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

PROGRAM/DEGREE REQUIREMENT CHANGE (MAJOR)

SUBMITTED BY:

<table>
<thead>
<tr>
<th>Department</th>
<th>Chemistry &amp; Biochemistry</th>
</tr>
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<tbody>
<tr>
<td>Prepared by</td>
<td>Tom Green</td>
</tr>
<tr>
<td>Email Contact</td>
<td><a href="mailto:tkgreen@alaska.edu">tkgreen@alaska.edu</a></td>
</tr>
<tr>
<td>College/School</td>
<td>CNSM</td>
</tr>
<tr>
<td>Phone</td>
<td>474-1559</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</th>
<th>Major – BA Degree</th>
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<tbody>
<tr>
<td>PROGRAM</td>
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<tr>
<td>Degree Level:</td>
<td>B.A.</td>
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<tr>
<td>(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 eliminated Chem 324W Advanced Organic Chemistry Laboratory and also incorporated Chem F323 Organic Chemistry Laboratory, 1 credit, into Chem F322 Organic Chemistry II, which becomes 4 credits. We also changed Chem F451 to Chem F351.

B. CURRENT REQUIREMENTS AS IT APPEARS IN THE CATALOG:

1. Complete the general university requirements. (As part of the core curriculum requirements, complete: MATH F200X; PHYS F103X and PHYS F104X, or PHYS F211X and PHYS F212X.)
2. Complete the BA degree requirements. (As part of the BA degree requirements, complete: MATH F201X.)
3. Complete the following program (major) requirements:*
   CHEM F105X--General Chemistry I--4 credits
   CHEM F106X--General Chemistry II--4 credits
   CHEM F202--Basic Inorganic Chemistry--3 credits
   CHEM F212--Chemical Equilibrium and Analysis--4 credits
   CHEM F321--Organic Chemistry I--4 credits
   CHEM F322--Organic Chemistry II (3)
      or CHEM F451--Biochemistry (3)--3 credits
   CHEM F324W--Advanced Organic Chemistry Laboratory (3)
      or CHEM F314W--Analytical Instrumental Laboratory (3)--3 credits
   CHEM F331--Physical Chemistry I--4 credits
   CHEM F481--Seminar--1 credit
   CHEM F4820--Seminar--2 credits
4. Ensure that you have satisfied the university requirement of 39 upper-division credits and two writing-intensive (W) courses, which will typically require either taking more upper-division chemistry courses or a significant number of upper-division courses in other disciplines, likely your minor.
5. Minimum credits required--120 credits

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College of Natural Science & Mathematics

Governance 9/30/14 TIP
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)

1. Complete the general university requirements. (As part of the core curriculum requirements, complete: MATH F200X; PHYS F103X and PHYS F104X, or PHYS F211X and PHYS F212X.)

2. Complete the BA degree requirements. (As part of the BA degree requirements, complete: MATH F201X.)

3. Complete the following program (major) requirements:
   CHEM F105X--General Chemistry I--4 credits
   CHEM F106X--General Chemistry II--4 credits
   CHEM F202--Basic Inorganic Chemistry--3 credits
   CHEM F212--Chemical Equilibrium and Analysis--4 credits
   CHEM F321--Organic Chemistry I--4 credits
   CHEM F322--Organic Chemistry II (34)
     or CHEM F331--Biochemistry (3)--3 credits
   CHEM F324W--Advanced Organic Chemistry Laboratory (3)
     or CHEM F314W--Analytical Instrumental Laboratory (3)--3 credits
   CHEM F331--Physical Chemistry I--4 credits
   CHEM F481--Seminar--1 credit
   CHEM F4820--Seminar--2 credits

4. Ensure that you have satisfied the university requirement of 39 upper-division credits and two writing-intensive (W) courses, which will typically require either taking more upper-division chemistry courses or a significant number of upper-division courses in other disciplines, likely your minor.

5. Minimum credits required--120 credits

D. ESTIMATED IMPACT

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

No major impact. Chem 324W is being eliminated so it should free organic chemistry faculty to teach other courses at either the undergraduate or graduate level.

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)

The change adds 1 credit to the category 3 above if students elect to take Chem F322 rather than Chem F351.
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.

The Advanced Organic Chemistry Laboratory (Chem 324W, 3 credits) is no longer needed to meet the needs of our students. 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. 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.

APPROVALS: SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE

<table>
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<tr>
<th>Name</th>
<th>Date</th>
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<tbody>
<tr>
<td>Signature, Chair, Program/Department of:</td>
<td>9-18-14</td>
</tr>
<tr>
<td>Signature, Chair, College/School Curriculum Council for:</td>
<td>9-25-14</td>
</tr>
<tr>
<td>Signature, Dean, College/School of:</td>
<td>9/26/14</td>
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CHAIR SIGNATURE OBTAINED FOLLOWING APPROVAL BY FACULTY SENATE COMMITTEE

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
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<tbody>
<tr>
<td>Signature, Chair, UAF Faculty Senate</td>
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<tr>
<td>Curriculum Review Committee</td>
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<tr>
<td>Graduate Academic and Advisory Committee</td>
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