The University Of Toledo
Program Requirement Revision Form

Please list the proposed program structure.

<table>
<thead>
<tr>
<th>College: Natural Sciences &amp; Mathematics</th>
<th>Dept: Chemistry</th>
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<tbody>
<tr>
<td>Contact Person: Xiche Hu</td>
<td>Phone: 530-1513</td>
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<tr>
<td>Email: <a href="mailto:xhu@utoledo.edu">xhu@utoledo.edu</a></td>
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<tr>
<td>Program Name: BA in Chemistry</td>
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<td>Program Level: □ Graduate  □ Undergraduate</td>
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CHANGES AND REASONS FOR CHANGES

See attached.

APPROVAL:

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<tr>
<th>Department Curriculum Authority:</th>
<th>Signature</th>
<th>Date</th>
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<tr>
<th>Department Chairperson:</th>
<th>Signature</th>
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<tr>
<th>College Dean:</th>
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<th>Date</th>
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<tr>
<td></td>
<td>Christine A. Habrecht</td>
<td>3/22/12</td>
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After college approval, submit the original signed form to the Faculty Senate (UH3320) for undergraduate-level courses; for graduate-level courses submit the original signed form to the Graduate School (UH3240).
The University of Toledo

PROGRAM REQUIREMENT REVISION

Please list the proposed program structure. Attach additional pages as necessary.

College: NSM        Dept/Academic Unit: CHEM
Contact Person: Xiche Hu  Phone: x1513
Email: XHu@utoledo.edu

Program Name: Chemistry BA

Program Level: Undergraduate

Changes and Reason for Changes (Less than 1500 words or 5000 bytes):
The primary reason for the changes is the new credit requirements of the College of Natural Sciences and Mathematics, which requires students pursuing a BA degree to have 34 hrs in the major and a combined total of 58 hrs in the major and related courses.

The specific changes include:
➢ Increase the number of required credits for CHEM courses from 33 to 35.
➢ Add one more chemistry elective with 2 to 4 credits.
➢ Add one more required course to the related courses so that the total number of credits increases to 21-22 from 18.
Program: Chemistry BA.

1. Required CHEM Courses (35 credits)
   - CHEM 1230       General Chemistry I                  4
   - CHEM 1240       General Chemistry II                 4
   - CHEM 1280       General Chemistry Lab I              1
   - CHEM 1290       General Chemistry Lab II             1
   - CHEM 2410       Organic Chemistry I                  3
   - CHEM 2420       Organic Chemistry II                 3
   - CHEM 2480       Organic Separations and Elementary Synthesis 2
   - CHEM 2490       Synthesis and Identification of Organic Compounds 2
   - CHEM 3310       Analytical Chemistry                 2
   - CHEM 3360       Analytical Chemistry Laboratory WAC   2
   - CHEM 3710       Physical Chemistry for the Biosciences I 3
   - CHEM 3720       Physical Chemistry for the Biosciences II 3
   - CHEM 3860       Advanced Laboratory I WAC            2
   - Choose one from:
     - CHEM 3510       Biochemistry I                      3
     - CHEM 3610       Inorganic Chemistry I               3

2. CHEM Elective Courses (2 to 4 credits)
   - Choose one from any remaining 3000 or 4000 level CHEM courses except CHEM 3910, 3920, 4910 or 4920.

3. Required Non-CHEM Courses (21-22 credits)
   - Choose one from:
     - MATH 1850 & 1860 Calculus I & II                    4, 4
     - MATH 1830 & 1840 Calculus I & II                    4, 4
     (for Mathematicians, Scientists and Educators)
   - Choose one from:
     - PHYS 2070 & 2080 General Physics I & II             5, 5
     - PHYS 2130 & 2140 General Physics I & II for Scientists & Engineers 5, 5
   - Choose one from:
     - MATH 2850, 2890 or 3610: BIOL 2170 or any other 4000 level BIOL course; or EEES 2010, 2200, 2400, 3050, 4220 or 4450.

TOTAL                                      58-61