Submit originals (including syllabus) and one copy and electronic copy to the Faculty Senate Office. See [http://www.uaf.edu/uafigov/faculty-senate/curriculum/course-degree-procedures/](http://www.uaf.edu/uafigov/faculty-senate/curriculum/course-degree-procedures/) for a complete description of the rules governing curriculum & course changes.

CHANGE COURSE (MAJOR) and DROP COURSE PROPOSAL
Attach a syllabus, except if dropping a course.

<table>
<thead>
<tr>
<th>SUBMITTED BY:</th>
<th>Funded by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Mathematics and Statistics</td>
</tr>
<tr>
<td>Prepared by</td>
<td>John Rhodes</td>
</tr>
<tr>
<td>Email Contact</td>
<td><a href="mailto:j.rhodes@alaska.edu">j.rhodes@alaska.edu</a></td>
</tr>
</tbody>
</table>

1. COURSE IDENTIFICATION: As the course now exists.
- **Dept:** MATH  
- **Course #:** F232X  
- **No. of Credits:** 4

**COURSE TITLE:** Calculus for Life Sciences

2. ACTION DESIRED: √ Check the changes to be made to the existing course.
- **Change Course:** If Change, indicate below what is changing.  
- **Drop Course:** X

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>TITLE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>

**PREREQUISITES**
*Prerequisites will be required before a student is allowed to enroll in the course.

**CREDITS (including credit distribution)**

**ADD A STACKED LEVEL (400/600)**
- Include syllabi.

How will the two course levels differ from each other? How will each be taught at the appropriate level?:

Stacked course applications are reviewed by the (Undergraduate) Curricular Review Committee and by the Graduate Academic and Advising Committee. Creating two different syllabi—undergraduate and graduate versions—will help emphasize the different qualities of what are supposed to be two different courses. The committees will determine: 1) whether the two versions are sufficiently different (i.e. is there undergraduate and graduate level content being offered); 2) are undergraduates being overtaxed?; 3) are graduate students being undertaxed? In this context, the committees are looking out for the interests of the students taking the course. Typically, if either committee has qualms, they both do. More info online – see URL at top of this page.

**ADD NEW CROSS-LISTING**
- Requires approval of both departments and deans involved.
- Add lines at end of form for additional signatures.

**STOP EXISTING CROSS-LISTING**
- Requires notification of other department(s) and mutual agreement. Attach copy of email or memo.

3. COURSE FORMAT

**NOTE:** Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks must be approved by the college or school's curriculum council and the appropriate Faculty Senate curriculum committee. Furthermore, any core course compressed to less than six weeks must be approved by the Core Review Committee.

<table>
<thead>
<tr>
<th>COURSE FORMAT: (check all that apply)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**OTHER FORMAT (specify all that apply):**

- Mode of delivery (specify lecture, field trips, labs, etc.)

4. COURSE CLASSIFICATIONS: (undergraduate courses only. Use approved criteria found in Chapter 12 of the curriculum manual. If justification is needed, attach separate sheet.)

- **H = Humanities**
- **S = Social Sciences**
4.A Is course content related to northern, arctic or circumpolar studies? If yes, a "snowflake" symbol will be added in the printed Catalog, and flagged in Banner.

YES [ ] NO [ ]

5. COURSE REPEATABILITY:

Is this course repeatable for credit? YES [ ] NO [ ]

Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).

How many times may the course be repeated for credit?

If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course?

6. COMPLETE CATALOG DESCRIPTION including dept., number, title, credits, credit distribution, cross-listings and/or stacking, clearly showing the changes you want made. (Underline new wording strike-through-old-wording and use complete catalog format including dept., number, title, credits and cross-listed and stacked.)

Example of a complete description:

PS F450 Comparative Aboriginal Indigenous Rights and Policies (s)
3 Credits
Offered As Demand Warrants
Case study Comparative approach in assessing Aboriginal to analyzing Indigenous rights and policies in different nation-state systems. Seven-Aboriginal situations Multiple countries and specific policy developments examined for factors promoting or limiting self-determination. Prerequisites: Upper division standing or permission of instructor. (Cross-listed with ANS F450.) (3+3)

7. COMPLETE CATALOG DESCRIPTION AS IT SHOULD APPEAR AFTER ALL CHANGES ARE MADE:

8. GRADING SYSTEM: Specify only one.

LETTER: [ ] PASS/FAIL: [ ]

9. ESTIMATED IMPACT

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

None. This course has been replaced by MATH F230X, which is already approved.

10. LIBRARY COLLECTIONS
11. IMPACTS ON PROGRAMS/DEPTS:
What programs/departments will be affected by this proposed action?
Include information in the Programs/Departments contacted (e.g., email, memo)

Impacts B&W majors, but the new and course MATH F230X serves the same role as this course used to.

