Math 141 Syllabus
Text: **Essential Calculus Second Edition by Stewart**
Homework Management System: WebAssign
Calculator: TI-84

The chapter sections given below are in Essential Calculus, Second Edition. The suggested lecture hours represent 50 minute units, 3 lecture hours/week for 14 weeks=42 lecture hours. 6 lecture hours are reserved for tests & review.

Math 141 is using a homework management system, WebAssign. The College Bookstore sells a loose-leaf version of the text plus a printed access card for WebAssign. Please tell your students NOT to throw away this card. Use of on-line homework is optional for instructors, but all students will need to use the website to access the e-book and other resources. see HMS Guidelines below

Chapter 1   Functions & limits   9 hours
       1.1   Functions
       1.2   A Catalog of functions
       (At most 2 hours should be devoted to 1.1 and 1.2. Students who have any difficulty with this material should be strongly directed to Math 122.)
       1.3   Limit of a function
       1.4   Calculating Limits
       1.5   Continuity
       1.6   Limits involving infinity

Chapter 2   Derivatives   15 hours
       2.1   Derivatives and Rates of Change
       2.2   The Derivative as a function
       2.3   Basic Differentiation formulas (2.3, 2.4 and 2.5 each require several hours)
       2.4   The product & quotient rules
       2.5   The chain rule
       2.6   Implicit Diff.
       2.7   Related Rates
       2.8   Linear Approximation

Chapter 3   Applications of Differentiation   12 hours
       3.1   Max & Min Values
       3.2   MVT
       3.3   Derivatives & the Shapes of Graphs
       3.4   Curve Sketching
       3.5   Optimization (Word Problems)
       (3.6   Newton's method. Optional)

Role of Theory in Math 141:

All students are expected to know the definition of the derivative at a point, and of continuity at a point. They should be able to state these definitions and use them to solve a problem. They should be able to compute the derivative of simple functions from the definition. They should also understand, and be able to state correctly and use the Intermediate Value Theorem, the Extreme Value Theorem, and the Mean Value Theorem.