### Undergraduate Program Planning Sheet

**NAME:** __________________________

**U.I.D.:** _________________________

**DATE:** __________________________

<table>
<thead>
<tr>
<th>Freshman 1</th>
<th>Freshman 2</th>
<th>Sophomore 1</th>
<th>Sophomore 2</th>
<th>Junior 1</th>
<th>Junior 2</th>
<th>Senior 1</th>
<th>Senior 2</th>
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<tbody>
<tr>
<td><strong>CAS MA 123</strong>&lt;br&gt;Calculus I</td>
<td><strong>CAS CH 111</strong>&lt;br&gt;Intensive General Chemistry I</td>
<td><strong>CAS WR 100</strong>&lt;br&gt;Writing Seminar</td>
<td>Foreign Language Requirement I</td>
<td><strong>CAS MA 124</strong>&lt;br&gt;Calculus II</td>
<td><strong>CAS CH 112</strong>&lt;br&gt;Intensive General Chemistry II</td>
<td>Social Science/Humanities Elective</td>
<td>Foreign Language Requirement II</td>
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<td><strong>CAS MA 225</strong>&lt;br&gt;Calculus II</td>
<td><strong>CAS CH 211</strong>&lt;br&gt;Intensive Organic Chemistry</td>
<td><strong>CAS PY 211</strong>&lt;br&gt;Physics I</td>
<td>Foreign Language Requirement III</td>
<td><strong>CAS CH 232</strong>&lt;br&gt;Inorganic Chemistry [Spring only]</td>
<td><strong>CAS CH 212</strong>&lt;br&gt;Intensive Organic Chemistry II</td>
<td><strong>CAS PY 212</strong>&lt;br&gt;Physics II</td>
<td>Foreign Language Requirement IV</td>
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<tr>
<td><strong>CAS CH 351</strong>&lt;br&gt;Physical Chemistry [Fall only]</td>
<td>Advanced Lab CORE*</td>
<td>Social Science/Humanities Elective</td>
<td>Elective</td>
<td><strong>CAS CH 352</strong>&lt;br&gt;Physical Chemistry II [Spring only]</td>
<td>Advanced Lab CORE*</td>
<td>Social Science/Humanities Elective</td>
<td>Elective</td>
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<tr>
<td><strong>CAS CH 421</strong>&lt;br&gt;Biochemistry I [Fall only]</td>
<td>Advanced Elective** CH 401 or higher</td>
<td>Social Science/Humanities Elective</td>
<td>Elective</td>
<td><strong>Advanced Elective</strong> CH 401 or higher</td>
<td>Elective</td>
<td>Elective</td>
<td>Elective</td>
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**Key:**
- Chemistry Required Courses
- Social Science/Humanities
- Math
- Natural Science
- Electives
- Foreign Language

**CAS Requirements Checklist:**

- 1.) WR 100
- 2.) WR 150
- 3.) 2 courses in Social Science
- 4.) 2 courses in Humanities
- 5.) 4 semesters of a foreign language

**Notes:**

1.) CH 109/110 or CH 101/102/201 fulfills CH 111/112 requirement
2.) CH 111/112 now fulfills the WR 150 requirement but NOT WR 100.
   If CH 109/110 or CH 101/102/220 is taken WR 150 must also be taken
3.) CH 203/214 or CH 203/204/220 fulfills CH 211/212 requirement
4.) MA 127 or MA 129 fulfills MA 123/124 requirement
5.) MA 230 fulfills MA 225 requirement
6.) PY 241/247 or PY 251/257 fulfills PY 211/212 requirement
REQUIREMENTS: Students majoring in Chemistry are required to complete a minimum of 128 credits as detailed on the Program planning sheet on the other side of this form.

ADVANCED PLACEMENT: Students who come in with AP/transfer credit may bypass some of the requirements listed above opening up slots for additional electives.

CONCENTRATION IN CHEMISTRY:

Option A (Intensive): Core chemistry course, required related courses, plus two advanced four-credit courses in chemistry numbered CAS CH 401 or higher; only one of these two advanced courses may be a research course, i.e., CH 401, CH 402, CH 491 or CH 492. These two advanced courses may be satisfied by the completion of the requirements of a major or minor concentration in astronomy, biology, biomedical engineering, earth sciences, physics, mathematics, neuroscience or computer science. Students in MMEDIC program may substitute GMS BI 555 and CAS CH 527 for CH 421, and GMS BI 556 and CAS CH 528 for CH 422; one additional course in chemistry numbered CAS CH 401 or higher is required. Please note the Program Planning Sheet above outlines Option A.

Option B: Core chemistry courses, required related courses, plus one additional advanced four-credit course as described under Option A.

CONCENTRATION IN BIOCHEMISTRY:

Option A: Core chemistry course, required related courses, plus:

CAS BI 108
CAS BI 203
CAS CH 422

And one additional course in biochemistry or molecular biology from the following: CAS BB 522, BI 552, or undergraduate research in biochemistry (CH 401, CH 402, CH 491, CH 492).

Option B: Core chemistry courses (GMS BI 555 plus CAS CH 527 is substituted for CH 421), required related courses, plus:

CAS BI 108
CAS BI 203
GMS BI 556

And one additional course in biochemistry from the following: CAS BB 522 or undergraduate research in biochemistry (CH 401, CH 402, CH 491, CH 492).

CONCENTRATION IN TEACHING OF CHEMISTRY: Core chemistry courses, required related courses, plus:

SED ED 100/101
SED DS 502
SED SE 251
SED ED 410/412
SED CT 575
SED SC 571/572
SED SC 509 or SED SC 510

BA/MA in Chemistry: This program of a minimum of 37 courses allows the student to receive the Bachelor of Arts (BA) and Masters of Arts (MA) degrees in five years. With the consent of the advisor, and with two summers of academic work, the program may be completed in four years.

Minor in Chemistry: CAS CH 111/112 (or CH 101/102/201 or CH 109/110), CH 211/212 (or CH 203/214 or CH 203/204/220) and one advanced four-credit course in chemistry (CH 232 or a 300-level or higher non research course). Students in the MMEDIC program may substitute GMS BI 555/556 for this advanced course. Neither CH 201 nor CH 220 may be counted toward the five course requirements for the minor in chemistry. Note that according to CAS rules, “a student wishing to take a minor concentration may use no more than two course from a concentration to fulfill the requirements of a minor concentration.”

For additional information on BA/MA, Teaching of Chemistry degree, and Chemistry minor please visit: http://bu.edu/chemistry/undergrad/requirements/

College of Arts and Sciences Requirements: For a list of specific courses that satisfy the Social Science and Humanities, please go to the College of Arts and Science Undergraduate Requirements website at: http://www.bu.edu/academics/cas/programs/divisional-studies/