MAT 104
Trigonometry
Spring 2015

Instructor: Caren LeVine, email: celevine@mail.ltcc.edu

Office Hours: By Appointment; Monday and Friday 10:30 – 11:30AM..

Class Time and Location: Monday & Wednesday, 4 – 5:50 PM, Room A250

Textbook: Precalculus, Michael Sullivan and Michael Sullivan III, 6th Edition

Required Software: It is <u>required</u> to have a software license to use the software MyMathLab in this class. You must have a valid e-mail address to use the on-line curriculum. Students have *two choices*. The *first choice* is to purchase the software license from the bookstore, which I believe comes bundled with the textbook. Note: If you purchase a used textbook, it may not have a valid course access code. Be VERY careful when acquiring the text. The *second choice* is to purchase the license online at coursecompass.com. <u>If you have already purchased an access code for Math 103A or Math 103B for this textbook, you may also use it for this class at no extra cost.</u>

To access our class page, go to www.coursecompass.com and register using your student access code and the course ID for this class: **levine00649**

For assistance with MyMathLab: You may get help by calling 1-800-677-6337 during the following hours: Mon – Fri 5:00 AM – 5:00 PM & Sunday 2:00 PM – 9:00 PM. Online assistance is available 24 hours every day at: 247pearsoned.custhelp.com

Course Description: MAT 104 is the study of trigonometric functions, their graphs and properties, functions of multiple angles, trigonometric identities, radian measure, inverse trigonometric functions, solutions of triangles, polar coordinates, parametric equations, and complex numbers.

Prerequisite: Mat 103A with a grade of "C" or better or equivalent or appropriate skills demonstrated through the math assessment process.

Corequisite: Mat 103B or equivalent or appropriate skills demonstrated through the math assessment process. Prior completion of Mat 103B with a grade of "C" or better also satisfies this corequisite.

Calculators: A graphing calculator is required for this class. I will be demonstrating with the Texas Instruments-83plus but TI83. 84plus and 89 are sufficient for the course. I will do my best to assist with other models. Each model comes with its own owners maual and I would suggest locating this and keeping it nearby.

Student Learning Outcomes:
By the end of the term, students shall be able to
1. Provide and analyze graphs of trigonometric functions.
2. Apply trigonometric techniques to solve problems in real world contexts.
3. Derive and prove trigonometric properties and identities.
4. Produce solutions to equations using skills developed in trigonometry

Course Grade: Your final letter grade will be based on the usual grading scale:
A 90-100%, B 80-89%, C 70-79%, D 60-69%, F 0-59%
The following items will make up the course grade:

Homework:	*20%*
Quizzes:	*20%*
Exam1 (April 29	*15%*
Exam2 (June 3):	*15%*
Final Exam (June 26)	*30%*

You may check your grades at any point in the quarter by accessing the grade book on Course Compass.

Homework: The homework is to be completed online with MyMathLab. Each section covered will have a homework assignment. The homework assignments will be due on Sunday night at 11:59PM. However, it is NOT RECOMMENDED that you wait until that time to work on the homework. The homework assignments are your chance to practice the material covered in class. It is YOUR responsibility to make sure you are getting the information from each section. At the beginning of class, I will go over homework questions from the previous day's material. Other questions will be addressed outside of class or in office hours. If all homework assignments are submitted with a score of 50% or better, your lowest regular exam score will be dropped.

Quizzes: *There will be 4 quizzes given over the quarter. These quizzes will be designed to help prepare you for the exams. Missed quizzes may not be made up.*

Exams: All exams will be given in two sections: one portion will allow calculators while the other will not. If you cannot make it to an exam (final not included), you may take it up to 2 school days prior to the scheduled date with proper arrangements. Exams may not be made up after the exam date unless you have a medical emergency with a note. The final exam may not be taken after June 25th. It is up to you to contact the instructor (me) to arrange making up exams.

Registration Information: You may drop the class with a full refund and no penalty or mark on your record on or before April 17. After April 17, you may drop the class and receive a grade of W until May 22. After May 22, if still enrolled, you will receive a grade of A, B, C, D, F or I.

How to Succeed in a Math Class: I am often asked how to successfully pass a math class, and here is my advice:

I) Come to every class session. Be prepared, and plan on participating. Read the Chapter that we will be covering prior to class.
II) Do your homework. Remember that what I assign is what I consider a bare minimum. If you need more practice, do it. Don't make me be a homework enforcer.
III) Read the book. You paid good money for it, so you might as well use it.
IV) Make use of available tutors and my office hours. You will find tutors who know the subject matter in this course at the Math Success Center.
V) Do math every day. Math is just like everything else: if you don't practice, you become rusty.
VI) PARTICIPATE! Active learning and class discussions are a key element in the learning process.

Learning Disabled Students: Students with disabilities who may need accommodations for this class are encouraged to notify me and contact the Disability Resource Center (DRC) early in the quarter so that reasonable accommodations may be implemented as soon as possible. Students may contact the DRC by visiting the Center (located in room A205) or by phoning 541-4660, ext. 249 (voice) or 542-1870 (TTY for deaf students). All information will remain confidential.

Technology in the Classroom: All cell phones, headphones, MP3 players, iPods, etc, must be turned off and put away prior to the start of each class. No electronic devices (other than calculators) may be used during quizzes and exams.

Academic Dishonesty: Academic dishonesty of any form will not be tolerated. Students caught cheating on exams or quizzes will receive a score of zero on the assignment and all dropping of lowest exam or quiz scores will be forfeit. Students may work together on homework assignments (and, in fact, are encouraged to) as long as all students understand the material covered.

Course Schedule:
The following is a <u>tentative</u> schedule. If things change, I will let you know.

April

6	6.1	Angles and their Measurements
8	8.1, 6.2	The Trigonometric Functions
13	6.3	Properties of the Trigonometric Functions
15	6.4, 6.5, **Quiz I**	Graphs of the Trigonometric Functions
20	6.6	Phase Shifts and Curve Fitting
22	7.1, 7.2	The Inverse Trigonometric Functions
27	7.3	Trigonometric Equations
29	**EXAM I**	

May

4	7.4	Trigonometric Identities
6	7.5, **Quiz II**	Sum and Difference Identities
11	7.6	Double-Angle and Half-Angle Identities
14	7.7	Product-to-Sum and Sum-to-Product Identities
18	8.1	Solving Right Triangles
20	8.2, **Quiz III**	Law of Sines
25	**Memorial Day – No Class**	
27	8.3, 8.4	Law of Cosines and Areas of Triangles

June

1	9.1, 9.2	Polar Coordinates, Equations, and Graphs
3	**EXAM II**	
8	9.3	Trigonometric Form of Complex Numbers
10	9.4, 9.5	Vectors and the Dot Product
15	10.7, **Quiz III**	Parametric Equations
17	Review	Cumulative Review
24	**Final Exam**	