**Required Chemistry Courses: 50 Total Credits**

*Please note that a grade of “C” or higher is required for all courses in the major*

<table>
<thead>
<tr>
<th>Course Prefix &amp; Number</th>
<th>Course Title</th>
<th>Credits</th>
<th>Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ CHM 2045 &amp; □ CHM 2045L</td>
<td>General Chemistry I &amp; Lab</td>
<td>4</td>
<td>MAC 1105 &amp; One year of High School Chemistry or CHM 2023</td>
</tr>
<tr>
<td>□ CHM 2046 &amp; □ CHM 2046L</td>
<td>General Chemistry II &amp; Lab</td>
<td>4</td>
<td>CHM 2045 &amp; Lab</td>
</tr>
<tr>
<td>□ CHM 2210 &amp; □ CHM 2210L</td>
<td>Organic Chemistry I &amp; Lab</td>
<td>5</td>
<td>CHM 2046 &amp; Lab</td>
</tr>
<tr>
<td>□ CHM 2211 &amp; □ CHM 2211L</td>
<td>Organic Chemistry II &amp; Lab</td>
<td>5</td>
<td>CHM 2210 &amp; Lab</td>
</tr>
<tr>
<td>□ CHM 3120C</td>
<td>Elementary Analytical Chemistry &amp; Lab</td>
<td>4</td>
<td>CHM 2046 &amp; Lab</td>
</tr>
<tr>
<td>□ CHM 3610 &amp; □ CHM 3610L</td>
<td>Intermediate Inorganic Chemistry &amp; Lab</td>
<td>4</td>
<td>CHM 2046 &amp; Lab</td>
</tr>
<tr>
<td>□ BCH 4033 (Fall Only)</td>
<td>Advanced Biochemistry I</td>
<td>3</td>
<td>CHM 2211, BSC 2010</td>
</tr>
<tr>
<td>□ CHM 4060</td>
<td>Use of Chemical Literature</td>
<td>1</td>
<td>CHM 2211</td>
</tr>
<tr>
<td>□ CHM 4410 (Fall only)</td>
<td>Physical Chemistry I</td>
<td>4</td>
<td>CHM 2046 &amp; Lab; MAC 2312; PHY 2049 &amp; Lab</td>
</tr>
<tr>
<td>□ CHM 4410L</td>
<td>Physical Chemistry Lab</td>
<td>1</td>
<td>CHM 4410</td>
</tr>
<tr>
<td>□ CHM 4411 (Spring only)</td>
<td>Physical Chemistry II</td>
<td>4</td>
<td>CHM 2046 &amp; Lab, MAC 2312, PHY 2049 &amp; Lab</td>
</tr>
<tr>
<td>□ CHM 4611(Spring only)</td>
<td>Advanced Inorganic Chemistry</td>
<td>3</td>
<td>CHM 3610, CHM 4410 or Consent of Instructor</td>
</tr>
<tr>
<td>□ CHM 4130C (Fall only)</td>
<td>Methods of Chemical Investigation I</td>
<td>4</td>
<td>CHM 2211 &amp; Lab, CHM 3120C, CHM 4060, CHM 4410</td>
</tr>
<tr>
<td>□ CHM 4131C (Spring only)</td>
<td>Methods of Chemical Investigation II</td>
<td>4</td>
<td>CHM 4130C</td>
</tr>
</tbody>
</table>

**Upper-Division Residency Requirement:** At least 9 credit hours of major-applicable upper-level courses must be completed at USF

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**Required Supporting Courses: 20 Credits**

*It is suggested that B.S. students complete their Math and Physics requirements prior to their junior year.*

**Mathematics Courses: 12 Credits**

- □ MAC 2311 Calculus I
- □ MAC 2312 Calculus II
- □ MAC 2313 Calculus III

**Physics Courses: 8 Credits**

- □ PHY 2048 & □ PHY 2048L Physics I & Lab
- □ PHY 2049 & □ PHY 2049L Physics II & Lab

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**Required Natural Science Courses: 6 Credits**

- □ BSC 2010 Cellular Processes (3cr) **Required**

  **AND**

  - One (3cr) 3000/4000 level course applicable to a major in a Natural Science or Engineering Department such as: Biology, Geology, Math, Physics, Environmental Science, etc.

  **OR**

  - One (3cr) 2000 level natural science course such as: BSC 2011, GLY 2010, GLY 2100, EVR 2001, CGS 2060, ENG 2210,

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**Suggested Additional Electives—Do Not count towards the major!**

- □ CHM 4932 Selected topics in Chemistry (1-3cr)
- □ CHM 4970 Undergraduate Research (0-3cr)
- □ BCH 3023L Biochemistry Lab (2cr)
- □ CHM 4034 Advanced Biochemistry II (3cr)
- □ CHM 4070 Historical Perspectives in Chemistry (3cr)
Students should regularly review their DegreeWorks audit to ensure they are on track to complete all graduation Requirements, and in preparation for all advising appointments.
If you are already declared as a Chemistry BS major, follow these steps to review your Degree Works report online:
Go to http://Degreeworks.usf.edu → Type in NetID and password →
View your degree audit! (DegreeWorks can also be accessed through BlackBoard and OASIS)

Schedule your advising appointment at http://chemistry.usf.edu/advising/appt/
To declare your major visit: http://www.cas.usf.edu/declare

General Education Common Core/Foundations of Knowledge and Learning Lower-Level Requirements

General Education Common Core
☐ ENC 1101 (3cr)
☐ ENC 1102 (3cr)
☐ Social/Behavioral Sciences (3cr)
☐ ______________________ (Select from: AMH 2020, ANT 2000, ECO 2013, POS 2041, PSY 2012, and SYG 2000)
☐ Humanities (3cr)

Additional USF Foundations of Knowledge and Learning (FKL) courses (*No duplicate credit allowed):
☐ Social/Behavioral Sciences (3cr)
☐ ______________________
☐ Humanities (3cr)
☐ ______________________
☐ Fine Arts (3cr)
☐ ______________________
☐ Human/Cultural Diversity in a Global Context (3cr)
☐ ______________________
☐ Two Courses from the above categories must meet the Human Historical Context and Process dimension (6cr)
☐ ENC1101 (3cr)
☐ ______________________ (3cr)

Upper-Level Requirements:
*Require 60 completed credit hours and must be chosen only from the list in the Catalog or Schedule of Classes.
☐ Capstone exit course (3cr) ______________________
☐ Writing Intensive exit course (3cr) ______________________

120 credits: A Bachelor’s degree requires a minimum of 120 credit hours.

48 upper level credits: All students are required to take at least 48 credits at the 3000 & 4000 level. Please note: The Chemistry BS Tier 2 U/L major courses will satisfy _______ credits of the required 48 credits and the exit courses-combined- will satisfy another _______ credits. Based on the number of upper level credits you have already taken, you have _____ upper level credits remaining, outside of the major and exit courses.

9 credit summer rule: All students who enter USF with fewer than 60 credits are required to take at least 9 credits of course work in the summer at a State University System (SUS) 4-year University.

12 cr of Gordon Rule Writing ENC 1101 & ENC 1102, Writing Intensive Exit Course and one additional course _________

FLENT: Foreign Language Entrance Requirement: All students must have two years of the same foreign language in high school. Students without this requirement must take two semesters of foreign language in college.

See the USF catalog for a complete list of graduation requirements. The final responsibility for meeting all graduation requirements stated in the catalog rests with the student. This sheet is not meant to be a complete list of University Graduation requirements.