12. POSITIVE AND NEGATIVE IMPACTS
Please specify positive and negative impacts on other courses, programs and departments resulting from the proposed action.

13. JUSTIFICATION FOR ACTION REQUESTED
The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course 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 ask for a change in # of credits, explain why; are you increasing the amount of material covered in the class? If you drop a prerequisite, is it because the material is covered elsewhere? If course is changing to stacked (400/600), explain higher level of effort and performance required on part of students earning graduate credit. 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 course is not compromised as a result.

This course has been replaced by MATH F230X, which is already approved.

APPROVALS: (Additional signature blocks may be added as necessary.)

Signature, Chair, Program/Department of:  
Date 4/28/16

Signature, Chair, College/School Curriculum Council for:  
Date 5-4-16

Signature, Dean, College/School of:  
Offerings above the level of approved programs must be approved in advance by the Provost:  
Date 5/6/16

Signature of Provost (if applicable)  

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE.

Signature, Chair
Faculty Senate Review Committee: ___Curriculum Review   ___GAAC
___Core Review   ___SADAC

ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking; add more blocks as necessary.)

Signature, Chair, Program/Department of: ____________________________ Date __________

Signature, Chair, College/School Curriculum Council for: ____________________________ Date __________

Signature, Dean, College/School of: ____________________________ Date __________

Note: If removing a cross-listing, attach copy of email or memo to indicate mutual agreement of this action by the affected department(s). If degree programs are affected, a Format 5 program change form must also be submitted.
ATTACH COMPLETE SYLLABUS (as part of this application). This list is online at:
http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/uaf-syllabus-requirements/
The Faculty Senate curriculum committees will review the syllabus to ensure that each of
the items listed below are included. If items are missing or unclear, the proposed course
(or changes to it) may be denied.

SYLLABUS CHECKLIST FOR ALL UAF COURSES
During the first week of class, instructors will distribute a course syllabus. Although modifications may be made
throughout the semester, this document will contain the following information (as applicable to the discipline):

1. Course information:
   [ ] Title, [ ] number, [ ] credits, [ ] prerequisites, [ ] location, [ ] meeting time
   (make sure that contact hours are in line with credits).

2. Instructor (and if applicable, Teaching Assistant) information:
   [ ] Name, [ ] office location, [ ] office hours, [ ] telephone, [ ] email address.

3. Course readings/materials:
   [ ] Course textbook title, [ ] author, [ ] edition/publisher.
   [ ] Supplementary readings (indicate whether [ ] required or [ ] recommended) and
   [ ] any supplies required.

4. Course description:
   [ ] Content of the course and how it fits into the broader curriculum;
   [ ] Expected proficiencies required to undertake the course, if applicable.
   [ ] Inclusion of catalog description is strongly recommended, and
   [ ] Description in syllabus must be consistent with catalog course description.

5. [ ] Course Goals (general), and (see #6)

6. [ ] Student Learning Outcomes (more specific)

7. Instructional methods:
   [ ] Describe the teaching techniques (eg: lecture, case study, small group discussion, private instruction, studio
   instruction, values clarification, games, journal writing, use of Blackboard, audio/video conferencing, etc.).

8. Course calendar:
   [ ] A schedule of class topics and assignments must be included. Be specific so that it is clear that the instructor has
   thought this through and will not be making it up on the fly (e.g. it is not adequate to say “lab”. Instead, give each lab
   a title that describes its content). You may call the outline Tentative or Work in Progress to allow for modifications
   during the semester.

9. Course policies:
   [ ] Specify course rules, including your policies on attendance, tardiness, class participation, make-up exams, and
   plagiarism/academic integrity.

10. Evaluation:
    [ ] Specify how students will be evaluated, [ ] what factors will be included, [ ] their relative value, and [ ] how they
    will be tabulated into grades (on a curve, absolute scores, etc.) [ ] Publicize UAF regulations with regard to the
    grades of “C” and below as applicable to this course. (Not required in the syllabus, but is a convenient way to
    publicize this.) Link to PDF summary of grading policy for “C”:

11. Support Services:
    [ ] Describe the student support services such as tutoring (local and/or regional) appropriate for the course.

12. Disabilities Services: Note that the phone# and location have been updated. http://www.uaf.edu/disability/
The Office of Disability Services implements the Americans with Disabilities Act (ADA), and ensures that UAF students
    have equal access to the campus and course materials.
    [ ] State that you will work with the Office of Disabilities Services (208 WHITAKER BLDG, 474-5655) to
    provide reasonable accommodation to students with disabilities.

5/21/2013