

Department of Chemical and Petroleum Engineering
Concentration Areas
Revised January 27, 2012

Biological Engineering – MOLB 2021 General Microbiology (4), CHE 4100 Biochemical Engineering (3), CHE 4160 Biomedical Engineering (3) + approved electives.

Biological Engineering Pre-medicine Sequence (satisfies pre-med requirements) -

MOLB 2021 (4) General Microbiology (4), MOLB 3610 (4); [Alternative: [MOLB 4600 (3) and MOLB 4610 (3)], BIOL 3050 Genetics (4), BIOL 3600 Cell Biology (3) + CHE 4160 Biomedical Engineering (3). Students should contact the Preprofessional Advising Office for pre-med and pre-dental advising.

Chemistry -

- Concurrent/Double Chemistry Major (Plan-1BS)

CHEM 4000 Seminar (1) + CHEM 4110 Introduction to Inorganic Chemistry (3) + CHEM 4100 Inorganic Chemistry Lab (2) + CHEM 4508 Physical Chemistry II (3) + CHEM 4530 Physical Chemistry Lab (1) + CHEM 4930 Undergraduate Research (2) + 3 credits of upper-division Chemistry electives. If the Advisor and Chemistry Department's Undergraduate Studies Committee approve a research plan, CHE 3900 (Undergraduate Research) can substitute for CHEM 4930.

- Concurrent Chemistry Minor

Environmental - MOLB 2021 General Microbiology (4) + CE 3400 Introduction to Environmental Engineering (3) + CHE 4110 Air Pollution for Chemical Engineers (3) + CHE 4100 Biochemical Engineering (3) or approved elective.

International - 15 hours of foreign language and a semester abroad, which satisfies 9 hrs of cultural context (CA, CH, CS, D, G). Hence $15 - 9 = 6$ hrs are available for electives.

Math - Math Minor: MATH 2250 Elementary Linear Algebra (3) + MATH 2800 Math Seminar (2) or MATH 2850 Putnam Seminar (2) + programming class (for example, COSC 1010 or COSC 1030) + two MATH 3000-plus electives (for example, Math 3310 and CHE 5140/MATH 5310).

Petroleum Engineering Option - PETE 2050 Introduction to Petroleum Engineering (3), PETE 4010 Reservoir Mechanics (3), PETE 4060 Flow through Porous Media (3), GEOL 4190 Petroleum Geology (3) or approved elective.

Self-directed - Individual Elective plan approved by advisor.

The concentration definitions may change to reflect the most recent class offerings. Please consult them with your Advisor.