

Important Notice:

- Course begins on online (**Blackboard** and **MyMathLab**) on **January 08** and ends on **May 03**. **MyMathLab** is linked to **Blackboard**.
- **All exams (except Homework and Practice Exams) will be proctored by a third party online proctoring software called "Respondus" (via a webcam on your own computer) or in person by the instructor in a campus computer lab. Details later in the syllabus.**
- **Students who are not able to use Respondus or cannot come to campus to take exams must inform the instructor in advance.**
- **Students will do homework on MyMathLab (linked to Blackboard): Students will buy a special version of the textbook (details later in the syllabus) that comes with an access code to MyMathLab.**
- **Students will take exams on Blackboard (MUOnline):**
- **There are eight exams (Respondus Exam (Syllabus quiz), three Practice Exams, three Exams, and the Final Exam), all on Blackboard.**
- **Homework counts for 30% of the grade. Exams count for 70% of the grade**

Course Title/Number	MTH 122 – Plane Trigonometry – Sec 205– CRN 3911 –3 credits
Semester/Year	Spring 2018
Days/Time	Online class. No face-to-face meetings
Location	On the WEB at www.marshall.edu/muonline
Instructor	Dr. Ari Aluthge (Pronounced: A-luth-gay)
Office	Smith Hall 716
Phone	(304) 696 3050
E-Mail	aluthge@marshall.edu (include your name and "MTH 122 – Online" in the subject line) I Prefer to communicate on MUonline (Blackboard) with the "Internal Message Box" tool.
Office/Hours	Office hours by appointment only. No scheduled office hours.
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802 Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Policy for Students with Disabilities: Marshall University is committed to equal opportunity education for all students, including those with physical, learning and psychological disabilities. University policy states that it is the responsibility of students with disabilities to contact the Office of Disability Services (ODS) in Prichard Hall 117 (304.696.2467) to provide documentation of their disability. Following this, the ODS Coordinator will send a letter to each of the student's instructors outlining the academic accommodation he/she will need to ensure equality in classroom experience, outside assignment, testing, and grading. The instructor and student will meet to discuss how the accommodation(s) requested will be provided. For more information, access the website for the Office of Disabled Student Services:
<http://www.marshall.edu/disabled>.

Course Description From Catalog: A study of the trigonometric functions, graphs of the trigonometric functions, identities, equations, inverse trigonometric functions, vectors, complex numbers, and applications.
PR: ACT Math 22 or equivalent or MTH127 or MTH130. *3 hours*

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 topics from chapters 1 through 8 in the textbook

- Right Triangular Ratios
- Trigonometric/Circular Functions
- Graphs of Trigonometric/Circular Functions
- Trigonometric Identities
- Inverse Trigonometric/Circular Functions and Trigonometric Equations
- Applications (Law of Sines, Law of Cosines, Vectors)
- Complex Numbers and Polar Coordinates.

Learner Outcomes: The table below shows the following relationships: How each student learning outcomes will be practiced and assessed in the course. 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. In particular,

Course Student Learning Outcomes	How students will practice each outcome in this Course	How achievement of each outcome will be assessed in this Course
Students will analyze, compare, evaluate, and graph the six trigonometric functions.	By reading and studying the textbook, lecture notes, PowerPoints presentations, watching and studying the Video clips available on MUonline.	Weekly homework assignments, unit exams, and the final exam.
Students will analyze, compare, evaluate, and graph the six inverse trigonometric functions.	By reading and studying the textbook, lecture notes, PowerPoints presentations, watching and studying the Video clips available on MUonline.	Weekly homework assignments, unit exams, and the final exam.
Students will use trigonometric functions to solve real-world applications involving triangles and vectors.	By reading and studying the textbook, lecture notes, PowerPoints presentations, watching and studying the Video clips available on MUonline.	Weekly homework assignments, unit exams, and the final exam.
Students will use the definition of radian measure to solve application problems involving linear and angular speed	By reading and studying the textbook, lecture notes, PowerPoints presentations, watching and studying the Video clips available on MUonline.	Weekly homework assignments, unit exams, and the final exam.
Students will apply trigonometric identities and solve trigonometric equations in other mathematics courses such as calculus.	By reading and studying the textbook, lecture notes, PowerPoints presentations, watching and studying the Video clips available on MUonline.	Weekly homework assignments, unit exams, and the final exam.
Students will apply trigonometric functions to multiply and divide complex numbers and find the powers and roots of complex numbers.	By reading and studying the textbook, lecture notes, PowerPoints presentations, watching and studying the Video clips available on MUonline.	Weekly homework assignments, unit exams, and the final exam.
Students will apply trigonometry to find polar coordinates and graph polar equations.	By reading and studying the textbook, lecture notes, PowerPoints presentations, watching and studying the Video clips available on MUonline.	Weekly homework assignments, unit exams, and the final exam.

