2015-2016 B.S. in Materials Science and Engineering Flow Chart

Fall Year 1

CH1150 (3)
Univ. Chemistry I
F,Sp,Su

CH1151 (1)
Univ. Chem. Lab I
F,Sp,Su

ENG1101 (3)
Eng. Analysis & Prob. Solving
F,Sp,Su

MA1160 (4)
Calculus I
F,Sp,Su

PH1100 (1)
Physics by Inquiry I
F,Sp,Su

PH1200 (1)
Physics by Inquiry II
F,Sp,Su

UN1015 (3)
Composition
F,Sp,Su

15 Credits

Spring Year 1

MY2100 (3)
Intro. to Materials Science and Eng. I
F,Sp,Su

CH1160 (3)
Univ. Chemistry II
F,Sp,Su

ENG1102 (3)
Eng. Modeling and Design
F,Sp,Su

MA2160
Calculus II
F,Sp,Su

PH1200 (1)
Physics by Inquiry II
F,Sp,Su

PH2100 (3)
University Physics I
F,Sp,Su

UN1025 (3)
Global Issues
F,Sp,Su

17 Credits

Fall Year 2

MY2110 (3)
Intro. to Mat'l's Sci. and Eng. II
F,Sp

MA2321 (2)
Linear Algebra (Track A)
F,Sp,Su

MA3160 (4)
Calculus III
F,Sp,Su

MA3521
Differential Eq. (Track B)
F,Sp,Su

PH2200 (3)
University Physics II
F,Sp,Su

PH2400 (3)
Physics IV
F,Sp,Su

Critical and Creative Thinking Elective (3)
F,Sp,Su

Social Responsibility and Ethical Reasoning Elective (3)
F,Sp,Su

Communication/Composition HASS (3)

17 Credits

Spring Year 2

MY2110,MA2160
- MA2160

CH1161 (1)
Univ. Chem. Lab II
F,Sp,Su

MA3160 (4)
Calculus III
F,Sp,Su

MA3521
Differential Eq. (Track B)
F,Sp,Su

PH2200 (3)
University Physics II
F,Sp,Su

PH2400 (3)
Physics IV
F,Sp,Su

Social Responsibility and Ethical Reasoning Elective (3)
F,Sp,Su

Communication/Composition HASS (3)

17 Credits

Fall Year 3

MY3200 (4)
Materials Characterization I
F

MY3100 (4)
Materials Processing I
F

MA3521
Differential Eq. (Track B)
F,Sp,Su

MEEM2150 (3)
Mechanics of Materials
F,Sp,Su

MY3300 (3)
Design of Microstructure
Sp

MY3110 (4)
Materials Processing II
F

MY3701 (2)
Semiconductors
F

MEEM2150 (3)
Mechanics of Materials
F,Sp,Su

MY4940 (2)
MSE Design of Experiments
F

16 Credits

Spring Year 3

MY3110 (4)
Materials Processing II
F

MA3521
Differential Eq. (Track B)
F,Sp,Su

MEEM2150 (3)
Mechanics of Materials
F,Sp,Su

MY3300 (3)
Design of Microstructure
Sp

MY3701 (2)
Semiconductors
F

MEEM2150 (3)
Mechanics of Materials
F,Sp,Su

MY4940 (2)
MSE Design of Experiments
F

15 Credits

Fall Year 4

MY4920 (2)
Senior Design Project I
F,Sp,Su

MY4930 (2)
Senior Design Project II
F,Sp,Su

MY4940 (2)
MSE Design of Experiments
F

Approved Elective (3)

Approved Elective (3)

17 Credits

Spring Year 4

MY4600 (3)
Introduction to Polymer Eng.
F

MY4800 (3)
Material and Process Selection
Sp

Approved Elective (3)

Approved Elective (3)

Free Elective (3)

15 Credits

131 credits required (128 shown). Students must complete 3 credits of Co-Curricular activities
Black arrows represent prerequisites, red arrows represent concurrent prerequisites
Approved Electives are courses in Science Engineering or Mathematics at 3xxx level or higher
Courses with dark outline (e.g. MY3210) are required to be “Senior Design Ready” (All are prerequisites for MY4920)
Italicized courses have MY2100 as a prerequisite
Students must take at least 6 credits of HASS at 3xxx+ level in addition to EC3400
131 credits required (128 shown). Students must complete 3 credits of Co-Curricular activities. Black arrows represent prerequisites, red arrows represent concurrent prerequisites. Approved Electives are courses in Science Engineering or Mathematics at 3xxx level or higher. Courses with dark outline (e.g. MY3210) are required to be "Senior Design Ready" (All are prerequisites for MY4920). Italicized courses have MY2100 as a prerequisite. Students must take at least 6 credits of HASS at 3xxx+ level in addition to EC3400.