Math 1720.004 Trigonometry (3 Credit Hours)
Spring 2021
Department of Mathematical Sciences
University of Memphis

Instructor: Stephen Guffey (Note: I have no problem with students referring to me as Stephen, Mr. Guffey or simply as Guffey. Address me however you feel the most comfortable.)

Instructor Details:

- Bachelor of Arts in Economics, 2013
- Master of Science in Mathematics, 2015

Office: Dunn Hall 312

Office Hours Friday 11:00 a.m. until 1:00 p.m. via Zoom, or by appointment. **All correspondence related to this class must include MATH 1720 in the subject for me to see it. All correspondence must be done through your university email account.**

Email: sguffey@memphis.edu

Class Location: Remote. If we return to face-to-face instruction, we are currently slated to occupy Dunn 129, however this may change.

Meeting Times: January 19-May 6, M-W-F.

Final Exam: Friday, April 30, 10:30-12:30 p.m.

Course Description: Circular functions; inverse circular functions, graphs of circular and inverse functions, identities, equations, angles, trigonometric functions, solution of triangles, elementary application of vectors; trigonometric form of complex numbers.

Prerequisite Classes: Math 1710 (College Algebra) with a grade of of C- or better or a minimum score of 61 on the ALEKS test. This course serves as the prerequisite for Math 1910 (Calculus 1). Only one of Math 1720 or Math 1730 can be used to satisfy degree requirements.

Class Structure: Currently the university will hold classes remotely for the two weeks of class. During this time, all lectures and assessments will be given via eCourseware. My current plan is to keep remote instruction through the end of the semester unless instructed to do otherwise. I will discuss with the students about the option of returning to face-to-face instruction. Even if we return to in-person instruction, all homework, quizzes and exams will remain online.

Math Department Website: For updates to departmental policies regarding CoViD-19, please visit https://www.memphis.edu/msci/news/covid.php

CoViD-19 Health and Safety Policy: Masks and Social Distancing: All students, faculty and staff will wear masks in all public spaces, including our classroom per the university's CoViD-19 policy. The first time a student enters a classroom without wearing a face covering, the student will be asked to leave the class until they return a covering. Further violations will be referred to the Office of Student Accountability. Students who repeatedly or flagrantly violate these community expectations may be referred for discipline under the Student Code and, if appropriate, immediately removed from campus by the Dean of Students.

Student Health:
Students who are experiencing symptoms such as sneezing, coughing or a higher than normal

temperature should inform me by email so they can be excused from class and should stay home. Students should contact their health care provider or the Student Health Center at https://www.memphis.edu/health/. Students who have a positive COVID-19 test should contact the Dean of Students at deanofstudents@memphis.edu as well as any instructors they come in contact with.

Text: The university textbook is "Trigonometry: A Unit Circle Approach", Tenth Edition with MyMathLab by Sullivan ISBN 978-0-321-97860-8 or 0-321-97860-9. I will not require a copy of the physical textbook to be purchased; I plan that my lecture notes should provide a comprehensive source for exam and homework.

Online Recources: We will be using MyLabMath for homework and eCourseware to access online content (videos, quizzes, etc). Please note that you will be able to use MyLabMath for free for the first two weeks. After that, you must have purchased an access code to turn in your homework. **Online access for MyLabMath will be through eCourseware, and so no Class Key is needed.**

Evaluation Standards: There will be 3 exams including the final. In addition we will have weekly homework assignments, each assigned on Monday and due the next Monday by midnight. We will have weekly quizzes on Friday, which you will have about 15 minutes to fill out. Pop quizzes will be used at the discretion of the instructor. Participation will be required. Exams will be posted online to eCourseware, a dropbox will be made for you to submit written work. When submitting, make sure to organize the uploads in the order you intend them to be graded. Submit Assignments as "Name Assignment pg #". For example: "Smith Test 2 pg 156".

Quiz Drop Policy: As stated above, the expectation is that we will have a weekly quiz, however we may have less if time doesn't permit for a quiz and we may have more if pop quizzes are used heavily. We will have at least 10 quizzes, and I will take the 10 highest grades from those quizzes. As such, if we have 13 quizzes over the course of the semester, I will be dropping the lowest 3 grades. If we have 17 quizzes, I will be dropping the lowest 7. Part of the reason I want to aim for one quiz per week is to allow leeway for missed quizzes.

