

CHEMICAL ENGINEERING - Class of 2015

Total Credits = **120**

Freshman Year *Fall* Semester

| Course Code | Description | Cr | |
|-------------|--|----|--|
| CHM 101 | General Chemistry I Lec [GE-N] | 3 | |
| CHM 102 | General Chemistry I Lab | 1 | |
| EGR 105 | Foundations of Engineering I | 1 | |
| MTH 141 | Intro Calculus w/Analytic Geom [GE-MQ] | 4 | |
| PHY 203 | Elementary Physics I Lec [GE-N] | 3 | |
| PHY 273 | Elementary Physics I Lab [GE-N] | 1 | |
| | | | |

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Freshman Year *Spring* Semester

| Course Code | Description | Cr | |
|-------------|--|----|--|
| CHM 112 | General Chemistry II Lec [GE-N] | 3 | |
| CHM 114 | General Chemistry II Lab | 1 | |
| ECN 201 | Principles of Microeconomics [GE-S] | 3 | |
| EGR 106 | Foundations of Engineering II | 2 | |
| MTH 142 | Intermed Calc with Analytic Geom [GE-MQ] | 4 | |
| PHY 204 | Elementary Physics II [GE-N] | 3 | |
| PHY 274 | Elementary Physics II Lab [GE-N] | 1 | |
| | | | |

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Sophomore Year *Fall* Semester

| Course Code | Description | Cr | |
|-------------|--|----|--|
| CHE 212 | Chemical Process Calculations | 3 | |
| CHM 227 | Organic Chemistry Lec I | 3 | |
| MTH 243 | Calculus for Functions of Several Vars | 3 | |
| | General Education Elective* | 3 | |
| | | | |

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Sophomore Year *Spring* Semester

| Course Code | Description | Cr | |
|------------------------------|--|----|--|
| CHE 272 | Intro to Chemical Engineering Calculations | 3 | |
| CHE 313 | Chemical Engineering Thermodynamics I | 3 | |
| CHE 332 | Physical Metallurgy | 3 | |
| CHM 228** | Organic Chemistry Lec II | 3 | |
| MTH 244 <i>or</i> MTH 362 | Differential Equations <i>or</i> Advanced Engineering Mathematics I | 3 | |
| | | | |

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Junior Year *Fall* Semester

| Course Code | Description | Cr | |
|-------------|--|----|--|
| CHE 314 | Chemical Engineering Thermodynamics II | 3 | |
| CHE 347 | Transfer Operations I | 3 | |
| CHM 335 | Physical Chemistry Lab | 2 | |
| CHM 431 | Physical Chemistry I | 3 | |
| | Approved Mathematics Elective*** | 3 | |
| | General Education Elective* | 3 | |
| | | | |

17

Junior Year *Spring* Semester

| Course Code | Description | Cr | |
|-------------|------------------------------|----|--|
| CHE 348 | Transfer Operations II | 3 | |
| CHE 464 | Industrial Reaction Kinetics | 3 | |
| CHM 432**** | Physical Chemistry II | 3 | |
| | General Education Elective* | 3 | |
| | General Education Elective* | 3 | |
| | | | |

15

Senior Year *Fall* Semester

| Course Code | Description | Cr | |
|-------------|--------------------------------|----|--|
| CHE 328 | Industrial Plants | 1 | |
| CHE 345 | Chemical Engineering Lab I | 2 | |
| CHE 349 | Transfer Operations III | 2 | |
| CHE 351 | Plant Design and Economics I | 3 | |
| CHE 425 | Process Dynamics and Control | 3 | |
| | Approved Professional Elective | 3 | |
| | General Education Elective* | 3 | |
| | | | |

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Senior Year *Spring* Semester

| Course Code | Description | Cr | |
|-------------|--------------------------------|----|--|
| CHE 346 | Chemical Engineering Lab II | 2 | |
| CHE 352 | Plant Design and Economics II | 3 | |
| | Approved Professional Elective | 3 | |
| | Approved Professional Elective | 3 | |
| | Approved Professional Elective | 3 | |
| | | | |

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* Note the following *specific* requirements and restrictions for General Education [GE] electives:

-Refer to *specific* Chemical Engineering General Education *course requirements* (see 2015 CHE Check Sheet).

Note the following *specific* requirements and restrictions for General Education [GE] electives:

-[GE-ECw] *Must* take at least *one (1)* General Education course in *writing* [GE-ECw].

-[GE-ECw] Can only take *one (1)* of the following **100-level** writing courses for General Education credit [GE-ECw]: WRT 104, WRT 105, WRT 106.

** Or approved advanced CHM course.

*** **Mathematics Elective** is MTH 215 or any 300-500 level MTH course *except* MTH 381.

**** Or approved Department Elective.

