

## B.S. Chemistry Degree (ACS Certified) \*

*This is not an official list of degree requirements. Adjustments may be required due to curriculum changes.*

### First Year

Fall

| Course   | Credit    |
|--|-----------|
| CH 1130 PFDC 1: Orientation                    | 1         |
| CH 1150 University Chemistry I AND             | 3         |
| CH 1151 University Chemistry Lab 1 AND         | 1         |
| CH 1153 University Chemistry I Recitation      | 1         |
| PH 1100 Physics by Inquiry I                   | 1         |
| MA 1160 Calculus with Technology I             | 4         |
| UN 1015 Composition (OR UN 1025 Global Issues) | 3         |
| <b>Total</b>                                   | <b>14</b> |

Spring

| Course   | Credit    |
|--|-----------|
| CH 1160 University Chemistry II AND            | 3         |
| CH 1161 University Chemistry Lab II. AND       | 1         |
| CH 1163 University Chemistry II Recitation OR  | 1         |
| MA 2160 Calculus with Technology II            | 4         |
| PH 1200 Physics by Inquiry II                  | 1         |
| PH 2100 University Physics I – Mechanics       | 3         |
| UN 1025 Global Issues (OR UN 1015 Composition) | 3         |
| <b>Total</b>                                   | <b>16</b> |

### Second Year

Fall

| Course   | Credit    |
|--|-----------|
| CH 2130 PDFC 2: Career Planning                                    | 2         |
| CH 2430 Mechanistic Organic Chemistry                              | 3         |
| CH 2411 Organic Chemistry Lab I                                    | 1         |
| PH 2200 University Physics II – E & M                              | 3         |
| MA 2321 Elementary Linear Algebra                                  | 2         |
| MA 3521 Elementary Differential Equations                          | 2         |
| General Education Goal 4: Critical & Creative Thinking (or Goal 8) | 3         |
| <b>Total</b>   | <b>16</b> |

Spring

| Course  | Credit    |
|---|-----------|
| CH 2440 Synthetic Organic Chemistry   | 3         |
| CH 2421 Organic Chemistry Lab II  | 2         |
| CH 2210 Quantitative Analysis   | 3         |
| CH 2211 Quantitative Analysis Lab   | 2         |
| MA 3160 Multivariable Calculus with Technology                                  | 4         |
| General Education Goal 8: Social Responsibility & Ethical Reasoning (or Goal 4) | 3         |
| <b>Total</b>  | <b>17</b> |

### Third Year

Fall

| Course                              | Credit    |
|-------------------------------------|-----------|
| CH 3510 Physical Chemistry I        | 3         |
| CH 3511 Physical Chemistry Lab I    | 2         |
| CH 4210 Instrumental Analysis       | 3         |
| CH 4212 Instrumental Analysis Lab   | 2         |
| CH 4710 Biomolecular Chemistry I    | 3         |
| General Education HASS Distribution | 3         |
| <b>Total</b>                        | <b>16</b> |

Spring

| Course                              | Credit    |
|-------------------------------------|-----------|
| CH 3130 PDFC 3: Communication       | 1         |
| CH 3520 Physical Chemistry II       | 3         |
| CH 3521 Physical Chemistry Lab II   | 2         |
| ** Major Approved Elective          | 3         |
| General Education HASS Distribution | 6         |
| <b>Total</b>                        | <b>18</b> |

### Fourth Year

Fall

| Course                          | Credit    |
|---------------------------------|-----------|
| CH 4310 Inorganic Chemistry I   | 3         |
| CH 4311 Inorganic Chemistry Lab | 2         |
| ** Major Approved Elective      | 3         |
| Free Electives                  | 9         |
| <b>Total</b>                    | <b>17</b> |

Spring

| Course                              | Credit    |
|-------------------------------------|-----------|
| CH 4130 PDFC 4: Senior Seminar      | 2         |
| Free Electives                      | 9         |
| General Education HASS Distribution | 3         |
| <b>Total</b>                        | <b>14</b> |

**Grand Total = 125 Credits**

\* For the Chemistry Concentrations (Secondary Education, Chemical Physics, Environmental, Biochemistry, and Polymers) additional courses are required to fulfill the degree in those options.

\*\*Required Elective must be chosen from the specified Major Approved Electives list. CH 4990 Undergraduate Research is strongly recommended, but it must be taken for two semesters for a minimum of 6 credits.

**NOTE: 3 Units of co-curricular activities are required (P.E. courses are taught in 0.5 unit classes. Thus, 6 of these are needed for 3 units). It is highly recommended that students take at least one P.E. class during each semester of their first year, if possible.**