

Instructor: Cen-Tsong Lin

Office: Bouillon 108B (Tel: 963-2842)

E-mail: ctl@cwu.edu

Office hours: 11:00 – 11:50 Monday – Friday

Learning outcomes:

Upon completion of Math 172, students will be able to:

1. Investigate limits and continuity of functions;
2. Compute derivatives using the definition;
3. Differentiate a variety of functions using the basic differentiation rules;
4. Demonstrate conceptual understanding of the derivative of a function, including
 - (a) graphical representation related to the slope of the tangent line,
 - (b) numerical representation related to relative rates of change,
 - (c) relationship with one-dimensional motion, and
 - (d) modeling rate of change problems, including related rates.
5. Use first and second derivatives to
 - (a) describe the behavior of curves,
 - (b) solve optimization problems, and
 - (c) create complete graphs of functions without using technology;

Required material:

Textbook: Rogawski and Adams, Calculus, 3rd ed., Freeman. This course will cover selected material from chapters 1 – 4.

A graphing calculator (TI-83/84 is recommended) is required for class work and homework.

Access to **Canvas**. I will post course syllabus, grades, assignments, and other important stuff here.

Access to **WeBWorK** for homework assignments

Course Policies:

Attendance: Daily attendance is expected and considered necessary for success.

- Homework: Daily homework will be assigned with specified submit method (WeBWorK or Canvas) and due date.
Online homework: <http://webwork.math.cwu.edu/webwork2/math172Lin>
- Tests: There will be three 100-point tests, tentative testing dates are 10/9, 10/30 and 11/20.
- Final exam: Comprehensive, 8:00 – 10:00 AM, Monday, 12/07/2015

Make-up tests will be given only when you can document a circumstance that is beyond your control that prevents you from taking the test.

Your final grade will depend on:

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| Homework | scaled to 150 points |
| Three in-class tests | 300 points |
| Final exam: | 150 points |
| Total | 600 points |

Course grade will be assigned based on the following scale:

| | | |
|----------|---------|----------|
| | 93% → A | 90% → A- |
| 87% → B+ | 83% → B | 80% → B- |
| 77% → C+ | 73% → C | 70% → C- |
| 67% → D+ | 63% → D | 60% → D- |

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