Required Texts, Additional Reading, and Other Materials:

- A special three-hole- punched, loose-leaf version of the textbook, *Trigonometry, 11th Edition* (by Lial, Hornsby, and Schneider) that

comes with an access code to **MyMathLab**. **ISBN: 9780134306025**.

- An alternative is to buy the Standalone access code to **MyMathLab**. **ISBN: 9780321199911**. **But it is highly recommended that students buy the book and the access code.**
- The book can be ordered online at [The Marshall University Bookstore](#) or directly from Pearson publishing at www.pearsonhighered.com. **(At MU Bookstore, the book with the access code costs \$183.50 and it costs \$180 from the publisher according to respective websites). The standalone access code costs \$123.20 from the publisher.**
- **Caution:** Please do not buy used books or any other version of the book without MML access code. You will still have to buy a new access code.
- **Caution:** Face-to-face MTH 122 classes on campus use a different textbook. Make sure to buy the correct textbook (with MML access code). **Ask for Dr. Aluthge's online section 205.**
- **Recommended:** A graphing calculator (will be allowed during tests and homework). **Cell phones or any other electronic devices will not be allowed during Exams.**
- There is a page containing links to several online guides (on calculators). See the "Online Calculator guides" icon on the "Course Info" page.
- There is also a page containing some links for online resources. See the "Online Resources" link on the "Course Info" page.

Course Requirements / Due Dates:

1. **Structure:** Course is divided into three units as follows. Each unit is 5 weeks
 - Unit 1 = Chapters 1, 2, and 3.
This unit runs from January 08 to February 11.
 - Unit 2 = Chapters 4 and 5.
This unit runs from February 12 to March 18.
 - Unit 3 = Chapters 6, 7, and 8. Skip sections 6.4 and 8.6.
This unit runs from March 19 to April 29.
 - **The comprehensive final exam is due by May 03.**
2. **Homework:** There is a homework assignment on MyMathLab at the end of each section of the textbook. **Homework site, MyMathLab, can be accessed from the "Homework(MyMathLab)" link on the left column of the homepage. Students will use their access code to register for MML.**

