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)

SUBMITTED BY:

<table>
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<tr>
<th>Department</th>
<th>College/School</th>
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<tbody>
<tr>
<td>Chemistry &amp; Biochemistry</td>
<td>CNSM</td>
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<tr>
<th>Prepared by</th>
<th>Phone</th>
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<tbody>
<tr>
<td>Tom Green</td>
<td>474-1559</td>
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<table>
<thead>
<tr>
<th>Email Contact</th>
<th>Faculty Contact</th>
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<tbody>
<tr>
<td><a href="mailto:tkgreen@alaska.edu">tkgreen@alaska.edu</a></td>
<td>Tom Green</td>
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See http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/ for a complete description of the rules governing curriculum & course changes.

PROGRAM IDENTIFICATION:

<table>
<thead>
<tr>
<th>DEGREE PROGRAM</th>
<th>Minor – Chemistry</th>
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<tbody>
<tr>
<td>Degree Level: (i.e., Certificate, A.A., A.A.S., B.A., B.S., M.A., M.S., Ph.D.)</td>
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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. We had added Chem F332 Physical Chemistry II as an option for Category 3.

B. CURRENT REQUIREMENTS AS IT APPEARS IN THE CATALOG:

Minors

Chemistry

1. Complete the following:
   - CHEM F105X--General Chemistry I--4 credits
   - CHEM F106X--General Chemistry II--4 credits
2. Complete the following:
   - CHEM F212--Chemical Equilibrium and Analysis*--4 credits
   - CHEM F321--Organic Chemistry I--4 credits
   - CHEM F322--Organic Chemistry II--3 credits
   - CHEM F331--Physical Chemistry I--4 credits
3. Complete one of the following additional chemistry lab courses:
   - CHEM F202--Basic Inorganic Chemistry--3 credits
   - CHEM F323--Organic Chemistry Laboratory--1 credits
4. Minimum credits required--24-26 credits

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

Chemistry

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

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Dean's Office
College of Natural Science & Mathematics
Governance
2. Complete the following:
   CHEM F212 - Chemical Equilibrium and Analysis* - 4 credits
   CHEM F321 - Organic Chemistry I - 4 credits
   CHEM F322 - Organic Chemistry II - 34 credits
   CHEM F331 - Physical Chemistry I - 4 credits

3. Complete one of the following additional chemistry lab courses:
   CHEM F202 - Basic Inorganic Chemistry - 3 credits
   CHEM F323 - Organic Chemistry Laboratory - 1 credits
   CHEM F332 - Physical Chemistry II - 4 credits

4. Minimum credits required: 27 credits

D. ESTIMATED IMPACT
   WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.
   No impact.

E. IMPACTS ON PROGRAMS/DEPTS:
   What programs/departments will be affected by this proposed action?
   Include information on the Programs/Departments contacted (e.g., email, memo)
   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. Since Chem F323 is eliminated as an option in Category 3, we have added
   Chem F332 Physical Chem II to give the students another option.

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-hr labs. Chem 323 lab (Category 3) is
eliminated. 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 Chemistry
is affected only slightly.
### APPROVALS: SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE

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<tr>
<td>Thomas K. Green</td>
<td>9-19-14</td>
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Signature, Chair, Program/Department of: **CHEM + BIOCHEM**

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Signature, Chair, College/School/Curriculum Council for: **CNSM**

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Signature, Dean, College/School of: **CNSM**

### CHAIR SIGNATURE OBTAINED FOLLOWING APPROVAL BY FACULTY SENATE COMMITTEE

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Signature, Chair, UAF Faculty Senate  
Signature, Chair, Curriculum Review Committee  
Signature, Chair, Graduate Academic and Advisory Committee