Syllabus: MTH 122 Online

MTH 122-Plane Trigonometry – Section 104 – CRN 4208- 3 credit hours

Department of Mathematics, College of Science   Summer 2011

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This course begins on May 23, 2011 and ends on August 12, 2011.

Please note that all times are Eastern.

Please see the University Academic Calendar for course withdrawal dates.

Office and Office Hours

Office Hours:
You can e-mail me with the MUOnline *Mail* Tool, myMU, or via regular Outlook email (at
aluthge@marshall.edu). **I will not have any specific office hours this semester. You can always contact me via email or by phone. My office is in Morrow Library 109 and my phone is (304) 696 3050. My fax number is (304) 696 4646 (Attn: Aluthge).**

About me:
I have been teaching at Marshall University since 1990. My credentials include a Ph.D. from Vanderbilt University where I studied operator theory and other topics in mathematics.

I enjoy teaching very much. Lately I have been working with local math teachers on several projects. I also enjoy teaching mental mathematics.

Course Materials and Online Resources

Required:

Textbook: *Trigonometry*, 9th Edition by Lial, Hornsby, and Schneider. The book can be ordered online at The Marshall University Bookstore or at any other book seller of your choice. **(At MU Bookstore, a new book costs $154, a used book costs $115, and it costs $70 to rent a book). ISBN for the book is 0321528859 or 9780321528858.**
If you bought **MyMathLab** with your book, use the course code: **aluthge05517.**

Recommended: *Student Study Guide (Solutions to odd-numbered exercises).*

Strongly Recommended: A graphing calculator is recommended and will be permitted during exams. A TI-83 calculator or a compatible one is recommended. Most demonstrations in the textbook and in course materials are shown using a TI-83.

**There is a page containing some links to several online guides (on calculators).
See the "Online Calculator guides" icon on the home page of the course.**

**There is also a page containing some links for online resources.
See the "Online Resources" icon on the home page of the course.**

Technical Requirements

For minimum hardware/software requirements please see:
http://www.marshall.edu/muonline/computer_requirements.asp

Be sure to run the free web browser tune-up:
http://www.marshall.edu/muonline/hardwaresoftwarecheck.asp

You will need to have several plugins (software) installed on your computer. These plugins are all free. You will need **Real Player** and **Flash Player** to experience the streaming video and audio clips that are part of the course. You can easily check your computer to see if you have these programs (and if you don't install them for free), by clicking on this link:
http://www.marshall.edu/muonline/computer_requirements.asp

If you have technical problems, please go to the Help Desk:
http://www.marshall.edu/ucs/cs/helpdesk/

FAQ – Frequently Asked Questions
http://www.marshall.edu/muonline/technicalfaq.asp

HELP DESK PHONE NUMBERS:
(304) 696-3200 (Huntington, WV)
(304) 746-1969 (Charleston, WV)
(877) 689-8638 (Toll free)

Course Details

Prerequisites: Math ACT 21 or Math SAT 500 or MTH 127 concurrent or MTH 130 concurrent.

Course Description: A study of the trigonometric functions, graphs of the trigonometric functions, identities, equations, inverse trigonometric functions, vectors, complex numbers, and applications.

Course Objectives:
- To give students a solid understanding of trigonometric functions and their applications.
- To help prepare students for a course in calculus with analytic geometry. Students should also take college algebra before attempting calculus
- To help prepare students for study in areas such as physics, engineering, biology, chemistry, pharmacy, geology, medicine, and safety technology.

Course Contents: Most of the Chapters 1 through 8 in the textbook
- **Trigonometric Functions**
- **Acute angles and Right Triangles**
- **Radian Measure and Circular Functions**
- **Graphs of Circular Functions**
- **Trigonometric Identities**
- **Inverse Circular Functions and Trigonometric Equations**
- **Applications of Trigonometry and Vectors**
- **Complex Numbers and Polar Coordinates.**

Learner Outcomes: Upon completion of this course, students will have an understanding of the concepts of trigonometric functions and their properties. They will be able to apply these concepts to solve real world applications.

Some Helpful Advice

- **For each section, I have included the following in separate files in this order:**
  - Detailed lecture notes with hundreds of worked out problems.
  - A PowerPoint presentation.
  - A page containing a video link (for most sections)
    If you have difficulty in listening to videos, please contact me for help.
  - Solutions to exercise problems #3, 7, 11, etc.

- **I suggest the following approach:**
  - Begin reading the text for each section
  - Next read my lecture notes including worked out examples.
  - Then view the PowerPoint presentation.
  - Next go and view the video (if there is a video)
  - Try some suggested homework problems.
  - You can always check the solutions to #3, 7, ..,etc (in the file after the video link)
  - If you need to study more, check the online resources page from the home page.
  - Take the quiz for that section.
  - At the end of each unit, take the unit exam (make sure to review before the exam)
  - At the end of the semester, take the final exam (again, review before the exam).

