Submit original with signatures + 1 copy + electronic copy to Faculty Senate (Box 7500)

See *http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/* for a
complete description of the rules governing curriculum & course changes.

TRIAL COURSE OR NEW COURSE PROPOSAL

9. CONTACT HOURS PER WEEK: | 4.0 | LECTURE hours/weeks | 1.0 | LAB hours /week | | PRACTICUM hours /week

Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 2400 minutes of lab in a science course=1 credit. 1600 minutes in non-science lab=1 credit. 2400-4000

minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures...

OTHER HOURS (specify type)

14. PREREQUISITES | An Accuplacer College Math score of at least 70 or placement into MATH 200X Calculus I.

These will be *required* before the student is allowed to enroll in the course.

15. SPECIAL RESTRICTIONS, CONDITIONS

16. PROPOSED COURSE FEES | $25

Has a memo been submitted through your dean to the Provost for fee approval? Yes/No | Yes

17. PREVIOUS HISTORY

Has the course been offered as special topics or trial course previously? **Yes/No** | NO

If yes, give semester, year, course # etc.

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

This course will be offered in place of one section of MATH 108, a 3 credit math course. Thus, we have added one credit to the total number of credits DMS must teach each semester, a small addition. However, in the long run, we expect the course to reduce the DMS teaching load by allowing appropriate students to take a single 4-credit course to prepare for MATH 200 Calculus I instead of two courses for a total of 7 credits.
This course will require extensive use of a computer lab. As a result, enrollment in the course will be strictly limited to available resources.

The purpose of the department and campus-wide c[...] the change a[...] new course applications to make [...] the quality of UAF education is not lowered as a result of the proposed change. Please [...] this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.

With the present curriculu[...] student who needs to take Calculus I [...] who [...] take Calculus I will need to pass both MATH 107X Functions for Calculus (4.0 credits) [...] Trigonometry (3.0 credits) in order to satisfy the prerequisites for [...] Calculus. Most s[...]

[...]epared to [...] and MATH 108[...] udents in this [...]

non-trigonometric function[...]

[...]antage that the material o[...]

[...]107X has [...] led students. A recent [...]IS study found [...] to be used as a terminal core math course for the m[...]jority of enr[...] [...]lculus I. This group [...] that only [...] of students who pass MATH 107X even attempt [...] [...]udents.

The proposed course has higher prerequisite requiremen[...]

s than MATH 107X and MATH 108X, explici[...] targets students who intend [...] [...]mastery [...] The majority [...] of outside-of-class work will be tailored to the student's particular wea[...] [...]esses. So a student [...] shows [...] mastery of [...]nomial functions and weakness in exponential fu[...] [...]ons will be able to [...]

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

	Date	

Signature, Chair
Faculty Senate Review Committee: Curriculum Review   GAAC

ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking)

	Date	

	Date	

Signature, Chair, College/School
Curriculum Council for:

	Date	

Signature, Dean, College/School
of:

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.

❑ Course textbook title, ❑ author, ❑ edition/publisher.
❑ Supplementary readings (indicate whether ❑ required or ❑ recommended) and

Syllabus

Instructor: Jill Faudree

Contact Details: Chapman 301D, jrfaudree@alaska.edu, 474-7385

Office Hours: MW 1:00pm-2:00pm, T 12:45pm-1:45pm, and by appointment. Also, you are welcome to drop by.

properties, and it graphical characterizations. It is also useful for the student to recognize that the structure of this course emphasizes *mastery* of *all* of the material, since Calculus I students will need to have facility with each of the topics covered.

