## F

## California State Polytechnic University, Pomona Degree Curriculum Sheet

| Plan (Major) CHEMISTRY  | Catalog Year 2013-2014    | Name       |
|-------------------------|---------------------------|------------|
| Subplan/OptionChemistry | Minimum Units Required180 | Student ID |

TGA\_\_\_\_\_ GWT Satisfied \_\_\_\_Yes

\_No

| Required Core Courses     |              |       |
|---------------------------|--------------|-------|
| Course                    |              | Units |
| General Chemistry         | CHM 121/121L | 3/1   |
| General Chemistry         | CHM 122/122L | 3/1   |
| General Chemistry         | CHM 123/123L | 3/1   |
| Quantitative Analysis     | CHM 221/221L | 2/2   |
| Organic Chemistry         | CHM 314      | 3     |
| Organic Chemistry         | CHM 315      | 3     |
| Organic Chemistry         | CHM 316      | 3     |
| Organic Chemistry Lab     | CHM 317L     | 1     |
| Organic Chemistry Lab     | CHM 318L     | 1     |
| Organic Chemistry Lab     | CHM 319L     | 1     |
| Spectroanalytical Methods | CHM 342/342L | 2/2   |
| Separation Methods        | CHM 343/343L | 2/2   |
| Electroanalytical Methods | CHM 344/344L | 2/2   |
| Physical Chemistry        | CHM 352/352L | 1/2   |
| Organic Synthesis         | CHM 422/422L | 2/2   |
| or Organic Analysis       | CHM 424/424L | (2/2) |
| Senior Research Project   | CHM 491      | 3     |
| Senior Research Project   | CHM 492      | 3     |
| Undergraduate Seminar     | CHM 493      | 2     |
|                           |              |       |
|                           | Total Units  | 55    |

| Required Subplan/Option Core Courses          |                      |       |
|-----------------------------------------------|----------------------|-------|
| Course                                        |                      | Units |
| Physical Chemistry                            | CHM 311              | 3     |
| Physical Chemistry                            | CHM 312              | 3     |
| Physical Chemistry                            | CHM 313              | 3     |
| Elements of Biochemistry                      | CHM 321/321L         | 3/1   |
| or (Biochemistry                              | CHM 327/327L         | (3/1) |
| and Biochemistry)                             | CHM 328/328L         | (3/1) |
| Physical Chemistry Lab                        | CHM 353L             | 2     |
| Inorganic Chemistry                           | CHM 401              | 3     |
| Inorganic Chemistry                           | CHM 402              | 3     |
| Two elective courses, approved 300, 400-level | or higher, excluding | 6-8   |
| CHM 400, 491, 492, 493 & 499.                 |                      |       |
|                                               | Total Units          | 27-29 |

| Required Support Courses      |                   |       |
|-------------------------------|-------------------|-------|
| Course                        |                   | Units |
| Basic Biology (B2, B3)        | BIO 115/115A/115L | 3/1/1 |
| Introduction to C++           | CS 128            | 4     |
| Analytic Geom & Calculus (B4) | MAT 114           | 4     |
| Analytic Geom & Calculus      | MAT 115           | 4     |
| Analytic Geom & Calculus      | MAT 116           | 4     |
| Differential Equations        | MAT 216           | 4     |
| General Physics (B1, B3)      | PHY 131/131L      | 3/1   |
| General Physics               | PHY 132/132L      | 3/1   |
| General Physics               | PHY 133/133L      | 3/1   |
|                               | Total Units       | 37    |

## **Other Requirements**

A reading knowledge of a foreign language, especially German, is strongly recommended for students planning advanced study in Science.

| Course                 | Units |
|------------------------|-------|
| Unrestricted Electives | 0-5   |

Select a sufficient number of courses so that the total from "Required Subplan/Option", "Required Support", "GE", and "Unrestricted Electives," is at least 125 units.

| Total Units | 0-5 |
|-------------|-----|
|             |     |

| Area   | •                                                | Units |
|--------|--------------------------------------------------|-------|
|        | Communication 8 Cuitical Thinking                | 12    |
|        | Communication & Critical Thinking                | 12    |
| 1      | Oral Communication                               |       |
| _      | Written Communication                            |       |
|        | Critical Thinking                                |       |
|        | Mathematics & Natural Sciences                   | 16    |
|        | t least one lab course from sub-area 1 or 2.     |       |
| 1      | Physical Science                                 |       |
|        | Biological Science                               |       |
|        | Laboratory Activity                              |       |
| 4      | Math/Quantitative Reasoning                      |       |
|        | Science & Technology Synthesis                   |       |
| Area C | Humanities                                       | 16    |
| 1      | Visual and Performing Arts                       |       |
| 2      | Philosophy and Civilization                      |       |
| 3      | Literature and Foreign Language                  |       |
| 4      | Humanities Synthesis                             |       |
| Area D | Social Sciences                                  | 20    |
| 1      | U.S. History, Constitution, American Ideals      |       |
|        | History, Economics and Political Science         |       |
| 3      | Sociology, Anthropology, Ethnic & Gender Studies |       |
| 4      | Social Science Synthesis                         |       |
|        | Lifelong Understanding & Self Development        | 4     |
|        | Total Units                                      | 68    |

| American Institutions | A | merican | Institutions |
|-----------------------|---|---------|--------------|
|-----------------------|---|---------|--------------|

| American mattationa                                              |   |
|------------------------------------------------------------------|---|
| Courses that satisfy this requirement may also satisfy G.E. Area | 8 |
| D1                                                               |   |

| American Cultural Perspectives Requirement                           |   |
|----------------------------------------------------------------------|---|
| Refer to catalog for list of courses that satisfy this requirements. | 4 |
| Course may also satisfy major, minor, GE, or unrestricted elective   |   |
| requirements.                                                        |   |

| The following required support courses should be taken to satisfy the indicated GE Requirements to achieve the minimum units to degree listed at the top of this sheet. |                   |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------|
| Course                                                                                                                                                                  |                   | GE Area  |
| General Physics                                                                                                                                                         | PHY 131/131L      | B1, B3   |
| Basic Biology                                                                                                                                                           | BIO 115/115A/115L | B2, B3   |
| Analytic Geom & Calculus                                                                                                                                                | MAT 114           | B4       |
| The remaining GE requirements may be satisfied by any course approved for that area.                                                                                    |                   | oved for |

No more than 105 community college quarter units or 36 extension credit quarter units may be applied toward a Bachelor's degree.

A minimum 2.0 cumulative GPA is required in core (including option) courses, Cal Poly Pomona courses, and overall work completed in order to receive a degree in this major.