

CHEMICAL ENGINEERING - MA 134 & CH 155 14-15 EIGHT SEMESTER PLAN

YEAR 1

| FRESHMAN FALL | | STATUS | PREREQ | NOTES |
|---------------|-----------------------------|-----------|---------|-------|
| CH 155 | Adv Honors Chemistry & Lab | 5 | ACT/SAT | |
| ENG 103 | English Composition 1 | 3 | ACT/SAT | |
| GE 101 | Introduction to Engineering | 1 | | |
| MA 134 | Calculus I | 4 | ACT/SAT | |
| ECO 213/223 | Micro or Macroeconomics | 3 | | |
| Total | | 16 | | |

| FRESHMAN SPRING | | STATUS | PREREQ | NOTES |
|-----------------|----------------------------|-----------|---------|-------|
| CH 203 | Organic Chemistry I | 3 | CH 114 | |
| CH 211 | Organic Chemistry I Lab | 1 | | |
| ChE 122 | Biology for ChE | 2 | GE 101 | |
| ENG 133 | Technical Communication | 3 | ENG 103 | |
| MA 164 | Calculus II | 4 | MA 134 | |
| PH 224 | University Physics I & Lab | 4 | MA 134 | |
| Total | | 17 | | |

YEAR 2

| SOPHOMORE FALL | | STATUS | PREREQ | NOTES |
|----------------|------------------------|-----------|---------------|-------|
| ChE 203 | Material Balances | 3 | CH 104/114 | |
| ChE 252 | Stats and Comp Methods | 2 | | |
| MA 213 | Calculus III | 3 | MA 164 | |
| PH 234 | Physics II | 4 | PH 224/MA 164 | |
| SP 203 | Speech | 3 | ENG 133 | |
| | Free Elective (3) | 3 | | |
| Total | | 18 | | |

| SOPHOMORE SPRING | | STATUS | PREREQ | NOTES |
|------------------|----------------------------|-----------|---------|-------|
| MA 233 | Differential Equations | 3 | | |
| ChE 212 | Energy Balances | 2 | ChE 203 | |
| ChE 222 | Process Meas Lab & Sustain | 2 | | |
| | Chemistry Elective (4) | 4 | MA 213 | |
| | Humanities/SS Elective (3) | 3 | | |
| | Humanities/SS Elective (3) | 3 | | |
| Total | | 17 | | |

YEAR 3

| JUNIOR FALL | | STATUS | PREREQ | NOTES |
|--------------|------------------------|-----------|----------------|-------|
| ChE 373 | ChE Heat Transfer | 3 | | |
| ChE 303 | ChE Fluid Dynamics | 3 | ChE 203 & 212 | |
| ChE 313 | ChE Thermodynamics I | 3 | ChE 212/MA 213 | |
| ES 233 | Material Science | 3 | ChE 203/212 | |
| | Chemistry Elective (4) | 4 | | |
| Total | | 16 | | |

| JUNIOR SPRING | | STATUS | PREREQ | NOTES |
|---------------|-----------------------|-----------|---------------------|-------|
| ChE 333 | Unit Operations Lab I | 3 | ChE 222/252/303/373 | |
| ChE 372 | ChE Thermodynamics II | 2 | ChE 313 | |
| ChE 383 | Mass Transfer | 3 | ChE 313/373 | |
| ChE 393 | Stagewise Separations | 3 | ChE 303/373 | |
| | ChE Elective (3) | 3 | | |
| | Free Elective (3) | 3 | | |
| Total | | 17 | | |

YEAR 4

| SENIOR FALL | | STATUS | PREREQ | NOTES |
|--------------|-------------------------------|-----------|-----------------|-------|
| ChE 433 | Unit Operations Lab II | 3 | ChE 333/393 | |
| ChE 453 | Chemical Engineering Kinetics | 3 | ChE 373/383 | |
| ChE 473 | Chemical Process Design I | 3 | ChE 372/383/393 | |
| ES 382 | Engineering Economics | 2 | | |
| GE 401 | Professional Practice | 1 | | |
| | ChE Elective (3) | 3 | | |
| Total | | 15 | | |

| SENIOR SPRING | | STATUS | PREREQ | NOTES |
|---------------|----------------------------|-----------|--------------------|-------|
| ChE 412 | Numerical Methods | 2 | ChE 453 | |
| ChE 463 | ChE Dynamics & Control | 3 | MA 233 | |
| ChE 483 | Chemical Process Design II | 3 | Ch E453/473/ES 382 | |
| | ChE Elective (3) | 3 | | |
| | Humanities/SS Elective (3) | 3 | | |
| | Free Elective (3) | 3 | | |
| Total | | 17 | | |

| Concentration Electives Fall | | | | |
|------------------------------|--------------------------------|---|-------------------|--|
| ChE 4083 | Plant Management | 3 | Jr Standing | |
| ChE 4173 | Bioseparation Processes | 3 | ChE 303/373 | |
| CH 213/221 | Organic Chemistry II & Lab | 4 | CH 203/211 | |
| CH 234 | Quantitative Chemical Analysis | 4 | CH 114 | |
| CH 324 | Chemical Instrumental Analysis | 4 | CH 213/234 | |
| CH 353/351 | Physical Chemistry I & Lab | 4 | CH 114/232/MA 213 | |
| BIO 434 | Biochemistry | 4 | CH 211/213 | |

| Concentration Electives Spring | | | | |
|--------------------------------|--------------------------------|---|------------|--|
| ChE 4073 | Biochemical Engineering | 3 | MA 233 | |
| ChE 4193 | High Polymer Processes | 3 | CH 203 | |
| CH 213/221 | Organic Chemistry II & Lab | 4 | CH 203/211 | |
| CH 234 | Quantitative Chemical Analysis | 4 | CH 114 | |
| CH 324 | Chemical Instrumental Analysis | 4 | CH 213/234 | |
| CH 363/361 | Physical Chemistry II & Lab | 4 | CH 353 | |