**Calculus II**
(MATH 1545)
Spring 2007


**Professor:** Dr. Paul Bailey

**Office:** WIL 228

**Office Hours:** MTWRF 10 am to 11 am; TR 1 pm to 2 pm

**Web Site:** http://www.saumag.edu/pbailey

**Email:** plbailey@saumag.edu

**Book:** *Thomas' Calculus*, 11th edition, by Thomas, Finney, Weir, and Giordano


**Grade Components**

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|---:|:---|
| **Problems:** | 25% |
| **Quizzes:** | 25% |
| **Midterms:** | 25% |
| **Final:** | 25% |

Homework exercises from the textbook will be assigned daily to be completed before the next class. These will not be collected, but they need to be done in a timely fashion to keep up with the course. Questions regarding the homework will be addressed at the beginning of the next lecture.

Occasional challenge problems will be handed out, to be thought about and completed outside of class. Mathematics should be written neatly, and *in complete sentences*.

There will be a quiz almost every Friday. No makeup quizzes will be given *unless arrangements are made before the day of the quiz*.

There will be two midterm examinations and one final examination. The final examination has been scheduled by the university for Wednesday, May 9, 2007, at 10:00 a.m.

Calculators can be detrimental to the study of mathematics. The use of calculators, cell phones, laptop computers, and all electronic devices is strictly prohibited during quizzes and examinations, and is discouraged while studying. You may use an abacus.


**Course Outline**

| Week | Beginning | Topic | Sections |
|------|-----------|-------|----------|
| Week 0 | Jan 17 | Review | 1.1-5.6 |
| Week 1 | Jan 22 | Volumes of Revolution and Lengths of Plane Curves | 6.1, 6.2, 6.3 |
| Week 2 | Jan 29 | Areas of Revolution and Work | 6.4, 6.5, 6.6 |
| Week 3 | Feb 5 | Inverse, Logarithmic, and Exponential Functions | 7.1 - 7.5 |
| Week 4 | Feb 12 | Inverse Trigonometric and Hyperbolic Functions | 7.7, 7.8 |
| Week 5 | Feb 19 | Integration Techniques | 8.1, 8.2, 8.3 |
| Week 6 | Feb 26 | Integration Techniques | 8.5, 8.5, 8.8 |
| Week 7 | Mar 5 | Differential Equations | 9.1, 9.2, 9.3 |
| Week 8 | Mar 12 | Conic Sections | 10.1-10.4 |
| Week 9 | Mar 19 | Polar Coordinates | 10.5-10.8 |
| Week 10 | Mar 26 | SPRING BREAK |  |
| Week 11 | Apr 2 | Sequences and Series | 11.1, 11.2 |
| Week 12 | Apr 9 | Convergence Tests | 11.3-11.6 |
| Week 13 | Apr 16 | Power Series | 11.7-11.10 |
| Week 14 | Apr 23 | Fourier Series | 11.11 |
| Week 15 | Apr 30 | Review | 6.1-11.11 |