Industrial Technology, M.S.

DEPARTMENT

Department of Industrial Technology

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MS in Industrial Technology, M.S.
BS in Industrial Technology, B.S.
BS in Industrial Technology - Agricultural Systems Management Option, B.S.
MN in Industrial Technology, Minor
MN in Precision Agriculture Technology Minor
Courses Offered

The Industrial Technology program at California State University, Fresno is geared towards preparing students for managerial and leadership roles in the industry. The program equips students with the necessary skills to use and manage state-of-the-art technologies in the fields of agricultural information systems, manufacturing, processing and packaging, quality systems and transportation. A blend of lectures, online instruction and hands-on lab activities together with engaged faculty and staff provides students with an environment that nurtures critical thinking and encourages innovation. The undergraduate curriculum includes technical concentrations in the areas of automotive technologies, food processing, and packaging, manufacturing quality and spatial technology which build on the strong foundations of our technology and management core courses.

The program for the Bachelor of Science in Industrial Technology is accredited by the Association of Technology Management and Applied Engineering (ATMAE). The department was awarded the highest possible accreditation, six years which is valid until 2024.

The major focus of IT is to prepare individuals for technical and industrial management positions. Examples of positions held by IT graduates include plant engineer, fleet service representative, manufacturing engineer, operations supervisor, production planning analyst, production scheduling coordinator, and quality systems supervisor.

Average salaries for Fresno State IT graduates are commensurate with those offered to business managers and engineers in the Central Valley as well as in the greater Bay Area and Los Angeles areas. IT graduates typically enjoy career growth in both management and technological pathways.

The program also provides students the opportunity to interact with industry professionals and practitioners through activities organized by various professional societies such as the American Society of Automotive Engineers (SAE); American Society of Quality (ASQ); Association of Technology, Management, and Applied Engineering (ATMAE); American Society of Agricultural and Biological Engineers (ASABE); and Institute of Food Technologists (IFT). Major student clubs are Advanced Technology Enterprises (ATE); Epsilon Pi Tau (EPT); and American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE). Through participation in one or more of these groups, students learn more about their profession and interact with working professionals in their field. Internships are also available to provide on-the-job experience to interested students.

The Master of Science in Industrial Technology program offers an individually tailored program with a blend of theory and practice that provides an enriching learning experience and prepares tomorrow's professionals for exciting and rewarding careers. The graduate program includes a set of core courses and electives besides a culminating experience in the form of a project or thesis.

Mission Statement

The mission of the department is to prepare individuals for technical and management careers in business, industry, agriculture, and government for the improvement of regional and global economy.
**Instructional Facilities**

The Industrial Technology Department continues to receive equipment and financial support from a number of California-based industries. Facilities supported include the computer-aided design (CAD) lab, digital and analog electronics lab, hydraulics lab, process control/programmable logic controller lab, materials and fuels testing lab, robotics/computer numerical control (CNC)/computer integrated manufacturing (CIM) lab, motors and controls lab, and computer network lab.

**REQUIREMENTS**

**Master of Science Degree Requirements**

The Master of Science in Industrial Technology is a 30-unit program which offers graduate study in both industrial and educational related professional and technical fields. Emphasis is directed toward the attainment of advanced competency in the areas of industrial and technology education as well as manufacturing technology. Through selected courses, within the department and other disciplines, knowledge and experience can be acquired in research and development, management and administration, technological studies, and educational studies that are related to all areas of the field.

**Admission Requirements**

The Master of Science degree program in Industrial Technology assumes preparation equivalent to a CSU undergraduate major in technology education (industrial arts), industrial technology, or a related field. Students who have not completed a degree in technology education or industrial technology are expected to have completed the following courses or their equivalents prior to enrollment in courses to be applied toward the master's program: IT 41, 52, 74, 102, 114, 115; MATH 11 or DS 71.

Applicants whose preparatory education was principally in a language other than English must earn a minimum TOEFL score of 213 on the computer-based test, 550 on the paper-based test, and 80 on the Internet-based test.

**Classified Standing**

A baccalaureate degree is required and an undergraduate major in technology education, industrial technology, or a related field; a 3.0 GPA (last 60 semester units); a 450V/430Q GRE score; three letters of reference from employers or faculty at the university attended most recently; a personal statement of 500 words or less indicating reasons for pursuing a master's degree; a preadmission consultation session with the department graduate program coordinator. Students lacking in any area with compensating strengths in other areas are encouraged to apply.

Conditional classified standing may be granted to petitioning applicants with a 2.5 to 2.99 GPA (last 60 semester units); GRE scores on file with the university; three letters of reference; and a personal statement of 500 words or less. Students must request classified standing in the program by the semester in which a maximum of 10 units to be used toward the degree are completed.

**Program Requirements**

Under the direction of a graduate adviser, each student prepares and submits a coherent program individually designed within the following framework:

**Specific Requirements**

**Required courses (15 units)**

IT 223, 280, 282, 283, 285

**Electives in industrial technology or related field (12 units)**

(approved electives appropriate to individually designed program; a maximum of 9 units may be 100-level courses)

**Culminating Experience (3 units)**

IT 298 or 299

**Total minimum requirements (30 units)**

**Graduate Advising Notes**

1. Upon admission, students should see the department graduate program coordinator for aid in program planning.
2. To progress through the graduate program, students must: (a.) Maintain a minimum 3.0 GPA (b.) Complete all prerequisite coursework (c.) Attain classified standing (d.) Meet the graduate writing skills requirement (e.) File for advancement to candidacy (f.) Complete the program requirements (g.) File a master's thesis or project committee assignment form (h.) Formally present and defend the thesis or project results
3. Classified standing must be achieved by the semester in which students take the 10th program unit. All admission requirements must be met. Students must maintain a 3.0 GPA.

4. Students must meet the university graduate writing competency requirement by passing the writing component of IT 280 or AGRI 220. Students should complete the writing requirement prior to advancement to candidacy.

5. Advancement to candidacy requires the completion of 9 program units at California State University, Fresno, a minimum GPA of 3.0, meeting the graduate writing skills requirement, and filing a Petition for Advancement to Candidacy a minimum of one semester prior to enrollment in thesis or project and by established deadline.

FACULTY

The faculty are well qualified within their respective areas of instruction and each student is assigned an academic adviser within his or her field of study. The department is recognized for its diversification of faculty representing the makeup of professionals that must interact in the field. Several are recognized for outstanding contributions and leadership within their professions.

For faculty phone numbers and e-mail, see the campus directory.

For more on the faculty, see the faculty pages.
The faculty pages are updated by the department or program.