Instructor:

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Professor of Mathematics

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MSB 205

Maybe you've always been good at math. Maybe not. Either way, I'm here to help you master some very new material (and maybe to unlearn old mistakes) so that you can analyze data intelligently, move ahead with your plans for transfer and – we all hope!—a job that will allow you to live comfortably and do meaningful work.

That's not easy today, when many students face real obstacles, and the kind of work we need is hard or impossible to find. So, while we're struggling with Trigonometry this winter, let's also spend a little time thinking about what education and work should really be like. And let's think about how we can make that happen!

**Math 241(#1499) Winter 2015
MTWThF   8:00-10:50 a.m. in MSA 006**

Trigonometry with Vectors (4 units)

SEE INSIDE FOR MORE IMPORTANT INFORMATION!

This class is a FULL-TIME JOB. Plan accordingly. See p. 2

re-s-p-e-c-t

p. 3

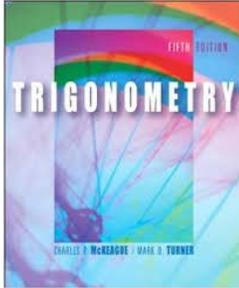**You will NEED a scientific calculator. A graphing calculator is a good investment.**

Schedule p. 6

Know what tutoring help and other resources are available… and use them.

Grading

We will mainly use the 5th edition of the textbook. You can rent it cheaply from the bookstore, or buy it used online for even less. YOU NEED IT NOW!

Math 241(#1499) Winter 2015   MTWThF   8:00 – 10:50 a.m.
Trigonometry with Vectors (4 units)   Classroom MSA 006

This course of analytical trigonometry includes solutions to triangle problems, radian measure, graphs of trigonometric functions, trigonometric equations, identities, polar coordinates and inverse trigonometric functions and complex numbers, and vectors.

Prerequisite: Mathematics 125 or Math 128 or Math 123C with a grade of "C" or better, or placement through assessment process.

NOTE: Students who struggle with Math or who passed Intermediate Algebra with a "C" or who have a job or other commitments during January would be well-advised to take this course during a regular 15-week semester. Do NOT take this class if you expect to be absent or late or leaving early on a regular basis.

Instructor: Professor Bonnie Ellen Blustein, Ph.D.
Office Hours: If you need help or want to chat, the best times to find me in my office is after class, although there are no official office hours during the winter session. You are welcome to stop by anytime to see if I'm free. You can also email me to set up an appointment.
Office: MSB 205   *Phone*: 310-287-4217   *email*:   blusteb@wlac.edu

Textbook: We will mainly use Trigonometry 5th Edition by McKeague and Turner. You should be able to rent one inexpensively from the Bookstore or buy a used copy (often very cheap online). The 6th edition (2008) or the 7th edition (2013) would also be okay, if you are willing to be flexible.

Homework
The "Carnegie Hours" system used in this and other colleges assumes that each student will spend two hours (or more) outside of class for each hour in class. That works out to at least 4-5 HOURS DAILY, INCLUDING WEEKENDS, for the 5-week winter session.   This class is really a full-time job!

- Homework will be collected and spot-checked for completeness and accuracy.
  Doing exercises and solving problems outside of class is where you learn the most.
- Study groups are usually helpful. **Free tutoring** is available in the Learning Resource Center ("Library").
- Begin your study session by reviewing (and rewriting, if necessary) your class notes. Refer to the text or an online video if you need clarification.
- Then do the assigned problems. Check answers to odd problems in the back of the book to make sure you are doing them correctly. Spend as much time as it takes to do ALL problems correctly. Use weekends to extra problems.
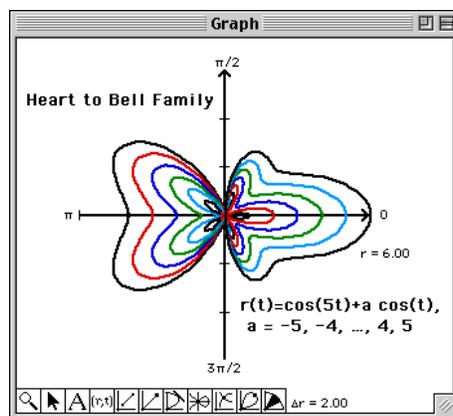
Materials: Please bring your math notebook (with graph paper), pencils, a scientific calculator and the textbook to class each day. *Calculators or laptops with symbolic manipulation capabilities, and calculators built into any device with communication capability (such as an iPhone) are not allowed on tests*. Casio graphing calculators will be available on loan from the instructor for quizzes and tests but you are better off learning to use your own.

