MATH 2153, Calculus II, Syllabus
Section 702: MWF 9:30 – 10:20 AM, Old Central 103

Instructor: Dr. Jim Choike, Professor of Mathematics
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Office Hours: By appointment

Prerequisites: MATH 2144, Calculus I

Required Materials: (1) Textbook: Calculus: Early Transcendentals, 2nd edition, by Jon Rogawski, and (2) Online homework system WebAssign (http://www.webassign.net)

Cell phones: Cell phones MUST be turned off and OUT-OF-VIEW during class. Cell phones cannot be used during class for any purpose; this includes, but is not restricted to, making or receiving phone calls, sending or receiving text messages, taking photographs during class, or using a cell phone for calculations.

Goals and expectations for the course:
- Calculus deals with functions, mathematical objects that relate two varying quantities, and the rules that govern the rates at which one of these quantities changes or accumulates with respect to the other. Our goal in this course is to ensure that you understand the concepts and tools of Calculus, that you master the skills required to use those tools, and that you will be able to apply those ideas to solve problems in many disciplines.
- Thinking and reasoning with mathematics
- Written and oral explanations
- Rule of Four: representing mathematics algebraically, graphically, numerically, and verbally
- Learning how to learn mathematics:
    o Reading the text;
    o Taking notes to highlight things that are important and things that you want to make sure to remember;
    o Learning from your mistakes;
    o Practicing, i.e., doing homework: Sophocles (497 – 406 BCE) captured the value of "practice" in mathematics when he said "One learns by doing the thing; for though you think you know it, you have no certainty until you try";
    o Asking questions;
    o Learning from and with peers.

Graphing Calculator Usage: Graphing calculators can be a valuable tool for investigating, learning, and applying the ideas of calculus throughout the sciences and engineering. However, facility with calculator usage is not a substitute for your own conceptual understanding or procedural skill. In this course, graphing calculator usage will be permitted on exams as long as your calculator does not have wireless or Internet capability, a QWERTY keyboard, or a camera.   If you do not own an acceptable graphing calculator, you may borrow one from the Math Department office without charge, starting Tuesday, January 8. Exams in this course will consist of free response questions that will require you to show all steps in your solutions and to fully justify your conclusions. We strongly recommend that your best exam preparation will be to write out homework solutions by hand, in a manner that is consistent with exam expectations using your calculator for numerical steps and for checking your work.

Final Grade for the Course: The Course Final Grade will be based on the following requirements:

    Exams, worth 70% of your grade, consist of 3 hourly exams and a comprehensive final exam. Course grades are determined in one of two ways, whichever produces a higher average:

        Option 1: Hourly exams 15% each, Final exam 25%

        Option 2: Hourly exams 10% each, Final exam 40%

    Exam 1, Monday, Febraury 11; Chapters 7 (1-3, 5, 6, 8), and Section 8.2;

    Exam 2, Wednesday, March 13; Section 8.4 and Chapter 10 (1-5);

    Exam 3, Friday, April 19; Chapter 10 (6-7), Chapter 11 (1-4);

    Final Exam: Friday, May 3, 8:00--9:50 PM in **Old Central 103**

    WebAssign Assignments, worth 10% of your grade, are online homework assignments corresponding to all sections of the text, typically due a few days after each section is covered in class. You should download and print out each assignment, write solutions in a homework notebook (either loose leaf or spiral bound), and then enter solutions into the online system by the due date.

    The class key for Math 2153, Section 702 in WebAssign, our online homework system, is: **okstate 0948 2732.** Students should set up their account and self-enroll for access to our section during the first week of class at https://www.webassign.net/login.html.

    Written Assignments and Quizzes will be worth 20% of your grade. Quizzes will be unannounced and over the content covered in class, in the text, and from the WebAssign online system. At a minimum 12 quizzes will be given, each worth a maximum of 10 points. The ten highest scores will be used as the Quiz Score and will count for 10% of your grade. There will also be about 8-10 written assignments that will count for 10% of your grade. Some of these written assignments may be Group assignments.

    The Course Grade: The course averages given below guarantee the stated grade. These cutoff scores may be lowered if circumstances warrant:

        90% guarantees the grade of A in the course,

        80% guarantees the grade of B,

        70% guarantees the grade of C,

        60% guarantees the grade of D.

