COLLEGE OF ENGINEERING
Department of
Mechanical Engineering

University of North Texas
Master of Science in Mechanical and Energy Engineering

Only for students admitted AY2025-26 or later

Student Name	UNT ID	Signature
Local Telephone	Email	Date

Masters Program Coordinator: Huseyin Bostanci	Signature/Date
Department Chair: Kuruvilla John	Signature/Date

Important Information for Students:

- The MS with a major in mechanical and energy engineering requires a minimum of 30 semester credit hours for the thesis or non-thesis options.
- Course offerings vary from year to year and are based on enrollment and resources. Students must plan their degree program with the assistance of the graduate advisor and/or major professor as applicable.
- Courses registered without Advisor's approval or any unapproved deviations from the degree plan result in no credit toward degree requirements. Student initials: _____
- The responsibility for adhering to Graduate School, College, and Departmental requirements rests entirely with the student. Application for graduation must be filed in the Graduate School Office before the deadline in force during the final semester. Consult the Toulouse Graduate School and the Graduate Catalog for further information http://tsgs.unt.edu

☐ **Thesis**	• Core courses: 12 hours of course work, including MEEN 5140 and three other courses. Core courses are grouped under four areas of study; students can take courses from a specific area for depth of knowledge, or sample courses from multiple areas for breadth of knowledge. • Elective courses: 12 hours of course work from the elective courses listed. Additional core courses (beyond the required min. 12 hours) could also be taken as electives. Up to two additional engineering (non-MEEN) courses could be used as elective courses with prior approval of the graduate advisor/ major professor. • Thesis: 6 hours of MEEN 5950. • All students must also register and attend seminar (MEEN 5940) for one semester
☐ **Non-Thesis**	• Core courses: 12 hours of course work, including MEEN 5140 and three other courses. Core courses are grouped under four areas of study; students can take courses from a specific area for depth of knowledge, or sample courses from multiple areas for breadth of knowledge. • Elective courses: 18 hours of course work from the elective courses listed. Additional core courses (beyond the required min. 12 hours) could also be taken as electives. Up to two additional engineering (non-MEEN) courses could be used as elective courses with prior approval of the graduate advisor/ major professor. • All students must also register and attend seminar (MEEN 5940) for one semester

For Thesis Students Only*

Major Professor:	Signature/Date
Committee Member:	Signature/Date
Committee Member:	Signature/Date
Committee Member:	Signature/Date
Committee Member:	Signature/Date

* 2 members from Mechanical Engineering Department

M.S. in Mechanical and Energy Engineering

Required Core Courses- Complete 12 credit hours; MEEN 5140 (3) + three additional courses		***Semester and Year***
Take courses from a specific area fror depth of knowledge, or sample courses from multiple area for breadth of knowledge		
MEEN 5140 Advanced Mathematical Methods for Engineers (3)		
Manufacturing and Design	MEEN 5410 Advanced Solid Mechanics (3)	
	MEEN 5440 Finite Element Analysis (3)	
	MEEN 5520 Manufacturing Concepts for Mechanical Engineers (3)	
Automation and Control	MEEN 5600 Feedback Control of Dynamical Systems (3)	
	MEEN 5610 Sensors and Actuators (3)	
	MEEN 5740 Robotics and Automation (3)	
Thermal-Fluid Systems	MEEN 5300 Advanced Thermodynamics (3)	
	MEEN 5311 Convective Heat Transfer II (3)	
	MEEN 5340 Advanced Fluid Mechanics (3)	
Energy	MEEN 5000 Energy: The Fundamentals (3)	
	MEEN 5110 Renewable Energy (3)	
	MEEN 5150 Thermal Energy Storage Systems and Applications (3)	

Elective courses- *Select 18 credit hours for Non-Thesis; 12 credit hours + MEEN 5950 (6) for Thesis*	***Semester and Year***
MEEN 5020 Design of Experiments (3)	
MEEN 5030 Product Design and Development (3)	
MEEN 5130 Product Reliability and Quality (3)	
MEEN 5151 Bioproducts Manufacturing (3)	
MEEN 5640 Applied Engineering Vibration (3)	
MEEN 5190 Corrosion Engineering (3)	
MEEN 5450 Applications of Electron Microscopy and Failure Analysis (3)	
MEEN 5180 Creep and Fatigue in Engineering Design and System Performance (3)	
MEEN 5480 Energy Materials (3)	
MEEN 5220 Computational Fluid Dynamics and Heat Transfer (3)	
MEEN 5170 Thermal Management (3)	
MEEN 5240 Energy: A World Perspective (3)	
MEEN 5315 Nanoscale Energy Transport (3)	
MEEN 5200 Principles of HVAC (3)	
MEEN 5210 Energy and Environmental Sustainability (3)	
MEEN 5230 Oil and Gas Engineering (3)	
MEEN 5330 Combustion Science and Engineering (3)	
MEEN 5332 Air Pollution Control Engineering (3)	
MEEN 5890 Directed Study in Mechanical and Energy (3)	
MEEN 5940 Graduate Seminar in Mechanical and Energy (1)	
MEEN 5950 Master's Thesis (1-6) *Thesis Students Only*	

This Student is admitted to candidacy/approved by:	
Toulouse Graduate School	**Signature/Date:**
Name:	