

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**

**SUBMITTED BY:**

Department	<b>Mathematics and Statistics</b>	College/School	<b>CNSM</b>
Prepared by	<b>Latrice Bowman</b>	Phone	<b>474-5427</b>
Email Contact	<b><a href="mailto:lnbowman@alaska.edu">lnbowman@alaska.edu</a></b>	Faculty Contact	<b>Latrice Bowman</b>

1. ACTION DESIRED (CHECK ONE):	Trial Course	<input type="checkbox"/>	New Course	<input checked="" type="checkbox"/>
-----------------------------------	--------------	--------------------------	------------	-------------------------------------

2. COURSE IDENTIFICATION:	Dept	<b>MATH</b>	Course #	<b>110X</b>	No. of Credits	<b>4</b>	Justify upper/lower division status
---------------------------	------	-------------	----------	-------------	----------------	----------	-------------------------------------

	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>6 weeks to full semester</b>
OTHER FORMAT (specify)							
Mode of delivery (specify lecture, field trips, labs, etc)	<b>Lecture with recitation times</b>						



*RESTRICTIONS ON ENROLLMENT (if any)*

**14. PREREQUISITES**

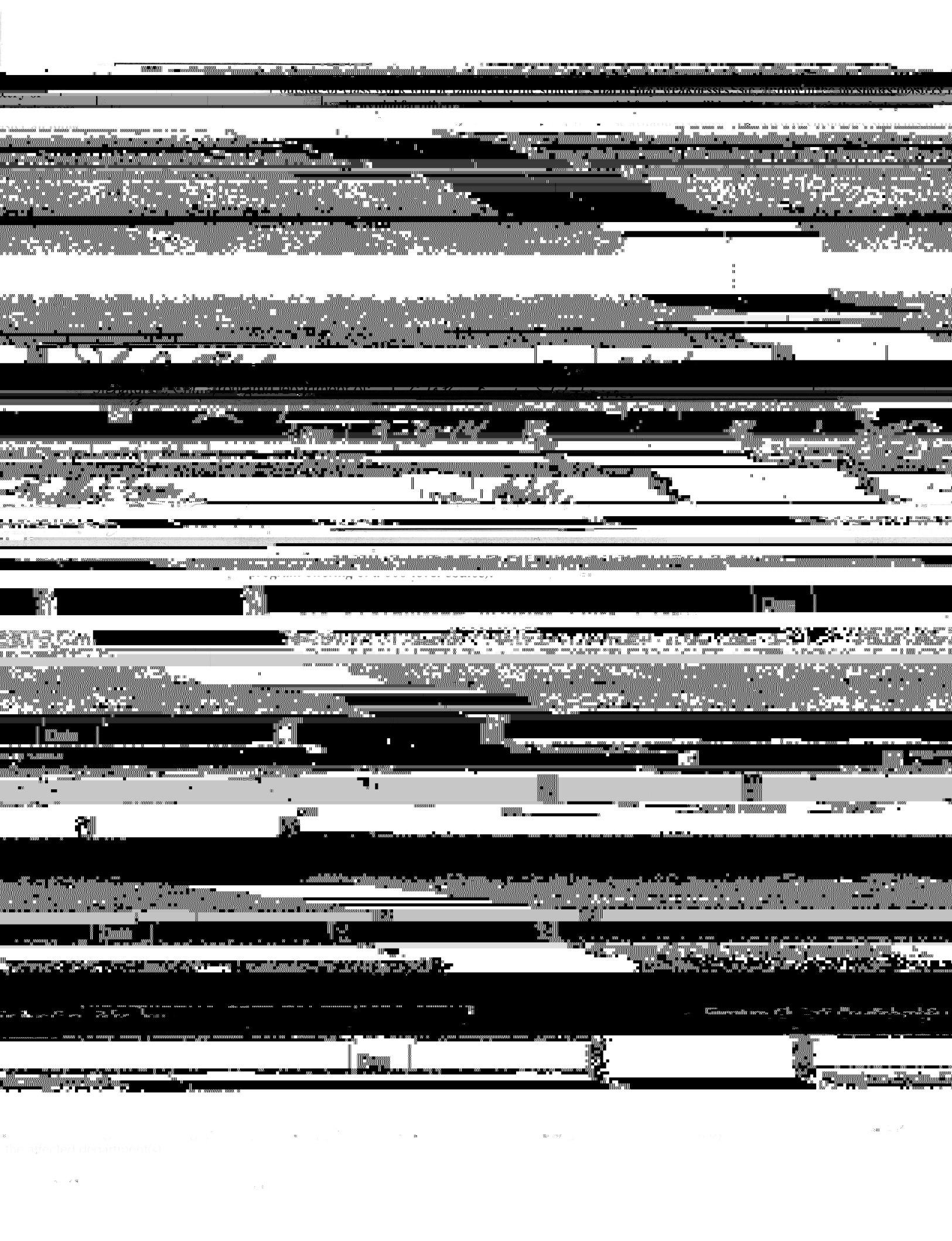
**Placement into MATH 110**

These will be required

### **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. Use as much space as needed to fully justify the proposed course.

With the present curriculum offerings, a student who needs to take Calculus I and who is not prepared to take Calculus I will need to pass both MATH 107X Functions for Calculus (4.0 credits) and MATH 108 Trigonometry (3.0 credits) in order to satisfy the prerequisites for Calculus. Most students in this situation take these courses consecutively, not concurrently, which effectively delays enrollment in Calculus I by about a year. This path has the added disadvantage that the material on non-trigonometric functions is learned multiple semesters before it is applied in Calculus. Finally, over the years, MATH 107X has come to be used as a terminal core math course. A recent DMS study found that only 42% of students who pass MATH 107X even attempt Calculus I. This group constitutes a mere 27% of enrolled MATH 107X students. The proposed course has higher prerequisite requirements than MATH 107X, explicitly