Proposed catalog description

Changes:

ITEC 1300 was discontinued and has been replaced by COSC 1304 or ELET 2300

MECT 4375/4175 has been replaced by MECT 4275, MECT 4276

Mechanical Engineering Technology (METE)

This program includes courses that are directed at both computer-aided manufacturing and computer-aided design and drafting. Individuals interested in manufacturing technology apply fundamental principles of mechanical design and manufacturing processes to new and existing manufacturing systems. Courses focus on manufacturing planning and management, automated manufacturing systems, quality control, and robotics. Computer-aided design and drafting is an essential component of the design procedure; courses focus on computer graphics and applied mechanical design.

The goal of the Mechanical Engineering Technology major is to provide students with a well-rounded fundamental and application-oriented education focused on the knowledge of existing and new developments in Mechanical Engineering Technology. Graduates of the baccalaureate degree will develop the theoretical and practical knowledge and skills necessary for appropriate careers in local and national industries. To achieve this mission, the Mechanical Engineering Technology program is committed to attaining the following goals for all students:

- Provide a career-oriented program that prepares students for productive employment.
- Emphasize the latest technological advancements in computer-aided drafting, computer-aided design, and computer-aided manufacturing. Students should be able to apply problem-solving techniques and critical thinking skills at the level required for their professional practice.
- Provide a learning environment that will enable students to interact with state-of-the-art technological equipment and software. Students should gain experience in the application of computer software to analyze and design mechanical systems and automated manufacturing systems.
- Prepare students to pursue graduate degrees and life-long education.

The programs are designed to satisfy the educational needs of the urban Houston community by providing a climate that fosters self-awareness, personal growth, and a desire for lifelong learning.
Students pursuing a major in Mechanical Engineering Technology must complete the following requirements, in addition to university core and general college requirements.

**Mechanical Engineering Technology Requirements**

MECT 1364. Materials and Processes I  
MECT 2354. Introduction to Mechanics  
MECT 3318, 3118. Fluid Mechanics Applications, Laboratory  
MECT 3331. Applied Thermodynamics  
MECT 3341. Computer-Aided Drafting I  
MECT 3342. Computer-Aided Drafting II  
MECT 3355, 3155. Strength of Materials, Laboratory  
MECT 3358. Dynamics of Mechanisms  
MECT 3360. Automated Manufacturing Systems  
MECT 3365. Computer-Aided Design I  
MECT 3367. Quality Control Technology  
MECT 4372, 4172. Materials Technology, Laboratory  
MECT 4275, 4276. Senior Design Project I & II

Computer-Aided Design and Manufacturing Electives (9 SH)  
MECT 3362. Industrial Work Measurement  
MECT 4323. Applications in Stress Analysis  
MECT 4350. Principles in Mechatronics  
MECT 4365. Computer-Aided Design II  
MECT 4384. Manufacturing Systems Control  
3 SH Mechanical Elective

General Technology and College Core Requirements:  
CNST 1330. Graphics I  
ELET 2307. Electrical-Electronic Circuits  
TELS 3340. Organizational Leadership and Supervision  

or  
HDCS 3300. Organizational Decisions in Technology  
TELS 3363. Technical Communications  
COSC 1304. C Programming or ELET 2300 Introduction to C++ Programming  
Free electives (3 semester hours)
Technology and Other Requirements
Math 14 semester hours which includes university core)
MATH 1310. College Algebra
MATH 1330. Precalculus
MATH 1431. Calculus I
MATH 1432. Calculus II
Natural Sciences (12 semester hours which includes university core)
PHYS 1301, 1101. Introductory General Physics I, Laboratory
PHYS 1302, 1102. Introductory General Physics II, Laboratory
CHEM 1301, 1101. Foundations of Chemistry I, Laboratory
Social Sciences (6 semester hours)
Six semester hours (three must be writing intensive) from core approved list

Degree awarded: Bachelor of Science
Major: Mechanical Engineering Technology
Current catalog description

Mechanical Engineering Technology (METE)

This program includes courses that are directed at both computer-aided manufacturing and computer-aided design and drafting. Individuals interested in manufacturing technology apply fundamental principles of mechanical design and manufacturing processes to new and existing manufacturing systems. Courses focus on manufacturing planning and management, automated manufacturing systems, quality control, and robotics. Computer-aided design and drafting is an essential component of the design procedure; courses focus on computer graphics and applied mechanical design.

The goal of the Mechanical Engineering Technology major is to provide students with a well-rounded fundamental and application-oriented education focused on the knowledge of existing and new developments in Mechanical Engineering Technology. Graduates of the baccalaureate degree will develop the theoretical and practical knowledge and skills necessary for appropriate careers in local and national industries. To achieve this mission, the Mechanical Engineering Technology program is committed to attaining the following goals for all students:

- Provide a career-oriented program that prepares students for productive employment.
- Emphasize the latest technological advancements in computer-aided drafting, computer-aided design, and computer-aided manufacturing. Students should be able to apply problem-solving techniques and critical thinking skills at the level required for their professional practice.
- Provide a learning environment that will enable students to interact with state-of-the-art technological equipment and software. Students should gain experience in the application of computer software to analyze and design mechanical systems and automated manufacturing systems.
- Prepare students to pursue graduate degrees and life-long education.

The programs are designed to satisfy the educational needs of the urban Houston community by providing a climate that fosters self-awareness, personal growth, and a desire for lifelong learning.

Students pursuing a major in Mechanical Engineering Technology must complete the following requirements, in addition to university core and general college requirements.

---

**Mechanical Engineering Technology Requirements**

- MECT 1364. Materials and Processes I
- MECT 2354. Introduction to Mechanics
MECT 3318, 3118. Fluid Mechanics Applications, Laboratory  
MECT 3331. Applied Thermodynamics  
MECT 3341. Computer-Aided Drafting I  
MECT 3342. Computer-Aided Drafting II  
MECT 3355, 3155. Strength of Materials, Laboratory  
MECT 3358. Dynamics of Mechanisms  
MECT 3360. Automated Manufacturing Systems  
MECT 3365. Computer-Aided Design I  
MECT 3367. Quality Control Technology  
MECT 4372, 4172. Materials Technology, Laboratory  
MECT 4375, 4175. Design of Mechanisms, Laboratory  

Computer-Aided Design and Manufacturing Electives (9 SH)  
MECT 3362. Industrial Work Measurement  
MECT 4323. Applications in Stress Analysis  
MECT 4350. Principles in Mechatronics  
MECT 4365. Computer-Aided Design II  
MECT 4384. Manufacturing Systems Control  
3 SH Mechanical Elective

General Technology and College Core Requirements:  
CNST 1330. Graphics I  
ELET 2307. Electrical-Electronic Circuits  
TELS 3340. Organizational Leadership and Supervision  
or  
HDCS 3300. Organizational Decisions in Technology  
TELS 3363. Technical Communications  
TECH 1300. Computers in Technology  
Free electives (3 semester hours)

Technology and Other Requirements  
Math 14 semester hours which includes university core)  
MATH 1310. College Algebra  
MATH 1330. Precalculus  
MATH 1431. Calculus I  
MATH 1432. Calculus II
Natural Sciences (12 semester hours which includes university core)

**PHYS 1301, 1101.** Introductory General Physics I, Laboratory

**PHYS 1302, 1102.** Introductory General Physics II, Laboratory

**CHEM 1301, 1101.** Foundations of Chemistry I, Laboratory

Social Sciences (6 semester hours)

Six semester hours (three must be writing intensive) from core approved list

---

**Degree awarded:** Bachelor of Science

**Major:** Mechanical Engineering Technology