Undergraduate Study Plan Dept. of Chemical Engineering, Columbia University (Revision 3/31/2024 DVE)

1) Fill in this study plan for all courses that you have taken and those courses that you plan to take in the coming semester.
2) Circle the course numbers corresponding to courses you have already completed. Write "IP" next to courses that are currently in progress. Underline 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 \#: $\qquad$ Course \#: $\qquad$
3. Non-Technical Electives* (List of approved courses in SEAS Bulletin, total 9-11 points)

Course \#: $\qquad$ Course \#: $\qquad$ Course \#: $\qquad$
*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: | $1403(4)$ <br> Gen. Chem I | 1404(4) <br> Gen. Chem II | 1500(3) <br> Chem. Lab | $2443(4)$ <br> 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 \#: 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:
$\left.\begin{array}{|l|l|l|l|}\hline & \text { Fall } & \text { Spring } & \text { Points } \\ \hline \text { First Year } & \text { CHEN E1000(1) *Optional for classes of '24 \& '25 } & & \\ \hline \text { Second Year } & \text { CHEN E2100(3) } & \text { CHEN E3020(3) } & \\ \hline \text { Third Year } & \text { CHEN E3110(3) } & \text { CHEE E3010(3) } & \text { CHEN E4230(3) } \quad \text { CHEN E4140(3) }\end{array}\right]$
11. Technical Electives: (7 courses total) (See spreadsheet for eligible courses in each category)
a. THERMODYNAMICS ELECTIVE course within chemical engineering
12. Course name: $\qquad$

Course \#: $\qquad$
b. TRANSPORT ELECTIVE course within chemical engineering

1. Course name: $\qquad$

Course \#: $\qquad$
c. Technical elective course within chemical engineering (CHEN, CHEE, MECH, APCH, BMCH, or CHAP)

1. Course name: $\qquad$
Course \#: $\qquad$
d. Engineering courses outside chemical engineering (not CHEN, CHEE, or CHAP)
2. Course name: $\qquad$ 5. Course name: $\qquad$
$\qquad$

Course \#: $\qquad$ Course \#: $\qquad$
e. Advanced Science courses (Chemistry, Physics or Biology content- one must be outside of SEAS)
6. Course name: $\qquad$ 7. Course name: $\qquad$
$\qquad$
Course \#: $\qquad$ Course \#: $\qquad$
12. Additional Courses:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
TOTAL POINTS*:
*Total points must be $\geq 128$ credits for the normal 4 year track, or $\geq 60$ credits for Combined Plan students