targets students who intend to take calculus, and is both individualized and mastery-based. The majority of outside-of-class work will be tailored to the student's particular weaknesses. So a student who shows mastery of polynomial functions and weakness in exponential functions will be able to reduce the work on one and work more extensively on the other. The course syllabus is constructed to encourage students to master all topics, not just 70% of them. The number of credit hours is designed similarly to MATH 200X where students will meet 5 days a week for 1 hour each day where 3 of these days are used for lecture and the other two days are used for recitation. The recitation usually consists of some short lectures with in class work done either individually or in small groups.



# MATH 110X Precalculus 4cr Spring 2015

MWF 1-2pm Chapman 106 and TR 1:30am-12:30pm Chapman 103 Final Exam  
Friday May 8 10:15am-12:15pm

(Please note that this is the scheduled final time for Core Math finals)

Instructor: Latrice Bowman Office: Chapman 301E Phone: 54774 email: [lnbowman@alaska.edu](mailto:lnbowman@alaska.edu)

Office Hours: MW 11:45am-12:45pm, T 12pm, or you are welcome to drop by.

Prerequisites: placement into MATH 110X.

Course Materials:

Text: Precalculus<sup>th</sup> 6<sup>th</sup> edition by Stewart, Redlin, and Watson ISBN 9781133594765

This book can be purchased for \$145.50 or rented for \$65.49 at the UAF bookstore

ALEKS subscription: Your text should come with an ALEKS access code. You will need to set up an account the first of class so if you do not have this code you will be able to purchase one using a credit card.

Category	Percentage
ALEKS	10
Quizzes	15
Exam 1	15
Exam 2	15
Exam3	

Letter	Percentage
A	90-100
B	80-89
C	70-79
D	60-69

- x (week 14) Putting it all Together: a comprehensive look at all the families of functions covered in this course, cataloging and comparing both algebraic and graphical representations; a comprehensive look at trigonometric functions including both definitions, when to use which one, and identities; a comprehensive look at functions generally including defining properties and those of inverse functions. Practice Prerequisite Test for MATH 2007 Final Exam.

