# Math 2153 - Calculus II

#### Summer 2010, section 001

Instructor:	D.P. Adhikari	Class Hou	Class Hours: MTWR 10:30-11:45am	
Classroom:	LSE 217	Office:	MSCS 413	
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<b>Office Hours:</b>	MTW 9:30-10:20am or by appointment.			
Course Webpa	ge: www.math.okstate.edu/~dadhika	<u>.</u>		

#### Text:

James Stewart, Calculus, Early transcendentals, 6e, OSU Custom Ed.,

We will cover about five sections each week. It is highly recommended that you read the section before the corresponding lecture. A detailed schedule will be attached to this syllabus. Also I will not necessarily cover everything in each section and my way of covering some material may differ from that of the author.

#### **Course Objective:**

The course begins with extending the ideas of Calculus I to exponential, logarithmic and inverse trigonometric functions followed by techniques of integration. This is followed by an in-depth discussion of series and their application to the representation of functions by power series. The course concludes by studying the calculus of curves defined by parametric equations and curves defined in a new coordinate system called polar coordinates.

#### **Prerequisite:**

This course requires a solid knowledge of Calculus I: Math 2144, particularly differentiation and integration techniques and their applications.

#### **Calculators:**

A scientific calculator (i.e. TI83plus) or computer will be necessary for some homework problems, but any electric powered devices will not be permitted during tests. Answers should be given in exact form unless a numerical approximation is specifically requested. For example, if PI is the exact answer, an answer of 3.14159 will not be given full credit. One point of this course is to give students some insight into the mathematics upon which sophisticated calculators are based. Also knowing the difference between an approximation and an exact result is important in evaluating the reliability of results.

#### **Examinations:**

There will be two in-class written exams (50 minutes), with a maximum score of 100 and a comprehensive final exam (75 minutes) which has a maximum score of 150. If you must miss a scheduled exam, you must contact me **before** the exam. A make-up exam will be given only if missing the exam was unavoidable due to serious illness or injury or similar circumstances. (Travel plans, cheap airline tickets, etc, do not qualify.) The first Exam will be on Wednesday, June 23. The final exam will be on Thursday, July 29 during class.

**Quizzes:** There will be quizzes given randomly in class or as take-home. The problems will be based on the materials we cover in class. Quizzes will be worth 50

points. NO MAKEUP quiz will be allowed. It is your responsibility to know what is discussed in class.

## Homework:

Most of your homework will be online graded homework assignments in WebAssign. I will collect a few problems that I will grade myself. You must copy the statement of each problem as a part of your written solution. Online homework will be collected twice a week and have firm deadlines for submission. You will need to self-enroll in WebAssign using class code **okstate 4461 2877** and institution **okstate**. The link <u>http://math.okstate.edu/~dadhika/self-enrollment.pdf</u> gives the directions for registering. The location of the WebAssign login and registration is <u>https://www.webassign.net/login.html</u>. See this additional page on homework and WebAssign for details on the use of WebAssign:

http://math.okstate.edu/~dadhika/webassign-tips.pdf In addition, there would be some written homework assignment, which would be collected occasionally. The number of points in any given assignment will vary and there will be a few hundred points total in both online and written assignments. The homework total will be normalized to 150 points for incorporation into the grading scheme.

I am also including some optional Tutorials in WebAssign. These usually contain videos which explain a few examples from the textbook and a few expanded questions with intermediate steps. These may help when you are reading a section, studying or are stuck on some homework problem. After a homework deadline has passed, solutions will be displayed and the assignments will be available for additional practice.

# **Class Attendance:**

I will take attendance in each class; you must be present for the **entire class session** in order to be counted as present. If you don't miss more than 2 times, 10 points will be added to your total points as a bonus. But more than four absences will result in a 3 points per absence deduction from total points. The maximum deduction will be 20 points.

# **Note**: <u>Signing the attendance sheet for a student who is not present is academic dishonesty</u>.

### Help:

I am available during my office hours and other times can be arranged. There are tutors at the MLRC who can help you. Remember to use the tutors to help you learn, NOT to do the work for you.

# Grading:

You have to show detailed work which can conclude your final answer. This course is about correct processes for solving problems and understanding of concepts. A correct answer with little or no supporting work may be given little credit. You should use sentences to define any unknowns and indicate units as appropriate. I will, at least once, write such things on the board to give you a model to follow, when giving examples in class. When getting an answer which does not seem reasonable for yourself, you may receive some credit for explaining why the answer you computed seems wrong. On tests it is important to clearly indicate what scratch work is and what is to be graded. In particular the answer to a computational problem should be indicated either by the word 'Solution:' or by drawing a rectangle around the answer.

The total point for this course is 550, with 350 for written exams 50 for quizzes and 150 for homework. Letter grades will be assigned to the following scale:

A 495-550 B 440-494 C 385-439 D 330-384 F 0-329

Note: Semester Grade is not negotiable. There will NOT be any bonuses, special deals and curving for individual students, etc.

See the University Syllabus Attachment for additional rules and information, including academic misconduct, students with disabilities, dropping a course and so forth.

http://osu.okstate.edu/acadaffr/aa/PDF%20Files/SYLATSU.pdf

Any changes in this syllabus will be communicated to you in class by the instructor.

	Mon	Tue	Wed	Thu	Fri
Week	June 7	June 8	June 9	June 10	June 11
1	7.1	7.2	7.3	7.3 &7.4	
					Hw1:7.1&7.2
Week	June 14	June 15	June 16	June 17	June 18
2	7.4 & 7.5	7.5 &7.8	7.8 &8.1	8.1 &8.2	
		<u>Hw2: 7.3</u>			Hw3:7.4&7.5
Week	June 21	June 22	June 23	June 24	June 25
3	8.3	Catch up	Exam 1	11.1	
		<u>Hw 4: 7.8&amp;8.1</u>			<u>Hw5:8.2&amp;8.3</u>
Week	June 28	June 29	June 30	July 1	July 2
4	11.2	11.3	11.4	11.5	
		<u>Hw 6: 11.1</u>			<u>Hw7:11.2&amp;11.3</u>
Week	July 5	July 6	July 7	July 8	July 9
5	University	11.6	11.7	11.8	
	Holiday		Hw8:11.4&11.5		<u>Hw 9:11.6</u>
Week	July 12	July 13	July 14	July 15	July 16
6	11.9	Catch up	Exam 2	11.10	
		Hw10:11.7&11.8			<u>Hw 11:11.9</u>
Week	July 19	July 20	July 21	July 22	July 23
7	10.1	10.2	10.3	10.4	
		<u>Hw12: 11.10</u>			Hw13:10.1&10.2
Week	July 26	July 27	July 28	July 29	July 30
8	10.4& 10.5	10.5	Catch up	<b>Final Exam</b>	
		Hw14:10.3&10.4			

**Detailed Schedule:**