

# CHEMICAL ENGINEERING- ASSOCIATE OF SCIENCE

Students can earn an Associate of Science in Chemical Engineering or an Associate of Science in Engineering, which prepares them to transfer to a university. Students will build a foundational knowledge of engineering principles and explore concepts through labs, hands-on class activities, and extra-curricular opportunities. Students will gain marketable skills in empirical and quantitative analysis, critical thinking, communication, and teamwork while completing their coursework and laboratory requirements.

Students completing an Associate of Science (AS) degree at COM will meet the following requirements:

1. Complete a minimum of 60 semester credit hours that may be comprised of courses from the Core Curriculum, institutional requirements, and Fields of Study.
2. Maintain at least a 2.0 grade point average (GPA). Only credit-bearing College of the Mainland courses will be used to calculate a GPA.
3. Complete last 15 credit hours toward this degree at COM, with the exception of reverse transfer.
4. Satisfy TSI liability.

## Full-Time Student Schedule

Course	Title	Semester Credit Hours
<b>Semester #1</b>		
MATH 2413	Calculus I <sup>1</sup>	4
CHEM 1411	General Chemistry I <sup>1</sup>	4
ENGR 1201	Introduction to Engineering <sup>1</sup>	2
ENGL 1301	Composition I <sup>1</sup>	3
PSYC 1300 or EDUC 1300	Learning Framework <sup>1</sup> or Learning Framework	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Semester #2</b>		
PHYS 2425	University Physics I <sup>1</sup>	4
CHEM 1412	General Chemistry II <sup>1</sup>	4
MATH 2414	Calculus II <sup>1</sup>	4
ENGL 1302	Composition II <sup>1</sup>	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Semester #3</b>		
CHEM 2423	Organic Chemistry I <sup>1</sup>	4
ENGR 2304	Programming for Engineers <sup>1</sup>	3
PHYS 2426	University Physics II <sup>1</sup>	4
MATH 2415	Calculus III <sup>1</sup>	4
<b>Semester Credit Hours</b>		<b>15</b>
<b>Semester #4</b>		
CHEM 2425	Organic Chemistry II <sup>1</sup>	4
HIST 1302 or GOVT 2306	U S History II or Texas Government (Texas Constitution & Topics)	3

PHED 1164	Introduction to Physical Fitness and Wellness <sup>1</sup>	1
HIST 1301 or GOVT 2305	U S History I <sup>1</sup> or Federal Government (Federal Constitution & Topics)	3
SPCH 1315 or SPCH 1318	Public Speaking <sup>1</sup> or Interpersonal Communication	3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

<sup>1</sup> Course(s) listed in the Texas Common Course Numbering System (<https://tcns.org/institution/id:14/yid:19/>)

## Transfer Information - Chemical Engineering

*Important Notes: The schools represented here are only a small sample of transfer options. Information is subject to change, and this suggested pathway is a guide, not a contract. Students should use this in consultation with a COM advisor, COM catalog, Texas Pathways state-wide transfer guidelines, and advisor at the transfer institution.*

- **University of Houston (BS Chemical Engineering) (p. 1)**
- **Texas A&M University (BS Chemical Engineering) (p. 2)**
- **University of Texas - Austin (BSChE Chemical Engineering) (p. 2)**

### University of Houston (BS Chemical Engineering)

Course	Title	Semester Credit Hours
<b>Semester #1</b>		
MATH 2413	Calculus I	4
CHEM 1411	General Chemistry I	4
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
PSYC 1300	Learning Framework	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Semester #2</b>		
PHYS 2425	University Physics I	4
CHEM 1412	General Chemistry II	4
MATH 2414	Calculus II	4
ENGL 1302	Composition II	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Semester #3</b>		
CHEM 2423	Organic Chemistry I	4
ENGR 2304	Programming for Engineers	3
PHYS 2426	University Physics II	4
MATH 2415	Calculus III	4
<b>Semester Credit Hours</b>		<b>15</b>
<b>Semester #4</b>		
CHEM 2425	Organic Chemistry II	4
HIST 1302	U S History II	3
HIST 1301	U S History I	3
PHED 1164	Introduction to Physical Fitness and Wellness	1

SPCH 1315	Public Speaking	3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

### Texas A&M University (BBS Chemical Engineering)

Course	Title	Semester Credit Hours
<b>Semester #1</b>		
MATH 2413	Calculus I	4
CHEM 1411	General Chemistry I	4
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
PSYC 1300	Learning Framework	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Semester #2</b>		
PHYS 2425	University Physics I	4
CHEM 1412	General Chemistry II	4
MATH 2414	Calculus II	4
ENGL 1302	Composition II	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Semester #3</b>		
CHEM 2423	Organic Chemistry I	4
ENGR 2304	Programming for Engineers	3
PHYS 2426	University Physics II	4
MATH 2415	Calculus III	4
<b>Semester Credit Hours</b>		<b>15</b>
<b>Semester #4</b>		
CHEM 2425	Organic Chemistry II	4
PHED 1164	Introduction to Physical Fitness and Wellness	1
SPCH 1315	Public Speaking	3
HIST 1302	U S History II	3
HIST 1301	U S History I	3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

ENGL 1302	Composition II	3
<b>Semester Credit Hours</b>		<b>15</b>
<b>Semester #3</b>		
CHEM 2423	Organic Chemistry I	4
ENGR 2304	Programming for Engineers	3
PHYS 2426	University Physics II	4
MATH 2415	Calculus III	4
<b>Semester Credit Hours</b>		<b>15</b>
<b>Semester #4</b>		
CHEM 2425	Organic Chemistry II	4
HIST 1302	U S History II	3
HIST 1301	U S History I	3
PHED 1164	Introduction to Physical Fitness and Wellness	1
SPCH 1315	Public Speaking	3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Semester Credit Hours</b>		<b>60</b>

### University of Texas - Austin (BScE Chemical Engineering)

Course	Title	Semester Credit Hours
<b>Semester #1</b>		
MATH 2413	Calculus I	4
CHEM 1411	General Chemistry I	4
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
PSYC 1300	Learning Framework	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Semester #2</b>		
PHYS 2425	University Physics I	4
CHEM 1412	General Chemistry II	4
MATH 2414	Calculus II	4