

**Instructor:** Dr. Cen-Tsong Lin

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**Office hours:** 10 – 10:50 MTWTF

**Course Goals:** Upon successful completion of this course, the student will be able to:

- Compute partial sums;
- Identify a geometric series and, if it converges, compute its sum;
- Apply various tests for convergence (integral, comparison, and ratio test);
- Determine the interval of convergence for a power series;
- Find the Taylor Polynomial of degree  $n$  and the Taylor Series representation for a function;
- Differentiate and integrate Taylor Series;
- Describe and recognize graphs of functions of two variables;
- Vectors
  - Displacement; the dot product, the cross product
- Compute partial derivatives, differentials, gradients, and directional derivatives;
- Find local and global extrema;
- Communicate verbally and in writing of one's understanding of mathematical concepts to others.

**Prerequisite:** MATH 173 with a grade of C or higher.

**Textbook:** Calculus, 6<sup>th</sup> edition, by Hughes-Hallett

**Evaluation:**

- |                                 |     |                                     |
|---------------------------------|-----|-------------------------------------|
| • Homework assignment (WeBWorK) | 15% |                                     |
| • 3 in-class tests (20% each)   | 60% | Tentative dates: 1/23, 2/13 and 3/6 |
| • Final exam                    | 25% | 8 – 10 AM, Tuesday, 3/17/2014       |

**Course Conduct:**

- Homework (from WeBWorK and Textbook) will be assigned daily, only WeBWorK assignments will be graded.
- Makeup test will be given only when you can document a circumstance that is beyond your control and unexpectedly prevent you from taking the scheduled test.

**Course grade: Grading:**

Your grade will be assigned based on the following scale:

	93% → 100%	A	90% → 92%	A-	
87% → 89%	B+	83% → 86%	B	80% → 82%	B-
77% → 79%	C+	73% → 76%	C	70% → 72%	C-
67% → 69%	D+	63% → 66%	D	60% → 62%	D-
below 60%	F				

I reserve the right to adjust the above scale (in student's favor) if deemed appropriate.