# B.S. Chemical Engineering 2019-2020 Academic Year

## Student Information

Name: OSU ID: OSU Admit Term:

Phone: Email *(name.number@osu.edu)*:

## Suggested Curriculum

This should be used as a **guide** only. Semester offerings are subject to change.

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| --- | --- | --- |
| **Year** | **Autumn** | **Spring** |
| 1 |  CHEM 1210 *(Gen Chem I)* 5 hr MATH 1151 *(Calculus I)* 5 hr ENGR 1181.xx *(Fundamentals of ENGR I)* 2 hr ENGR 1110.04 *(Engineering Survey I)* 0.5 hr General Education 3 hr |  CHEM 1220 *(Gen Chem II)* 5 hr MATH 1172 *(Engineering Math A)* 5 hr ENGR 1182.xx *(Fundamentals of ENGR II)* 2 hr ENGR 1120.04 *(Engineering Survey II)* 0.5 hr Engr 1221 or CSE 1222*(Programming)* 2-3 hr |
| 2 |  CHEM 2510 *(Organic Chemistry I)* 4 hr CBE 2200 *(Process Fundamentals)* 4 hr MATH 2177 *(Mathematical Topics for Engineers)* 4 hr PHYSICS 1250 *(Mechanics, Thermal, Waves)* 5 hr |  CHEM 2520 *(Organic Chemistry II)* 4 hr CBE 2420 *(Transport Phenomena 1)* 4 hr CBE 2523 *(Separation Processes)* 3 hr PHYSICS 1251 *(E&M, Optics, Modern Phys)* 5 hr |
| 3 |  CHEM 4300 *(Physical Chemistry I)* 3 hr CBE 3508 *(Thermodynamics)* 4 hr CBE 3521 *(Transport Phenomena II)* 4 hr Math or Stats Technical Elective 3 hr General Education 3 hr |  CHEM 2540 *(Organic Chemistry Lab I)* 2 hr CBE 3610 (*Kinetics and Reactor Design)* 4 hr CBE 3631 *(Unit Operations Lab I)* 2 hr Technical Elective 3 hr General Education 3 hr\_\_\_General Education 3 hr |
| 4 |  CBE 3632*(Unit Operations Lab II)* 2 hr CBE 4760 *(Process Design, Econ, & Strategy)* 4 hr CBE 4764 *(Process Sim & Product Eng)* 4 hr BIOLOGY 1113 *(Energy Transfer & Develop)….*.4 hr General Education 3 hr |  CBE 4624 *(Process Dynamics and Control)* 3 hr Technical Elective 3 hr Technical Elective 3 hr General Education 3 hr General Education 3 hr General Education 3 hr |

**Total Hours to complete the degree program = 132-133**

## Program Options

Students wishing to complete the biomolecular focus will substitute Biochemistry 4511 in place of Chemistry 2520.

## Acceptance Criteria

Acceptance into this program is based on the eligibility point hour ratio (EPHR) of Math 1151, 1172; Engineering 1181.xx, 1182.xx; and Chemistry 1210, 1220. A 3.2 EPHR guarantees admission during the academic year but admission is more competitive in autumn semester. Applications are accepted during autumn and spring term.

## Technical and Other Electives

Students have the option to complete a biomolecular, environmental, or polymer focus for their technical elective plan. Each focus will require the completion of two approved courses in CBE plus one additional course in CBE or in another department. All students will also be required to complete one math or statistics technical elective.

\_\_\_\_CBE XXXX…………............(3 hr)

\_\_\_\_CBE XXXX…………............(3 hr)

\_\_\_\_Math/Stat XXXX…………….(2-4 hr)

\_\_\_\_Additional Course XXXX …..(2-4 hr)

\_\_\_\_**Total Hours** (**minimum of 12 are required**)

## General Education Requirement

### Writing and Communication

English 1110.xx 3 hr

Second Writing Course 3 hr

### Social Science

Only one course per Social Science group may count.

 3 hr

 3 hr

### Literature

 3 hr

### Visual and Performing Arts

 3 hr

### Historical Study

 3 hr

### Second Historical Study or Cultures and Ideas

 3 hr

### Social Diversity in the United States

Some courses may overlap with another GE category, See course list.

 0 / 3 hr

### Ethics

Some courses may overlap with another GE category, See course list.

 0 / 3 hr

### Foreign Language

Pre-approved substitutions

1. Credit (including EM) for a foreign language sequence through 1103, or credit for a foreign language course with a prerequisite of 1103, can be substituted for one Gen Ed course requirement as a Cultures & Ideas.
2. Completion of a foreign language minor can be substituted for two Gen Ed courses: one course as a Social Science, (Individuals & Groups or Organizations & Polities subgroups only) and one course as either a Literature or a Cultures & Ideas.

Parameters: Students must choose either Substitution A OR Substitution B. Both substitutions cannot be applied simultaneously.

### University Capstone (Cross-Disciplinary Seminar)

Pre-approved substitutions

Completion of a Social Science 3597 or 4597 can be substituted for a Social Science general education course in any group. Completion of an Arts & Humanities 3597 or 4597 can be substituted for a Visual/Performing Arts general education course.

See the list of approved general education courses for additional details: [www.advising.engineering.osu.edu](http://www.advising.engineering.osu.edu).