

Math 124, Calculus I

Instructor Information

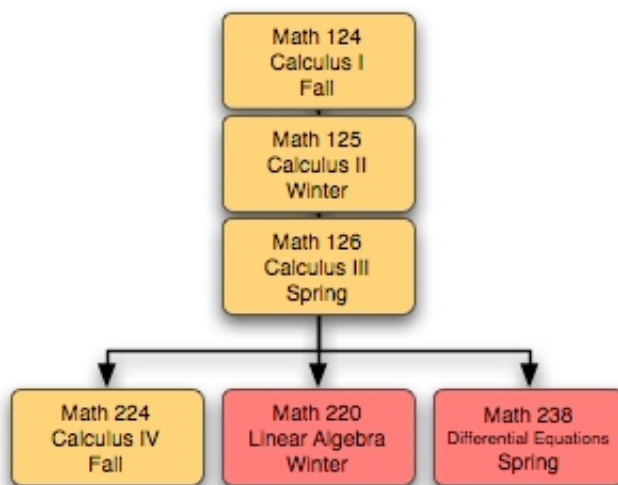
Eric Schulz, 509-527-4281, eric@wwcc.edu , Office #288A located in the *Academic Support Center* on the 2nd floor of the Main Building on WWCC's Walla Walla campus. My office hours are 10:30 to 11:30 daily. I am also available in the afternoons on an appointment basis; please contact me via email or phone to arrange an appointment if you are unable to come by during posted office hours. I normally respond to email promptly during the day but rarely in the evenings and on weekends. If you send an email in the evenings or weekends I will reply as soon as I can on the following work day.

Course Description

The first in a sequence of four courses for students who are planning to major in engineering, mathematics, or the sciences. Graphical analysis of concepts is emphasized through the use of graphing calculators and computer software. Topics for the course include: limits and continuity, derivatives and their applications, and an introduction to the definite integral (optional). Prerequisite: Grade of "C-" or higher in MATH 110 or permission of Mathematics Department.

The course will include use of the computer algebra software [Mathematica](#). *Mathematica* is available on all computers in Room 207, a limited number of computers in Room 221, and all computers in Room 288 on campus. For those students with a computer at home and planning to take several of the advanced math courses at WWCC, purchasing a student edition of *Mathematica* is suggested. *Mathematica* will be used throughout the calculus sequence (Math 124/125/126/224) and will continue to be used in Linear Algebra (Math 220) and Differential Equations (Math 238) at WWCC. [Mathematica for Students](#) version 5.2 can be ordered either from the WWCC College Bookstore or from <http://www.wolfram.com/> for approximately \$140. When considering the additional expense of *Mathematica*, keep in mind that the text for Math 124 is also used in Math 125, 126, and 224 - this helps to offset the additional expense of *Mathematica* if a student chooses to purchase the software.

Advanced Math courses offered at WWCC:



All Math courses offered at WWCC: [Course Flowchart](#)

Required Materials

- The textbook for the course is *Calculus Concepts & Connections*, 1st edition, Smith/Minton. The textbook is used for Math 124, 125, 126, and 224.
- A graphing calculator will be necessary. There are many different calculators that are sufficient for the needs of the course. Please feel free to contact the instructor with any questions about calculators.
- Engineering Computation paper for homework assignments, pencil, etc. Available in the WWCC Bookstore for approximately \$2.50 for a 100-sheet pad.

Suggested/Optional Materials

- Student Solution Manual (The SSM is on backorder - it is expected to arrive in early October)
- [Mathematica for Students](#)

Attendance

Attendance at every class session is expected. I understand absences are sometimes unavoidable and will work with students when such occasions arise. In the event of an absence occurring on the date of a scheduled exam, **prior** arrangements must be made in order to schedule a time to write the exam.

Cell Phones/PDAs

Our classroom is a **No Cell Phone/PDA** environment. Cell phones are to be silenced before class begins and put away. Cell phones/PDAs are not to be accessed for any reason during classtime.



Text messaging is not allowed during class. Using a cell phone as a calculator is not acceptable. You should have a graphing calculator for use in the course.

Homework Assignments

Homework will be assigned regularly and collected to be reviewed for completeness, correctness, and granted credit when appropriate as outlined below. Homework assignments can include textbook problems, instructor written problems, and Mathematica assignments.

- Each homework assignment will be worth 10 points.
- Assignments turned in on time where at least 50% of the assigned problems are completed with sufficient supporting work will earn 4 of the 10 possible points. Answers without supporting work do not count as "completed with sufficient supporting work".
- Three randomly selected problems on each assignment will be graded in detail. Complete, correct, detailed solutions for each of these three problems will be worth 2 points. The problems to be graded will be selected using a random sampling algorithm in *Mathematica*. Random problem selection is made after assignments have been turned in, hence, do not ask which problems on the assignment will be graded in detail before the assignment is due.
- Assignments on which answers are written without supporting work will not receive credit.
- Assignments which are messy and unorganized will not receive credit. **Neatness and readability counts!!**
- Assignments are to be written on "Engineering Computation Paper" using the non-grid side of the paper - the graphpaper grids show through on the blank side to provide excellent alignment

guides. Work written on the graphpaper side is difficult to read.

Complete assignments turned one day late will be worth at most 6 points (3 points for being turned in and 1 point per graded problem). Incomplete assignments turned in one day late are worth 0 points. Assignments turned in more than one day late will not receive any credit.

In addition to textbook assignments, there will be *Mathematica* assignments given throughout the course. The points possible for each *Mathematica* assignment will be stated when the assignment is made.

Assignments and due dates are posted regularly on the class [Quarter Schedule](#).

Exams

There will be 3 one-hour exams and a comprehensive final exam. Each one-hour exam will be composed of an inclass paper and pencil portion and a second portion that is to be completed outside of class and will require the use of *Mathematica*. The in-class portion of each one-hour exam is worth 100 points and the second portion is worth 25 points. The final exam is worth 250 points.

Exam related material will be posted on our class [homepage](#).

Course Grades

Grades for the course are computed by adding up the number of points earned and dividing by the total number of points possible in the course. If we assume that there will be 30 textbook homework assignments (each worth 10 points) and 5 *Mathematica* assignments (each worth 10 points), then the total number of points possible in the course would be:

$$\text{hw} + \text{ma} + \text{ex1} + \text{ex2} + \text{ex3} + \text{final} = 300 + 50 + 125 + 125 + 125 + 250 = 975$$

In this case, homework assignments account for 30.8% of the course grade, *Mathematica* assignments for 5.1%, each one-hour exam for 12.9% (in class portion 10.3% and *Mathematica* portion 2.6%), and the final exam for 25.6%.

By keeping careful records, each student can easily determine their current grades by dividing the total number of points they have earned by the total number of points possible. I've put together an Excel spreadsheet that you use to track your current course grade. Download [MyCalcGrades.xls](#), save it on your computer (or flash drive), and make regular entries to keep an accurate record of how you are doing in the course.

The **course percentage** (cp) upon which grades will be determined is computed with the function:

$$\text{cp} = (\text{points earned}) / (\text{points possible})$$

The letter course grade earned by the student is determined by the following table:

93% <= cp <= 100%	-> A
90% <= cp < 93%	-> A-
87% <= cp < 90%	-> B+
83% <= cp < 87%	-> B
80% <= cp < 83%	-> B-
77% <= cp < 80%	-> C+

73% \leq cp < 77% \rightarrow C
70% \leq cp < 73% \rightarrow C-
67% \leq cp < 70% \rightarrow D+
60% \leq cp < 67% \rightarrow D
0% \leq cp < 60% \rightarrow F