 1933. ...It is significant to note that during the first year of Miss Boardman’s work here, all of her time was spent with the training school children, and the Normal College students attended the classes as observers.”

The very next year, a course known as the Specializing Course was announced for prospective teachers. By 1908, three college courses were being offered, followed soon by a combined course in Manual Training and Drawing that continued for nearly two decades.

Another two courses were added in 1914 when Manual Training became a Department. That elevation was followed with two more courses and a name change in 1915. The Industrial Arts



An Instructional Technology lab, February 1998.



At work in a College of Technology lab, April 1994.

Department was born. The rapid increase in course offerings and the scope of the department's philosophy continued apace, through shifts in leadership, cooperative programs with other departments, and a third name change. In 1956 Industrial Arts became the Department of Industrial Education and Applied Arts.

That name would change one more time (in 1967) before the Department of Industrial Education would become a college. Before that event, the department would outgrow its old quarters in what is now Boone Hall and move to Sill Hall, where it would eventually house 11 different industrial laboratories.

The teaching methodology in the field has changed significantly since 1901. The 1979 Prospectus for the

College of Technology explained that "Technology education is practical and applied in nature with a generous amount of laboratory and on-the-job experiences. An integral component of this education is an understanding of technology itself and its impact on society, including historical, behavioral, and ethical aspects." Indeed the current dean of the College of Technology, Thomas Harden, sees one of the College's goals "as preparing students to combine theory and practice to improve human life. ...It's critical that students be able to use the knowledge they gain to apply these theories, and to leave EMU and be immediately productive in a company."

This philosophy has led the College of Technology to a groundbreaking method of advisement for curriculum

IN BRIEF

A Bachelor of Science in Industrial Technology was approved March 2, 1964. "This curriculum is designed to prepare technicians for careers in industry, engineering, or research. It is intended to extend the education of those who will assume prescribed industrial responsibilities; examine and evaluate plans, designs and technological data; and assist in determining and interpreting work procedures."

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Regent Timothy Dyer railed against the proposed 1979-80 budget for not including development money for the College of Technology. "We are losing enrollment without this program," he said. "We don't need the programs of the past; we need new thrust."

Dyer succeeded in having \$250,000 added to the budget for program development, which became the seed money for the College of Technology.

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The Polymers and Coatings Technology Program was approved by the Board of Regents on April 22, 1981. A new building, completed in 1987, is shared by the program and the Paint Research Association for scientific paint research activities.

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In 1992, the Board of Regents approved the phase-out of five academic bachelor's degree programs: Coating Process Technology, Consumer Home Economics Education, Family and Consumer Services, Real Estate and Metallurgical Chemistry.



At work in a College of Technology lab in 1994.

development. Ronald W. Collins, provost and vice president for Academic Affairs, said in 1995 that "the College of Technology has pioneered the use of external advisory committees composed of professionals in business and industry. These committees provide guidance in keeping curricula up-to-date and relevant to the changing needs of the industrial world."

In addition to this cooperation with more than 273 business professionals serving on 22 advisory committees, the College has repeatedly distinguished itself during its short, 19-year existence. College of Technology graduates are among the highest paid of first-year EMU graduates. The College's Industrial Technology programs are among the top five in the nation.

The Legal Assistant Program run by the Department of Business and Technology Education is accredited by the American Bar Association, which recognizes only one third of such programs in Michigan. The College of Technology is home to several one-of-a-kind programs in Michigan, including Industrial Distribution, Polymers and Coatings Technology, Facility Management, Aviation Management, Technology Education, and Polymer Technology.

Further distinctions have been garnered for the College by its advanced programs. In cooperation with the Michigan Molecular Institute and 10 company and organization members, in 1990 the College helped establish the National Science Foundation Center in Coatings. The previous year the College was instrumental in founding the Emissions Evaluation Center. This collabora-



A COT student in April 1994.

tive effort between industry and University has as its goal the reduction of volatile organic compound emissions levels in coating materials.

The College implemented a Master of Science in Industrial Technology Quality at five sites across the state of Michigan to better serve the need for continuous improvement of quality in manufacturing and service industries. The program is delivered by compressed video as well as traditional methods. As of 1995, more than 100 students were enrolled. In 1990, the state's only Teacher Technology Education program became part of the College of Technology's groundbreaking tradition in curriculum development.

Another of those innovative moves was the establishment of a Department of Interdisciplinary Technology, which



Al Roth teaching airplane construction, July 1979.

'The Technology Degree'

Here is the preface to the proposal to create a College of Technology, as approved by the Board of Regents on March 19, 1980:

"A technology program consists of a broad education in science and technology, accompanied by extensive training in communication skills and general courses in the humanities and social sciences. It is a four-year, baccalaureate degree program as opposed to the two-year, associate degree programs which train technicians.

