Submit originals and one copy and electronic copy to Governance/Faculty Senate Office (email electronic copy to jbharvie@alaska.edu)

**PROGRAM/DEGREE REQUIREMENT CHANGE (MAJOR)**

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<tr>
<th>SUBMITTED BY:</th>
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<tbody>
<tr>
<td>Department</td>
<td>Chemistry &amp; Biochemistry</td>
</tr>
<tr>
<td>Prepared by</td>
<td>Tom Green</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:tkgreen@alaska.edu">tkgreen@alaska.edu</a></td>
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</tbody>
</table>

**College/School**

| CNSM |

**Phone**

| 474-1559 |

**Faculty Contact**

| Tom Green |


**PROGRAM IDENTIFICATION:**

| DEGREE PROGRAM | Minor – Biochemistry |

**Degree Level:** (i.e., Certificate, A.A., A.A.S., B.A., B.S., M.A., M.S., Ph.D.)

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**A. CHANGE IN DEGREE REQUIREMENTS:** (Brief statement of program/degree changes and objectives)

We have incorporated Chem F323 Organic Chemistry Laboratory, 1 credit, into Chem F322 Organic Chemistry II, which becomes 4 credits. This streamlines the organic offerings. Students still have two options in Category 3.

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**B. CURRENT REQUIREMENTS AS IT APPEARS IN THE CATALOG:**

**Minors**

**Biochemistry**

1. Complete the following:
   - CHEM F105X--General Chemistry I--4 credits
   - CHEM F106X--General Chemistry II--4 credits
2. Complete the following:
   - CHEM F321--Organic Chemistry I--4 credits
   - CHEM F322--Organic Chemistry II--3 credits
   - CHEM F331--Physical Chemistry I--4 credits
   - CHEM F451--General Biochemistry -- Metabolism--3 credits
3. Complete one of the following chemistry lab courses:
   - CHEM F202--Basic Inorganic Chemistry--3 credits
   - CHEM F212--Chemical Equilibrium and Analysis--4 credits
   - CHEM F323--Organic Chemistry Laboratory--1 credits
4. Minimum credits required--23-26 credit

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**C. PROPOSED REQUIREMENTS AS IT WILL APPEAR IN THE CATALOG WITH THESE CHANGES:**

(Underline new wording, strike through old wording and use complete catalog format)

**Minors**

**Biochemistry**

1. Complete the following:
   - CHEM F105X--General Chemistry I--4 credits
   - CHEM F106X--General Chemistry II--4 credits

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College of Natural Science & Mathematics

Governance 9/30/14
2. Complete the following:
   - CHEM F331 -- Organic Chemistry I -- 4 credits
   - CHEM F332 -- Organic Chemistry II -- 3 credits
   - CHEM F333 -- Physical Chemistry I -- 4 credits
   - CHEM F4351 -- General Biochemistry -- Metabolism -- 3 credits
3. Complete one of the following chemistry lab courses:
   - CHEM F202 -- Basic Inorganic Chemistry -- 3 credits
   - CHEM F212 -- Chemical Equilibrium and Analysis -- 4 credits
   - CHEM F223 -- Organic Chemistry Laboratory -- 1 credit
4. Minimum credits required: 26 credits

D. ESTIMATED IMPACT

WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.

No major impact. Chem F323 (1 credit) is simply rolled into Chem F322, which becomes 4 credits. There are now 2 credits of organic lab included in the required courses in Category 2 in the form of Chem F321 and Chem F322.

E. IMPACTS ON PROGRAMS/DEPTS:

What programs/departments will be affected by this proposed action?

Our concept in the minor is for students to take four course beyond General Chemistry (Chem F105X and Chem F106X). Since Chem F323 is rolled into Chem F322, changing it from 3 credits to 4 credits, the students must take 15 credits in category 2, rather than 14 credits. In category 3, the options are now Chem F202 or Chem F212, so the minimum credits changes to 26-27 credits.

F. IF MAJOR CHANGE - ASSESSMENT OF THE PROGRAM:

Description of the student learning outcomes assessment process.

Students will still be able to gain the necessary synthetic organic lab skills through the Chem F321 and Chem F322, which are both 4 credits and include a lab.

JUSTIFICATION FOR ACTION REQUESTED

The purpose of the department and campus-wide curriculum committees is to scrutinize program/degree change applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. If you drop a course, is it because the material is covered elsewhere? Use as much space as needed to fully justify the proposed change and explain what has been done to ensure that the quality of the program is not compromised as a result.

We are adopting a more standard organic chemistry curriculum, where both Chem 321 (Organic Chem I) and Chem 322 (Organic Chem II) are both 4 credits and include 3-4 lab hours. The proposed change will be able to meet the needs of organic chemistry lab requirements of all of our chemistry majors as well as pre-professional students and/or biology majors. The minor in Biochemistry is affected only slightly.
## Approvals: Signatures Must Be Obtained Prior to Submission to the Governance Office

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<tr>
<th>Signature, Chair, Program/Department of:</th>
<th>Date</th>
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<tbody>
<tr>
<td>[Signature] Chemical &amp; Biochemistry</td>
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<th>Signature, Dean, College/School of:</th>
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<td>[Signature] CNSM</td>
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## Chair Signature Obtained Following Approval by Faculty Senate Committee

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<thead>
<tr>
<th>Signature, Chair, UAF Faculty Senate</th>
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<tbody>
<tr>
<td>[Signature] Curriculum Review Committee</td>
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