### Chemistry, B.A., Biochemistry Emphasis (CHM) Catalog Years 2018 & Later

#### Required Chemistry Courses: 30 Total Credits

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

**Lower-Level Chemistry Courses: 18 Credits**
- CHM 2045 □ CHM 2045L General Chem. I & Lab
- CHM 2046 □ CHM 2046L General Chem. II & Lab
- CHM 2210 □ CHM 2210L Organic Chem. I & Lab
- CHM 2211 □ CHM 2211L Organic Chem. II & Lab

**Upper-Level Chemistry Courses: 12 Credits**
- CHM 3120C Elementary Analytical Chemistry
- BCH 4033 Advanced Biochemistry I (Fall Only)
- BCH 3023L Biochemistry Lab
- BCH 4034 Advanced Biochemistry II (Spring Only)

**Required Chemistry Electives: Choose 9 credits of courses from the following list:**

<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 3610</td>
<td>Intermediate Inorganic Chemistry</td>
<td>3</td>
<td>CHM 2046 &amp; Lab</td>
</tr>
<tr>
<td>□ CHM 3610L</td>
<td>Intermediate Inorganic Chemistry Lab</td>
<td>1</td>
<td>CHM 2046 &amp; Lab AND CHM 3610 as co-requisite</td>
</tr>
<tr>
<td>□ CHM 4060</td>
<td>Use of Chemical Literature</td>
<td>1</td>
<td>CHM 2211</td>
</tr>
<tr>
<td>□ CHM 4070</td>
<td>Historical Perspectives in Chemistry</td>
<td>3</td>
<td>CHM 2046 and junior standing</td>
</tr>
<tr>
<td>□ CHM 4230</td>
<td>Spectroscopic Analysis of Organic Compounds</td>
<td>3</td>
<td>CHM 2211</td>
</tr>
<tr>
<td>□ CHM 4274 (Fall Only)</td>
<td>Introduction to Drug Discovery</td>
<td>3</td>
<td>CHM 2211 &amp; BSC 2010</td>
</tr>
<tr>
<td>□ CHM 4292 (Spring Only)</td>
<td>Introduction to Medicinal Chemistry</td>
<td>3</td>
<td>CHM 2211 &amp; BCH 3053 or BCH 4033 or BCH 3023</td>
</tr>
<tr>
<td>□ CHM 4300 (Fall only)</td>
<td>Biomolecules</td>
<td>3</td>
<td>CHM 2211</td>
</tr>
<tr>
<td>□ CHM 4307</td>
<td>BioOrganic Chemistry</td>
<td>3</td>
<td>BCH 3053 or BCH 4033</td>
</tr>
<tr>
<td>□ CHM 4410 (Fall only)</td>
<td>Physical Chemistry I</td>
<td>4</td>
<td>CHM 2046 &amp; lab, MAC 2312, AND PHY 2054 &amp; lab or PHY 2049 &amp; lab</td>
</tr>
<tr>
<td>□ CHM 4410L</td>
<td>Physical Chemistry I 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, AND PHY 2054 &amp; ab or PHY 2049 &amp; lab</td>
</tr>
<tr>
<td>□ CHM 4413 (Spring only)</td>
<td>Biophysical Chemistry</td>
<td>3</td>
<td>CHM 4410</td>
</tr>
<tr>
<td>□ CHM 4455</td>
<td>Chemistry of High Polymers</td>
<td>3</td>
<td>CHM 2210</td>
</tr>
<tr>
<td>□ CHM 4932</td>
<td>Special Topics in Chemistry *Contact advisor for approval of courses</td>
<td>1-3</td>
<td>Vary dependent on course</td>
</tr>
<tr>
<td>□ CHM 4970</td>
<td>Undergraduate Research</td>
<td>1</td>
<td>Only 1hr max counts towards Chemistry hours</td>
</tr>
</tbody>
</table>

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

#### Required Supporting Courses 24 credits

**Mathematics Courses: 8 Credits**
- MAC 2311 Calculus I
- MAC 2312 Calculus II

**Physics Courses: 8 Credits**
- PHY 2048 & □ PHY 2048L OR □ PHY 2053 & □ PHY 2053L Physics I & Lab
- PHY 2049 & □ PHY 2049L OR □ PHY 2054 & □ PHY 2054L Physics II & Lab

**Natural Science Courses: 8 Credits**
- BSC 2010 □ BSC 2010L Cellular Processes & Lab
- PCB 3023 □ PCB 3023L Cell Biology & Lab
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 BA—Biochemistry emphasis 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 Canvas and OASIS)

General Education Common Core & Additional USF Enhanced General Education courses:

☐ ENC 1101 (3cr)

☐ ENC 1102 (3cr)

☐ Gen Ed Core Social/Behavioral Sciences (3cr)

☐ Gen Ed Core Humanities (3cr)

☐ Gen Ed Core Information & Data Literacy (3cr)

☐ Gen Ed Core Ethical Reasoning & Civic Engagement (3cr)

☐ Gen Ed Core Creative Thinking (3cr)

☐ Gen Ed Core Human/Cultural Diversity (3cr)

☐ Gen Ed Core High Impact Practice (3cr)

☐ Civics Literacy Requirement

Select from: AMH 2020: American History II (3cr) or POS 2041: American National Government (3cr)

OR Complete the online Canvas test (pass with 60% or higher)

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

_____ cr→ 42 upper level credits: All students are required to take at least 42 credits at the 3000 & 4000 level. Please note: The Chemistry BA—Biochemistry emphasis major courses will satisfy _____ credits of the required 42 credits. Based on the number of upper level credits you have already taken, you have _____ upper level credits remaining, outside of the major courses.

_____ cr→ 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, and two additional courses __________________ & __________________

_____ 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.

_____ FLEX: Foreign Language Exit Requirement: Bachelor of Arts students are required to take two semesters of a foreign language in college. Please visit Cooper 419 if you choose to test out of this requirement. American Sign Language will count for science majors.

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.