STUDENT LEARNING OUTCOMES:

In the list below, the *standard type of function or expression* refers to the list of functions in
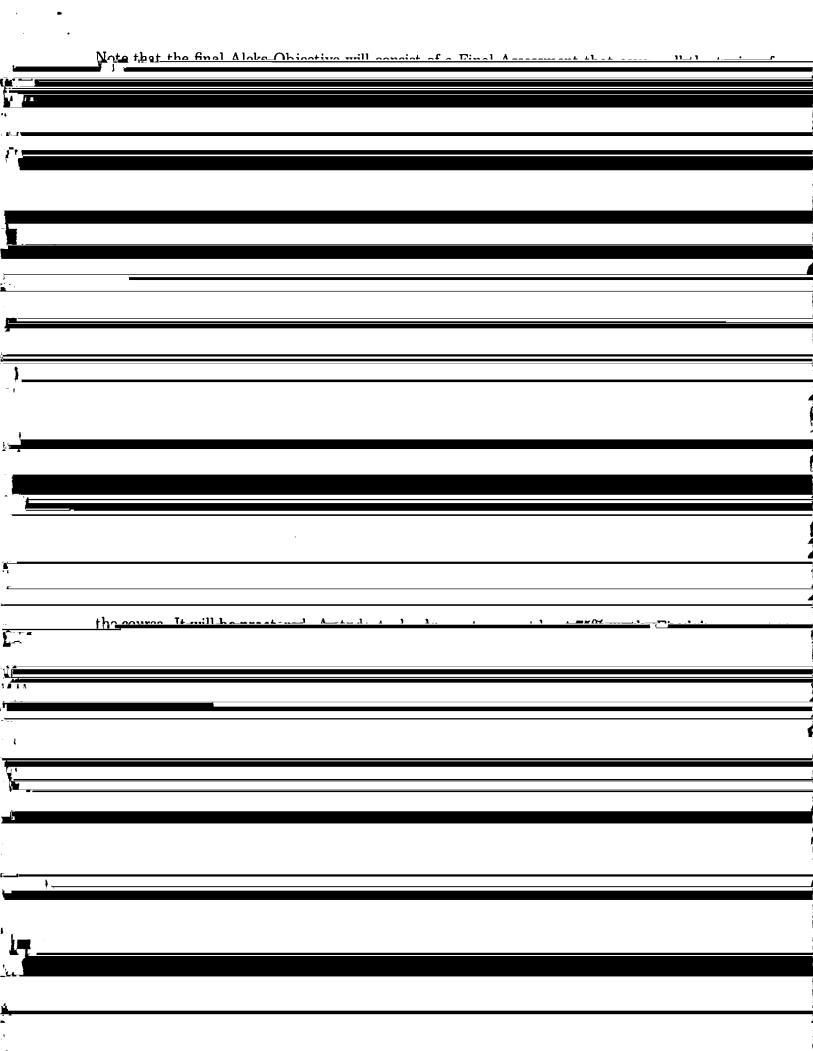
the course description: polynomial, rational, exponential, logarithmic, and trigonometric. After completing this course, students will be able to:

- identify and find solutions to equations and inequalities of the standard set of functions.

- simplify expressions of the standard types.

- graph and interpret graphs of the standard functions.

- understand the basic properties of functions generally.

- apply a variety of techniques to find solutions to given equations.

- move between numerical, algebraic, and graphical representations of the standard set of functions with facility.