Make-up Policy: Most assignments will be given ample time to allow for the possibility of spotty internet connections and last-minute obligation, so no further extensions should be necessary. If you feel like you have a compelling reason to warrant an extension, send me an email and we can discuss how and if to proceed.

On Solutions: Solutions on exams and quizzes should look as I present them in class. Particularly, I should be able to see your reasoning in your solution. Any answer without supporting work will be given minimal credit. Don't give decimal approximations unless requested. Answers must be given in the requested units. The following general penalties will be used for grading:

(1) Failure to state what you are computing: -0.5 pt.
(2) Failure to put (or inappropriate use of) equality signs: -0.5 pt.
(3) Improper use of decimal approximations: -0.5 pt.
(4) Notation error: -1 pt.
(5) Algebraic errors: -1 to -2 pts.
(6) Other: Varies

Grades: The grades will be distributed as follows:

- Homework: 20%
- Quizzes: 20%

- Participation: 20%
- Exams: 40%

Grades will be assigned using the usual A-F scale in 10 point increments, plus/minus grades will not be used. Every question on quizzes/exams will be worth 10 points, and grades will be calculated by using the average grade in each category multiplied by the above-mentioned weight. In other words, you can calculate your grade as follows:

Grade = 0.2∗(HW AVG)+0.2∗(QUIZ AVG)+0.2∗(PARTICIPATION)+0.4∗(EXAM AVG).

These grades will be kept on eCourseware.

Extra Credit Policy: I allow for extra credit. Schedule a meeting with me and we can discuss what this entails.

Attendance: Attendance will be encouraged and recorded for all class meetings, however supplemental lectures will be uploaded to eCourseware for those that have issues coming to class.

Academic Honesty: Dishonesty will not be tolerated. Any cheating caught on an exam or quiz will result in no credit given for the exam, as well as your actions being brought before the Office of Student Conduct. **Any use/sight of a cellphone or smartwatch during an in-person quiz or exam will constitute cheating.**

Course Outline

The following Topics are what should be covered during class.

(1) Introduction to Trig Functions
   (a) Angles and Their Measure
   (b) The Unit Circle
   (c) Trig Functions
   (d) Properties of Trig Functions
   (e) Graphs of Trig Functions
   (f) Shifting the Graphs of Trig Functions, Curve Fitting

(2) Analytic Trigonometry
   (a) Inverse Trigonometric Functions
   (b) Trigonometric Equations
   (c) Trig Identities
   (d) Double- and Half-Angle Formulas
   (e) Product-to-Sum and Sum-to-Product

(3) Applications of Trigonometric Functions
   (a) Right Angle Trig and Work
   (b) Law of Sines
   (c) Law of Cosines
   (d) Area of a Triangle
   (e) Simple Harmonic Motion

Instructor Expectations: I plan on making every effort possible to help you learn this material. I will make myself available whenever possible to schedule meetings with you and go over the material in detail, and will change the explanation to better suite your understanding if I can. I promise to treat all students with the same respect and fairness given to me. I will answer any (mathematical) questions with respect and diligence.

Additional Resources For at least the beginning of the semester,all tutoring services will be available online at https://memphis.upswing.io/. You can request University of

Memphis grad students as tutors, which can be helpful since they also teach this level of class, so you know the person knows the subject thoroughly. In the event that everything returns to normal, there is a tutoring center in Dunn 341 that is usually open M-Th, 8:00 a.m. until 7:00 p.m. and Friday 8:00 a.m. to 2:00 p.m. This is staffed by the same grad students, as well as a few undergrads.

American Disabilities Act Any student who would like additional accommodations in class should contact the Office for Students with Disabilities located in Wilder Tower suite 101. Any students wishing to have these resources must submit paperwork to me within the first week. The request for modifications through the CoViD-19 period can be made through https://www.memphis.edu/drs/covid19-info.php.

Final Note: The details listed in the syllabus are a guideline for what to expect in the class. I reserve the right to alter the course guidelines based on necessity.