- **There are 37 HWs. This means, on average, students must complete three to four HWs per week.**
 - Homework deadlines are posted on the "Semester Schedule" file from the "Course Info" link in the left column of the homepage.
 - **There is an "Orientation HW" to help students learn how to enter answers including graphs and formulas. **It counts for the grade.****
 - On **MyMathLab**, HW grades range from 25 to 55. But they will be divided by 10 before entering to Blackboard. So effective grades of HW will vary from 2.5 to 5.5. **The grade for Orientation HW is 1.2 points.**
 - More details about doing homework on MyMathLab can be found in the file "**Homework on MyMathLab**" from the "Course Info" link.
3. **Exams:** There are eight exams including the Respondus Exam (Syl Quiz), a Practice Exam and an Exam for each unit and a Final Exam.
- All exams can be found in the "**Exams**" folder in the left column of the homepage of the course.
 - Respondus Exam (Syllabus Quiz) contains 10 non-math questions about the course from the syllabus. So students must **read the syllabus** before taking the Respondus Exam. **It must be taken using Respondus LockDown Browser and Monitor. So students must download Respondus LockDown Browser first. They must have a built-in or external webcam (referred to as the monitor) on their computer. More details later.** The primary goal of the Respondus Exam is to help students become familiar with the test taking process using Respondus LockDown Browser and a webcam. **So it must be taken on your own computer.**
 - Unit Exams: **At the end of each unit, there are two exams. They are Practice Exam 1 and Exam 1 (for Unit 1, etc.).**
 - **For each unit, the Practice Exam and the Exam are similar. They are made from the same test bank. **Contains 20 questions each.****
 - Practice Exams' purpose is to help students prepare for Exams. They both count for the grade. **Allowed two attempts and is worth 20 points.**
 - Students will take Practice Exams on their own computer at home **(no proctoring involved)**. After taking each Practice Exam, students must print out a copy of the exam they took (submitted) and study it (correct their mistakes) before taking the relevant Exam.
 - **To print any Practice Exam (after you have taken the exam), go to "My Grades", click on the Practice Exam you took, and then click on the grade (score) for that exam. It will open the exam.**
 - Exams: **After taking the Practice Exam, students will take the Exam for that Unit. It must be taken using Respondus LockDown Browser.**

If students are at home, they must also use a webcam (referred to as Respondus Monitor). More details this process can be found in the file

"**Taking Exams at Home**" from the "Course Info" link. **One attempt, 80 points.**

- But students can come to campus to take Exams in a computer lab. I will proctor the Exams in the lab. **More details this process can be found in the file "Taking Exams on Campus" from the "Course Info" link.**
- **Comprehensive Final Exam:** At the end of the semester, students will take a comprehensive final exam. It must be taken using Respondus LockDown Browser, similar to the Exams. **Twenty questions, one attempt, 50 points.**
- Due dates for all exams are in the file "**Semester Schedule**" from the "Course Info" link.

The Grading Policy:

- 1. Homework assignments (including the Orientation HW) are worth 155 points. HW grades (except Orientation HW) will vary from 2.5 to 5.5.**
- 2. The Respondus Exam (Syllabus Quiz) is worth 5 points.**
- 3. Each Practice Exam is worth 20 points.**
- 4. Each Exam is worth 80 points.**
- 5. Comprehensive Final Exam is worth 50 points.**
6. Total Possible Points = **510 points (155 + 5 + 3*20 + 3*80 + 50)**
Letter Grades: **A = 450 – 510, B = 400 – 449.9, C = 350 – 399.9, D = 300 – 349.9 & F = 0 – 299.9**

Attendance Policy: There's NO attendance requirement for this class. This is a 100% online class. Students will learn material on their own. But if students have any questions, they must contact the instructor for help.

Technical Requirements:

Please click on the "Student Services" tab at the top of the MUonline homepage for all the information related to technical requirements and other student services.

Marshall University Computer HELP DESK PHONE NUMBERS:

(304) 696-3200 (Huntington, WV), (304) 746-1969 (Charleston, WV), (877) 689-8638 (Toll free)

Some Helpful Hints:

- **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 or playlist (for most sections)
(If you have difficulty with videos, please contact me)

