COLLEGE OF ENGINEERING
Department of
Mechanical Engineering

University of North Texas
Master of Science in Mechanical & Energy Engineering
Degree Plan: Modeling and Simulation - Thesis Option – 30 hours

Student Name	UNT ID	Signature
Local Telephone	Email	Date

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

Graduate Program Committee Chair:	Seifollah Nasrazadani	Signature/Date
Department Chair:	Herman Shen	Signature/Date

Other Requirements	Expect to Complete Semester/Yr.	Comments
English Proficiency		
Leveling Course(s)		
Thesis Proposal Presentation		

- Course offerings vary from year to year and are based on enrollment and resources. The Major Professor and the student are advised to tailor the degree plan based on course availability.
- A total of 21 credits (seven courses) must come from the required core and elective courses within the selected track (i.e., concentration).
- At least 21 credits in MEE, including the core and elective courses within the track and outside.
- All M.S. students must register and attend MEE seminars for one semester.
- 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/

MECHANICAL & ENERGY THESIS DEGREE PLAN (30 HOURS)

Required core courses - 12 Hours	EXPECT TO COMPLETE SEMESTER / YR
MEEN 5140 - Advanced Mathematical Methods for Engineers (3)	
MEEN 5440 - Finite Element Analysis (3)	
MEEN 5220 - Computational Fluid Dynamics and Heat Transfer* (3)	
MEEN 6000 - Advanced Numerical Methods (or MTSE 5710 or CSCE 5230) (3)	
Electives – Select 12 hours	
MEEN 5311 - Convective Heat Transfer II* (3)	
MEEN 5340 - Advanced Fluid Mechanics* (3)	
MEEN 5420 - Continuum Mechanics** (3)	
MEEN 5410 - Advance Solid Mechanics (3)	
MEEN 5315 - Nanoscale Energy Transport (3)	
MEEN 5800 – Topics in Mechanical and Energy Engineering: Turbulent Flow (3)	
CSCE 5160 - Parallel Processing and Algorithms (3)	
CSCE 5230 - Methods of Numerical Computation (3)	
CSCE 5420 - Software Development (3)	
CSCE 5810 - Biocomputing (3)	
MTSE 5710 - Computational Materials Science** (3)	
MEEN 5980 Directed Study (1-3)	
MEEN 5940 Seminar (1)	
Thesis Hours – 6 hours	
MEEN 5950 Thesis (6)	

Note: Every student under the Modeling and Simulation track will pick from electives a group of courses either in the area of mechanics (**) or in the area of thermal-fluid sciences (*), or both.

Graduate Elective, notes, or additional comments	Date

The student is admitted to candidacy/approved by:	
Toulouse Graduate School	
Name:	**Signature / Date:**

Revised SP2020