- **Getting Help From The Instructor:**
  - If you need help, please do not hesitate to contact me.
  - It is my job to help my students. But you have to ask, if you need help.
  - Contact me through MUOnline e-mail, or at Aluthge@marshall.edu or (304) 696 3050.

- **Online Help:**
  - See the link **"Online Calculator Guides"** on the homepage for calculator help.
  - See the link **"Online Resources"** on the homepage for other online resources.
    There is a link to website for this text with hundreds of practice problems.
  - If you bought **MyMathLab** with your book, use the course code: **aluthge05517.**

Semester Schedule

The following table lists the fifteen weeks and the sections you will need to complete.

- All work for Unit 1 is due by June 16th at 11:59 pm.
  Unit 1 consists of Chapters 1, 2, and 3 in the textbook.

- All work for Unit 2 is due by July 14th at 11:59 p.m.
  Unit 2 consists of Chapters 4 and 5 in the textbook.

- All work for Unit 3 is due by August 11th at 11:59 p.m.
  Unit 3 consists of Chapters 6, 7, and 8 in the textbook (skip 7.5 and 8.6)

- The comprehensive final exam must be completed by August 12th at 11:59 p.m. You may work ahead and complete the course work sooner

Tentative weekly schedule

	Week of	Sections (Finish quizzes for these sections during the indicated week)
Unit 1	May 23	1.1, 1.2, 1.3, 1.4
	May 30	2.1, 2.2, 2.3
	June 6	2.4, 2.5, 3.1
	June 13	3.1, 3.2, 3.3, Exam 1
		Deadline to finish Unit 1 is June 16th at 11:59 pm.
Unit 2	June 20	4.1, 4.2, 4.3
	June 27	4.4, 4.5, 5.1
	July 4	5.2, 5.3, 5.4
	July 11	5.5, 5.6, Exam 2
		Deadline to finish Unit 2 is July 14th at 11:59 pm.
Unit 3	July 18	6.1, 6.2, 6.3 (skip 6.4)
	July 25	7.1, 7.2, 7.3
	August 1	7.4 (Skip 7.5), 8.1, 8.2
	August 8	8.3, 8.4, 8.5, Exam 3
		Deadline to finish Unit 3 is April 29th at 11:59 pm.
Final	August 8	**Comprehensive Final Exam is due by August 12 (11:59 pm).**

- Each Unit Examination (three exams) will be worth 20% of the semester grade. Quizzes will be worth 20% of the semester grade. The comprehensive final exam will be worth 20% of the semester grade. **The Syllabus quiz counts for your grade.**

- 90.00 – 100   = A   80.00 – 89.99 = B   70.00 – 79.99 = C
  60.00 – 69.99 = D   Below 60.00   = F

- On each quiz you will get two attempts and the best score will count. So if you get a 4 or lower on a quiz, take the quiz again. It can't hurt you.

- Including the syllabus quiz (which will count for the grade), there are 37 quizzes. But I will count the best 32 quizzes. Lowest 5 quizzes will be counted as bonuses. So please take all 37 quizzes. It can't hurt you.

- There will be one bonus question to each unit exam and (two on the final)

- This means you can earn up more than 7% points from bonuses. So, there will be no opportunity for extra credit work on any of the exams.

Exams and Quizzes

- All exams and quizzes will be taken with the *Assessments Tool*. They can also be found at the end of the material for each section.

- All exams and quizzes must be finished by certain deadlines.

- All exams are "open book/notes" and a graphing calculator is allowed.

- Students are not allowed to receive any help from anyone on their exams and quizzes. While taking an exam or a quiz, students are not allowed to visit other web sites looking for help.

- Students' performances on exams and quizzes must reflect their own ability.

On-Campus Requirements

Though there is no requirement for you to come to campus, you are encouraged come and see me for help. You can communicate with me via the course *Mail* tool or the *Who's Online* tool. All of your assignments are submitted electronically through the course *Assignments Tool* and all exams are timed and taken online through the *Assessments Tool.*

Course Policies

As mentioned before, this is a 100% online course and all the activities (learning and testing) are done online. Policies of the course are detailed throughout this syllabus.

Resources

Don't hesitate to contact me directly with questions or concerns. You can reach me through the MUOnline *Mail* Tool or if necessary by phone at 304.696.3050. Please don't let your questions hang out there and simmer. If you are not sure about something the best thing to do is to ask about it right away! Something that may seem obvious to me may not be obvious to you at all!

Support Services:

Marshall University offers a variety of support services to students enrolled in online courses.

See the footer of the homepage of the course for the appropriate links for these services.

Marshall University, College of Science, Department of Mathematics