

Credit hours required for graduation: 124

**FRESHMAN YEAR**
**FALL SEMESTER**

CBE 101	Introduction to Chemical Engineering and Biological Engineering <sup>(1)</sup>	1
CHEM 121 (or 131)	General Chemistry I <sup>(1)</sup> (or Principles of Chemistry)	3
CHEM 123L	General Chemistry I Laboratory <sup>(1)</sup>	1
ENGL 110 (or 112 or 113)	Accelerated Composition <sup>(1)</sup> (or Composition II or Enhanced Composition)	3
MATH 162	Calculus I <sup>(1)</sup>	4
	Core Humanities Elective <sup>(2)</sup>	3
Total Semester Hours:		15

**SPRING SEMESTER**

CHEM 122 (or 132)	General Chemistry II <sup>(1)</sup> (or Principles of Chemistry)	3
CHEM 124L	General Chemistry II Laboratory <sup>(1)</sup>	1
ENGL 120	Composition III	3
MATH 163	Calculus II <sup>(1)</sup>	4
PHYC 160	General Physics <sup>(1)</sup>	3
	Core Social and Behavioral Science Elective <sup>(2)</sup>	3
Total Semester Hours:		17

**SOPHOMORE YEAR**
**FALL SEMESTER**

CBE 251	Chemical Process Calculations <sup>(3)</sup>	3
CHEM 301	Organic Chemistry	3
CHEM 303L	Organic Chemistry Laboratory	1
MATH 264	Calculus III	4
PHYC 161	General Physics	3
Total Semester Hours:		14

**SPRING SEMESTER**

CBE 253	Chemical & Biological Engineering Computing <sup>(3)</sup>	3
CBE 302	Chemical Engineering Thermodynamics <sup>(3)</sup>	3
ECON 105	Introductory Macroeconomics	3
MATH 316	Applied Ordinary Differential Equations	3
CHEM 302	Organic Chemistry	3
Total Semester Hours:		15

**JUNIOR YEAR<sup>(4)</sup>**
**FALL SEMESTER**

CBE 311	Introduction to Transport Phenomena <sup>(3)</sup>	3
CBE 317	Numerical Methods for Chemical and Biological Engineering <sup>(3)</sup>	2
CBE 318L	Chemical Engineering Laboratory I <sup>(3)</sup>	1
CBE 361	Biomolecular Engineering <sup>(3)</sup>	3
ENGL 219	Technical and Professional Writing	3
BIOL 201L	Molecular and Cell Biology	4
Total Semester Hours:		16

**SPRING SEMESTER**

CBE 312	Unit Operations <sup>(3)</sup>	3
CBE 321	Mass Transfer <sup>(3)</sup>	3
CBE 319L	Chemical Engineering Laboratory II <sup>(3)</sup>	1
CBE 371	Introduction to Materials Engineering <sup>(3)</sup>	3
ENG 301	Fundamentals of Engineering: Dynamics	1
ENG 302	Fundamentals of Engineering: Electronic Circuits	1
CHEM 312	Physical Chemistry	3
Total Semester Hours:		15

**SENIOR YEAR<sup>(5)</sup>**
**FALL SEMESTER**

CBE 418L	Chemical Engineering Laboratory III <sup>(3)</sup>	1
CBE 454	Process Dynamic and Control <sup>(3)</sup>	3
CBE 461	Chemical Reactor Engineering <sup>(3)</sup>	3
CBE 486	Introduction to Statistics and Design of Experiments <sup>(3)</sup>	2
CBE 493L	Chemical Engineering Design <sup>(3)</sup>	3
	Technical Elective <sup>(6)</sup>	3
Total Semester Hours:		15

**SPRING SEMESTER**

CBE 419L	Chemical Engineering Laboratory IV <sup>(3)</sup>	1
CBE 451	Senior Seminar <sup>(3)</sup>	1
CBE 494L	Advanced Chemical Engineering Design <sup>(3)</sup>	3
	Technical Elective - Engineering <sup>(6)</sup>	3
	Core Fine Arts Elective <sup>(2)</sup>	3
	Core Humanities Elective <sup>(2)</sup>	3
	Core Second Language Elective <sup>(2)</sup>	3
Total Semester Hours:		17

(1) Admission to the BSCHE degree program requires completion of all math, science, and engineering courses listed in the freshman year with a grade of "C" or better and a minimum 2.5 GPA average in those courses, completion of ENGL 110 or the equivalent with a "C" or better, and a minimum UNM cumulative GPA of a 2.20.

(2) A list of acceptable core humanities, social/behavioral science, fine arts and second language electives can be found here: <http://unmcore.unm.edu/>. These courses may be taken whenever convenient. A grade of "C" or better is required.

(3) CBE Core Courses must be taken in the order and semester in which they are listed on this sheet in order to avoid a delay in graduation. A grade of "C-" or better is required.

(4) Students must file an application for the B.S.Ch.E. degree prior to the completion of 95 credit hours of applicable courses.

(5) Students are encouraged to take the Fundamentals of Engineering (FE) Examination during their senior year. This is the first formal step toward professional registration.

(6) Technical electives are chosen with the consultation of the student's faculty advisor to ensure that they support the student individual academic, career, and/or research goals. A list of approved technical electives can be found on the CBE website: <http://cbe.unm.edu/students/cbe-student-forms.html>