The ChemBE curriculum is structured such that students learn material in a logical order, starting with fundamental concepts and culminating in senior year's design courses and Senior Lab. The prerequisites for the courses guide the progress of the students through their 4 years of education. With very few exceptions, instructors will enforce these prerequisites to preserve the quality of the program and the educational experience of the students.

Prerequisites of ChemBE Core Courses

Course	Credits	Semester	Prerequisites
540.202 Introduction to Chemical & Biological Process Analysis	4	Fall/Spring	AS.030.101 Intro Chem I AS.171.101 or 107 General Physics I and ONE of the following courses: AS.030.102 Intro Chem II AS.030.103 Applied Chemical Equilibrium and Reactivity w/ Lab AS.110.109 Calculus II AS.171.102 or 108 General Physics II
540.203 Engineering Thermodynamics	3	Fall/Spring	EN 540.202 Process Analysis AS.110.202 Calculus III (allowed concurrent)
540.303 Transport Phenomena 1	3	Fall/Spring	AS.171.101 or 107 General Physics I AS.110.302 Differential Equations or EN.553.291 Linear Algebra and Differential Equations
540.304 Transport Phenomena 2	4	Fall	EN.540.303 Transport Phenomena 1 EN.500 113 or 133 Gateway to Computing – Python
540.301 Kinetic Processes	4	Spring	EN.540.203 Engineering Thermodynamics EN.540.303 Transport Phenomena 1
540.306 Separations	4	Spring	EN.540.203 Engineering Thermodynamics EN.540.303 Transport Phenomena 1
540.307 Cell Biology for Engineers	3	Spring	AS.020.305 Biochemistry
540.309 Product Design Part 1	3	Fall	EN.540.301 Kinetic Processes EN.540.303 Transport Phenomena 1 EN.540.306 Separations EN.540.490 Process Safety
540.310 Product Design Part 2	3	Spring	EN540.309 Product Design Part 1
540.311 Projects in Chemical Engineering Unit Operations with Experiments	4	Fall	EN.540.301 Kinetic Processes EN.540.304 Transport Phenomena 2 EN.540.306 Separations EN.540.490 Process Safety EN.661.315 Culture of the Engineering Profession
540.313 Projects in ChemBE Unit Operations with Experiments	4	Fall	EN.540.301 Kinetic Processes EN.540.304 Transport Phenomena 2 EN.540.306 Separations EN.540.490 Process Safety EN.661.315 Culture of the Engineering Profession
540.314 Product Design	3	Spring	EN.540.301 Kinetic Processes EN.540.303 Transport Phenomena 1 EN.540.306 Separations EN.540.311/313 Senior Lab EN.540.490 Process Safety
540.315 Process Design with Aspen	2	Spring	EN.540.301 Kinetic Processes EN.540.303 Transport Phenomena 1 EN.540.306 Separations EN.540.311/313 Senior Lab EN.540.490 Process Safety
540.409 Dynamic Modeling/Control	4	Fall	EN.540.301 Kinetic Processes EN.540.306 Separations
540.490 Introduction to Process Safety	1	Spring	EN.540.203 Engineering Thermodynamics EN.540.303 Transport Phenomena 1 Online Lab Safety