CALCULUS 2 MTWF 2:00-2:50PM FALL 2006 STUART 308

Instructor:	Jonathan White
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Office:	Stuart 316
Office Hours:	MTWF 9:00-9:50am and by appointment
Office Phone:	399-8280
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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. Together 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.

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 third week (September 16th) 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

Monday, August 28th §4.10 Antiderivatives	Tuesday, August 29th §5.3 The Fun. Theorem	Wednesday, August 30th §5.5 u-Substitution	Friday, September 1st §6.1 Area between Curves
Monday, September 4th No Class – Labor Day	Tuesday, September 5th §6.2 Volumes by Washers	Wednesday, September 6th §6.3 Volumes by Shells	Friday, September 8th §6.4 Work
Monday, September 11th §6.4 Work	Tuesday, September 12th §6.5 Average Value	Wednesday, September 13th Review	Friday, September 15th **Exam 1**
Monday, September 18th §7.1 Integration by Parts	Tuesday, September 19th §7.2 Trig Integrals	Wednesday, September 20th §7.3 Trig Substitution	Friday, September 22nd §7.3 Trig Substitution
Monday, September 25th §7.4 Partial Fractions	Tuesday, September 26th §7.5 Integration Strategy	Wednesday, September 27th §7.6 Tables and Computers	Friday, September 29th §7.7 Approximations
Monday, October 2nd §7.8 Improper Integrals	Tuesday, October 3rd §8.1 Arc Length	Wednesday, October 4th §8.2 Surface Area	Friday, October 6th §8.3 Physics Applications
Monday, October 9th §8.4 Econ & Bio Apps	Tuesday, October 10th §8.5 Probability	Wednesday, October 11th Review	Friday, October 13th **Exam 2**
Monday, October 16th No Class – Fall Break	Tuesday, October 17th No Class – Fall Break	Wednesday, October 18th §9.1 Differential Equations	Friday, October 20th §9.2 Euler's Method
Monday, October 23rd §9.3 Separable Equations	Tuesday, October 24th §10.1 Parametric Equations	Wednesday, October 25th §10.2 Parametric Calculus	Friday, October 27th §10.3 Polar Coordinates
Monday, October 30th §10.4 Polar Calculus	Tuesday, October 31st §10.5 Conic Sections	Wednesday, November 1st Review	Friday, November 3rd **Exam 3**
Monday, November 6th §11.1 Sequences	Tuesday, November 7th §11.2 Series	Wednesday, November 8th §11.3 The Integral Test	Friday, November 10th §11.4 Comparison Tests
Monday, November 13th §11.5 Alternating Series	Tuesday, November 14th §11.6 Absolute Conv.	Wednesday, November 15th §11.6 The Ratio Test	Friday, November 17th §11.7 Strategies
Monday, November 20th §11.8 Power Series	Tuesday, November 21st §11.9 Series for Functions	Wednesday, November 22nd No Class – Thanksgiving Break	Friday, November 24th No Class – Thanksgiving Break
Monday, November 27th §11.10 Taylor Series	Tuesday, November 28th §11.12 Applications	Wednesday, November 29th Review	Friday, December 1st **Exam 4**
Monday, December 4th §9.4 Exponential Growth	Tuesday, December 5th §9.5 The Logistic Equation	Wednesday, December 6th Review	Friday, December 8th Review
Final Exam – 11am Thursday 12/14			

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.