

CHEMICAL ENGINEERING 128-HOUR CURRICULUM WORKSHEET

Chemical Engineering Practice Concentration

| FRESHMAN YEAR | | | | | | |
|----------------|----------------------------|--------------|--------------|-----------------|--|--------------|
| First Semester | | Credit Hours | Grade Earned | Second Semester | | Grade Earned |
| CHE 1101 | CHE Freshman Seminar* | 1 | | CHE 2213 | CHE Analysis* | 3 |
| CH 1213 | Fund. of Chemistry | 3 | | CH 1223 | Fund. of Chemistry | 3 |
| CH 1211 | Inv. in Chemistry | 1 | | CH 1221 | Inv. in Chemistry | 1 |
| MA 1713 | Calculus I | 3 | | MA 1723 | Calculus II | 3 |
| EN 1103 | English Comp. I | 3 | | PH 2213 | Physics I | 3 |
| | Social Science Elective | 3 | | EN 1113 | English Comp. II | 3 |
| | Humanities Elective | 3 | | | | |
| | | | | | | |
| | | | | | | |
| | Total | 17 | | | Total | 16 |
| SOPHOMORE YEAR | | | | | | |
| First Semester | | Credit Hours | Grade Earned | Second Semester | | Grade Earned |
| CHE 2114 | Mass and Energy Balances* | 4 | | CHE 3113 | Thermo I | 3 |
| CHE 3203 | Fluid Flow Ops* | 3 | | IE 3913 | Engineering Economy I | 3 |
| MA 2733 | Calculus III | 3 | | MA 2743 | Calculus IV | 3 |
| | Social Science Elective | 3 | | MA 3253 | Differential Equations | 3 |
| | Humanities Elective | 3 | | | Fine Arts Elective | 3 |
| | | | | | | |
| | | | | | | |
| | Total | 16 | | | Total | 15 |
| JUNIOR YEAR | | | | | | |
| First Semester | | Credit Hours | Grade Earned | Second Semester | | Grade Earned |
| CHE 3123 | CHE Thermo II | 3 | | CH 4523 | Organic Chemistry II | 3 |
| CHE 3413 | Engineering Materials* | 3 | | CHE 3213 | Heat Transfer Ops** | 3 |
| CH 4513 | Organic Chemistry I | 3 | | CHE 3222 | CHE Lab I** | 2 |
| CH 4511 | Organic Chem. Lab I | 1 | | CHE 3223 | Separations** | 3 |
| | CH/CHE/Technical Elective | 3 | | CHE 3331 | Professional Dev. Seminar** | 1 |
| | CH/CHE/Technical Elective | 3 | | ECE 3183 | Electrical Eng. Systems or or EM 2413 Engineering Mechanics I | 3 |
| | | | | | | |
| | | | | | | |
| | Total | 16 | | | Total | 15 |
| SENIOR YEAR | | | | | | |
| First Semester | | Credit Hours | Grade Earned | Second Semester | | Grade Earned |
| CHE 3232 | CHE Lab II* | 2 | | CHE 4223 | Process Controls** | 3 |
| CHE 4113 | CHE Reactor Design* | 3 | | CHE 4233 | CHE Plant Design** | 3 |
| CHE 4134 | CHE Process Design* | 4 | | CHE 4633 | Process Safety* | 3 |
| CH 4413 | Thermodynamics & Kinetics* | 3 | | | CH/CHE/Technical Elective | 3 |
| | CH/CHE/Technical Elective | 3 | | GE 3513 | Technical Writing | 3 |
| | | | | PH 2223 | Physics II*** | 3 |
| | | | | | | |
| | Total | 15 | | | Total | 18 |

* Only taught during fall semester

** Only taught during spring semester

*** Approved substitutes for PH 2223 Physics II are IE 4613 Engineering Stats I, IE 4623 Engineering Stats II, or CHE 4313 Transport Phenomena

For students graduating Spring 2015 or later CHE 4633 Process Safety is required.

Students may choose between EM 2413 Engineering Mechanics I or ECE 3183 Electrical Engineering Systems.

CH/CHE/Technical Elective denotes that a Chemistry (CH), Chemical Engineering (CHE) or Technical Elective may be taken in the designated semester. A student following the Practice Concentration must complete ONE Chemical Engineering Elective, ONE Chemistry Elective and two Technical Electives. These electives are specified on the chemical engineering website at <http://www.che.msstate.edu/pdfs/APPROVEDELECTIVESfm.pdf>