Class Times  | Monday, Wednesday, Friday 1:00-2:15 p.m.
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Classroom  | SSB 119
Instructor  | Dr. Mark Fitch

**Blackboard**
All class materials can be found on Blackboard at [http://blackboard.uaa.alaska.edu/](http://blackboard.uaa.alaska.edu/). If Blackboard is not accessible the materials may also be found at [http://www.math.uaa.alaska.edu/~afmaf/classes/](http://www.math.uaa.alaska.edu/~afmaf/classes/).

**Office Hours**
Monday, Wednesday, Friday 2:30-3:45 p.m. See [http://www.math.uaa.alaska.edu/~afmaf/classes](http://www.math.uaa.alaska.edu/~afmaf/classes) for additional available times.

**Email**
mafitch@uaa.alaska.edu

**Phone**
786-1656

**Office**
SSB 154D

**Tutors**
Tutoring is available in the Math Tutoring Lab in SSB 170.

**Textbook**
*Calculus Early Transcendentals* 8th edition by James Stewart (required)

**Computational Devices**
You will benefit from the use of various computational devices in and out of the classroom.

- **Calculators**: Graphing calculators including apps on phones and laptops will be useful for exploration and checking computations.

- **Computer Algebra Systems**: You will be required to use a computer algebra system for some assignments. The Mathematical Sciences department provides Mathematica in the Math Tutoring Lab (SSB 170). Students may use any system to which they have access though support may be limited.

- **Web Access**: You may find it useful to have a laptop or other device in class for accessing web pages, displaying pdf files, and using Wolfram Alpha.

**Prerequisites**
You need to be able to use algebra and trigonometric techniques easily, and you need to be able to quickly calculate derivatives and basic anti-derivatives from Calculus I.

**Topics**
This course covers further topics in single-variable calculus, including techniques of integration; applications of integration; convergence of sequences and series; parameterized curves; and polar coordinates.

**Goals**
By the end of the appropriate section you should
- Compute definite and indefinite integrals using a variety of techniques
- Apply integration in modeling settings, drawn from mathematics and the natural and social sciences
- Understand and determine convergence of infinite series, including Taylor series
Daily Lesson

Purpose The lesson is the source of new material. By completing the assigned reading and problems you will learn new topics.
Assignment Complete the sections assigned online on Blackboard or at http://www.math.uaa.alaska.edu/~afmaf/classes/math252/. Note you may work with other students and ask questions of the instructor when working on the lesson.
Due Reading and assigned problems must be completed before the class in which they are due.
Feedback Questions on the lesson will be addressed during class.
Grading Your work will be graded for completeness.

Class Time

Purpose The instructor will answer questions from the reading and assigned problems. Then students working in groups will practice skills. Class time will ensure that you have the opportunity to understand each topic.
Feedback Questions will be answered by the instructor during work.

Daily Homework

Purpose Problems assigned provide the opportunity to practice skills. Be aware that most text book problems emphasize mechanical skills rather than understanding. As such they are not representative of test questions.
Assignment Complete the problems assigned. Questions on practice problems can be asked during class and during office hours or by tutors.
Due Problems must be completed before the next class.
Feedback You can use tools such as Wolfram Alpha to check if your results are correct.

Daily Quiz

Purpose Quizzes test your grasp of the material and therefore provide you with feedback on your progress. They typically require recognition of patterns, not necessarily identical in appearance to homework problems. They may also point out nuances.
Assignment At the beginning of class a short (approximately 5 minute) quiz over recent material will be given.
Feedback If incorrect, the first, major wrong step in a problem will be noted with a note about the correct step if possible.
Grading Your work will be graded for accuracy and presentation. At the end of the semester an allowance will be made for missed quizzes.

Exams

Purpose Exams provide you with an opportunity to demonstrate your mastery of mechanical skills and your understanding of the concepts. The latter are weighted more heavily in the grading.
Assignment Exams will be given on the dates specified on Blackboard or at http://www.math.uaa.alaska.edu/~afmaf/classes/math252/schedule.html.
Feedback If incorrect, the first, major wrong step in a problem will be noted with a note about the correct step if possible. Grading symbols, explained
Grading

Projects

Purpose
Projects require using learned skills to solve large problems. They often require extrapolating from what you know to discover something new. This mimics actual use of mathematics in life and therefore meets the goals of the course.

Assignment
The projects can be found on Blackboard or at http://www.math.uaa.alaska.edu/~afmaf/classes/math252/schedule.html.

Due
Projects will be collected initially on the dates specified online. Resubmissions of projects can be submitted with homework during any class prior to the beginning of exams.

Feedback
Incorrect problems will be explained as on homework. Essays will be returned with verbal comments on how to improve the writing and on any misconceptions.

Grading
Your work will be graded for accuracy and presentation. Writing project criteria are posted online (http://www.math.uaa.alaska.edu/~afmaf/classes/writing_criteria.html). Projects may be resubmitted. The grade will be 100% of earned for the first submission, 90% for the second submission, and 80% for the third submission.

Grading
Your grades will reflect your ability to perform the tasks outlined in the goals and to clearly explain how you accomplished the tasks. Because understanding is more important than producing results, steps in a solution are more important than the result. Specific criteria are provided above and with individual assignments as required.

Assessments
Lesson, Homework, and Quizzes 10%
Projects 10%
Exams 10% x 6
Final Exam 20%
The final exam will be on April 27th from 1:00 - 3:45 p.m.

DSS
If you have a certified learning disability, please inform the instructor so that the university sanctioned assistance can be provided.

Scale
A 90-100
B 80-89
C 70-79
D 60-69
F 0-59

Grades of C or higher indicate preparedness to progress to courses for which this is a prerequisite. A grade of B or higher indicates an ability to explain procedures. A grade of A indicates the ability to extrapolate from these skills to solve related problems.
Academic Expectations

Lessons: If you do not understand any part of a lesson or an assignment, ask for assistance before the assignment is due. You will need to provide a specific description of the difficulty: instructors cannot read your mind.

Instructions: If you do not understand any instruction or a question, ask before the work is due. An assignment may be submitted only once, except for projects.

Corrections: If you discover a mistake in any graded work, please bring it to the attention of the instructor as soon as possible.

Incomplete assignments: Lessons, homework, and quizzes not turned in on time receive no credit.

Please arrange excused absences for exams before the exam if at all possible. If you cannot make arrangements before the exam, then the final exam grade will replace that exam score. If the university is closed for an emergency on an exam day, the exam will be given the next class session.

Projects submitted late are treated as a resubmission.

Attendance

Regular attendance and active participation is expected in all classes. You are responsible for class work even if there are legitimate reasons for your absence. In particular, class attendance is vital to success in this course. Some of the material covered in this course is not included in the textbook nor is it online. If you miss class for university business or civic duty, please inform your instructor as early as possible prior to your absence. More than four unexcused absences may result in a “faculty initiated drop.”

Should the last date of your class attendance be required, it will be determined by the last date of any material submitted by you for recording in the class grade record. If you have evidence that your date of last attendance is otherwise, you must inform your instructor of such prior to the assignment of your final grade. The date of last attendance may impact financial aid.

Most graded assignments are returned at the beginning of class. If you miss this, you will need to come to the instructor’s office to obtain the assignment. All assignments not collected by the final exam will be destroyed as required by FERPA.

Academic Honesty

Use of any communication device during an assessment is prohibited. The instructor will note when accessing the internet is needed for class. Audio devices may not be worn during any assessment.

Courtesy

Courtesy in the classroom is important for learning. Remember students and instructors come from varied cultures and backgrounds: be mindful of others as you interact.