MECHANICAL ENGINEERING

Enrollment Fall 2007

Undergraduate Students	**1,116**	**Graduate Students**	**368**
Average SAT Score	1252	Ph.D.	140
		Master's	228

Quality Indicators

Total Faculty	**62**
Professors	26
Associate Professors	11
Assistant Professors	15
Non-tenured/Non-tenure Track	10

***U.S. News & World Report* Rankings**
Rankings Among Public Institutions

9th Undergraduate
12th Graduate

Endowed Chair Holders	4
Endowed Professorship Holders	9
National Academy of Engineering Members	1

Centers and Laboratories

Advanced Engine Laboratory
Aerosol Technology Laboratory
Boiler Burner and Re-burn Laboratory
Buoyancy Mixture Laboratory
Center for Dynamic Systems and Control (TEES)
Coal and Biomass Combustion Laboratory
Computational Fluids and Heat Transfer Laboratory
Computational Heat Transfer Laboratory
Computational Mechanics Laboratory
Computer Laboratory
Conduction Heat Transfer Laboratory
Convection Heat Transfer Laboratory
Design Center
Electrohydrodynamics Laboratory
Energy Systems Laboratory (TEES)
Equal Channel Angular Extrusion Laboratory
Experimental Mechanics Laboratory
Fiber Performance Laboratory
Fluid Mechanics Laboratory
Fluid Mechanics/Combustion Laboratory
FTIR Spectrometer Laboratory
Fuel Utilization Laboratory
Industrial Assessment Center
Innovative Impinging Jets Laboratory
Laminar Flow Reactor Laboratory
Laser Diagnostics Laboratory
Mechanics/Advanced Materials Laboratory
Polymer Processing Laboratory
Polymer Research Laboratory
Polymer Technology Center (TEES)
Renewable Energy Laboratory
RJR/Combustion Laboratory
Robotics Laboratory
Rotordynamics/Vibration Laboratory
Rotordynamics Laboratory
Turbine Heat Transfer Laboratory
Turbine Performance and Flow Research Laboratory
Turbomachinery Laboratory (TEES)
Two-Phase Heat Transfer Laboratory

Research Areas

Combustion and Fuels
- Aerosol Measurements
- Alternative and Biofuels
- Coal, Biomass and Animal Waste Combustion
- Energy Engine Emission
- Fuel Cells
- Gasification
- Internal Combustion Engine Performance
- Pollutants Formation (NOx, Hg) and Control
- Thermodynamics and Energy Analysis of Engines

Computational Mechanics
- Fluid Mechanics (Aerosols, Gas Dynamics)
- Heat Transfer
- Solid Mechanics

Energy Systems
- Air-Conditioner Performance Evaluations
- Alternate Refrigerants
- Building Energy Monitoring and Analysis
- Defrost Cycle Improvements
- Energy Analysis and Diagnostic Center (EADC)
- Ground Coupled Heat Pumps
- Heat and Mass Transfer in Attic Systems
- Industrial Energy Assessment
- Industrial Energy Efficiency Improvements
- Infiltration Effect on Energy Use in Buildings
- Solar Ponds
- Thermal Energy Storage Evaluations

Fluid Mechanics
- Aerodynamic Analog Laboratory
- Aerosol Technology Laboratory
- Computational Fluid Mechanics
- Laser Anemometry Laboratory
- Tribology Laboratory

Heat Transfer
- Boiling/Condensation
- Computational Fluids and Combustion
- Conduction Heat Transfer
- Heat and Mass Transfer
- Interferometry
- Turbine Heat Transfer
- Two-phase Heat Transfer

Innovation and Design
- Cad/Computer Related Issues
- Cost Information Tools for Designers
- Design for Manufacturability
- Design Methodology/Cognition Issues

Materials And Mechanics
- Advanced High Temperature Ceramics
- Advanced Multifunctional Composites
- Corrosion of Coated Systems
- Cryogenic Engineering and Applied Superconductivity
- Elastic Properties in Advanced Materials
- Friction and Wear of Materials
- Multilayer Thin Films and Nanomechanics
- Self-Assembled Monolayers
- Severe Plastic Deformation
- Structural and Functional Materials
- Superplasticity and Advanced Machining Techniques
- Thermodynamics and Phase Stability
- Transformational Materials

Mechanical Systems and Controls
- Controls
- Manufacturing
- Robotics
- Vehicle Dynamics
- Vibrations

Polymer Science and Engineering
- Engineering Properties of Polymers and Polymeric Composites
- Materials Synthesis
- Polymer Nanocomposites
- Polymer Processing

Turbomachinery
- Computational Fluid Mechanics
- Heat Transfer
- Performance Research
- Rotordynamics

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