CHEMISTRY BS with a concentration in Biochemistry
Fall 2014 – Spring 2015

CONTACT INFORMATION
• Honors College Advisor: Patricia Granfield (pgranfie@gm.edu)
• Department Chair: John Schreifels (jschreif@gm.edu)
• Department Undergraduate Coordinator: Suzanne Slayden (sslayden@gmu.edu)

Once students begin attending Mason and declare a major they should see both their Honors College and their major department advisor for advising. Students must confirm their major requirements with their department advisor and with Patriot Web’s Degree Evaluation.

NOTE FROM CHEMISTRY DEPARTMENT: Effective Spring 2014, a minimum grade of C is required in all prerequisite chemistry courses number 212 and higher.

REQUIRED HOURS
• Hours required in major: 72
• This major requires a total of 120 credits to graduate, 45 of which must be at the 300-level and above.
• Hours required in Honors: see honors advisor.

HONORS REQUIREMENTS (see advising section of Honors College website for further details)
• All Honors College students earning a BS degree must complete Requirements 1 and 2 of the Honors College Curriculum, including taking 3 courses under Requirement 2. In general, it is expected that those students earning a BS will take HNRS 122, HNRS 131, and HNRS 240 to fulfill Requirement 2. If they do not, then they must complete the corresponding general education requirement with courses that are outlined in the University Catalog for your catalog year.
• Students earning a BS degree must complete Requirement 3 by taking two additional Honors courses beyond Requirements 1 and 2 of the Honors College Curriculum. These courses must be approved by your Honors College advisor in your Plan of Study.

ADVISING SHEET
 o Honors College Requirement
 ♦ Department Requirement

<table>
<thead>
<tr>
<th>1st Year – 1st Semester (Fall)</th>
<th>Credits</th>
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<tbody>
<tr>
<td>♦ HNRS 110: Research Methods (Grade C or better required)</td>
<td>4</td>
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<tr>
<td>♦ MATH 113: Analytic Geometry and Calculus I (a placement exam is required)</td>
<td>4</td>
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<tr>
<td>♦ CHEM 211 or 211H: General Chemistry I</td>
<td>4</td>
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<tr>
<td>♦ BIOL 213 or BIOL 213H: Cell Structure and Function (Pre-requisite for BIOL 213H (honors section only): AP Biology or equivalent IB or dual enrollment course in high school)</td>
<td>4</td>
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<tr>
<td>Semester Total</td>
<td>16</td>
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<thead>
<tr>
<th>1st Year – 2nd Semester (Spring)</th>
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<tr>
<td>♦ HNRS 122: Reading the Arts</td>
<td>3</td>
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<tr>
<td>♦ MATH 114 (prerequisite: grade of C or better in MATH 113) or MATH 116</td>
<td>4</td>
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<tr>
<td>♦ CHEM 212 or 212H: General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>♦ Elective</td>
<td>3</td>
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<tr>
<td>Semester Total</td>
<td>14</td>
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### 2nd Year – 1st Semester (Fall)

- **HNRS 131: Contemporary Society in Multiple Perspectives** (or HNRS 230 in the spring) **3**
- **CHEM 313: Organic Chemistry** (Co-requisite: CHEM 315) **3**
- **CHEM 315: Organic Chemistry Lab I** (Co-requisite: CHEM 313) **2**
- **PHYS 243 & PHYS 244: College Physics I and Lab** or **PHYS 160/ 160H² & PHYS 161: University Physics I and Lab²** **4**
- **Elective** **3**

**Semester Total** **15**

### 2nd Year – 2nd Semester (Spring)

- **CHEM 314: Organic Chemistry II** (Co-requisite: CHEM 318) **3**
- **CHEM 318: Organic Chemistry Lab II** (Co-requisite: CHEM 314) **2**
- **CHEM 321: Elementary Quantitative Analysis** **4**
- **PHYS 245 & 246: College Physics II and College Physics II Lab** or **PHYS 260/ 260 H² & PHYS 261: University Physics II and Lab²** **4**
- **Elective** **2-3**

**Semester Total** **15-16**

### 3rd Year – 1st Semester (Fall)

- **HNRS 240: Reading the Past** **3**
- **CHEM 331: Physical Chemistry I** (Prerequisite: MATH 114, CHEM 314 & 318, CHEM 321. Pre- or Co-requisite: PHYS 243 or PHYS 160) **3**
- **CHEM 336: Physical Chemistry Lab I** (Pre-requisite: CHEM 321) **2**
- **CHEM 463: General Biochemistry I** (Prerequisite: MATH 114, BIOL CHEM 314 & 318, PHYS 245 & 246) **4**
- **Elective** **3**

**Semester Total** **15**

### 3rd Year – 2nd Semester (Spring)

- **HNRS 353: Technology in the Contemporary World** (grade of C or better required) **3**
- **CHEM 464: General Biochemistry II** **3**
- **CHEM 465: Biochemistry Lab** **2**
- **BIOL 305/306: Biology of Microorganisms and Biology of Microorganisms Lab** **4**
- **Elective** **3**

**Semester Total** **15**

### 4th Year – 1st Semester (Fall)

- **CHEM or BIOL Elective I at 302 or above** **3**
- **CHEM or BIOL Elective II at 302 or above** **3**
- **Electives** **9**

**Semester Total** **15**
### 4th Year – 2nd Semester (Spring)

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<tr>
<th>Course</th>
<th>Hours</th>
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<tr>
<td>♦ CHEM 446: Bioinorganic Chemistry (Prerequisite: CHEM 331, CHEM 336, CHEM 463)</td>
<td>3</td>
</tr>
<tr>
<td>♦ CHEM or BIOL Elective III at 302 or above</td>
<td>3</td>
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<tr>
<td>▲ Electives</td>
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</tr>
<tr>
<td>Semester Total</td>
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</tr>
<tr>
<td>Total Hours</td>
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**NOTES**

1. MATH 113 fulfills the quantitative reasoning requirement for Honors. MATH 113 requires a placement exam. See the Math department for exam days and times.
2. The Honors sections of these courses can be used to satisfy Honors College Requirement 3.