



Fall 2016

MTH 161 – Calculus I

COURSE SECTION: MTH 161 Section A2
CLASS SCHEDULE: MWF 8:00 – 8:50 and Thursday 8:00-9:15
INSTRUCTOR: Mr. James McKeown
OFFICE: Ungar 528b
OFFICE HOURS: Wednesday 11-3 in the Math lab (first floor of the library) or by appointment
Email: mckeown@math.miami.edu
Website: math.miami.edu/~mckeown
TEXT: Essential Calculus by Stewart (2nd Edition)

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: www.webassign.net. If you purchase WebAssign with the ebook, you do not need to purchase the physical text.

WEBASSIGN CLASS KEY : **miami 3606 0016**

GRADING POLICY: Final grades for this course will be based on the following:

1. **EXAMS (45%):** There will be four exams given during the semester. Dates for the exams will be announced in class at least one week prior to each exam.
2. **HOMEWORK (10%):** Homework will be assigned and completed in WebAssign.
3. **QUIZZES (15%):** Quizzes will be given periodically in class.
4. **FINAL EXAM (30%):** The final exam for the course will be comprehensive and scheduled as follows:

The final exam is scheduled on WEDNESDAY, DECEMBER 14th, from 8:00AM to 10:30AM.

HONOR CODE: 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. The recommended calculator is a TI 30XI which you can purchase for about \$10. 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 426, is available to all students enrolled in this course. Tutors are available at the Math Lab by appointment or on a walk-in basis.

MAKEUP POLICY: Any student who cannot take an exam on the specified date for a legitimate and documented reason must make arrangements with their instructor to take the exam prior to that date. No exams will be given after the specified test date. If an emergency occurs on the day of the exam, you MUST CONTACT YOUR INSTRUCTOR IMMEDIATELY.

MTH 161 SYLLABUS

TEXT: ESSENTIAL CALCULUS by STEWART (2nd Edition)

CHAPTER 1: FUNCTIONS AND LIMITS (all sections)

Functions and their graphs; limit of a function; limit laws; continuity; limits at infinity; precise definition of limit

CHAPTER 2: DERIVATIVES (all sections)

Derivatives; formulas for differentiation; derivatives of trigonometric functions; the Chain Rule; implicit differentiation; related rates; differentials

CHAPTER 3: APPLICATIONS OF DIFFERENTIATION (sections 1 – 5, 7)

Maximum and minimum values; The Mean Value Theorem; first derivative test; concavity and points of inflection; curve sketching; applications involving optimization; antiderivatives (3.6 optional)

CHAPTER 4: INTEGRALS (all sections)

Area and distances; Riemann Sums; the definite integral and its properties; The Fundamental Theorem of Calculus; evaluating definite and indefinite integrals; change of variable

CHAPTER 7: APPLICATIONS OF INTEGRATION (SECTIONS 1, 2, 3)

Areas between curves; volumes – disk method, washer method, cylindrical shells (7.5 – optional)