

Materials Science & Engineering (BESA Concentration)

Paige Houser, BESA MSE Concentration Advisor (WEH 3317)

BESA Materials Science & Engineering Concentration

(99 units minimum)

Mathematics & Science Prerequisites

		Units
21-120	Differential and Integral Calculus -(Gen Ed; prerequisite: 21-090)	10
21-122	Integration and Approximation -(Gen Ed)	10
21-254	Linear Algebra and Vector Calculus for Engineers	11
21-260	Differential Equations	9
15-110	Principles of Computing -(Gen Ed)	10
or 15-112	Fundamentals of Programming and Computer Science	
33-141	Physics I for Engineering Students -(Gen Ed)	12
33-142	Physics II for Engineering and Physics Students	12
09-105	Introduction to Modern Chemistry I	10

Materials Science & Engineering Courses (8 courses, 72 units)

27-100	Engineering the Materials of the Future -First-year; co-req: 21-120, 33-141	12
xx-xxx	2nd Introduction to Engineering course, student's choice	12
27-211	Structure of Materials (Minor Option) -Fall, Sophomore year	6
27-212	Defects in Materials (Minor Option) -Spring, Sophomore year	6
27-215	Thermodynamics of Materials -Fall, Sophomore year; co-req: 27-100, 21-254	12
27-216	Transport in Materials -Spring, Sophomore year; prereq: 27-215	9
27-227	Phase Relations and Diagrams (Minor Option) -Spring, Sophomore year	9
27-357	Introduction to Materials Selection -Spring, Sophomore year	6

* In consultation with the concentration advisor, students may choose to complete the version of the course with lab component.

Electives (3 courses, 27 units minimum)

Choose 3 elective courses in MSE and/or ENG with prerequisites in consultation with the concentration advisor.