

Mechanical Engineering Technology, B.S.

Program Description

Graduates are capable of applying engineering principles to today's industrial problems. In the four-year Bachelor's degree programs, emphasis is placed on necessary theoretical concepts as well as practical laboratory experience in manufacturing processes and techniques, instrumentation and controls, and equipment and machinery design, and performance testing and evaluation. Particular emphasis is placed on studies meeting the needs of those industries which are prevalent in the Southeast.



This program is a part of the Southern Polytechnic College of Engineering and Engineering Technology.

Accreditation

The Bachelor of Science with a major in Mechanical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

Admission, Enrollment, and Graduation Policies

Admissions Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION.

Program Course Requirements

Core IMPACTS Curriculum (42 Credit Hours)

General Education Core IMPACTS Curriculum

Core IMPACTS Curriculum Requirements Specific to This Major

Science Majors: Must take MATH 1113 or higher in Mathematics & Quantitative Skills and MATH 1179 or higher in Applied Math.

Science and Engineering Majors: Must take two four-hour laboratory sciences in Natural Sciences. Students must choose from CHEM 1211/1211L , CHEM 1212/1212L , PHYS 1111/1111L *, PHYS 1112/1112L , PHYS 2211/2211L *, PHYS 2212/2212L , BIOL 1107/1107L , or BIOL 1108/1108L .

*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

Core Field of Study (18 Credit Hours)

Students must earn a grade of "C" or better in these courses.

- EDG 1211: Engineering Graphics I
- MATH 2202: Calculus II
- ENGT 2000: Applied Engineering Math
- MET 1400: Welding & Fabrication for Engineers
- CHEM 1211: Principles of Chemistry I
- CHEM 1211L: Principles of Chemistry Laboratory I

Two (2) credit hours carried over from Technology, Mathematics, and Sciences.

Major Requirements (52 Credit Hours)

- ENGR 1000: Introduction to Engineering
- MET 1001L: Introduction to Mechanical Engineering Technology Lab
- EDG 1212: Engineering Graphics II
- MET 1800: CNC Programming and Machining I
- MET 2800: CNC Programming and Machining II
- MET 2124: Statics with Applications
- MET 2501: Engineering Computation using Matlab
- MET 3101: Fluid Mechanics Principles and Applications
- MET 3124: Strength of Materials with Applications
- MET 3124L: Strength of Materials Lab
- MET 3126: Engineering Dynamics with Applications
- MET 3132: Engineering Materials
- MET 3132L: Engineering Materials Lab
- MET 3401: Thermodynamics I
- MET 4112: Computer Aided Engineering & Analysis
- MET 4501: Machine Design
- ECET 3000: Electrical Principles
- ECET 4530: Industrial Motor Control

- ENGT 4901: Engineering Technology Senior Design I
- ENGT 4902: Engineering Technology Senior Design II

Major Concentrations (9 Credit Hours)

Students must earn a grade of "C" or better in these courses.

General Concentration

General Concentration Courses (9 Credit Hours)

Select 9 credit hours from the following:

Any 3000/4000 MET course except: MET 3126, MET 3124, MET 3124L, MET 2501, MET 3101, MET 3132, MET 3132L, MET 3401, MET 4112, and MET 4501.

Any 3000/4000 EDG courses

- ENGR 3407: Lean Six Sigma
- IET 3339: Statistical Quality Control
- IET 3356: Quality Concepts and Systems Design
- IET 3424: Engineering Economy
- IET 4115: Human Resources Management for Engineers
- IET 4135: IET Project Management

Maximum of two EDG courses and two IET courses allowed for General Concentration.

Students taking the General Concentration are not allowed to select minors in Engineering Design Graphics, Manufacturing Engineering Technology, or Energy/HVAC.

Engineering Design Graphics Concentration

Engineering Design Graphics Concentration Courses (9 Credit Hours)

Choose 9 credits from the following:

- EDG 3112: Advanced Engineering Graphics
- EDG 4111: Surface Modeling
- EDG 4224: Engineering Design Graphics for Custom Manufacturing
- EDG 4222: CAD Customization and Standards
- MET 3332: Rapid Design and Manufacture

Students taking the Engineering Design Graphics Concentration are not allowed to select a minor in Engineering Design Graphics.

Manufacturing Concentration

Required Courses (3 Credit Hours)

- MET 3331: Tool Design

Elective Courses (6 Credit Hours)

Select 6 credit hours from the following list of courses:

- EDG 4224: Engineering Design Graphics for Custom Manufacturing
- MET 3332: Rapid Design and Manufacture
- ENGR 3407: Lean Six Sigma
- IET 3339: Statistical Quality Control
- IET 3424: Engineering Economy
- IET 3356: Quality Concepts and Systems Design
- IET 4135: IET Project Management

Students taking the Manufacturing Concentration are not allowed to select a minor in Manufacturing Engineering Technology.

Program Total (121 Credit Hours)