

## CALCULUS 1 MTWF 8:00-8:50AM SPRING 2006 HICKOK 102/307

- Instructor: Jonathan White
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- Web Page: <http://www.coe.edu/~jwhite/>
- Office: Hickok 206A
- Office Hours: 9:00-9:50 MWF, 2:00-2:50 MW, and by appointment
- Office Phone: 399-8280
- Home Phone: 841-5111 (between 7am and 11pm)
- Text: *Calculus, Early Transcendentals*, 5<sup>th</sup> Edition, by James Stewart, Brooks/Cole.
- Problem Sets and Quizzes: Assorted Problem Sets will be given throughout the term to supplement class work. Many of these will benefit from the use of the software package *Mathematica*, which is available on the computers in the labs in Hickok and Peterson Halls. Some assignments will be made through the WebWork system, and quizzes will also be given frequently. Combined these will be worth 200 points (25% of the final grade).
- Exams: There will be four exams during the course of the semester. 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 at the scheduled time during finals week and 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 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.

In addition to regular exams, all students must successfully complete a computer-administered gateway exam over computing derivatives in order to pass this course.

Calculus is a demanding course in many ways. It requires both a level of computational proficiency and also a level of conceptual understanding beyond any prior mathematics course. Yet because of or despite these difficulties, students who have previously found math classes easy because of an aptitude for moving symbols around might find that there is more to this class than they expect, and students who have in the past felt they weren't good at math might find this class more suited to them. In either case, this class might not be quite what you're used to, and it might be unsettling at first. Give it some time,

and feel free to take advantage of my office hours to help past the rough spots.

## Tentative Schedule

Monday, January 16 <sup>th</sup> §1.1 Functions	Tuesday, January 17 <sup>th</sup> §1.2 Models	Wednesday, January 18 <sup>th</sup> §1.3 Tweaking Functions	Friday, January 20 <sup>th</sup> §1.4 Technology
Monday, January 23 <sup>rd</sup> §1.5 $a^x$	Tuesday, January 24 <sup>th</sup> §1.6 Inverse Functions	Wednesday, January 25 <sup>th</sup> §2.1 Tangents & Velocity	Friday, January 27 <sup>th</sup> §2.2 Limits
Monday, January 30 <sup>th</sup> §2.3 Limit Rules	Tuesday, January 31 <sup>st</sup> §2.4 Limits Technically	Wednesday, February 1 <sup>st</sup> §2.5 Continuity	Friday, February 3 <sup>rd</sup> §2.6 Limits at Infinity
Monday, February 6 <sup>th</sup> §2.7 Rates of Change	Tuesday, February 7 <sup>th</sup> §2.8-9 Derivatives	Wednesday, February 8 <sup>th</sup> Review for Exam	Friday, February 10 <sup>th</sup> <b>Exam 1</b>
Monday, February 13 <sup>th</sup> §3.1 Derivative Rules	Tuesday, February 14 <sup>th</sup> §3.2 Products&Quotients	Wednesday, February 15 <sup>th</sup> §3.3 Applications	Friday, February 17 <sup>th</sup> §3.4 Trig. Derivatives
Monday, February 20 <sup>th</sup> §3.5 The Chain Rule	Tuesday, February 21 <sup>st</sup> §3.6 Implicit Diff.	Wednesday, February 22 <sup>nd</sup> §3.7 Higher Derivatives	Friday, February 24 <sup>th</sup> §3.8 Log Derivatives
Monday, February 27 <sup>th</sup> §3.10 Related Rates	Tuesday, February 28 <sup>th</sup> §3.9 Hyp. Derivatives	Wednesday, March 1 <sup>st</sup> Review for Exam	Friday, March 3 <sup>rd</sup> <b>Exam 2</b>
Spring Break – No Classes			
Monday, March 13 <sup>th</sup> §4.1 Optimization	Tuesday, March 14 <sup>th</sup> §4.2 Mean Value Thm.	Wednesday, March 15 <sup>th</sup> §4.3 Derivatives&Graphs	Friday, March 17 <sup>th</sup> §4.4 L'Hôpital's Rule
Monday, March 20 <sup>th</sup> §4.5 Curve Sketching	Tuesday, March 21 <sup>st</sup> §4.6 Curve Sketching	Wednesday, March 22 <sup>nd</sup> §4.7 Applications	Friday, March 24 <sup>th</sup> §4.8 Applications
Monday, March 27 <sup>th</sup> §4.9 Newton's Method	Tuesday, March 28 <sup>th</sup> §4.10 Antiderivatives	Wednesday, March 29 <sup>th</sup> Review for Exam	Friday, March 31 <sup>st</sup> <b>Exam 3</b>
Monday, April 3 <sup>rd</sup> §5.1 Areas & Totals	Tuesday, April 4 <sup>th</sup> §5.2 Definite Integrals	Wednesday, April 5 <sup>th</sup> Symposium – No Classes	Friday, April 7 <sup>th</sup> §5.3 Fun. Thm. of Calculus
Monday, April 10 <sup>th</sup> §5.3 Fun. Thm. of Calculus	Tuesday, April 11 <sup>th</sup> §5.4 Indefinite Integrals	Wednesday, April 12 <sup>th</sup> §5.5 u-Substitution	Friday, April 14 <sup>th</sup> §5.5 u-Substitution
Monday, April 17 <sup>th</sup> §6.1 Area between Curves	Tuesday, April 18 <sup>th</sup> §6.1 Area between Curves	Wednesday, April 19 <sup>th</sup> Review for Exam	Friday, April 21 <sup>st</sup> <b>Exam 4</b>
Monday, April 24 <sup>th</sup> t.b.d.	Tuesday, April 25 <sup>th</sup> t.b.d.	Wednesday, April 26 <sup>th</sup> t.b.d.	Friday, April 28 <sup>th</sup> Review for Final
Final Exam – 11am Thursday, May 4 <sup>th</sup>			

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

Coe's faculty has adopted an academic integrity policy. It is your responsibility to understand and follow it.

Diversity, in all its forms, is valuable.