

Instructor: Dr. Cen-Tsong Lin

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Webpages: (course) <http://canvas.cwu.edu>, (HW) <http://webwork.math.cwu.edu>

Office hours: 11 – 11:50 MTWT

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

- In sequence and series
 - be able to distinguish between sequences and series and determine whether they are convergent
 - compute partial sum
 - identify a geometric series and finding the limit of the series if it converges
 - apply various tests for convergence of series including integral, comparison and ratio test
 - determine the interval of convergence for a power series: the root test
 - find the Taylor Polynomial of degree n and the Taylor Series representation for a function f
- In vector geometry
 - vectors in two and three dimensional space
 - dot product and angle between two vectors
 - the cross product
 - plane in 3-space
 - a survey of Quadratic surface
- In calculus of vector-valued functions
 - vector-valued functions
 - calculus of vector-valued functions
 - arc length and speed
 - motion in 3-space
- In differentiation of several variables
 - functions of two or more variables
 - limits and continuity in several variables
 - partial derivatives
 - differentiability and tangent planes
 - the gradient and directional derivations
 - the chain rule
 - optimization in several variables
 - Lagrange multipliers: optimizing with constraint

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

Textbook: Calculus Multivariable, 3th edition, by Rogawski-Adams (CWU Custom)

Evaluation:

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| • Homework assignment (WeBWorK & on paper) | scaled to 150 points |
| • 3 in-class tests (100 points each) | 300 points Tentative dates: 4/15, 5/6 and 5/27 |
| • Final exam (150 points) | 150 points 8 – 10 AM, Tuesday, 6/7/2016 |

Course Conduct:

- Homework (from WeBWorK and on paper) will be assigned daily and posted on Canvas; deadlines are firm, no late paper will be accepted.

- 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.

Students with special needs or disabilities are encouraged to contact the Director of Disability Support Services at 963-2171