THE CITY COLLEGE – SCHOOL OF ENGINEERING

March 23, 2022

CHEMICAL ENGINEERING CURRICULUM

Fall 2021 - Spring 2022

Math 20100 Calculus I Pre: Math 19500 (C min.) 4 cr.	**Chem 10301** General Chemistry I Pre: Math 19500 (C min.) 4 cr.	**Engl 11000** Freshman Composition 3 cr.		**Liberal Arts**[4] 3 cr.	**Liberal Arts**[4] 3 cr.
Math 21200 Calculus II Pre: Math 20100 (C min.) 4 cr.	**Chem 10401** General Chemistry II Pre: Chem. 10301 (C min.) 4 cr.	**Phys 20700** General Physics I Pre/Co: Math 21200 4 cr.		**Liberal Arts**[4] 3 cr.	**Liberal Arts**[4] 3 cr.
Math 21300 Calculus III Pre: Math 21200 (C min.) 4 cr.	**Chem 26100** Organic Chemistry I Pre: Chem 10401 (C min.) 3 cr.	**Phys 20800** General Physics II Pre: Phys 20700 Pre/Co: Math 21300 4 cr.		**ChE 22800** ***(Fall only)*** Intro. to Chem. Eng. Prin. & Prac. Pre: Chem. 10401 (C min.) Pre/Co: Math 21300 (C min) 5 cr.	
Math 39100 Differential Equations Pre: Math 21300 (C min.) 3 cr.	**Chem 26200** Organic Chemistry Lab I Pre: Chem.10401 (or 10800) & Chem 26100 Pre/Co: Chem. 26300 2 cr.	**Chem 26300** Organic Chemistry II Pre: Chem. 26100 (C min.) 3 cr.	**ChE 31100** ***(Spring only)*** Analysis of Chemical Processes Pre: Chem. 10401 (C min.); Math 21300 (C min); Phys 20700 (C min) 3 cr.	**ChE 22900** *(Spring only)* Chem. Engr. Thermo. I Pre: Chem 10401 (C min.), Phys 20700 (C min.) Pre/Co: Math 39100 3 cr.	**Liberal Arts**[4] (20000 or higher) 3 cr.
Math 39200 Linear. Algebra. & Vector Analysis. Pre: Math 20300 (C min.) 3 cr.	**Statistics** ***(Math, Science, Or Engineering)*** Math 37500 (Elem. Prob. Stat.) or EE 31100 (Prob. & Stat.) 4 cr. or 3 cr.	**Technical Elective**[5] See **Note 5** below. 3 cr.	**ChE 34100** ***(Fall only)*** Transport Phenomena I Pre: Math 39100 (C min.), ChE 22900 3 cr.	**ChE 33000** ***(Fall only)*** Chem. Engr. Thermo. II Pre: ChE 22900, ChE 31100, Math 39100 (C min) Pre/Co: ChE 22800 (or CE 26400 for ESE majors only), Phys 20800 3 cr.	**Engl 21007** Writing for Engineering Pre: Eng 11000 or FIQWS 3 cr.
Chem 33200 Physical Chemistry II Pre: ChE 22900, ChE 33000 3 cr.	**ChE 31000** ***(Spring only)*** Intro. to Materials Science Pre: ChE 22900 Pre/Co: ChE 34100 3 cr.	**ChE 34200** ***(Spring only)*** Transport Phenomena II Pre: ChE 34100, Math 39200 3 cr.	**ChE 34600** *(Spring only)* Transport Operations Pre: ChE 34100 Pre/Co: ChE 34200 4 cr.	**ChE 34500** ***(Spring only)*** Separation Operations Pre: ChE 22800 Pre/Co: ChE 33000, ChE 34200 3 cr.	
Technical Elective[5] **See** Note 5 **below.** 3 cr.	**ChE 43200** ***(Fall only)*** Chemical Reactions Pre: ChE 34200 & ChE 33000 3 cr.	**ChE 47900** ***(Fall only)*** Process & Control Pre: ChE 34500 & ChE 34600 Pre/Co: ChE 43200 3 cr.		**ChE 49500** ***(Fall only)*** Techn. Chem. Engr Design Pre: ChE 22800, ChE 33000, ChE 34500, ChE 34600 Pre/Co: ChE 43200, ChE 47900 3 cr.	**ChE 46200** ***(Fall only)*** Separ. Opers. & Contr. Lab Pre: ChE 34500, ChE 34600 3 cr.
Technical Elective[5] **See** Note 5 **below.** 3 cr.	**Technical Elective**[5] **See** Note 5 **below.** 3 cr.	**Technical Elective**[5] **See** Note 5 **below.** 3 cr.	**ChE 49600** ***(Spring only)*** Chemical Eng. Design Project Pre: ChE 43200, ChE 47900 & ChE 49500 3 cr.		**Liberal Arts**[4] (20000 or higher) 3 cr.

1. **The latest version of the curriculum sheet supersedes any curriculum and pre-/corequisite information in the Undergraduate Bulletin or online.**
2. **"C" Passing Grade Requirement:** Courses in shaded area (▭) require a minimum passing grade of "**C**".
3. **Skills tests:** Certain students may be required to pass CUNY Assessment Tests in one or more subjects within 1 or 2 years of admission.
4. **Liberal Arts electives:** ChE students must take six approved courses (18 credits) of which at least two (6 credits) must be at the 20000 level or higher. A list of approved courses is posted on the School of Engineering web site at ccny.cuny.edu/engineering/gen-ed and can be viewed at the Office of Undergraduate Affairs (ST-209) or the Office of Student Programs (ST-2M7).

   • Each course falls into one or more liberal arts *clusters,* specified in the list. The six courses must collectively occupy at least three clusters. The four clusters are: (f) Professional and Ethical Responsibilities, (g) Communication, (h) Global and Societal Context, and (j) Contemporary Issues.

   • Most students must also satisfy Pathways liberal arts requirements. See ccny.cuny.edu/engineering/pathways .
5. **Technical Elective Requirements:** Five (5) technical electives. Technical electives **must include at least 6 credits of engineering courses (CHE, ENGR, or another branch of engineering).** Any Math, Science, or Engineering course that is level 30000 or higher will be accepted as a technical elective. In addition ENGR 27600 (Engineering Economics) and SCI 28000 (Bioinformatics & Biomolecular Systems) will be accepted.
6. **Other Graduation Requirements:** Apply for graduation during registration for the last semester. Minimum GPA of 2.00. Minimum QPA of zero. Residency Requirement: 33 credits of 30000-level or higher Chemical Engineering courses taken at CCNY (a maximum of 6 credits may be in non-ChE Technical Elective courses).
7. **New Transfer Students**: Please be sure to see your general advisor each semester. For more information contact the Office of Undergraduate Affairs (ST-209, 212-650-8020)
8. **Program Changes:** Substitution of other courses for required courses must be approved by the Chair of the Chemical Engineering Department (ST-322), and the Associate Dean of the Office of Academic Affairs (ST-209).

Total Credits: 132 - 133.