

# Chemical Engineering

College of Engineering

**BSChE** CHE-BSE 130 Credits for Graduation Students must have a graduation index of a 2.0 Students must earn a "C" or better in CHE 20500 Students must earn a "C-" or better in CHE 21100, 30600, 32000, 34800, 37700, 37800

First Year Engineering Courses (31 credits) https://engineering.purdue.edu/ENE/InfoFor/CurrentStudents/FYEPIan

- CHM 11500 General Chemistry I (satisfies Science Selective for core) (4)
  - (4) CHM 11600 General Chemistry II (satisfies FYE Science Selective)
- (3) COM 11400 Fundamentals of Speech (satisfies Oral Communication for core)
  - ENGL 10600 English Composition or ENGL 10800 Accelerated English Composition (4/3)
- (satisfies Written Communication for core) (2/3.5)ENGR 13100 Transforming Ideas to Innovation I or ENGR 14100 Honors Innovation & Creativity in Engineering Design I (satisfies Information Literacy for core)
- ENGR 13200 Transforming Ideas to Innovation II or ENGR 14200 Honors Innovation & Creativity in Engineering Design II (2/3.5)
- (4/5)MA 16500/16100 Calculus I (satisfies Quantitative Reasoning for core)
- (4/5)MA 16600/16200 Calculus II
  - PHYS 17200 Mechanics (satisfies FYE Science Selective) (4)

#### Chemical Engineering Major Courses (81 credits) https://engineering.purdue.edu/ChE/Academics/Undergrad/degree\_requirements

ChE Core Courses (41 credits)

- CHE 20000 ChE Sophomore Seminar (0)
- CHE 20500 ChE Calculations (4)
- (4) CHE 21100 Intro ChE Thermodynamics
- CHE 30000 ChE Junior Seminar (0)
- CHE 30600 Design of Staged Separation Processes (3)
- (3) CHE 32000 Statistical Modeling & Quality Enhancement
- (4) CHE 34800 Chemical Reaction Engineering
- \_\_\_\_\_ (4) CHE 37700 Momentum Transfer
  - (4) CHE 37800 Heat & Mass Transfer
  - CHE 40000 ChE Senior Seminar (1)
  - CHE 42000 Process Safety Management (3)
  - (4) CHE 43500 ChE Laboratory
  - (4) CHE 45000 Design & Analysis of Processing Systems
  - (3) CHE 45600 Process Dynamics & Control

## ChE Science Core (18 credits)

- (3)CHM 26100 Organic Chemistry I
- (1)CHM 26300 Organic Chemistry Laboratory I
- CHM 26200 Organic Chemistry II (3)
- CHM 26400 Organic Chemistry Laboratory II (1)
- (3)CHM 37000 Physical Chemistry
- (4)MA 26100 Multivariate Calculus
- (3)PHYS 24100 Electricity & Optics

### ChE Selectives - Select course for each requirement. (22 credits)

http	s://engineering.purdue.edu/ChE/Academics/Undergrad/degree_requirements
(3)	Biology Selective
(3)	Chemical Engineering Selective
(3)	Engineering Selective
(3)	Engineering Selective
(3/4)	Math Selective I
(3/4)	Math Selective II
(3)	Technical Selective

Technical Selective

#### General Education Electives (18 credits) https://engineering.purdue.edu/ENE/InfoFor/CurrentStudents/genedcourses

(3)	Human Cultures Humanities	(3)	
(3)	Human Cultures Behavioral/Social Science	(3)	
(3)		(3)	

## University Core Requirements http://www.purdue.edu/provost/initiatives/curriculum/course.html

Human Cultures Humanities		science, rechnology & society selective	rechnical selective of Gen Ed
Human Cultures Behavioral/Social Science		Written Communication	ENGL 10600 or ENGL 10800
Information Literacy	ENGR 13100 or ENGR 14100	Oral Communication	COM 11400
Science Selective	CHM 11500	Quantitative Reasoning	MA 16100 or 16500
Science Selective	PHYS 17200		
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The student is ultimately responsible for knowing and completing all degree requirements. Degree Works is knowledge source for specific requirements and completion

## **Chemical Engineering**

https://engineering.purdue.edu/ChE/Academics/Undergrad/degree\_requirements

**Suggested** Arrangement of Courses:

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
4 or 5	MA 16500/16100	ALEKS score of 85	4 or 5	MA 16600/16200	MA 16500/16100
4	CHM 11500		4	CHM 11600	CHM 11500
4	ENGL 10600		4	PHYS 17200	MA 16100/16500
2	ENGR 13100		3	COM 11400	
			2	ENGR 13200	ENGR 13100
14/15	14/15 Total Credits			Total Credits	

Credits	Fall 2nd Year		Prerequisite
0	CHE 20000	Fall Only	
4	CHE 20500		ENGR 13100, PHYS 17200, MA 16100/16500, <i>CHM 11600</i>
3	CHM 26100	Fall Only	CHM 11600
1	CHM 26300	Fall Only	CHM 26100
4	MA 26100		MA 16600/16200
3	PHYS 241		PHYS 17200, MA 16600/16200
3	General Education Elective		
18	Total Credits		

Credits	Spring 2nd Year		Prerequisite
4	CHE 21100		CHE 20500, MA 26100
3	CHE 32000		CHE 20500, Math Selective I
3	CHM 26200	Spring Only	CHM 26100
1	CHM 26400	Spring Only	CHM 26300, CHM 26200
3 or 4	Math Selective I		MA 26100
3	General Education Elective		
17/18	Total Credits		

Credits	Fall 3rd Year	Prerequisite			
3	CHE 30600	CHE 21100			
4	CHE 37700	CHE 21100, Math Selective II			
3	CHM 37000	CHE 21100, CHM 11600, MA 26100, PHYS 24100			
3 or 4	Math Selective II	Math Selective I			
3	Biology Selective				
16/17	16/17 Total Credits				

Spring 3rd Year		Prerequisite
CHE 30000	Spring Only	
CHE 37800		CHE 21100, CHE 37700
CHE 34800		Math Selective I, CHE 21100, CHM 26100
Technical Elective		
Engineering Elective		
General Education Elective		
Total Credits		
	Spring 3rd Year CHE 30000 CHE 37800 CHE 34800 Technical Elective Engineering Elective General Education Elective Total Credits	Spring 3rd Year   CHE 30000 Spring Only   CHE 37800    CHE 34800    Technical Elective    Engineering Elective    General Education Elective    Total Credits

Credits	Fall 4th Year		Prerequisite
1	CHE 40000	Fall Only	CHE 45600
3	CHE 45600	Fall Only	CHE 37700, 34800, 37800
4	CHE 43500		CHE 30600, 32000, 34800, 37800
3	CHE 42000	Fall Only	CHE 34800, 37800
3	General Education Elective		
14	Total Credits		

Credits	Spring 4th Year		Prerequisite
4	CHE 45000	Spring Only	CHE 30600, 37800, CHE 43500
3	CHE Elective		
3	ENGR Elective		
3	General Education Elective		
3	General Education Elective		
16	Total Credits		

Concurrent prerequisites are listed in italics.

Students must earn a "C" or better in CHE 20500 to enroll in any other CHE course. Students must earn a "C-" or better in CHE 21100, 30600, 32000, 34800, 37700, 37800 to enroll in upper level CHE courses. 130 semester credits required for Bachelor of Science degree in Chemical Engineering. 2.0 Graduation GPA required for Bachelor of Science degree.

The student is ultimately responsible for knowing and completing all degree requirements.

Degree Works is knowledge source for specific requirements and completion