

MTH 161 (Calculus I)

University of Miami

Fall 2013

Course section: 55 **Mo We Th** **6:25pm-7:40pm** **MM 312**

Instructor: Armando Cabrera Pacheco

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Text

Essential Calculus, Second Edition, James Stewart.

Other required materials

WebAssign: An access code for WebAssign is bundled with the new textbook purchased through the University of Miami Bookstore. You may also purchase the student access directly on the website: <http://www.webassign.net>. If you purchase WebAssign with the ebook, you do not need to purchase the physical text.

WebAssign Class Key: miami 2658 3459.

Grading Policy

The final grade will be obtained from two main grades, namely, the Course Grade (**CG**) and the Final Exam Grade (**FE**). **CG** will be determined according to the following table:

Exams	60 points	There will be four exams during the semester. The lowest grade will be dropped, so each exam will be worth 20 points. There won't be make-up exams.
Quizzes	25 points	There will be several in-class quizzes, the average of their grades will determine the proportion of the 25 points you obtain. There won't be make-up quizzes.
Homework	15 points	Homework will be assigned weekly.

FE is the grade of the Final Exam (0 to 100 points), it will be a comprehensive exam scheduled on:

December 17th, 2013 (It is scheduled by the university and it is subject to change).

The final grade will be obtained as follows:

$$\max(.7 \times \mathbf{CG} + .3 \times \mathbf{FE}, .5 \times \mathbf{CG} + .5 \times \mathbf{FE}).$$

The grade equivalence is as follows:

Grade	Range	Grade	Range
A	93-100	C+	77-79
A-	90-93	C	73-76
B+	87-89	C-	70-72
B	83-86	D+	67-69
B-	80-82	D	60-66

Honor Code

The Honor Code will appear on each exam. Students should consult the *Undergraduate Bulletin* for details of the Honor Code. Any infraction of the Honor Code will result in a grade of “F” for the course and a referral to the Dean of Students.

Calculator Policy

Students may use a basic scientific calculator for exams and quizzes in this class. Graphing calculators and calculators with programming and alpha-numeric capabilities will not be permitted during exams and quizzes.

Supplemental Instruction

The Math Lab, located in Ungar Building Room 302, is available to all students enrolled in this course. Tutors are available at the Math Lab on a walk-in basis.

MTH 161 Syllabus

Text: *Essential Calculus*, Second Edition, James Stewart.

- **Chapter 1 (Functions and limits)**

Functions and their graphs, examples of important type of functions and their transformations. Intuitive and precise definition of the limit of a function and techniques to calculate it. Continuity of functions. Limits involving infinity.

- **Chapter 2 (Derivatives)**

Intuitive and precise definition of the derivative of a function. Basic differentiation formulas and rules. The Chain rule and implicit differentiation. Related rates. Linear approximations.

- **Chapter 3 (Applications of differentiation)**

Maximums and minimums. The Mean Value Theorem. Geometric meaning of the derivatives and curve sketching. Optimization. Antiderivatives. Newton’s Method (optional).

- **Chapter 4 (Integrals)**

Area under a curve. The definite integral and its evaluation. The Fundamental Theorem of Calculus. The substitution rule.

- **Chapter 7 (Applications of integration)**

Areas between curves. Volumes. Area of surfaces of revolution (optional).