

Student's Name: _____ **Uni** _____

Undergraduate Study Plan Dept. of Chemical Engineering, Columbia University (Revision 09/06/2021 VFM)

All Chemical Engineering undergraduates must complete this form and have it approved by an Undergraduate Committee advisor. This form is to be completed before submission for advising.

Instructions:

- 1) Fill in all courses that you have taken, and those courses that you plan to take in the coming semester.
- 2) Where course numbers are listed, mark the course numbers corresponding to courses you have already completed. Write "IP" next to courses that are currently in progress. CIRCLE courses you intend to take in the coming semester.
- 3) Where blanks are provided, write in the course number (and name, if requested), and mark as indicated above.
- 4) If you placed out of, transferred in, or received equivalency for any courses, mark the course number and write "AP," "transfer," "equiv." etc. as appropriate

1. Non-Technical Course Requirements*

Points

a. **University Writing:** ENGL CC1010(3) _____

b. **Economics:** ECON UN1105(4) and UN1155(0) Recitation _____

c. **Art/Music Humanities** (choose one): HUMA UN1121(3) or HUMA UN1123(3) _____

2. Core Humanities Requirement* (choose one two-course sequence):

Sequence 1: Literature Humanities: HUMA CC1001(4) and HUMA CC1002(4) _____

Sequence 2: Contemporary Civilization: COCI CC1101(4) and COCI CC1102(4) _____

Sequence 3: Choose two Global Core courses from list of approved courses in Columbia College Bulletin (6-8 points)

Course #: _____ Course #: _____ _____

3. Non-Technical Electives* (List of approved courses in SEAS Bulletin, total 9-11 points)

Course #: _____ Course #: _____ Course #: _____ _____

***Note:** the total credits from sections 1., 2., and 3. must add up to at least 27 credits

4. Engineering Fundamentals

a. **The Art of Engineering:** ENGI E1102(4) _____

b. **Intro to Comp for Eng/App Sci (Python-based):** ENGI E1006 (3) _____

5. Physical Education: PHED UN1001(1) and PHED UN1002(1) _____

6. Mathematics Requirement

a. **Calculus:** MATH UN1101(3) UN1102(3) APMA E2000 (4) _____

b. **ODE** (choose one course): MATH UN2030(3) or APMA E2101(3) _____

c. **Math Elective*:** Course #: _____ _____

*Choose from ORCA 2500, APMA(E3101 , E3102, E4001, E4150, or E4300), MATH UN2010, , STAT GU 4001, or another course approved by the major advisor.

7. Chemistry Requirement (Choose one track) (note: the university division designator for all of these courses is UN)

Track C1: 1403(4) 1404(4) 1500(3) 2443(4) _____
Gen. Chem I Gen. Chem II Chem. Lab Orgo I.

Track C2: 1604(4) 1507(3) 2443(4) _____
Int. Chem Int. Chem Lab Orgo I.

Track C3: 2045(4) 2046(4) 1507(3) _____
Int. Orgo Int. Orgo Int. Chem Lab.

8. Natural Science Laboratory (at least 3 pts total)*: Course #: _____ Course #: _____

*Choose from CHEM UN2493(1.5), CHEM UN2496(1.5), CHEM UN2543(3), CHEM UN2545(3), CHEM UN3085(3), BIOL 2501(3), EEEB 3015 (3), or another course approved by the major advisor.

9. Physics Requirement: (Choose one track)

Track P1: PHYS UN1401(3) UN1402(3) Lab-UN1493(3) _____
Track P2: UN1601(3.5) UN1602(3.5) Lab-UN1493 (3) _____
Track P3: UN2801(4.5) UN2802(4.5) Lab-W3081(2) _____

10. Chemical Engineering Requirements:

Second Year: Fall: CHEN E2100(3) _____
Third Year: Fall: CHEN E3110(3) CHEE E3010(3) CHEN E3020(3) _____
Spring: CHEN E3120(3) CHEN E3210(3) CHEN E4230(3) _____
Fourth Year: Fall: CHEE E4140(3) CHEN E4300(3) CHEN E4500(4) _____
Spring: CHEN E3810(3) _____

11. Required Technical Electives: (7 courses total)

a. Engineering courses within chemical engineering (CHEN, CHEE, or CHAP)

1. Course name: _____ 2. Course name: _____
Course #: _____ Course #: _____

b. Engineering course outside chemical engineering (not CHEN, CHEE, or CHAP)

3. Course name: _____
Course #: _____

c. Engineering courses (anywhere in SEAS)

4. Course name: _____ 5. Course name: _____
Course #: _____ Course #: _____

d. Advanced Science courses (Chemistry, Physics or Biology content– one must be outside of SEAS)

6. Course name: _____ 7. Course name: _____
Course #: _____ Course #: _____

12. Additional Courses:

TOTAL POINTS*: _____

*Total points must be ≥ 120 credits for the 4 year track, or ≥ 60 credits for Combined Plan students

Advisor Signature

Date

Student Signature

Date