- apply both the unit circle definition and the triangle definition to evaluate or graph trigonometric functions.
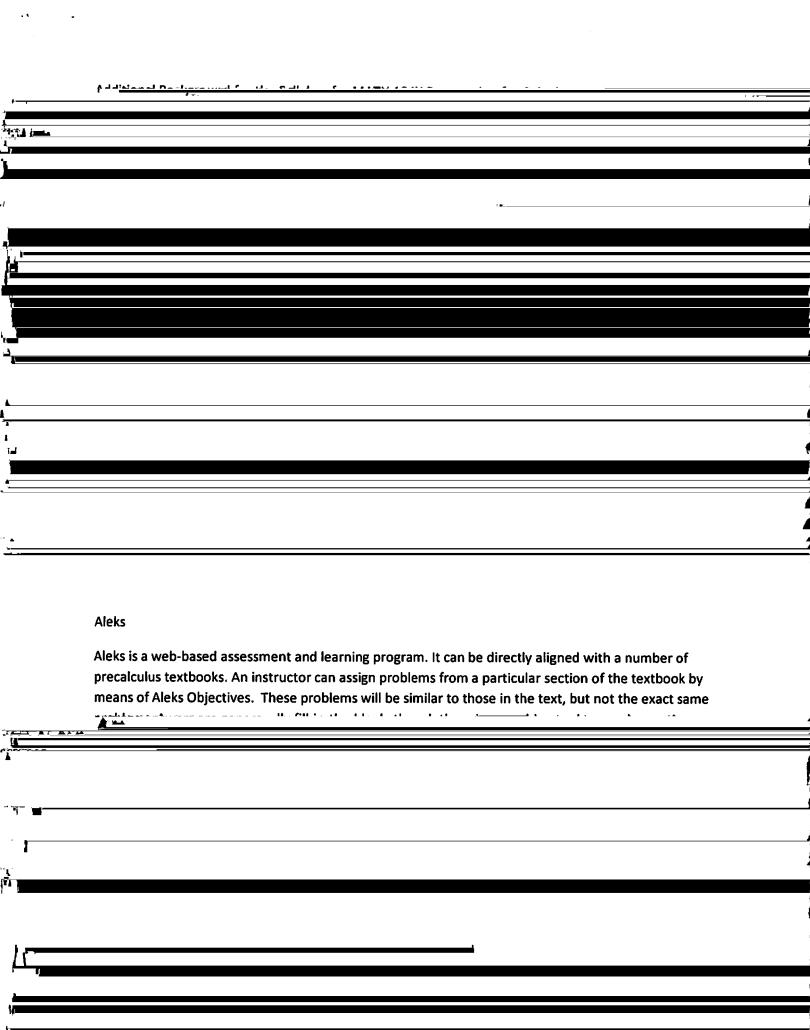
INSTRUCTIONAL METHODS:

This is a "hands-on" mathematics class. The four designated lecture hours will consist of short over-view lectures followed by in-class work including quizzes. There is also a one-hour lab session

5. (week 5) Polynomial Functions: quadratics, higher-order polynomials, division of polynomials, zeros of polynomials. 3.1-3.4

on Chapters 1,2, and 3.

7. (week 7) Exponential and Logarithmic Functions, Part I: definitions and basic properties of exponential and logarithmic functions. 4.1-4.4

8. (week 8) Exponential and Logarithmic Functions, Part II: equations containing exponential and logarithmic expressions, modeling with exponential and logarithmic functions. 4.5-4.6

Note that the final Aleks Objective will consist of a Final Assessment that...

the course. It will be presented...

to: missing an exam, repeatedly failing to take quizzes or to complete Aleks objectives, or having a failing average (below 70%) at the withdrawal date.

Aleks

Aleks is a web-based assessment and learning program. It can be directly aligned with a number of precalculus textbooks. An instructor can assign problems from a particular section of the textbook by means of Aleks Objectives. These problems will be similar to those in the text, but not the exact same

lab hour but is completing less than 3 topics

this to the attention of the student and attempt to remedy any problems. If we see a student spent 45

minutes on one particular topic, the TA can address this topic with this student directly in the lab.

The Lab Hour will be mandatory for all students. Students will be allowed two excused absences during the whole of the semester. Any unexcused absences or absences in addition to the excused two will

result in a loss of 5% from their homework average for each absence.

Friday 1 February 2014   NAME:_____

No calculators, notes, books, or aids of any kind. You must show your work to receive full-credit. This quiz has two questions is worth 20 points.

(a) (5 points) Express the function in standard form.

(b) (5 points) Find its vertex and any $x-$ or $y-$intercepts.

Let $f(x) = \sqrt{x-1}$ and let $g(x) = x^3 + 2$.

(a) $f(g(0))$

(b) $g(f(0))$

(c) $g(f(9))$

(d) $(g+f)(10)$

UNIVERSITY
of ALASKA

Math 194X Trial Course

Jill Faudree <jrfaudree@alaska.edu>
To: Tom Green <tkgreen@alaska.edu>
Cc: Jessica Larsen <jflarsen@alaska.edu>, Channon Price <cpprice@alaska.edu>

Wed, Sep 25, 2013 at 6:14 AM

Hello Tom, Jessica, and Channon

1) Is the request for the core designation sufficiently justified in the

[Quoted text hidden]

--

Dr. Jill Faudree
Associate Professor of Mathematics
Department of Mathematics and Statistics
University of Alaska Fairbanks

907-474-7385