BESA-Materials Science & Engineering

Bachelor of Engineering Studies and Arts (BESA)

College of Engineering (ENG) Concentration in Materials Science & Engineering

<u>99 units (minimum)</u>

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Mathematics & Science Prerequisites

21-120	Differential and Integral Calculus (Gen Ed)	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	10
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

Materia	ls Science & Engineering Courses	72 units
27-100	Engineering the Materials of the Future	12
	(First-year; co-req: 21-120, 33-141)	
XX-XXX	2nd Introduction to Engineering course, student's c	hoice 12
27-211	Structure of Materials *	6
	(Fall, Sophomore year)	
27-212	Defects in Materials *	6
	(Spring, Sophomore year)	
27-215	Thermodynamics of Materials	12
	(Fall, Sophomore year; co-req: 27-100, 21-259)	
27-216	Transport in Materials	9
	(Spring, Sophomore year; prereq: 27-215)	
27-227	Phase Relations and Diagrams *	9
	(Spring, Sophomore year)	
27-357	Introduction to Materials Selection	6
	(Spring, Sophomore year)	

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

Electives

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