

Course Syllabus: Calculus II
Instructor: Mr. Luce

Text: The Calculus of a Single Variable with Analytic Geometry,
6th edition, Louis Leithold

Supplementary Texts: Calculus: Concepts and Applications,
Paul A. Foerster; we will also use various study
guides to help prepare for the AP Calculus BC test
which the students will take in early May 2008.

Objective: To provide the student with a solid background in
both differential and integral calculus. Successful
completion of this course will prepare the student
for advanced studies in mathematics, such as multi-
variable (vector) calculus, differential equations,
real and complex analysis, linear algebra, etc. The
beauty and power of calculus will be emphasized
throughout the course.

Primary Grading Method: The student's grade will be primarily
determined by their performance on a 'weekly' quiz,
which will in actuality occur roughly every seventh
class period. A large weight in the grade will also
be attached to their compilation and maintenance of
a math 'journal', in which they will record such
things as theorems and definitions. **Neatness** of the
journal will be a major component of the journal
grade! There will be no graded homework, but the
student will be periodically evaluated on their
diligence in completing problems assigned on a
daily basis to be worked on at home. On average,
the student should expect 30-40 minutes of nightly
work, which includes: (1) working problems; (2)
updating their journals; and (3) **reading the text,**
which is essential at this level of math!

'Weekly' Quizzes:	75%
Math Journal:	11%
Classroom Diligence & Attentiveness	10%
Diligence on Nightly Work	<u>4%</u>
	100%

The Calculus Assessment Exam: Towards the end of the second
semester, students will be taking an exam to
assess their level of mastery of the techniques
and topics of Calculus II. The student must pass
this exam at the 70% level or better before being

passed on to higher-level math courses. If the student fails the first attempt, they will have two more chances of passing a similar test. Also, we expect our students to do well on the AP Calculus BC exam; by doing well, we mean earning a score of '4' or '5'. If a student earns a score of '1' or '2', they will not be allowed to take Calculus III; a score of '3' is a borderline case to be discussed with the parents, the student, the teacher and the principal.

Required Materials: Two spiral notebooks, one for working their nightly problems, and the other for the math journal. Also, students will be required to have a **graphing calculator**. One of the TI models listed here is the most desirable: TI-83, TI-83+, or TI-83+ Silver Edition.

Concise Course Outline:

September: Brief but intensive review of Calculus I material
Chapter 9: Techniques of Integration
October: Chapter 9 continued
November: Chapter 10: Conic Sections & Polar Coordinates
December: Chapter 11: Indeterminate Forms & Improper Integrals
January: Chapter 11 continued
Chapter 12: Sequences and Infinite Series
February: Chapter 12 continued
March: Chapter 13: Power Series
April: Chapter 13 continued
Intensive Review & Preparation for AP Test
May: Topics of Special Interest to Instructor & Students
E.g., An Introduction to Multivariable Calculus

Signatures: I ask for both the student and at least one parent or guardian to sign below, to indicate that they have read and understand this syllabus. Students will be given two copies of the syllabus, so that they can keep one to refer to.

Student Signature: _____

Parent or Guardian: _____