The Mathematics Learning Success Center (MLSC) is on the fourth floor of the Classroom Building and on the first floor of the Edmon Low Library. The MLSC has tutors who are able to work with students from Calculus I and help you with your questions. Hours for Calculus I will take place in the Library during the following hours:

    Monday through Thursday from 1:00 PM until 9:00 PM;

    Friday from 1:00 PM until 5:00 PM;

    Sundays from 3:00 PM until 9:00 PM.

Important Dates:

    Monday, January 14, 2013: Last day to drop a course with no grade and no fees.

    Friday, January 18, 2013: Last day to drop a course with 50% fees and grade of "W"

    Monday, January 21, 2013: MLK Day.

    Tuesday, February 19, 2013: Six-week grades are due

    Spring Break Week: March 18-22, 2013

    Friday, April 5, 2013: Last day to drop or withdraw with an automatic grade of "W"

    Friday, April 19, 2013: Last day to drop with an assigned grade of "W" or "F."

    April 22-26, 2013: Pre-Finals Week

    April 29 – May 3, 2013: Finals Week

MATH 2153 Calculus II Syllabus

Textbook: *Calculus* 2e by Jon Rogawski.

1/7	M	Intro to the Course and Sect. 5.6 Substitution
1/9	W	Sect. 7.1: Integration by Parts
1/11	F	Sect. 7.2: Trigonometric Integrals
1/14	M	Sect. 7.2: Continued
1/16	W	Sect. 7.3: Trigonometric Substitution
1/18	F	Sect. 7.5: Integration of Rational Functions by Partial (Linear Factors)
1/21	M	**MLK Day**
1/23	W	Sect. 7.5: Continued
1/25	F	Sect. 7.6: Improper Integrals
1/28	M	Sect. 7.6: Continued
1/30	W	Sect. 7.8: Numerical Integration
2/1	F	Sect. 7.8: Continued
2/4	M	Sect. 8.2: Fluid Pressure and Force
2/6	W	Sect. 8.2: Continued
2/8	F	**Review for Exam**
2/11	M	**Exam 1: Chap. 7 (1-3, 5, 6, 8) and Section 8.2**
2/13	W	Sect. 8.4: Taylor Polynomials
2/15	F	Sect. 8.4: Continued
2/18	M	Sect. 10.1: Sequences
2/20	W	Sect. 10.2: Series
2/22	F	Sect. 10.2: Continued
2/25	M	Sect. 10.3: Positive Series (Integral Test)
2/27	W	Sect. 10.3: Positive Series (Comparison Test)
3/1	F	Sect. 10.3: Positive Series (Limit Comparison Test)
3/4	M	Sect. 10.4: Absolute and Conditional Convergence
3/6	W	Sect. 10.4: Continued
3/8	F	Sect. 10.5: The Ratio and Root Test
3/11	M	**Review for Exam**
3/13	W	**Exam 2: Section 8.4 and Chap. 10 (1-5)**
3/15	F	Sect. 10.6: Power Series
3/18	M	**Spring Break**
3/20	W	**Spring Break**
3/22	F	**Spring Break**
3/25	M	Sect. 10.6: Continued
3/27	W	Sect. 10.7: Taylor Series
3/29	F	Sect. 10.7: Continued
4/1	M	Sect. 10.7: Continued
4/3	W	Sect. 11.1: Parametric Equations
4/5	F	Sect. 11.1: Continued
4/8	M	Sect. 11.2: Arc Length and Speed
4/11	W	Sect. 11.3: Polar Coordinates
4/13	F	Sect. 11.4: Area in Polar Coordinates
4/15	M	Sect. 11.4: Continued
4/17	W	**Review for Exam**
4/19	F	**Exam 3: Chap. 10 (6-7), Chap. 11 (1-4)**

PRE-FINALS WEEK

4/22	M	Sect. 11.4: Arc Length in Polar Coordinates
4/24	W	**Review for Final Exam**
4/26	T	**Review for Final Exam**

FINAL EXAM WEEK: 4/29 - 5/3
Final Exam for Calculus, 2153.702: May 3, 2013 Time: 8:00-9:30 AM Place: Old Central 103