- Solutions to exercise problems #3, 7, 11, etc.
- **I suggest the following approach:**
 - Read the syllabus and take the syllabus quiz using the Respondus LockDown Browser and Monitor (counts for 5 points towards the grade). So you need to download Respondus LockDown Browser first. Read the file "Taking Exams at Home". **Do this by September 10.**
 - Also, take the Orientation Homework on MyMathLab to learn how to enter your answers including formulas and answers. Read the file Homework on MyMathLab to see how to access MyMathLab. **Do this by January 21.**
- **The course is divided in to three units. Each unit consists of several chapters.**
 - Begin reading the text for each section of the textbook.
 - 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 for that section)
 - If you need to study more, check the **online resources** page from the "**Course Info**" page.
 - Do the HW on MyMathLab for that section. **On average, there will be three to four HWs per week. Each HW will remain open for several weeks including a penalty period during which there will be 3% a day penalty on late work.**
- **Each unit contains several chapters and is five weeks long.**
 - Finish your HW at least a few days before the five-week period ends.
 - Take the Practice Exam for each unit by the end of **Wednesday of the fifth week**. Practice Exam consists of **20 multiple-choice questions** from that unit. It must be taken directly on Blackboard without Respondus (no proctoring involved). **You will be allowed two attempts and the best attempt will count.** Counts for 20 points.
 - After you have taken the Practice Exam (both attempts), **print out a copy of the exam and study it before taking the Exam for that unit.** Both Practice Exam and the Exam for each unit are similar (made from the test bank). To print out a copy of the Practice Exam you took, click on "My Grades", then click on the grade for that Practice Exam and it will allow you to open the exam.
 - After you have taken and studied (made corrections to) the Practice Exam, **take the Exam for that unit by the end of Sunday of the fifth week.** It must be taken on Respondus LockDown Browser using a webcam (referred to as Respondus Monitor). **Counts for 80 points.**

- **If students do not want to use Respondus at home to take Exams, they can come to Smith 624 on MU campus from 1 PM to 4 PM on the last (fifth) Friday of each five-week period to take the Exam.**
- **At the end of the semester, take the final exam by May 03.**
- **If coming to campus is not an option, please contact me in advance.**
- **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 for help.**
 - Contact me through **"Internal Mail Box"**, or at aluthge@marshall.edu or **(304) 696 3050**. My office is Smith 716.

To access MyMathLab to do your homework:

Enter your Blackboard course:

1. Sign in to Blackboard and enter your Blackboard course.
2. Click on **Homework (MyMathLab)** link on the left column of the homepage.

Next click on any Pearson course link (e.g. see below).



MyMathLab with Pearson eText Course Home

Get access to your Pearson course content:

1. **If you already have a Pearson account, enter your username and password to link accounts.**

If you do not have a Pearson account, select "create" and follow instructions.

2. Select an access option:
 - **Enter the access code that came with your textbook or was purchased separately from the bookstore.**
 - **Buy access using a credit card or PayPal account.**
 - **If available, get temporary access by selecting the link near the bottom of the page.**

3. **From the "You're Done page", select Go to My Courses.**

4. **Take the "Orientation HW" by January 21.**

Get your computer ready:

For the best experience, check the system requirements for your product at:

<http://www.pearsonmylabandmastering.com/system-requirements/>

Need help?

For help with MyLab & Modified Mastering with Blackboard, go to:

<http://help.pearsoncmg.com/mylabmastering/bbi/student/en/index.html>

• Using LockDown Browser and a webcam (Respondus Monitor) for Online Exams:

- This course requires the use of LockDown Browser for taking online exams.
- The computer used for taking exams must also have a built-in or external webcam.
- The LockDown Browser software prevents a user from accessing other applications or going to other websites during an exam.
- The webcam (referred to as Respondus Monitor) records you during the exam to ensure you're only using resources that are permitted.
- Together, these tools make it possible for students to take online exams from any location, and at times that are convenient.
- It also creates a fair testing environment for everyone in the course.
- **Watch the following video for more information:** [Overview for Students](#) (video)
- You will need to download and install LockDown Browser to your computer and use it to take tests (instead of using your normal browser.) The download URL is:
<http://www.respondus.com/lockdown/download.php?id=323615594> See the video under "Additional Resources" below for instructions for downloading.
- **Caution: Don't download a copy of LockDown Browser from elsewhere on the Internet; those versions won't work for Marshall University.**
- **Review this list before taking an exam with LockDown Browser and Respondus Monitor:**
 - Ensure you are in a location where you won't be interrupted
 - Turn off all mobile devices, phones, etc.
 - Clear your desk of all external materials – books, papers, other computers, or devices
 - No one else should be in the room with you
 - Remain at your desk or workstation for the duration of the test
 - **Start LockDown Browser. Select the first option "Blackboard Learn Production" from the dropdown menu. It will take you to Blackboard (MUonline) page. Log onto MUonline. Then select this course and the Exam you are taking. Click "BEGIN". Then select the first option (Taking the exam using a webcam). Then follow the instructions. The second option is if you are taking the exam in a lab.**
 - If an interruption occurs during the exam, explain what happened by speaking directly to your webcam
 - You cannot exit the exam until all questions are completed and

submitted for grading.