Attendance: Please be in class on time every day and participate in all class activities. College policy is that an instructor may drop a student who has missed more than six hours of class (more than two absences in winter session). If you arrive late or leave early, it will count as 1/3 of an absence each time. If you have a valid reason for an absence, please notify the instructor via e-mail (preferably) or telephone as soon as possible. However, *excessive absences are not acceptable regardless of the reason*.

Students with disabilities who believe they may need accommodations in this class are encouraged to contact Disabled Students Programs and Services located in SSB 320 (phone 310-287-4450) immediately to improve the chances that such accommodations can be implemented in a timely manner. The instructor will do everything possible to comply with ADA and all other mandates.

College-Wide Student Learning Outcomes and Course Policies

❖ **Critical Thinking:** Classroom activities and homework assignments require sound reasoning to analyze, model and solve problems.

❖ **Communication:** You will be expected to show and explain your work in a clear, well-organized manner, especially on tests and quizzes.

❖ **Quantitative Reasoning:** This is the core of your mathematics learning experience and will be demonstrated in all the work you do in this course.

❖ **Apply self-assessment and reflection strategies** to learn from your mistakes and to seek better methods to solve particular problems.

❖ **Civic Responsibility:** Students are expected to respect classmates as well as the instructor. This includes refraining from disruptive behavior (coming late, leaving early, wandering in and out of class, eating/drinking during class, side conversations, instant messaging, etc) and practicing positive behaviors (cooperation, civility, helpfulness, constructive engagement in class activity).

❖ **Technical Competence:** Utilize the appropriate technology – including web-based systems and hand-held graphing calculators – as well as pencil-and-paper methods for "skill drills" and problem-solving. Locate videos on YouTube or elsewhere to preview or review lecture material.

❖ **Ethics:** All students will maintain the highest standards of academic honesty. You may NOT give or receive help on tests or quizzes. You may not turn in someone else's work as your own. *If you are discovered committing any act of academic dishonesty (cheating), you will receive no credit ("zero") for the test, quiz, or assignment AND you will be suspended from class AND the case will be referred to the Vice-President for further disciplinary action. (See the WLAC catalog and Schedule of Classes).*

❖ **Aesthetics:** Mathematicians often talk about a "beautiful" or "elegant" method of solving a problem. We hope that students will find aesthetic experiences in their mathematical work.

Graph

Heart to Bell Family

$r(t)=\cos(5t)+a\cos(t),$
$a = -5, -4, …, 4, 5$

$r = 6.00$

$\Delta r = 2.00$

West LA College Student Learning Outcomes: Quantitative Literacy, Critical Thinking, Communication, Ethics	
Math 241 SLOs (indicates Course SLOs)*	*Math Program SLOs*
*1. Use the trigonometric ratios and the laws of sines and cosines to solve applied problems involving triangles	Apply quantitative thinking processes using basic mathematical operations
*2. Graph sinusoidal functions of real numbers and use them to model periodic processes	Select appropriate math strategies for solving and handling real life problems
4. Solve trigonometric equations 5. Prove trigonometric identities 6. Construct and analyze graphs using parametric equations and polar coordinates	Use mathematical tools essential for analyzing quantitative problems and for producing solutions.
SLO ASSESSMENT	
Student achievement of SLOs will be assessed by means of tests (including a final exam) and/or informal measures such as class participation, homework, classwork, and student self-assessment.	

If people do not believe that mathematics is simple, it is only because they do not realize how complicated life is. ~John Louis von Neumann

Most of us are dealing with a lot besides class: working a job (or needing one), dealing with family problems, child care, health issues, housing issues, and all the other impacts of the deep crisis in our society today. The **WLAC Health Center** can hook you up with a counselor to help you deal with stress. Other programs on campus can help, too (although they have been heavily impacted by cutbacks). These include **Workforce Development**, **TRIO-SSS**, **EOP&S**, **Counseling**, the Veterans' Center, and **DSPS**. Please speak to your teacher – or contact me by phone or email – and I will try to point you in the right direction.

The general LA County hotline is **211** – they can refer you to publicly available services.

Evaluation/Grading

All class activities should help you achieve the course **Student Learning Outcomes** at a level that **prepares you for success in Pre-Calculus and in other situations requiring trigonometry skills**. "Grades" and "points" may serve as feedback on your progress. Ideally, there would be no grades as we know them today, and education would be very different from today's schooling. But since we are still struggling for such a society, I will have to assign you a grade in December. The basis for that grade is described below.

