

Instructor

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I will be in my office everyday from 9:30 until 10:20 and most afternoons after 2:30. You can find out a little bit about me by consulting my web page at <http://SciDiv.bcc.ctc.edu/LC/>.

Textbook

*PRECALCULUS FUNCTIONS AND GRAPHS: A GRAPHING APPROACH* by Larson, Hostetler & Edwards

Prerequisites

working knowledge of intermediate algebra (Math 099); graphing calculator (e.g., TI-83 recommended)

Content

The focus of this course is **trigonometry** -- trigonometric functions, their graphs, properties and applications. Trigonometry began as a tool for surveyors, map makers and navigators, based on the measurement of right triangles. This is still a good place to start and a good fall-back position for basic understanding of some properties and making some calculations. But the primary importance of trigonometry in the modern world lies in a completely different direction -- in the mathematical description of vibrations, rotations, and periodic phenomena of all kinds, including light, sound, alternating currents, and the orbits of planets around the sun. It is an indispensable tool in science, engineering and higher mathematics. We will cover chapters 4, 5, 6, part of 10 and some three-dimensional work.

What you need to do to succeed

Your job is to do whatever it takes to understand every word in the book and in class -- not instantaneously, of course, because this stuff is not trivial. You'll have to work at it. **To earn an A or B in this course ordinarily requires at least twelve hours of concentrated work outside the classroom each week.**

- Attend class religiously. There's no substitute for being there. Falling behind a little is not a good reason to stop attending -- it happens to everybody. That will just guarantee that you'll get further behind. There is no formal penalty for missing a class, but I expect you to be there everyday. You are responsible for assignments and announcements made in class and all material covered in class. On the other hand, simply attending class is not nearly enough.
- Study the book. Fill-in gaps in derivations & examples. You're responsible for all material covered in the book.
- Ask questions. An important objective of studying mathematics and science is learning to articulate good, clear questions. If you never have any questions, then this class is probably either too elementary for you or too advanced. If you never ask any questions, then it appears as if you don't care.
- Talk (or write) about mathematics. Try to explain what you're learning to classmates, me, family members, English teachers, the check-out clerk at Safeway -- anyone who will listen. The use of language in math and science is much more precise than it is in novels or newspapers. It takes practice to become proficient.
- Reflect on what you've done. Every time you work a problem or complete a section stop a minute, and ask yourself, "What was I supposed to get out of this? What were the big steps or ideas?" Force yourself to identify exactly what it was that made this hard to get and how what you just did is related to what you did 10 minutes ago and what you learned last week. As much learning can occur in this minute of reflection as in the whole problem solving or reading process. Remember: **UNDERSTANDING** is the goal, not just calculating a number or memorizing a fact.
- Above all, you should solve lots of problems. There's no other way. Then solve even more problems. Start by trying **every third problem (1, 4, 7, 10, .....)**. If that's not enough to make you feel really confident, go back and do the odd ones you left out. **Sample each type of problem, and pay special attention to applied problems.** Some of these problems will show up on exams.

Exams, Quizzes & Assignments

We will have four 20-minute quizzes worth 20 points each; three 50-minute midterm exams worth 100 points apiece; a 110-minute final exam worth 125 points; and several 20 to 30-minute in-class team assignments, each worth 10 points. One low midterm exam score may be compensated for on the final exam -- details later. **No make-ups.**

Grades

Grades will be based on exams, quizzes and assignments: **A ≥ 90% > B ≥ 80% > C ≥ 70% > D ≥ 60% > F**

## Extra Help

Part of learning mathematics is getting stuck. Although frequently beating your head against a stone wall is inevitable (even beneficial, believe it or not) don't let it go on for too long. That's frustrating and inefficient. It's important to learn to work independently and develop confidence in your own ability to get yourself unstuck, but it's also important to realize that learning mathematics can be a social activity. Get help! Consult with me, or better yet, consult with your classmates. Working in study groups two or three times a week is very effective and can be fun. Besides the tutors, who staff the **Math Lab in C204**, you will always find students from other 120 sections working on the same things you are, willing to compare solution-attempts, or just share bellyaches. You'd be surprised how much you can learn from each other. There are many resources available to you, such as answers to all odd-numbered exercises in the back of your book, other textbooks in the Library and on the shelves outside my office, and **computers (equipped with Maple) in C204 and B113**. Take advantage of them. You paid for them!

## Calender

9/27 class begins	9/28	9/29	9/30	10/1
10/4	10/5 QUIZ #1	10/6	10/7	10/8
10/11	10/12	10/13	10/14 EXAM #1	10/15
10/18 no classes	10/19	10/20	10/21	10/22
10/25	10/26 QUIZ #2	10/27	10/28	10/29
11/1	11/2	11/3	11/4 EXAM #2	11/5 no classes
11/8	11/9	11/10	11/11 no classes	11/12 last day to withdraw
11/15	11/16	11/17 QUIZ #3	11/18	11/19
11/22	11/23	11/24	11/25 no classes	11/26 no classes
11/29	11/30 EXAM #3	12/1	12/2	12/3
12/6	12/7	12/8	12/9 QUIZ #4	12/10
12/13 no class	12/14 no class	12/15 FINAL EXAM		

## Cheating Policy

Cheating includes copying answers on tests or assignments, glancing at nearby test papers, swapping papers, stealing, plagiarizing, and illicitly giving or receiving help on exams or assignments -- in short, presenting another's work or ideas as your own. You are expected to conduct yourself with integrity. When you cheat, or aid someone else in cheating, you violate a trust. If you cheat, the following actions will be taken.

- You will receive a grade of 0 on the work on which the cheating occurred. This grade cannot be dropped.
- A report of the incident will be sent to the Dean of Students, who may file the report in your permanent record or take further disciplinary action such as suspension or expulsion from the college.

If you feel you have been unfairly accused of cheating, you may appeal.

(See WAC 132H-120 for a description of due process.)