- **Respondus Exam (Syllabus Quiz):**

Please take the "MTH 122 Respondus Exam (syllabus quiz)" to become familiar with test taking process before taking **Practice Exam 1** and **Exam 1**. It contains 10 questions about the course from the syllabus. **Do this by January 28.**

- **Additional Resources:**

- (pdf) [Student Quick Start Guides](#)

(video) [How to Download & Use LockDown Browser](#)

Campus Computer Lab Schedule For Exams:

If a student wants to take a test in a campus lab, he/she can do by coming to a campus computer lab.. See below for the schedule. Please come early so that you will have enough time to finish the exam. **Bring your ID, textbook, and calculator.** **Most students take exams at home.**

Exam	Lab	Date	Time
Exam 1	Smith Hall 624	Friday, February 09	1 PM – 4 PM
Exam 2	Smith Hall 624	Friday, March 16	1 PM – 4 PM
Exam 3	Smith Hall 624	Friday, April 27	1 PM – 4 PM
Final Exam	Smith Hall 624	Wednesday, May 02	1 PM – 4 PM

Notes:

- **Practice Exams are taken at home without Respondus, directly on Blackboard, no proctoring involved.**

If coming to campus is not an option, please contact me in advance.

2018 Spring Semester Schedule – MTH 122 (for Homework on **MyMathLab** and Exams on **Blackboard**)

Homework or Exam	Open at 12:00 AM on	Regular Due: by 11:59 PM on	Close (late due HW) on (HW)
		Earn 100% of possible points on HW	3% a day penalty during late period.
Orientation HW	Saturday, January 06, 2018	Sunday, January 21, 2018	Sunday, January 28, 2018
Respondus Exam & Syllabus quiz	Take the MTH 122 Respondus Exam to become familiar with test taking using Respondus by January 28, 11:59 PM . It contains 10 non-math questions related to the course from the syllabus. Counts for grade (5 points) .		
Unit 1 (Chapters 1, 2 & 3) work starts here.			
HW 1.1	Saturday, January 06, 2018	Sunday, January 21, 2018	Sunday, January 28, 2018
HW 1.2	Saturday, January 06, 2018	Sunday, January 21, 2018	Sunday, January 28, 2018
HW 1.3	Saturday, January 06, 2018	Sunday, January 21, 2018	Sunday, January 28, 2018
HW 1.4	Saturday, January 06, 2018	Sunday, January 21, 2018	Sunday, January 28, 2018
HW 2.1	Saturday, January 13, 2018	Sunday, January 28, 2018	Sunday, February 04, 2018
HW 2.2	Saturday, January 13, 2018	Sunday, January 28, 2018	Sunday, February 04, 2018
HW 2.3	Saturday, January 13, 2018	Sunday, January 28, 2018	Sunday, February 04, 2018
HW 2.4	Saturday, January 13, 2018	Sunday, January 28, 2018	Sunday, February 04, 2018
HW 2.5	Saturday, January 13, 2018	Sunday, January 28, 2018	Sunday, February 04, 2018
HW 3.1	Saturday, January 20, 2018	Sunday, February 04, 2018	Sunday, February 11, 2018
HW 3.2	Saturday, January 20, 2018	Sunday, February 04, 2018	Sunday, February 11, 2018
HW 3.3	Saturday, January 20, 2018	Sunday, February 04, 2018	Sunday, February 11, 2018
HW 3.4	Saturday, January 20, 2018	Sunday, February 04, 2018	Sunday, February 11, 2018
Practice Exam 1	Opens, Jan 20	Closes Feb 07	Take at home directly on Blackboard by Feb 07. Good practice for Exam 1. 20 points.