"In the spectrum of technical occupations, the technologist falls between the technician and the engineer, residing closer to the engineer in overall training. The technologist is more applications oriented, and less theoretical than the engineer, with equivalent training in communication skills and general education. Because of the applied nature of the technology degree, laboratory courses are an integral part of the program, tying in with the concept that technologists are doers and implementers.

"A valuable adjunct to a technology program is a cooperative education program, in which students alternate semesters of study with related work experience. Technology graduates fill a distinct void in the gap between technicians and engineers and are in great demand for a variety of positions in business, industry, and government."

“Virtually all of the faculty are out in business and industry, working with companies, learning from them, sharing what we know. It’s extremely important for the vitality of our College that we have a close interaction with business and industry and also with public education.”

THOMAS HARDEN, DEAN OF THE COLLEGE OF TECHNOLOGY

recognized the importance of technology studies across the disciplines and emphasizes the “teaching of adaptability.” Dean Harden has said, “if we prepare our students to deal with change as a dominant characteristic of technology, we have done what we can to prepare them to adapt for the future.”

Harden also points out the high degree of community involvement by both faculty and students of the College of Technology:

The college has thirteen student organizations, and virtually all of those organizations have some humanitarian or community outreach activities. We also have a number of students in professional organizations that have community outreach functions. The faculty, as well as the students, work with organizations outside of the University. Virtually all of the faculty are out in business and industry, working with companies, learning from them, sharing what we know. It’s

extremely important for the vitality of our college that we have a close interaction with business and industry and also with public education.

The more visible community activities involving the College include the Interdisciplinary Technology in-service training programs, which provide a series of programs for law enforcement officers and their commanders. Another outreach activity is Technology Education for Children, a required course for all elementary education majors. The coursework includes several workshops to which elementary students from surrounding areas are invited for a day of technology education. During these workshops the elementary education majors guide the young pupils through projects that teach about tools and technology.

The EMU Instructional Strategies for Business Education Project is an out-



A College of Technology plastics class, October 1972.

reach program designed to help teachers meet changing technological needs, improve teaching strategies, discuss new ideas and issues in business education and update curriculum. Also, EMU twice has had the opportunity to administer the Michigan Distributive Education Club of America grant due to the efforts of the College of Technology – once from 1972 to 1989 and again in 1992.

The Military Science Department provides leadership training to undergraduate students and commissions selected students as officers in the U.S. Army. In addition to providing classroom and field instruction, Military Science professors oversee extracurricular activities such as the Drill Team, Rifle Team, and the Raiders.



Military Science instruction in the College of Technology, 1987.



'Target USA – Terrorism Cannot be Ignored!'

"As a result of recent events, including the World Trade Center bombing, the Waco cult disaster, and aircraft hijackings, executives can no longer say terrorism doesn't exist in the United States.

"These are special threats to our communities that require specialized advanced training to support the capabilities of law enforcement.

"Effective response to special threats like these demands special training, the kind of training that only EMU/ATLAS Security offers."



So began a brochure published in 1991 by the Eastern Michigan University Center for Airport Management, Special Threat Training. The center provided for the development and implementation of state-of-the-art services in security management counter-terrorism programs, and joined in partnership with Anti-Terror Logistics and Systems (ATLAS) Security, an international terrorism response organization, to conduct special threat response training. Courses offered included Advanced SWAT Operation, Airport Police High Risk Command, Cargo Security, Advanced Hostage Rescue, and Surveys of International High Risk Airports. The courses taught at EMU included real life scenarios at nearby Detroit Metropolitan Airport.

College of Technology Deans



Alvin E. Rudisill



Thomas Harden

When Alvin E. Rudisill took leadership of the fledgling College of Technology in 1980, the College had three departments – Industrial Education, Industrial Technology and Military Science. Rudisill sought out and received grant money from the state – \$250,000 per annum – for equipment and renovation. This practical approach provided a solid fiscal foundation for the growth of the College.

Rudisill fostered alliances with area community colleges and established connections with many area businesses. He stepped down from the dean's chair in 1989 to accept an appointment as

dean of EMU's Corporate Services Division. Robert Ristau served as interim dean until 1993, when Thomas Harden accepted the position on a permanent basis.

Harden's deanship has broadened the scope of innovation, outreach and cutting-edge delivery systems initiated by Rudisill. Harden's guidance has pushed the standard of excellence for scholarship and practice within the College of Technology. Funding has increased. Most important, Harden has stressed practical applications of theory while keeping up with and planning for ever-changing technologies.