# A New Minor in Mechanical Engineering Technology Offered by the Department of Engineering Technology

TRANSLATIONAL TECHNOLOGY ETEC OPERATION RESEARCH ETEC REDESIGN

To sign up or for further information please e-mail
Dr. Leticia Anaya at Lanaya@unt.edu with the
subject line: Minor in Mechanical Engineering
Technology

The Department of Engineering Technology (ETEC) emphasizes the application of concepts using coordinated laboratories and other experiential activities. Mechanical Engineering Technology stresses the design, analysis, and development of products, tools, machines and associated components in thermal systems, machinery and manufacturing processes. The Mechanical Engineering Technology program is integrated with the manufacturing technology program in a manner that enables students to build design components using different manufacturing processes.

**The Minor in Mechanical Engineering Technology** is intended to give you the fundamental background to design, evaluate, and analyze mechanical components and associated machinery. The Minor requires a minimum of 18 semester hours. When a Minor required course (or equivalent) is also part of your Major degree plan, please consult with the ETEC department to select an appropriate substitute course.

You can pursue three concentrations in the Mechanical Engineering Technology Minor: Thermal Sciences, Mechanical Design, and Manufacturing.

**CORE**: required (10) hours

- ENGR 2301-Statics (3 hours) Introduction to mechanics of materials, concurrent, parallel and non-concurrent forces in equilibrium, free body diagrams, moments, centroids, and frictions; beam design and columns. Prerequisite(s): PHYS 1710 and PHYS 1730 and MATH 1710.
- **ENGR 2302-Dynamics (3 hours)** Analysis of bodies in motion, kinematics and kinetics of particles, systems of particles and rigid bodies. Prerequisite(s): ENGR 2301 and MATH 1720.
- **ENGR 2332-Mechanics of Materials (4 hours)** Relationships among loads placed on structural components, shape and size of components, resultant stresses, strains and deflections of components. Prerequisite: ENGR 2301.

# **Select Concentration Option:**

## **Thermal Concentration:**

MEET 3990, Applied Thermodynamics (3 hrs)
MEET 4350, Heat Transfer Applications (3 hrs)
MEET 3950, Fluid Mechanics Applications (3 hrs)

## **Mechanical Design Concentration:**

MEET 4050, Mechanical Design (3 hrs)

ENGR 1304, Engineering Graphics (3 hrs)
MEET 3650, Design of Mechanical Components (3 hrs)

### Manufacturing Concentration:

MFET 3110, Machining Principles and Processes, (4 hrs)
MFET 4210, CAD/CAM Systems Operations (3 hrs)
ENGR 3450, Engineering Materials (3 hrs) or
MFET 4190, Quality Assurance (3 hours)