

## CALCULUS 1 MTWTh 1:00-2:45PM SUMMER 2006 HICKOK 207

- Instructor: Jonathan White
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- Web Page: <http://www.coe.edu/~jwhite/>
- Office: Hickok 206A
- Office Hours: 3:00-3:50 MTWTh, 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 *Maple*, which is available on the computers in the labs throughout campus. Quizzes will also be given frequently. Combined these will be worth 200 points (2/7 of the final grade).
- Exams: There will be three 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 (1/7 of the final grade) each.
- The final exam will be given on the last day of class, and will be worth 200 points (2/7 of the final grade).
- Grading: Grading will approximately follow a 90% A, 80% B, 70% C, 60% D scale.

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

			Thursday, June 8 <sup>th</sup> §1.1 Functions §1.2 Models
Monday, June 12 <sup>th</sup> §1.3 Tweaking Functions §1.4 Technology	Tuesday, June 13 <sup>th</sup> §1.5 $a^x$ §1.6 Inverse Functions	Wednesday, June 14 <sup>th</sup> §2.1 Tangents & Velocity §2.2 Limits	Thursday, June 15 <sup>th</sup> §2.3 Limit Rules §2.4 Limits Technically
Monday, June 19 <sup>th</sup> §2.5 Continuity §2.6 Limits at Infinity	Tuesday, June 20 <sup>th</sup> §2.7 Rates of Change §2.8 Derivatives	Wednesday, June 21 <sup>st</sup> §2.9 Derivatives Review for Exam	Thursday, June 22 <sup>nd</sup> <b>Exam 1</b>
Monday, June 26 <sup>th</sup> §3.1 Derivative Rules §3.2 Products & Quotients	Tuesday, June 27 <sup>th</sup> §3.3 Applications §3.4 Trig. Derivatives	Wednesday, June 28 <sup>th</sup> §3.5 The Chain Rule §3.6 Implicit Differentiation	Thursday, June 29 <sup>th</sup> §3.7 Higher Derivatives §3.8 Log Derivatives
Monday, July 3 <sup>rd</sup> §3.10 Related Rates	Tuesday, July 4 <sup>th</sup> Holiday – No class	Wednesday, July 5 <sup>th</sup> §3.9 Hyperbolic Derivatives Review for Exam	Thursday, July 6 <sup>th</sup> <b>Exam 2</b>
Monday, July 10 <sup>th</sup> §4.1 Optimization §4.2 Mean Value Theorem	Tuesday, July 11 <sup>th</sup> §4.3 Derivatives & Graphs	Wednesday, July 12 <sup>th</sup> §4.4 L'Hôpital's Rule §4.5 Curve Sketching	Thursday, July 13 <sup>th</sup> §4.6 Curve Sketching §4.7 Applications
Monday, July 17 <sup>th</sup> §4.8 Applications §4.9 Newton's Method	Tuesday, July 18 <sup>th</sup> §4.10 Antiderivatives	Wednesday, July 19 <sup>th</sup> Review for Exam	Thursday, July 20 <sup>th</sup> <b>Exam 3</b>
Monday, July 24 <sup>th</sup> §5.1 Areas & Totals §5.2 Definite Integrals	Tuesday, July 25 <sup>th</sup> §5.3 Fun. Theorem of Calc. §5.4 Indefinite Integrals	Wednesday, July 26 <sup>th</sup> §5.5 u-Substitution §6.1 Area between Curves	Thursday, July 27 <sup>th</sup> <b>Final Exam</b>

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.