QUIZZES - 65% of grade (5 quizzes)
These will be "constructed-response" (show all work). There will be NO MAKE-UPS but your lowest quiz score will be dropped. Quizzes are scheduled for WEDNESDAYS during the first half-hour of class. NO TIME EXTENSIONS.

FINAL EXAM – 35% of grade
The final will be given on the last day of class (Friday, February 6, 2015) from 8:50 – 10:50 a.m. The final will mainly consist of "constructed response" questions but may include some multiple-choice or short-answer questions.

Grades: Please note that "Incomplete" grades are extremely rare. They may only be considered if a student is passing the class with a C or better on the final drop date **and** is unable, due to an emergency, to complete the course as scheduled. Otherwise, if you decide you cannot finish the course with a satisfactory grade, it is your responsibility to *withdraw officially*, on or before Friday, January 30, 2015.

The **grading scale** will be no stricter than:

90-100% A   80-89% B   70-79% C   55-69% D   under 55% F

However, if your score on the final is 70% or higher, then you will pass the class.

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IMPORTANT DATES:
FIRST DAY OF CLASS: MONDAY, January 5, 2015

Last day to drop with W: Friday, January 30, 2015

Final Exam: Friday, February 6, 2015, 8:50 – 10:50 a.m.

Week #		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1	January 5-9	**A1** #1-28, 29-63 eoo, 64-69 **1.1** #1-6 (oral), 7-13 odds, 15-24 all, 25-65 eoo, 68 **1.2** #9-83 eoo	**1.3** #1-71 eoo **1.4** #1-57 eoo, 59-62 **1.5** #1-91 eoo	Quiz Ch. 1 2.1 #1-15 odds, 17-26 oral, 27-59 eoo, 61-71 2.2 #1-73 eoo, 91-98	2.3 #1-57 eoo, 59-68 2.4 #1-15 odds, 17-33 all, 35-42 all	2.5 #1-21 odds, 23-48 all Ch. 1 "Test" Ch. 2 "Test"
2	January 12-16	3.1 #1-27 odds, 29-65 eoo, 67-90 3.2 #1-71 eoo, 85-92 3.3 #1-49 eoo, 63-70 all	3.4 #1-55 eoo, 57-64 3.5 #1-59 eoo, 61-66 all	Quiz Ch. 2-3 4.1 #1-67 eoo, 69-82 all (Note that the 6th Ed. organizes this material differently) 4.2 #1-65 eoo, 67-82 all Ch. 3 "Test"	4.3 #1-51 eoo, 53-58 all 4.4 #1-31 odds, 33-44 all A2 #1-29 odds, 32-41	4.3 #1-51 odds, 53-58 all 4.4 #1-31 odds, 33-44 all A2 #1-29 odds, 32-41
3	January 19-23	COLLEGE CLOSED FOR MLK HOLIDAY	4.5 #1-35 odds, 37-46 all 4.6 #1-83 eoo, 85-96 all	Quiz Ch. 4 5.1 #1-65 eoo, 75-81 odds, 83-92 5.2 #1-63 eoo, 65-76 Ch. 4 "Test"	5.3 #1-63 eoo, 65-72 all 5.4 #1-47 eoo, 49-58 5.5 #1-35 odds, 37-46	5.4 #1-47 odds, 49-58 5.5 #1-35 odds, 37-46 Ch. 5 "Test"
4	January 26-30	6.1 #1-73 eoo, 75-90 all 6.2 #1-55 eoo, 59-68 all	6.3 #1-57 eoo, 59-72 all- 6.4 #1-27 odds, 29-38 all	Quiz Ch. 5-6 7.1 #1-37 odds, 39-52 all 7.2 #1-31 odds, 33-42 all	7.3 #1-31 odds, 33-46 all 7.4 #1-21 odds, 23-30 all	7.5 #1-47 odds, 49-54 all 7.6 #1-31 odds, 33-36 all. Ch. 6 "Test"
5	February 2-6	8.1 #1-81 eoo, 83-96 all 8.2 #1-67 eoo, 69-80 all 8.3 #1-57 eoo, 59-70	8.4 #1-35 odds, 37-46 all 8.5 #1-43 eoo, 49-63 odds, 65-70 8.6 #1-57 eoo	Quiz Ch. 7-8 Catch-up and review. Ch. 7 "Test" Ch. 8 "Test"	Review (8:00-8:45) **Final Exam** (8:50-10:50)	Last-minute review FINAL EXAM (2 hrs)