

# MATERIALS SCIENCE & ENGINEERING

## Sample Three-Year Schedule

Required prerequisite(s) indicated in parentheses & notes

### YEAR ONE

#### FALL

MATH 2730, Multivariable Calculus (MATH 1720)	3
PHYS 2220, E. & M. (MATH 1720, PHYS 1710, 1730)	3
PHYS 2240, E. & M. Lab (MATH 1720, PHYS 1710, 1730)	1
ENGR 2301, Statics (MATH 1710, PHYS 1710, 1730)	3
MTSE 1100, Discover How & Why Materials Matter	<u>3</u>
Total Hours	13

#### SPRING

MATH 3410, Differential Equations (MATH 1720)	3
PHYS 3010, Modern Physics (PHYS 2220, 2240)	3
MTSE 3000, Fundamentals I (CHEM 1410, 1430)	3
MTSE 3001, Fundamentals II (coreq MTSE 3000)	3
TECM 2700, Technical Writing	<u>3</u>
Total Hours	15

### YEAR TWO

#### FALL

MTSE 3010, Bonding & Structure (MTSE 3000)	3
MTSE 3020, Micro & Characterization (MTSE 3000)	3
MTSE 3030, Thermo & Phase Diagrams (MTSE 3000)	3
MTSE 3040, Transport Phen. (MTSE 3000, MATH 3410)	3
MTSE 3090, Laboratory I (MTSE 3000)	<u>1</u>
Total Hours	13

#### SPRING

MTSE 3050, Mechanical Properties (MTSE 3000)	3
MTSE 3060, Phase Transform. (MTSE 3010, 3030, 3040)	3
MTSE 3070, Elect., Opt., & Mag. Properties (MTSE 3000)	3
MTSE 3080, Materials Processing (MTSE 3040)	3
MTSE 3100, Laboratory II (MTSE 3090)	<u>1</u>
Total Hours	13

### YEAR THREE

#### FALL

MTSE 4010, Phys. Metallurgy Prin. (MTSE 3010, 3030, 3040)	3
MTSE 4030, Ceramic Sci. & Engr. (MTSE 3010, 3020, 3040)	3
MTSE 4050, Polymer Sci. & Engr. (MTSE 300)	3
MTSE 4090, Senior Design I (see note 1)	<u>3</u>
Total Hours	12

#### SPRING

MTSE Advanced Level MTSE Elective (see note 2)	3
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MTSE 4060, Selection & Perform. (MTSE 3030, 3040, 3050)	3
MTSE 4100, Senior Design II (MTSE 4090)	<u>3</u>
Total Hours	12

### Notes:

Note 1: MTSE 4090 requires completion of MTSE 3010, 3020, 3030, 3040, 3050, 3070, 3080 as prerequisite.

Note 2: Must complete prerequisite(s) for each Advanced Elective MTSE course. See your advisor for approved course options.

**Must earn at least a grade of "C" and a minimum 2.5 GPA in Communications Core, TECM 2700, MATH 1710, MATH 1720, CHEM 1410, CHEM 1430, CHEM 1420, PHYS 1710, PHYS 1730, MTSE 1100, & MTSE 3000 as foundations to enroll in advanced courses.**

**Must earn at least a grade of "C" in each course above except for most University Core courses.**

Credits Which Could Be Earned Prior to Enrollment at  
UNT – AP, IB, CLEP, DC, Transfer:

Communications Core  
HIST 2610  
HIST 2620  
PSCI 2305  
PSCI 2306  
Creative Arts Core  
Language Philosophy Culture Core  
Social Behavioral Sciences Core

Credits Which Should Be Earned Prior to Enrollment at  
UNT – AP, IB, CLEP, DC, Transfer:

MATH 1710  
MATH 1720  
CHEM 1410, 1430  
CHEM 1420  
PHYS 1710, 1730

**This is an unofficial sample schedule. Requirements, prerequisites, etc. may change. Students should meet with an advisor each semester for individual scheduling, program decisions, etc. Engineering admissions requirements must be met & a degree audit must be created in order to progress in the program to a timely graduation.**