Course Information Sheet

Course: Math 171-03 - Calculus I - 5 Credit/Contact Hours - Fall 2013
IAI Code: M1 900-1, MTH 901
Delivery Mode: Face-to-face
Meeting Time: MW 12:00pm-12:50pm TTh 12:00pm-1:15pm
Meeting Place: Room 4270

Instructor: Steve Kifowit, Rm 2305, Ph. (708) 709-3954
Email: skifowit@prairiestate.edu
Web: http://stevekifowit.com
Office Hours: MW 1pm-2:30pm, TTh 1:15pm-2:15pm, or by appointment

Text: *Calculus*, 10th edition (2014); Larson and Edwards

Course Description: This is the first course in the three-semester sequence of courses covering calculus for scientists and engineers. Topics covered include lines, limits, derivatives, applications of derivatives, antiderivatives and definite integrals, and applications of integrals.

Course Prerequisite: Math 165 (Precalculus) with a C or better or equivalent.

Course Goals/Objectives:
1.) Demonstrate basic knowledge of Calculus I necessary for science and engineering majors.
2.) Use the material from Calculus I as a basis for further mathematical study.
3.) Apply differentiation and integration techniques to solve practical problems.
4.) Demonstrate a greater awareness of the use of mathematics and how one translates questions into the language of mathematics.

Attendance Policy: Regular class attendance is an essential component of successful learning. Students are responsible for prompt attendance and participation in all class meetings. If you miss class, you will not be allowed to make up any tests, quizzes, or assignments that you may have missed. All material covered in class is the student's responsibility.

Grading: Your grade will be based on your performance on three 100-point tests, a 150-point final exam, approximately ten 10-point quizzes, and miscellaneous problems and projects (0-50 points). Very roughly, tests count for about 55% of your grade, the final exam counts for about 27%, and quizzes count for about 18%. The grading scale is as follows:

A --- 88% and above
B --- 77% - 87%
C --- 66% - 76%
D --- 55% - 65%
F --- below 55%

You may estimate your current grade at any time during the semester by computing the following percentage: 100% * (Total points accumulated) / (Total points possible). Please feel free to discuss your grade with me at any time during the semester. Throughout the semester, grades will be posted online at http://www.engrade.com/skifowit.

Homework: Homework problems will be assigned on a daily basis. Your work will not normally be collected, but we will often discuss homework problems in class. Keep up to date on your homework! Homework problems will often show up on quizzes and tests.

Quizzes: Be prepared for a 10-point quiz on each Thursday, unless a test is scheduled. No make-up quizzes will be given. Your lowest quiz score will be dropped at the end of the semester.

Tests/Exams: Test problems will be similar to class examples, quiz problems, and homework problems. In addition to computational problems, tests may include multiple choice, true/false, short answer, and/or writing problems. You must show all work on all tests to receive full credit. **You must work individually on all tests.** No make-up tests will be given. At the end of the semester, your lowest test score will be replaced by two-thirds of your final exam score (if this helps you).

Final Exam: The final exam is comprehensive and will be worth 150 points toward your final grade. The final exam counts for more than 25% of your grade. Please take it seriously! See the lecture pace for the date of the final exam.

Calculators: The TI-83/84 Graphing Calculator is required for this course. At times, we will use the TI-92 during class. We will also make use of computer algebra systems such as Mathematica, MuPAD, Maxima, Sage, or GeoGebra.

Disability Statement: Any student needing to arrange reasonable accommodations for a documented disability (learning, physical, psychological, or other) should contact the Disability Services Office (Room 1192).

Religious Observance Accommodation: Prairie State College is required to excuse students who need to be absent from class, examinations, study, or work requirements because of their religious beliefs, and provide students with a make-up opportunity, unless to do so would unreasonably burden the institution. Students must notify their instructor well in advance of any absense for religious reasons. If you require special accommodations for observance of a religious holiday, please notify me during the first week of the term.

Misc. information:
1.) The last day to withdraw from the course is November 8. For refund information, refer to the fall schedule book. If you wish to withdraw from the course, it is your responsibility to do so. Any student who does not come to class, yet fails to withdraw, will be given the FW grade.
2.) You are expected to spend roughly 15 hours per week on coursework - 5 hours in class and 10 hours out of class. If you cannot make this commitment, you may want to reconsider taking this course.
3.) The grading scale will be strictly adhered to! Final percentages will be rounded to the nearest whole number.
4.) This is a fast-paced course! We will cover much material in little time. You are responsible for thoroughly reading the textbook and keeping up with the assigned material.

Course information, including tests, quizzes, and answer keys, can be found at http://stevekifowit.com/classes/m171.htm

Tentative Lecture Pace

Math 171-03 - Calculus I

Week 1	Aug 19-Aug 22	Course information, Review, Estimating limits numerically and graphically	Chap P & Sec 1.2
Week 2	Aug 26-Aug 29	Estimating limits, Finding limits analytically	Sec 1.2, 1.3
Week 3	Sep 3-Sep 5	One-sided limits, Continuity, Infinite Limits, **No class on Sep 2**	Sec 1.4, 1.5
Week 4	Sep 9-Sep 12	Formal definition of limit, Intro to tangent lines and the derivative	Sec 1.2, 2.1
Week 5	Sep 16-Sep 19	Basic differentiation rules, **Test 1**	Sec 2.2, 2.3
Week 6	Sep 23-Sep 26	Higher order derivatives, Rates of change, Chain rule, Implicit Diff	Sec 2.2, 2.3, 2.4, 2.5
Week 7	Sep 30-Oct 3	Related rates, Extrema on closed intervals, Mean value theorem	Sec 2.6, 3.1, 3.2
Week 8	Oct 7-Oct 10	1st & 2nd derivative tests, Limits at infinity	Sec 3.3, 3.4, 3.5
Week 9	Oct 14-Oct 17	Curve sketching, Optimization, **Test 2**	Sec 3.6, 3.7
Week 10	Oct 21-Oct 24	Linearizations, Newton's method, Differentials	Sec 3.8, 3.9
Week 11	Oct 28-Oct 31	Antiderivatives, Area, Riemann sums	Sec 4.1, 4.2, 4.3
Week 12	Nov 4-Nov 7	Definite integrals, 1st fundamental theorem, Area between curves	Sec 4.3, 4.4, 7.1
Week 13	Nov 11-Nov 14	Substitution, Trapezoid rule, **Test 3**	Sec 4.5, 4.6
Week 14	Nov 18-Nov 21	Simpson's rule, Disk method**,** Volumes by cross sections	Sec 4.6, 7.2
Week 15	Nov 25-Nov 27	Cylindrical shells, Center of mass, **No class on Nov 28**	Sec 7.2, 7.3, 7.6
Week 16	Dec 2-Dec 5	Center of mass, 2nd fundamental theorem	Sec 7.6, 4.4
*******	Monday, Dec 9	**Final Exam --- 10:00am-11:50am**	

***** November 8 is the last day to withdraw *****