# PRECALCULUS: Math 120 - FALL 2011

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| **Lecturer:** | Dr. Andrew D. Loveless | **Email:** | aloveles@math.washington.edu |
| **Office:** | Padelford C-339 | **Web page:** | www.math.washington.edu/~aloveles |

**Office Hours:** MW 1:45-3:00 pm, F 1:45-2:30 pm. My office hours are also posted on my web page. They may change, so please check the webpage before you come by.

**Text:** *Precalculus*, 2011-2012 edition, by D.H. Collingwood and K.D. Prince,
The book can be purchased at Professional Copy and Print, located at 1414 NE 42nd St. It is not available at the UW bookstore. You must have the 2011-2012 edition. The book is also available for **free** online through the course website.

**Course Objectives:** This course is designed to prepare you for learning calculus. This is not a course about concepts and mechanics as much as it is a course about problems. This course will help you develop the skills and stamina necessary to solve lengthy, multi-step problems, involving a variety of pre-calculus mathematical concepts.

**Grading:** The weight for each part of the course is given below. An example is also given to show how you can determine your own grade.

| Category | Weight | scores from a made-up student Your Percentages | Your Scores |
|---|---|---|---|
| Test Prep Participation (**Complete Tuesdays**) | 2 | 100% | = 2 |
| Homework (**Due at Lecture**) | 13 | 85% | = 11.05 |
| Midterm 1 (**THURS, OCTOBER 20**) | 25 | 76% | = 19 |
| Midterm 2 (**THURS, NOVEMBER 17**) | 25 | 88% | = 22 |
| Final Exam (**SAT, DECEMBER 10**) | 35 | 89% | = 31.15 |
| Total | 100 | | = 85.2 |

This example student would get a 85.2 out of 100 for the course which is a 3.0 on the grade scale (the grade scale can be found on my website and it is subject to change so the actual grade could be higher or lower than this dependent on the performance relative to your classmates).

**To get a grade of 2.5 or better in Math 120, you will probably need to average about 75% or better on your exams, assuming your homework average is excellent. A 2.5 or above is required to move on into Math 124.**

A failing grade of 0.0 is given to any student that has an overall course percentage of 50% or below.

**Lecture:** Lecture is on Monday, Wednesday, and Friday. You will be held responsible for all information that is discussed during lecture.

**Quiz Sections:** You will have quiz sections on Tuesday and Thursday with a teaching assistant (TA).
At the beginning of the period on Tuesday you will work through and discuss an old exam problem. This is a great opportunity to get practice in a test situation. You will hand in your work and get points for participation. If you are in attendance, and trying, you will get these points.
For the remainder of the time on Tuesday and for all of Thursday, you can ask questions about homework and course material. Your TA will have no prepared agenda and you, the students, will guide the discussion of the class by asking questions. PLEASE, PLEASE, PLEASE COME PREPARED TO ASK QUESTIONS!!! The TA may even completely work through some of the problems. You need to help and guide your TA by looking at the problems before quiz section and asking lots of questions.

BE RESPECTFUL TO YOUR TA! Your TA is a student as well. Many of them are taking hard classes, preparing for doctoral preliminary exams, and/or working on writing 100 page dissertations. In addition, they are paid a relatively meager wage. Before you criticize your TA, you should ask yourself what you would do in their position. The point is: Help them out by bringing good questions to quiz section and make sure to thank them for the time they are giving you.

**Homework:** The homework assignments are attached to this syllabus and can be found on my website. Homework will be **collected at the start/end of lecture on the indicated days**. Please see the calendar and homework schedule on the website for more details.

**Exams:** The midterms will be 50 minutes long and will be given at your usual quiz section classroom. The Final Exam is cumulative and will be held on **Saturday, December 10** (the time and location will be announced later in the course).

**Calculators and notes:** You will need a scientific calculator for Math 120. It must have trigonometric functions, like Sin and Cos, as well as logarithms and exponentials (ln and exp). **GRAPHING CALCULATORS ARE NOT ALLOWED** on quizzes and exams in Math 120 this Fall. A graphing calculator is any device with a multiline display that has the ability to graph mathematical functions. See your instructor before the first quiz if you are not certain if your calculator is acceptable. A single, **hand-written** 8.5 x 11 inch sheet of notes is allowed during exams. You may write on both sides.

**Make-Ups:** *Late homework and test preps will not be accepted for any reason.* You will be allowed to miss one homework assignment and one test prep without penalty to your grade. In case of observance of religious holidays or participation in university sponsored activities, arrangements must be made with your TA at least 2 days in advance for test preps and 1 week in advance for exams. You will be required to provide documentation for your absence. *Make-up exams will not be given.* If you miss an exam due to **unavoidable, compelling, and well-documented** circumstances, your final exam will be weighted more heavily.

**Class Philosophy:** There are two vital rules for success in my classroom.
**1. THE HOMEWORK IS THE KEY:** In mathematics, breakthroughs in learning rarely occur while reading the text or attending lecture. Mathematics is truly learned when you completely solve a problem AND understand the underlying concepts and tools so as to be able to apply them to related problems. The lecture, tutorial sessions, and office hours are valuable tools in guiding you towards learning and discovery, but ultimately the concepts and solutions must be absorbed, understood, and applied by you alone. Treat each problem as an exam question and ask yourself, "Can I answer this question without any help and do I understand the underlying principles that this problem conveys?" If your answer is no to either of these question, then you need more studying and practice.
**2. ASK FOR HELP:** Most students will hit a wall at some point during the course. Some can't handle the large workload, while others find difficulty with specific concepts in the course. When these times arrive remember to ask for help. I will answer as many questions in person during class and office hours as possible. However, I do ask that you exhaust your other sources of help before coming to me (since I have a large number of students, 450 this quarter, I sometimes get bogged down with e-mails and students in office hours). So please look for help in the following order: Ask your questions at Quiz Section, visit the math study center, visit CLUE, ask your classmates for help, go to your T.A.'s office hours, e-mail your TA, come to my office hours, and e-mail me. These are just a few of your options. Find help earlier rather than later. You are all smart enough to do well in this course, the question is whether or not you are determined enough.
**YOU** must be proactive to get help and do well in this course. The score you get on a test or homework is the score you get in the class. Make-ups, redos, and extra credit do not exist in this course. What you get is what you earn. So you are responsible for yourself, but if you ask for help you will find it.

**Resources:**
• A link to the class website can be found at: **http://www.math.washington.edu/∼aloveles/** You will find homework assignments, review sheets, grade information, a calendar for the term, and various bits of other useful information there, including past exams and quizzes, TA information, etc.

• The Math Study Center (Communications B-014) is open to students in Math 120. The Center provides a comfortable place and a supportive atmosphere for students to come together and study, in groups or individually. The center is staffed by TAs and instructors. See
**http://www.math.washington.edu/ perkins/MSC/** for more information.

• The Center for Learning and Undergraduate Enrichment (CLUE) holds drop-in tutoring sessions every weekday evening in Mary Gates Hall Commons. See
**http://depts.washington.edu/clue/** for more details.

• The University of Washington is committed to providing access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation contact the Disability Services Office at least ten days in advance at: 206-543-6450/V, 206-543-6452/TTY, 206-685-7264(FAX), or dso@u.washington.edu.

• The Student Counseling Center provides academic skills workshop on a variety of topics including stress management test anxiety and time management to help you succeed at the University of Washington. For more info, check out **http://depts.washington.edu/counsels/** .