### Freshman Year

**First Semester**  
- MAT 2010 – Calculus I  
- CHM 1225 – (PS) Chemical Structure, Bonding & Reactivity  
- CHM 1230 – Chemical Principles in the Laboratory  
- ENG 1020 – (BC) Introductory College Writing  
- B E 1200 – (CL) Basic Engineering I – Design in Engineering  
- **Credits**: 14

**Second Semester**  
- MAT 2020 – Calculus II  
- CHM 1240 – Principles of General/Organic Chemistry  
- CHM 1250 – General/Organic Lab  
- PHY 2175 – (PS) General Physics  
- BE 1500 – Introduction to Programming and and Computation for Engineers  
- **Credits**: 16

### Sophomore Year

**First Semester**  
- MAT 2030 – Calculus III  
- PHY 2185 – General Physics  
- B E 1300 – Basic Engineering II: Materials Science for Engg. Applications  
- B E 1310 – Basic Engineering II: Materials Science for Engg. Applications Lab  
- B IO 1510 – (LS) Basic Life Mechanisms  
- PHI 1120 – (PL) Professional Ethics  
- **Credits**: 18

**Second Semester**  
- MAT 2150 – Differential Equations and Matrix Algebra  
- CHE 2800 – Material and Energy Balances  
- B E 2100 – Basic Engineering III: Probability and Statistics in Engineering for Engineering Application  
- CHM 2225 – Organic Chemistry II for Engineers  
- EC0 2020 – (SS) Principles of Macroeconomics  
- Critical Thinking Exam  
- **Credits**: 17

### Junior Year

**First Semester**  
- CHE 3200 – Fluid Flow & Heat Transfer  
- CHE 3300 – Thermodynamics: Chemical Equilibria  
- Foreign Culture Elective  
- ENG 3050 – (IC) Technical Communication I: Report Writing  
- Historical Studies Elective- (HS)  
- **Credits**: 17

**Second Semester**  
- CHE 3220 – Measurements Laboratory  
- CHE 3400 – Kinetics and Reactor Design  
- CHE 4260 – Chemical Engineering Seminar I  
- CHE 5809 - Research Preparation I  
- CHE 3800 – Mass Transfer and Separation Processes  
- ENG 3060 – (OC) Technical Communication II: Writing & Speaking  
- CHM 5440 – Physical Chemistry II  
- **Credits**: 17

### Senior Year

**First Semester**  
- CHE 5811 – Research Preparation I  
- CHE 3820 – Chemical Engineering Laboratory  
- CHE 4200 – Product and Process Design  
- CHE 4600 – Process Dynamics and Simulation  
- CHE 4860 – Chemical Engineering Seminar II  
- Chemical Engineering Technical Elective  
- **Credits**: 14

**Second Semester**  
- Chemical Engineering Technical Elective  
- CHE 6810 – (WI) Chemical Engineering Research Project  
- MSE 5650 – Surface Science  
- Visual & Performing Arts Elective (VP)  
- American Society and Institutions Elective (AI)  
- **Credits**: 16

- **Total Credits**: 130

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Revised: 10/15  
By: TFC