

SCHOOL OF ENGINEERING TECHNOLOGY

Campus Address: 118 Sill Hall
 Internet: it.emich.edu
 Telephone: 734.487.2040
 FAX: 734.487.8755
 E-mail: blahidji@emich.edu

See pages 177, 179, 199, 213 and 236 for course descriptions.

The School of Engineering Technology (SET) offers master of science (M.S.) degrees in the following areas: CAE, construction management, engineering management, interior design, quality, and polymers and coatings.

The CAE program is oriented to designers and engineering analysts. The Construction Management program is for individuals with the aspiration of managing commercial and industrial projects. The Engineering Management program is intended for those desiring to manage engineering projects or programs. The students in the Interior Design program develop creative and critical problem solving skills, in order to conceive and formulate interior environments that meet human needs and fulfill human aspirations. Graduates from the Polymers and Coatings Technology program will find employment in research and development laboratories of companies. The Quality program has options for those employed in the industrial or service sectors. Graduate certificates and advanced graduate certificates are also available in quality.

To meet the needs of the busy professional, selected classes and programs are available in the evening, on campus, at various off-campus sites and over the Internet. Students may enroll in these offerings through Continuing Education and need not be admitted to a degree program in order to do so. Those wishing to apply such courses toward a degree must obtain degree admission within a year. Contact the appropriate graduate admissions adviser for further information.

Admission Requirements

Applicants must:

1. Meet degree admission requirements of the Graduate School;
2. Obtain a baccalaureate from an accredited institution;
3. Have an undergraduate GPA of at least 2.5;
4. Meet program prerequisite skill requirements; and
5. In the case of international students, meet graduate school test score requirements on the TOEFL and TWE, or the MELAB. See the Admissions Web site for minimum scores.

Conditional Admissions

Conditional admissions may be granted to otherwise qualified students who lack prerequisite courses or are currently in the last semester of their undergraduate degree program.

Non-degree Admissions

This may be granted to students who earned an undergraduate GPA less than 2.5 or who have graduated from a non-accredited institution. Such students may seek degree admission after completing nine to 12 hours of graduate-level work specified by the department, with a 3.0 GPA.

Students with a bachelor's degree may enroll in graduate courses through continuing education prior to degree admission. The appropriate graduate coordinator can provide a list of courses offered through continuing education.

Degree Requirements

1. At least 30 hours of graduate credit applicable to the program;
2. At least 16 hours with a 3.0 GPA (B) in School of Engineering Technology;

3. A 3.0 GPA (B), overall;
4. Selection of concentration in construction, CAE, engineering management or quality; and
5. The recommendation of the program adviser and the Graduate School.

MASTER OF SCIENCE IN CAE (CDCM)

Course Requirements

The M.S. program in CAE requires the completion of 30 hours of course work to be distributed among required core courses and University elective courses.

Core courses 26-28 hours

- EM505 Managing Engineering and Technology (2 hrs)
- CAE535 3-D CAD Modeling (2 hrs)
- QUAL553 Geometric and Surface Texture Tolerancing (2 hrs)
- QUAL556 Human Aspects of Continuous Improvement (2 hrs)
- CAE565 Mechanical System Design (2 hrs)
- CAE585 Advanced Finite Element Analysis (2 hrs)
- EM636 Analysis of Manufacturing Processes (2 hrs)
- QUAL647 Research Methods (2 hrs)
- EM649 Manufacturing Process Planning (2 hrs)
- CAE650 Computer-Aided Manufacturing (2 hrs)
- CAE675 CAD/CAM/CNC (2 hrs)
- CAE690/691/692 Development Project/Thesis (4-6 hrs)

University Elective Courses 2-4 hours

Two to four hours selected in consultation with the graduate adviser.

Program Total 30 hours

Prerequisite skills (dependent on student's admission status):

- CADM324 3-D Solid Modeling (3 hrs)
- CADM325 Applied Mechanics, Kinematics and Design (3 hrs)
- CADM361 Computer Numerical Control (3 hrs)
- QUAL320 Industrial Quality Control (3 hrs)
- CADM435 Finite Element Analysis (3 hrs)

MASTER OF SCIENCE IN CONSTRUCTION MANAGEMENT (CM)

Course Requirements

The M.S. program in construction management requires the completion of 30 hours of course work to be distributed among required core courses and University elective courses.

Core Courses 14 hours

- CNST501 Project Estimating (2 hrs)
- CNST502 Project Scheduling (2 hrs)
- CNST504 Project Management (2 hrs)
- CNST616 Analysis of Commercial Structures (3 hrs)
- CNST624 Project Productivity and Cost Control (3 hrs)
- CNST626 Construction Processes (2 hrs)

Elective Courses 4-8 hours

Four to eight hours from the following:

- CNST503 Construction Delays and Claims (2 hrs)
- CNST590/591/592 Special Topics (1/2/3 hrs)
- CNST597/598/599 Independent Study (1/2/3 hrs)
- CNST645 Occupational Safety and Health (2 hrs)
- CNST648 Principles of Construction Technology (2 hrs)
- CNST679/680/681 Special Topics (1/2/3 hrs)
- CNST682/683/684/685 Workshop (1/2/3 hrs)
- CNST689 Industrial Internship (2 hrs)
- CNST690/691/692 Development Project/Thesis (1/2/3 hrs)
- CNST693/694/695 Seminar (1/2/3 hrs)
- CNST697/698/699 Independent Study (1/2/3 hrs)