CHEMICAL ENGINEERING

Pre-Professional School
CHEMICAL ENGINEERING
130 Semester Hours
2018-2019

Required Prerequisites
(May be satisfied by course credit or placement exam)

- MATH 1513 College Algebra
- MATH 1813 Preparation for Calculus
- CHEM 1314 General Chemistry I
- ENGR 1111 Introduction to Engineering
- CHEM 1515 General Chemistry II
- ENGR 1412 Engr Computer Programming
- MATH 2144 Calculus I
- MATH 2153 Calculus II
- MATH 2163 Calculus III
- ENGR 1412 Engr Computer Programming
- MATH 2144 Calculus I
- MATH 2153 Calculus II
- MATH 2163 Calculus III
- ENGR 1412 Engr Computer Programming
- MATH 2144 Calculus I
- MATH 2153 Calculus II
- MATH 2163 Calculus III
- ENGR 1412 Engr Computer Programming
- MATH 2144 Calculus I
- MATH 2153 Calculus II
- MATH 2163 Calculus III
- ENGR 1412 Engr Computer Programming
- MATH 2144 Calculus I
- MATH 2153 Calculus II
- MATH 2163 Calculus III

Year 1
16 hours
- ENGR 1111 Introduction to Engineering
- CHEM 1515 General Chemistry II
- Gen Ed Elective H / S / I / D
- PHYS 2014 General Physics I
- HIST 1103 American History
- Gen Ed Elective H / S / I / D
- CHE 2033 Intro to Che Eng Processes

Year 2
18 hours
- CHEM 3053 Organic Chemistry I
- MATH 2233 Differential Equations
- CHEM 3112 Organic Chemistry Lab
- MATH 2233 Differential Equations
- CHEM 3153 Organic Chemistry II
- CHEM 3153 Organic Chemistry II
- PHYS 2114 General Physics II
- ENSC 2213 Thermodynamics
- PHYS 2114 General Physics II
- CHE 2581 CHE Sophomore Seminar
- ENSC 2113 Statics
- STAT 4033 Engineering Statistics
- ENSC 3233 Fluid Mechanics

1. If a grade of "C" is earned in ENGL 1113, then ENGL 1213 is also required before entry into Professional School. ENGL 3323 may be substituted if AP Exam credit or a grade of 'A' or 'B' is earned in ENGL 1113.
2. 6 hours designated (H) and 6 hours designated (S). One course designated (D) and one course designated (I). Students are encouraged to meet the requirement for (D) and (I) in their selection of (H) or (S) courses.
3. FALL ONLY. Preference is for this course to be taken the fall preceding entry to Professional School.
4. MATH 2233 or 3263.
5. The combination of BIOC 3653 and 3723 may be substituted for the combination of CHEM 3153 and 3112.
6. SPRING ONLY. Preference is for this course to be taken the spring preceding entry into Professional School.
7. STAT 2013, 2023, 2053, 4013, 4033, 4053, or 4073.

Required Before Professional School
- MATH 1813 Preparation for Calculus
- CHEM 1314 General Chemistry I
- ENGR 1111 Introduction to Engineering
- CHEM 1515 General Chemistry II
- ENGR 1412 Engr Computer Programming
- MATH 2144 Calculus I
- MATH 2153 Calculus II
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- MATH 2153 Calculus II
- MATH 2163 Calculus III

NOTE: This flow chart is for planning purposes only. Students matriculating in AY18 must meet the degree requirements as state on the official degree requirement sheet dated "Academic Year 2018-2019."
Admission Requirements for the Chemical Engineering Professional School

To be admitted into CHE Professional School students must meet requirements below:

- Complete at least 60 college level semester credit hours (SCH).
- 12 SCH must be from OSU, 9 of which must be STEM courses (ENGR1111 is not considered STEM).
- Completion with a "C" or better in: MATH 2144, 2153, 2233; PHYS 2014, 2114; CHEM 1515, 3053, 3153; ENGR 1412; and ENGL 1113 (if a “C” is earned in ENGL 1113, then ENGL 1213 is also required.)
- A “C” or better in each STEM class that could be used to meet degree requirements.
- A GPA of 2.7 or better in all STEM classes that could be used to meet degree requirements.
- An GPA of 2.5 or greater in all courses taken at OSU.
- A GPA of 2.7 or better in all STEM classes taken at OSU.

Prerequisites

13 hours

- CHE 3013 Rate Operations I
- CHE 3473 Chemical Eng Thermodynamics
- CHE 3333 Intro to Transport Phenomena
- CHE 3581 CHE Junior Seminar
- CHE 4002 Chemical Eng Lab I
- CHE 4113 Rate Operations II
- CHE 3123 Chemical Reaction Eng
- POLS 1113 American Government
- ENSC 2613 Electrical Science

17 hours

- CHE 3002 Chemical Eng Lab I
- CHE 3113 Rate Operations II
- CHE 3123 Chemical Reaction Eng
- CHE 3581 CHE Senior Seminar
- CHE 4112 Chemical Eng Lab II
- CHE 4124 Chemical Eng Design I
- CHE 4581 CHE Senior Seminar
- ENGL 1213 Freshman Composition II
- ENSC 2613 Electrical Science

16 hours

- CHE 3433 Physical Chemistry I
- ENSC 3313 Materials Science
- CHE 4112 Chemical Eng Lab II
- CHE 4124 Chemical Eng Design I
- CHE 4581 CHE Senior Seminar
- Gen Ed Elective H / S / I / D
- ENSC 2613 Electrical Science

Year 4

- CHEM 3433 Physical Chemistry I
- ENSC 3313 Materials Science
- CHE 4112 Chemical Eng Lab II
- CHE 4124 Chemical Eng Design I
- CHE 4581 CHE Senior Seminar
- Gen Ed Elective H / S / I / D
- ENSC 2613 Electrical Science

See Course Catalog for specific course prerequisites

8. Fall Only Course.

9. 3000 level or higher. Must meet requirements for professional development, technical knowledge, or life balance. May be fulfilled by upper division coursework as part of pursuit of a minor at OSU. MUST BE APPROVED BY CHE PROFESSIONAL SCHOOL ADVISOR.

10. Students may choose from ANSI 3423, BIOL 3224, 3653, 3713, BIOL 3023, CHEM 3353, 3553 or 4020, FDSC 3373 or 4373, GEOG 4403, MICR 3033 or similar advanced chemical transformation courses with CHE advisor approval. Cannot use both ANSI 3423 & BIOL 3023 or BIOL 3653 & 3713.

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