Math 251 - 12096 - Differential Calculus (4)  
Syllabus - OSU - Fall 2014  

Instructor: Filix Maisch  
Meeting: MWF 3 - 3 : 50 PM  
Office: BEXL 429  
Room: KIDD 364  

Phone: 541-737-7127 (I never check voicemail.)  

Email: maischf@math.oregonstate.edu  

Text: Calculus, Early Transcendentals, Briggs, Cochran, et al. (2nd edition)  

Enforced Prerequisites: Math 112 with a C- or better ... or ... an ALEKS math placement test score of 75% ... or ... a math placement test score of 33 ... or ... instructor permission.  

Attendance: Regular attendance to lecture and recitation is expected.  

Honor Code: Students are expected to be familiar with Oregon State University’s Statement of Expectations for Student Conduct. Please review this statement at the following web link:  
http://oregonstate.edu/admin/stucon/achon.htm  

Accommodations: Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term. Students who believe they are eligible for accommodations should contact DAS immediately at 737-4098.  

Course Description: This course is a survey of differential calculus for engineers and scientists. Topics include rates of change, the derivative, velocity, acceleration, antiderivatives, simple motion problems, the algebraic rules of differential calculus, and derivatives of polynomial, rational, and trigonometric functions. Also included are maximum-minimum problems, curve sketching, and other applications.  

Schedule: See web for tentative term schedule.  

Evaluation: Your grade is determined by online homework, recitation quizzes, unannounced in-class true-false discussion quizzes, two evening midterms, and a final. Your final performance, scaled from 160 to 80, can replace the worse of your two midterms. Here is the point breakdown:  

- Homework .................. 80 (Take your avg. homework percentage of 80 and round up.)  
- Recitation Quizzes ... 70 (Top seven of eight recitation quizzes worth 10 points each.)  
- T/F Quizzes ............... 30 (Top three of four true-false quizzes worth 10 points each.)  
- Midterm 1 .................. 80 (8 : 30 – 9 : 50 PM, Tuesday, Oct. 21st, Gilfillan Auditorium)  
- Midterm 2 .................. 80 (8 : 30 – 9 : 50 PM, Tuesday, Nov. 11th, Gilfillan Auditorium)  
- Final .......................... 160 (4 – 5 : 50 PM, Thursday, Dec. 11th. Location: TBA)  

Grades will not be harder than:  
450 - 500 A/A-, 400 - 449 B+/B-, 350 - 399 C+/C, 300 - 349 D, 0 - 299 F.  

I do not use blackboard. At the end of this syllabus you have a page on which you can record your scores.
Homework: Homework is online through www.mymathlab.com. On the web page there is also a list of suggested exercises from the text corresponding to recitation quizzes.

Course ID: maisch21895 Name: Math251Fall2014(EARLY TRANSCENDENTALS 2/e)

Resources: The Math Learning Center is in Kidder 108H and is a great place to drop in for help. It is open from 9 AM to 4 PM, Monday through Friday, from the second week onward. I volunteer there for an hour on Fridays at 9 AM. Treat this as an additional office hour.

Tests: Note that no calculators of any kind are allowed on either midterm nor the final. You are allowed both sides of one 3x5 inch handwritten note card for each midterm and both sides of one 4x6 inch handwritten note card for the final. Your final exam can replace your worst midterm if your performance on the final is better than your worst midterm.

T/F Quizzes: No calculators nor notes are allowed on the unannounced in-class true-false discussion quizzes, but you are intended to share your reasoning with fellow students and discussion the questions out loud! These quizzes can occur anytime during class, so try not to be late to lecture.

Recitation Quizzes: No notes are allowed on the weekly recitation quizzes in Thursday recitations, but you may work individually or in a group of 2 or 3, and any kind of calculator is permitted. Each week, the 2 – 4 quiz problems are drawn randomly and verbatim from the suggested homework which is listed by quiz correspondence (see web page). Recitation is canceled on the first Thursday of the term (Oct. 2nd). Starting the second week there will be a recitation quiz every Thursday (except Thanksgiving).

Bacc Core: This course counts toward Baccalaureate Core in the Skills category of Mathematics. The following are the student learning outcomes for this category:

1. Identify situations that can be modeled mathematically.
2. Calculate and/or estimate the relevant variables and relations in a mathematical setting.
3. Critique the applicability of a mathematical approach or the validity of a mathematical conclusion.

Specific Learning Outcomes: A successful student in Math 251 will be able to...

1. Calculate average and instantaneous rates of change and identify instantaneous rates of change with derivatives.
2. Apply ideas of differential calculus to motion problems (velocity, speed, and acceleration)
3. Apply the algebraic limit laws and the standard rules of differentiation including the chain rule to calculate particular limits and derivatives.
4. Use methods of calculus to solve maximum and minimum problems.
5. Use methods of calculus to determine the shapes of curves.
Write down your scores!

(1) Quiz 1: ......out of 10

(2) Quiz 2: ......out of 10

(3) Quiz 3: ......out of 10

(4) Midterm 1: ......out of 80

(5) Quiz 4: ......out of 10

(6) Quiz 5: ......out of 10

(7) Quiz 6: ......out of 10

(8) Midterm 2: ......out of 80

(9) Quiz 7: ......out of 10

(10) Quiz 8: ......out of 10

(11) Best 7 of 8 Quizzes: ......out of 70

(12) Homework: ......out of 80

(13) True-False Quiz 1: ......out of 10

(14) True-False Quiz 2: ......out of 10

(15) True-False Quiz 3: ......out of 10

(16) True-False Quiz 4: ......out of 10

(17) Best 3 of 4 True-False Quizzes: ......out of 30

(18) Final: ......out of 160