

# Mechanical engineering technology

Adapted from Wikipedia, the free encyclopedia

**Mechanical engineering technology** is the application of physical principles and current technological developments to the creation of useful machinery and operation design. Technologies such as solid models may be used as the basis for finite element analysis (FEA) and / or computational fluid dynamics (CFD) of the design. Through the application of computer-aided manufacturing (CAM), the models may also be used directly by software to create "instructions" for the manufacture of objects represented by the models, through computer numerically-controlled (CNC) machining or other automated processes, without the need for intermediate drawings.

Mechanical engineering technologists are also expected to understand and be able to apply concepts from the chemical and electrical engineering fields. Mechanical engineering technologists are expected to apply current technologies and principals to machine and product design, production, and manufacturing processes.

## Mechanical Engineering Technology coursework

Fundamental subjects of mechanical engineering technology include:

- Dynamics
- Statics
- Strength of materials
- Heat transfer
- Fluid mechanics/fluid dynamics
- Applied thermodynamics
- Machine design and kinematics
- Material science
- Manufacturing process
- Engineering drafting and standard familiarization classes
- Circuit and electrical analysis
- Instrumentation and measurement
- HVAC
- Hydraulics and pneumatics
- Quality assurance
- Technical communications