Exam 1	Opens, Jan 20	Closes Feb 11	Take via Respondus at home by Feb 11 or come to Smith 624 on Feb 09, 1 – 4 PM. 80 points
Unit 1 work ends here. And Unit 2 (Chapters 4 & 5) starts here.			
HW 4.1	Saturday, January 27, 2018	Sunday, February 18, 2018	Sunday, February 25, 2018
HW 4.2	Saturday, January 27, 2018	Sunday, February 18, 2018	Sunday, February 25, 2018
HW 4.3	Saturday, January 27, 2018	Sunday, February 18, 2018	Sunday, February 25, 2018
HW 4.4	Saturday, February 04, 2018	Sunday, February 25, 2018	Sunday, March 04, 2018
HW 4.5	Saturday, February 04, 2018	Sunday, February 25, 2018	Sunday, March 04, 2018
HW 5.1	Saturday, February 04, 2018	Sunday, February 25, 2018	Sunday, March 04, 2018
HW 5.2	Saturday, February 11, 2018	Sunday, March 04, 2018	Sunday, March 11, 2018
HW 5.3	Saturday, February 11, 2018	Sunday, March 04, 2018	Sunday, March 11, 2018
HW 5.4	Saturday, February 11, 2018	Sunday, March 04, 2018	Sunday, March 11, 2018
HW 5.5	Saturday, February 18, 2018	Sunday, March 11, 2018	Sunday, March 18, 2018
HW 5.6	Saturday, February 18, 2018	Sunday, March 11, 2018	Sunday, March 18, 2018
Practice Exam 2	Opens Feb 18	Closes Mar 14	Take at home directly on Blackboard by Mar 14. Good practice for Exam 2. 20 points.
Exam 2	Opens Feb 18	Closes Mar 18	Take via Respondus at home by Mar 18 or come to Smith 624 on Mar 16, 1 – 4 PM. 80 points
Unit 2 work ends here. And Unit 3 (Chapters 6, 7 & 8) starts here.			
HW 6.1	Saturday, February 25, 2018	Sunday, April 1, 2018	Sunday, April 8, 2018
HW 6.2	Saturday, February 25, 2018	Sunday, April 1, 2018	Sunday, April 8, 2018
HW 6.3	Saturday, February 25, 2018	Sunday, April 1, 2018	Sunday, April 8, 2018
HW 7.1	Saturday, March 03, 2018	Sunday, April 8, 2018	Sunday, April 15, 2018
HW 7.2	Saturday, March 03, 2018	Sunday, April 8, 2018	Sunday, April 15, 2018
HW 7.3	Saturday, March 03, 2018	Sunday, April 8, 2018	Sunday, April 15, 2018
HW 7.4	Saturday, March 10, 2018	Sunday, April 15, 2018	Sunday, April 22, 2018
HW 7.5	Saturday, March 10, 2018	Sunday, April 15, 2018	Sunday, April 22, 2018
HW 8.1	Saturday, March 10, 2018	Sunday, April 15, 2018	Sunday, April 22, 2018
HW 8.2	Saturday, March 17, 2018	Sunday, April 22, 2018	Sunday, April 29, 2018
HW 8.3	Saturday, March 17, 2018	Sunday, April 22, 2018	Sunday, April 29, 2018
HW 8.4	Saturday, March 17, 2018	Sunday, April 22, 2018	Sunday, April 29, 2018
HW 8.5	Saturday, March 17, 2018	Sunday, April 22, 2018	Sunday, April 29, 2018
Practice Exam 3	Opens Mar 17	Closes Apr 25	Take at home directly on Blackboard by Apr 25. Good practice for Exam 3. 20 points.
Exam 3	Opens Mar 17	Closes Apr 29	Take via Respondus at home by Apr 29 or come to Smith 624 on Apr 27, 1 – 4 PM. 80 points
Final Exam	Opens Mar 17	Closes May 3	Take via Respondus at home by May 03 or come to Smith 624 on May 02, 1 – 4 PM. 50 points
Please print and post this schedule near your desk or download it to your smart phone or laptop or desktop.			