

CALCULUS 2 MTWF 2:00-2:50PM SPRING 2007 STUART 308

Instructor: Jonathan White

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Text: *Calculus, Early Transcendentals, 5th Edition*, James Stewart

Problem Sets & Quizzes: There will be several problem sets and quizzes during the semester, as well as online WeBWorK assignments. Combined these will be worth 200 points (25% of the final grade).

Exams: There will be four in-class exams administered during class time. The dates of these are indicated in the schedule on the back side of this sheet. These exams will be worth 100 points (12.5% of the final grade) each.

The final exam will be held during finals week at the date and time indicated on the back side of this sheet. The final will be worth 200 points (25% of the final grade).

Grading: Grading will approximately follow a 90% A, 80% B, 70% C, 60% D scale.

Makeups: Makeups for exams will generally be allowed only under extenuating circumstances, with documentation and advance notice when humanly possible. Late problem sets and quizzes will generally not be accepted, and if accepted due to extenuating circumstances will generally be subject to a penalty of 20% of the possible points for each day past due. Late WeBWorK will not be accepted for credit.

Calculus 2 is a continuation of topics introduced in Calculus 1, but with a greater depth and sophistication. The problems get bigger, and the ideas get bigger as well. Some truly interesting questions become answerable, and more aspects of the world come within reach, but the techniques involved become substantially more difficult.

The use of technology, particularly the software package *Mathematica*, will be an important component of the course. Ability to compute with pencil and paper will also be important, as will conceptual understanding of the topics treated.

To enter this class, each student must pass (with a score of 80% or more) a computer-administered multiple-choice “gateway” exam. You may attempt this exam as often as desired, provided that you demonstrate understanding of previous mistakes before a retake. After the second full week (January 26th) grades will be lowered by 10% for each week or portion of a week without passing this exam.

This combination of approaches and topics is likely to prove challenging, partly because few people will find that all of these aspects play to personal strengths. Don't let that be overwhelming, though, and remember that I'm around to help.

Tentative Schedule

			Friday, January 12 th §4.10 Antiderivatives
Monday, January 15 th §5.3 The Fun. Theorem	Tuesday, January 16 th §5.5 u-Substitution	Wednesday, January 17 th §6.1 Area between Curves	Friday, January 19 th §6.2 Volumes by Washers
Monday, January 22 nd §6.2 Volumes by Washers	Tuesday, January 23 rd §6.3 Volumes by Shells	Wednesday, January 24 th §6.4 Work	Friday, January 26 th §6.4 Work
Monday, January 29 th §6.5 Average Value	Tuesday, January 30 th Review	Wednesday, January 31 st Exam 1	Friday, February 2 nd §7.1 Integration by Parts
Monday, February 5 th §7.2 Trig Integrals	Tuesday, February 6 th §7.3 Trig Substitution	Wednesday, February 7 th §7.3 Trig Substitution	Friday, February 9 th §7.4 Partial Fractions
Monday, February 12 th §7.5 Integration Strategy	Tuesday, February 13 th §7.6 Tables and Computers	Wednesday, February 14 th §7.7 Approximations	Friday, February 16 th §7.8 Improper Integrals
Monday, February 19 th §8.1 Arc Length	Tuesday, February 20 th §8.2 Surface Area	Wednesday, February 21 st §8.3 Physics Applications	Friday, February 23 rd §8.4 Econ & Bio Apps
Monday, February 26 th §8.5 Probability	Tuesday, February 27 th §8.5 Probability	Wednesday, February 28 th Review	Friday, March 2 nd Exam 2
Spring Break			
Monday, March 12 th §9.1 Differential Equations	Tuesday, March 13 th §9.2 Euler's Method	Wednesday, March 14 th §9.3 Separable Equations	Friday, March 16 th §10.1 Parametric Equations
Monday, March 19 th §10.2 Parametric Calculus	Tuesday, March 20 th §10.3 Polar Coordinates	Wednesday, March 21 st §10.4 Polar Calculus	Friday, March 23 rd §10.5 Conic Sections
Monday, March 26 th §11.1 Sequences	Tuesday, March 27 th §11.2 Series	Wednesday, March 28 th Review	Friday, March 30 th Exam 3
Monday, April 2 nd §11.3 The Integral Test	Tuesday, April 3 rd §11.4 Comparison Tests	Wednesday, April 4 th §11.5 Alternating Series	Friday, April 6 th §11.6 Absolute Conv.
Monday, April 9 th §11.6 The Ratio Test	Tuesday, April 10 th §11.7 Strategies	Wednesday, April 11 th §11.8 Power Series	Friday, April 13 th §11.9 Series for Functions
Monday, April 16 th §11.10 Taylor Series	Tuesday, April 17 th §11.12 Applications	Wednesday, April 18 th Review	Friday, April 20 th Exam 4
Monday, April 23 rd §9.4 Exponential Growth	Tuesday, April 24 th §9.5 The Logistic Equation	Wednesday, April 25 th Review	
Final Exam – Friday April 27 th 8am			

Any students with disabilities which might affect their performance in this class should contact me as soon as possible to arrange accommodations.

The faculty has adopted a policy on academic integrity. It is your responsibility to understand and follow it.

Diversity, in all its forms, is valuable.