Course Policies:

Attendance: Attendance for this class is mandatory. Any student with more than five unexcused absences will be withdrawn for lack of participation. Students will not be exempt from work or given additional time on assignments whether an absence is excused or not.

ALEKS:

Initial Assessment: All students will take a proctored initial assessment in ALEKS. This assessment will usually take about 90 minutes and must be taken within the first two days of class.

Objectives: ALEKS objectives align with lecture topics and will be due weekly Saturday nights by 11:59pm. Student completion of ALEKS objectives will depend on the student's initial assessment in ALEKS (students who mastered a topic in the initial assessment will have less work to complete that topic). All students are expected to master 100% of the topics in an objective by the weekly due date. Students will earn a score for completion of each ALEKS Objective as follows:

Percentage	Score
100	4
93-99	3
86-92	2
79-85	1
Below 79	0

In Class Quizzes: Quizzes will be given in class up to three times a week and will consist of 1 or 2 problems to be worked. Each quiz will be worth 10 points. No make-up quizzes will be allowed. Students will be allowed to drop the three lowest quizzes.

Exams: There will be 3 proctored hour long exams during the semester. All exams are written on paper, are closed book, closed notes, and no calculators. Exams will be given on the following dates and will cover the indicated material:

Exam	Topics	Date
1	Fundamentals and Functions	Friday, February 13
2	Polynomials, Exponentials and Logarithm	Friday, March 13
3	Trigonometry	Wednesday, April 29
Final Assessment	ALEKS Comprehensive	Thursday May 7
Final Exam	Comprehensive	Friday, May 8

Students will be given the opportunity to do an exam retake if they are not happy with their exam score. The retake will not be the same as the original exam however it will cover the same course material. The average of the two scores will be used in the overall grade calculation.

Final and Final Assessment: The final ALEKS objective will be a comprehensive assessment. This assessment will be proctored. Students will be allowed one hour to complete this assessment. The final exam will be a comprehensive 2-hour



exam and will be given at the UAF final exam time for this course. Students will be required to score at least 75% on the final exam and on the final assessment, else they will lose one letter grade from their overall grade.

#### Additional Support:

The UAF Math and Stat Lab: This free service can provide help on any problems within this course. For assistance you will need to go to Chapman 305. This is a drop in tutoring lab. You may go there to do homework or get specific questions answered. The lab will be open Monday-Friday 8am-10pm and Weekends 10am-6pm.

Online tutoring is another free service available to you through Blackboard. If you are not able to attend the Math and Stat Lab you will be able to receive help from qualified tutors using an online whiteboard.

SSS (Student Support Services) provides ~~some~~ tutoring to students who satisfy the requirements of the program. In addition to math tutoring SSS provides, advising, all core subject tutoring, laptop rentals and ~~some~~ services.

The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. State that you will work with the Office of Disabilities Services (203 WHIT, 4747043) to provide reasonable accommodation to students with disabilities. Current letters for accommodations must be received by UAF Learning staff and your instructor by January 31.

University and Department Policies: Your work in this course is governed by the UAF Honor code. The Department of Mathematics and Statistics has specific policies on incomplete grades, late withdrawals, and early final exams, some of which are listed below. A complete listing can be found at <http://www.dms.uaf.edu/Policies.html>.

Late Withdrawal: This semester the last day for withdrawing with a W appearing on your transcript is March 13. If, in my opinion, a student is not participating adequately in the class, I may elect to drop or withdraw this student. ~~adequate~~ participation includes but is not limited 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.

Academic Honesty: Academic dishonesty, including ~~cheat~~ and plagiarism, will not be tolerated. It is a violation of the Student Code of Conduct and will be punished according to UAF procedures.

Courtesies: As a courtesy to your instructor and fellow students, please arrive to class on time, turn your ~~cell~~ and iPods off during class, and pay attention in class.