

**Math 151: Calculus I**                      **Spring 2012**

**INSTRUCTOR:** Joe Kahlig  
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**E-MAIL ADDRESS:** kahlig@math.tamu.edu  
**WEB PAGE:** <http://www.math.tamu.edu/~joe.kahlig/m151.html>  
**OFFICE HOURS:** Monday and Wednesday: 9am-11am  
Tuesday and Thursday: 2pm-4pm  
other times by appointment

**Teaching Assistant:** ManuelQuezada de Luna (mquezada@math.tamu.edu)

**RESOURCE MATERIAL:** The textbook Stewart's Calculus: Early vectors will be provided in electronic book format thru the WebAssign system. Buying a paper copy is optional. The solution manual is also optional but will give detailed solutions to the odd problems. The computer labs will use the textbook: *Matlab: An Introduction with Applications*, by Amos Gilat, published by Wiley. ISBN: 978-0470767856.

**COURSE CONTENT:** This course will cover vectors in two dimensions, differentiation and integration of functions of one variable, and applications such as work, velocity/acceleration, optimization (max/min), and curve sketching. The course meets thrice weekly in an on-line lecture. The prerequisite for this course is either Math 150 (precalculus) or a good high school mathematics background that includes algebra II, analytic geometry and trigonometry.

**LEARNING OBJECTIVES** This course is to provide students with quantitative and problem-solving skills of 2-dimensional vectors and differential calculus. At the conclusion of this course, students should be able to:

- Know and use techniques of limits and differentiation.
- Apply techniques of differentiation to a variety of applications, including engineering applications.
- Understand and apply vector operations in 2-dimensions, including dot product.
- Understand the relationship between derivatives and integrals via the Fundamental Theorem of Calculus.
- Use Computer Algebra Systems such as Matlab to solve applied problems.

**GRADING POLICY:** Your grade will be determined by three exams, a cumulative final exam, and a laboratory grade(quizzes, computer labs, and electronic homework). The weights for each of these are as follows. The weights for each of these are as follows. You will also have quizzes during the lecture part of the class. At least one quiz grade will be dropped when computing the quiz average.

3 Exams	50%	Exam 1: Thurs, Feb. 16	A = 90-100
Homework Average	9%	Exam 2: Thurs, March 22	B = 80-89
Quiz Average	9%	Exam 3: Tues, April 24	C = 70-79
Matlab Assignments	7%		D = 60-69
Final Exam	25%		F = 0-59
<hr/> Total	100%		

**EXAMS:** The exams will be held at night from 7:30-9:30. Calculators will NOT be allowed on the exams. The final exam will be comprehensive. Once an exam is returned, I will not give a makeup for that exam. If you believe that you have a valid reasons for receiving a makeup after the exams have been returned, then talk to me. Any question regarding grading/scoring must be done within one week of the return of the exam or no change to the grade will be made.

Final Exam: Friday, May 4 from 7:30am - 9:30am.

**ELECTRONIC HOMEWORK:** The electronic homework will be worked and submitted in the WebAssign system. Due dates for the electronic homework can be found in the webassign system. Directions on how to log into this system can be found on my webpage. You will be able to request an extension of one day on the homework assignments for a small penalty. At least one homework assignment will be dropped when computing the average.

**QUIZZES:** I will give quizzes during the lectures. There will also be weekly quizzes in your lab. I will drop at least one of the quiz grades when calculating the quiz average.

**WEEK IN REVIEW:** The Week in Review will highlight the material covered in the previous week. A link to this review(as well as links to previous reviews) will be posted on my web page. The time and location are still being determined and will be posted on my web page and the departmental web page.

**ATTENDANCE, ABSENCE, and MAKEUP WORK POLICIES:**

- Attendance is strongly encouraged.
- You will only be allowed to makeup an exam or a quiz for a university excused absence(see the University Student Rules for a list of the excused absences). Proof must be shown before any makeup is allowed.
- I will not accept the **Explanatory Statement for Absence from Class** form as sufficient written documentation of an excused absence. If you miss for an illness, then you need a note from a medical professional stating that you should not be in class on that day. For non-medical absences, ask me what proof is required to verify that it is excused.
- Electronic homework assignments can not be submitted after their due-date. If you have a valid excuse for a late assignment, talk to me about other options.
- The last day Q-Drop this class is **April 2nd**.

**WEB PAGE:** A tentative schedule for this course may be found on my web page along with all the written homework and take-home assignments. Solutions to the exams, quizzes, and written homeworks will be posted in a timely manner. The web page also contains links to additional resources. In addition to my web page, I will be communicating important information using your university e-mail account. Be sure to regularly check this account for messages.

**A.D.A. POLICY STATEMENT:** The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Disability Services, in Room B118 of Cain Hall or call 845-1637.

**COPYRIGHT POLICY:** The handouts used in this course are copyrighted. By "handouts," I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, in-class materials, review sheets, and additional problems sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission.

**SCHOLASTIC DISHONESTY:** *An Aggie Does Not Lie, Cheat, or Steal or Tolerate Those Who Do.* The Aggie Code of Honor will be enforced in this course. For the purpose of this course, cheating will be defined as (but not limited to) access or use of unauthorized material during exams and quizzes, collaboration between students during exams, quizzes or assignments for which group work is not allowed, perusal of another student's work during exams and quizzes, copying other student's work or allowing other students to copy you work on any assignment, quiz or exam, and having unauthorized programs or other information stored on calculators when these calculators are accessible during an exam or quiz.

For additional information about Aggie Honor System consult <http://aggiehonor.tamu.edu/>

**TENTATIVE WEEKLY SCHEDULE:**

Week 1: Appendix D, 1.1	Week 2: 1.2, 1.3, 2.1	Week 3: 2.3, 2.5, 2.6
Week 4: 2.7, 3.1, 3.2	Week 5: Exam 1, 3.3, 3.4	Week 6: 3.5, 3.6, 3.7
Week 7: 3.9, 3.9, 3.10	Week 8: 3.11, 4.1, 4.2	Week 9: Exam 2, 4.3, 4.4
Week 10: 4.5, 4.6, 4.8	Week 11: 5.1, 5.2, 5.3	Week 12: 5.5, 5.7, 6.1
Week 13: 6.2, 6.3	Week 14: Exam 3, 6.4	