

BESA-Mechanical Engineering

Spring 2022

Bachelor of Engineering Studies and Arts (BESA)

College of Engineering (ENG) Concentration in Mechanical Engineering

105 units (minimum)

Advisor: Eva Mergner, WEH 4107, 412-268-2498, emergner@andrew.cmu.edu

Mathematics & Science Prerequisites

21-120	Differential and Integral Calculus (Gen Ed) (Freshman year)	10
21-122	Integration and Approximation (Gen Ed) (Freshman year)	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) (Freshman year)	12
33-142	Physics II for Engineering and Physics Students (Freshman year)	12

Mechanical Engineering Courses

60 units

24-101	Fundamentals of Mechanical Engineering (Freshman year; co-req: 21-120, 33-141)	12
xx-xxx	2 nd Introduction to Engineering course, student's choice	12
24-200	Maker Series: Intro to Manual Machining (Sophomore year)	1
24-251	Electronics for Sensing and Actuation (Sophomore year; co-req: 15-110/15-112; co-req: 33-142)	3
24-261	Mechanics I: 2D Design (Fall, Sophomore year; prereq: 21-122, 33-151/33-141/ 33-121/33-106)	10
24-262	Mechanics II: 3D Design (Spring, Sophomore year; prereq: 33-106/33-141/33-151, 24-261)	10
24-370	Mechanical Design: Methods and Applications (Fall, Junior year; prereq: 24-200, 24-202, 24-262)	12

Electives

45 units minimum

Choose 5 elective courses. At least 3 courses should be in MechE and 2 courses may be ENG with prerequisites in consultation with the concentration advisor.

BESA Free Electives

Take any Carnegie Mellon course. A maximum of 9 units of physical education and/or military science may be counted toward this requirement.