CALCULUS 2   8:00-8:50AM/2:00-2:50PM   SPRING 2005   HICKOK 307

Instructor:	Jonathan White
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Web Page:	http://www.coe.edu/~jwhite/
Office:	Hickok 206A
Office Hours:	MTWF 9:00-9:50am and by appointment
Office Phone:	399-8280
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Text:	*Calculus, Single and Multivariable*, 3rd Edition, Hughes-Hallett et al.
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.

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 beginning a retake. After the third week (January 28th) grades will be lowered by 10% for each week or portion of a week without passing this exam.

The use of technology, particularly the software package *Maple*, will be an important component of the course, and most Tuesday meetings will be "Lab" sessions spent on the computers. Ability to compute with pencil and paper will also be important, as will conceptual understanding of the topics treated.

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

		Wednesday, January 12th §6.1 & 2 Antiderivatives	Friday, January 14th §6.4 & 5 Motion
Monday, January 17th §7.1 *u*-substitution	Tuesday, January 18th Lab: Introducing *Maple*	Wednesday, January 19th §7.2 Integration by Parts	Friday, January 21st §7.3 Tables of Integrals
Monday, January 24th §7.4 Trig Substitutions	Tuesday, January 25th Lab: Computer Integration	Wednesday, January 26th §7.4 Partial Fractions	Friday, January 28th §7.4 Other Approaches
Monday, January 31st §7.7 Improper Integrals	Tuesday, February 1st Lab: Improper Integrals	Wednesday, February 2nd Review	Friday, February 4th **Exam 1**
Monday, February 7th §8.1 Area and Volume	Tuesday, February 8th Lab: Slicing/Approximation	Wednesday, February 9th §8.2 Volume and Length	Friday, February 11th §8.3 Center of Mass
Monday, February 14th §8.4 App. To Physics	Tuesday, February 15th Lab: Density	Wednesday, February 16th §8.4 App. To Physics	Friday, February 18th §8.5 App. To Econ.
Monday, February 21st §8.6 Probability	Tuesday, February 22nd Lab: Probability	Wednesday, February 23rd Review	Friday, February 25th **Exam 2**
Monday, February 28th §9.1 Geometric Series	Tuesday, March 1st Lab: Sequences & Series	Wednesday, March 2nd §9.2 Convergence	Friday, March 4th §9.3 Convergence Tests
Spring Break – No Classes			
Monday, March 14th §9.3 Convergence Tests	Tuesday, March 15th Lab: Convergence	Wednesday, March 16th §9.4 Power Series	Friday, March 18th §10.1 Taylor Polynomials
Monday, March 21st §10.2 Taylor Series	Tuesday, March 22nd Lab: Polynomial Approx.	Wednesday, March 23rd §10.3 Finding Taylor Series	Friday, March 25th §10.3 Finding Taylor Series
Monday, March 28th §10.5 Fourier Series	Tuesday, March 29th Lab: Fourier Series	Wednesday, March 30th Review	Friday, April 1st **Exam 3**
Monday, April 4th §11.1 Differential Equations	Tuesday, April 5th Lab: Slope Fields	Wednesday, April 6th Stu. Res. Symp. – No class	Friday, April 8th §11.3 Euler's Method
Monday, April 11th §11.4 Separation of Var.	Tuesday, April 12th Lab: Exp. And Log. Growth	Wednesday, April 13th §11.5 Growth and Decay	Friday, April 15th §11.6 & 7 Modeling
Monday, April 18th §11.8 Systems	Tuesday, April 19th Lab: The Phase Plane	Wednesday, April 20th Review	Friday, April 22nd **Exam 4**
Monday, April 25th Appendix B Polar Coord.	Tuesday, April 26th Appendix B Polar Coord.	Wednesday, April 27th Review	
Final Exam (8am section): Tuesday, May 3rd, 8am Final Exam (2pm section): Wednesday, May 4th, 11am			

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.