

### Engineering Physics - Chemical Engineering Option (BS)

Suggested Plan of Study

2019-2020 Catalog

| Fall - Semester 1                                                                                                 |    | Spring - Semester 2                                                                                                                |    |
|-------------------------------------------------------------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------|----|
| ENGL 1113 Composition I                                                                                           | 3  | ENGL 1123 Composition II                                                                                                           | 3  |
| MATH 1525 Calculus I                                                                                              | 5  | MATH 1545 Calculus II                                                                                                              | 5  |
| CHEM 1023/1021 University Chemistry I/Lab                                                                         | 4  | CHEM 1123/1121 University Chemistry II/Lab                                                                                         | 4  |
| PHYS 2203/2201 University Physics I/Lab                                                                           | 4  | PHYS 2213/2211 University Physics II/Lab                                                                                           | 4  |
| GSTD 1002 Freshman Seminar                                                                                        | 2  |                                                                                                                                    |    |
| Total Semester Hours                                                                                              | 18 | Total Semester Hours                                                                                                               | 16 |
| Fall - Semester 3                                                                                                 |    | Spring - Semester 4                                                                                                                |    |
| CHEM 3003/3001 Organic Chemistry I/Lab                                                                            | 4  | CSCI 2103 Computer Science I                                                                                                       | 3  |
| ENGR 1023 Introduction to Engineering                                                                             | 3  | ENGR 1021 Introduction to Engineering Lab                                                                                          | 1  |
| ENGR 2143 Statics                                                                                                 | 3  | ENGR 2043 Properties of Materials                                                                                                  | 3  |
| MATH 2563 Calculus III                                                                                            | 3  | MATH 3033 Differential Equations                                                                                                   | 3  |
| ENGR 1213 Engineering Graphics                                                                                    | 3  | Fine Arts/Humanities<br>(ART 2013, HUM 2003, ENGL 2213, ENGL 2223, MUS 2003 or MUS 2013, PHIL 2403, THEA 2003 or Foreign Language) | 3  |
| ENGR 2053 Chemical Engineering Fundamentals                                                                       | 3  | ENGR 2020 Engineering Exams                                                                                                        | 0  |
| ENGR 2020 Engineering Exams                                                                                       | 0  |                                                                                                                                    |    |
| Total Semester Hours                                                                                              | 19 | Total Semester Hours                                                                                                               | 13 |
| Fall - Semester 5                                                                                                 |    | Spring - Semester 6                                                                                                                |    |
| ENGR 3013 Thermodynamics                                                                                          | 3  | ENGL 3023 Advanced Professional Writing                                                                                            | 3  |
| ENGR 3003 Fluid Mechanics                                                                                         | 3  | ENGR 3023 Heat Transfer                                                                                                            | 3  |
| ENGR 3063 Mass Transfer                                                                                           | 3  | ENGR 3111 Thermal Fluid Science Lab                                                                                                | 1  |
| *HIST 2013 or 2023 U.S. History I or II or PSCI 2003 American Government: National                                | 3  | ENGR 3352 Chemical Engineering Lab                                                                                                 | 2  |
| ENGR 2020 Engineering Exams                                                                                       | 0  | ENGR 3083 Numerical Methods in Engineering                                                                                         | 3  |
|                                                                                                                   |    | ENGR 3163 Computer Aided Engineering Analysis                                                                                      | 3  |
|                                                                                                                   |    | ENGR 2020 Engineering Exams                                                                                                        | 0  |
| Total Semester Hours                                                                                              | 12 | Total Semester Hours                                                                                                               | 15 |
| Fall - Semester 7                                                                                                 |    | Spring - Semester 8                                                                                                                |    |
| ENGR 4023 Senior Design Project I                                                                                 | 3  | UL physics or engineering electives (ENGR 4123 Senior Design Project II recommended)                                               | 3  |
| Fine Arts/Humanities<br>(ART 2013, HUM 2003, ENGL 2213, ENGL 2223, MUS 2003 or MUS 2013, PHIL 2403, or THEA 2003) | 3  | Social Science choice<br>(ECON 2103, FIN 2003, GEOG 2003, HIST 1003, HIST 1013, PSCI 2003, PSYC 2003, SOC 1003 or SOC 2003)        | 3  |
| ENGR 4033 Instrumentation and Control Systems                                                                     | 3  | ENGR 4703 Work Experience Learning I                                                                                               | 3  |
| ENGR 4043 Chemical Engineering Reactor Design                                                                     | 3  | ENGR 3073 Engineering Economics                                                                                                    | 3  |
| UL physics or engineering electives                                                                               | 3  | ENGR 2020 Engineering Exams                                                                                                        | 0  |
| ENGR 2020 Engineering Exams                                                                                       | 0  |                                                                                                                                    |    |
| Total Semester Hours                                                                                              | 15 | Total Semester Hours                                                                                                               | 12 |

Total hours required for major – 120

\*Note: Must have three hours of US history/government.