Materials Science & Engineering

Catalog Year 2025-2026

Semester One	Semester Two
CHEM 1127Q: General Chemistry I (4 credits) (TOI 6)	CHEM 1128Q: General Chemistry II (4 credits) (TOI 6)
MATH 1131Q: Calculus I (4 credits)	MATH 1132Q: Calculus II (4 credits)
CSE 1010: Intro to Computing for Engineers (3 credits)	ENGR 1166: Foundations of Engineering (3 credits)
ENGL 1007: Writing and Composition (4 credits)	ENGR 1195: AI4All (2 credits)
ENGR 1000: Orientation to Engineering (1 credit)	TOI Course (3 credits)
16 credits	16 credits

Note: This is a recommended sequence, and shifts are likely to occur due to prerequisite completion and course availability.

Semester Three	Semester Four
PHYS 1501Q: Physics for Engineers I (4 credits) (TOI 6)	PHYS 1502Q: Physics for Engineers II (4 credits)(TOI 6)
MATH 2110Q: Multivariable Calculus (4 credits)	MATH 2410Q: Elem. Differential Equations (3 credits)
MSE 2001: Intro to Structure, Properties, & Processing of Materials I (3 credits)	MSE 2002: Intro to Structure, Properties, & Processing of Materials II (3 credits)
MSE 2053: Materials Charact. & Proc. Lab (2 Credits)	MSE 3055: Mat. Process. & Microstruc. Lab (2 credits)
CE 2110: Applied Mechanics I (3 credits)	TOI Course (3 credits)
	TOI Course (3 credits) (or during any later term)
16 credits	18 credits

Semester Five	Semester Six
MSE 3001: App. Thermodyn. of Materials (4 credits)	MSE 3002: Transport Phenomena (4 credits)
MSE 3003: Phase Transfor., Kinetics & App (3 credits)	MSE 3004: Mechanical Behavior of Mat. (3 credits)
Professional Elective (3 credits)	MSE 3056: Mechanical Modelling (2 credits)
Technical Elective (3 credits)	Professional Elective (3 credits)
TOI Course (3 credits)	Technical Elective (3 credits)
16 credits	15 credits

Semester Seven	Semester Eight
MSE 4901W: Capstone Design Project I (3 credits)	MSE 4902W: Capstone Design Project II (3 credits)
MSE 4003: Materials Characterization (3 credits)	MSE 4004: Therm./Mech. Process. Of Mat. (3 credits)
MSE 4001: Elect. & Mag. Prop. Of Mat. (3 credits)	Professional Elective (3 credits)
Professional Elective (3 credits)	TOI Course (3 credits)
Technical Elective (3 credits)	Free Elective* (3 credits)
15 credits	15 credits

*as needed to reach total degree credits

Total Credits: 127