

Syllabus for Math 1112 sec. 54 (CRN:18308)

Spring 2019

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Office Hours: Monday 1:30–2:30 pm, Tuesday & Thursday 10:00–11:30 am, and by appointment

Course Home Page http://facultyweb.kennesaw.edu/lritter/Ritter1112_Sp2019.php

Course Description: This course is an in-depth study of the properties of trigonometric functions and their inverses. Topics include circular functions, special angles, solutions of triangles, trigonometric identities and equations, graphs of trigonometric functions, inverse trigonometric functions and their graphs, Law of Sines, Law of Cosines, and vectors. Additional topics in preparation for the study of calculus will be addressed, including function notation, the algebra of functions, exponential and logarithmic functions. We will meet for lecture three times weekly MWF from 9:05 am to 9:55 am in D218. Students are expected to attend all lectures and to keep up with course assignments. Course information and documents are available in D2L and the course page http://facultyweb.kennesaw.edu/lritter/Ritter1112_Sp2019.php. You should plan on visiting these venues often.

Prerequisites: A grade of C or better in MATH 1111 or by placement (*Note that students completing this course may not also receive credit for MATH 1113.*)

Course Materials:

- **Text:** *Precalculus Graphs and Models* 6th ed., by Marvin L. Bittinger, Judith A. Beecher, David J. Ellenbogen, and Judith A. Penna. ISBN 978-0134179056.
- **Calculator:** A calculator will be used in this course to enhance mathematical thinking and problem solving. A scientific (non graphing) calculator will suffice. A TI 83/84 series calculator is recommended. Exams will include limited to no calculator use. **No Computer Algebra System such as a TI 89 or MODIFIED TI 84 will be allowed during exams.**
- **Homework:** The adaptive learning software ALEKS will be used in this class. For spring 2019 in section 54, access to ALEKS is being provided at no cost to you. The ALEKS class code is

WQJQT-3GQW4

How to be successful in this course: Whether or not you succeed in this course depends primarily on your choices. If you do a few things consistently, namely:

- attend class and actively participate in class activities,
- complete modules in ALEKS regularly according to the semester schedule,
- study frequently and consistently,
- seek help when you need it, both from your instructor and from the SMART Center,

then you will give yourself every chance to be successful.

Learning Outcomes: Upon completing this course, students will be able to

1. Evaluate, analyze, manipulate, and create graphical representations of exponential, logarithmic, trigonometric and piecewise defined functions;
2. Use algebra of functions, function properties, and identities to solve applied problems;
3. Apply a variety of problem-solving strategies, including right triangle, unit circle and functional techniques, to solve multiple-step problems involving trigonometric equations;
4. Manipulate mathematical information in verbal, numerical, graphical, and symbolic form when solving applied problems;
5. Write mathematical expressions, equations, and problem solutions using proper, standard mathematical notation.

My Goals: In coordination with the above learning outcomes, my goal is to expose you to a catalog of functions and mathematical tools so that you develop a sense of understanding and ownership of these concepts. In that process, I want to help you to become a fluent reader and writer of mathematics allowing you to effectively communicate your ideas and to participate in the study of mathematics. Upon successful completion of this course, I want you to have the basic foundation needed to engage in further study (e.g. other math and science courses) and to engage in implementation (such as in engineering, science, business, or other applications).

Grading and Evaluation: Your course grade will be the weighted average of your score on 4 semester exams, one final exam, a homework average, and a participation/in class work grade. The grades will be weighted as shown in Table 1.

Table 1: Grade Weights

PreTest & Exam I (M 1/4 & F 1/25)	Exam II (F 2/22)	Exam III (F 3/22)	Exam IV (M 4/22)	ALEKS (Regularly)	Participation (Daily)	Final (W 5/1)
15%	15%	15%	15%	20%	5%	15%

A = 90%–100%, B = 80%–89%, C = 70%–79%, D = 60%–69%, F = 0%–59%

Homework (ALEKS): Work outside of class will be facilitated using ALEKS (<https://www.aleks.com/>). The class code for this section is

WQJQT-3GQW4

Access to this section for spring 2019 is being provided at no cost to you. ALEKS consists of several modules of exercises with preset due dates. **ALEKS is an adaptive learning system. This means that it will not expose you to new concepts unless you have demonstrated mastery of prerequisite skills. This will benefit you and allow you to work at your individually beneficial pace. This also means that if you don't work in a timely and regular manner, you will create more work for yourself in the future. You will spend between roughly five and eight hours a week working in ALEKS.**

Your ALEKS grade will consist of three parts.

- Objectives (70%): This is the traditional daily/weekly homework. ALEKS will present you with questions that you answer until you demonstrate mastery of the concept.
- Scheduled Knowledge Checks (15%): These are like mini-exam reviews in which ALEKS will test your knowledge on a broad array of topics. You do your best to answer the questions that you know how to answer. (These are due by 8 am on test dates.)
- Pie-Progress (15%): ALEKS will assess the percentage of progress you have made filling your pie (by doing the Objectives homework) on February 26 and again on April 30. By keeping up with the scheduled homework due dates, you can ensure that you receive full credit.

Initial Knowledge Check: As soon as you set up your ALEKS account, and NO LATER THAN JANUARY 13, the program will take you through an Initial Knowledge Check. This is a sequence of about 30 questions over a broad array of topics. This assessment will start you off on using ALEKS. It will determine your initial pie (a chart of your content mastery). It is this pie that you will fill in during the semester as you complete the assigned Objectives. **You are NOT being graded on this knowledge check. It is critical that you complete this assessment HONESTLY—complete it yourself without external resources. You are not expected to know how to answer all of the questions. Just do your best.**

Exams: We will have four semester exams each worth 15% of the semester grade and a comprehensive final exam worth 15% of the semester grade. **All exams are mandatory.** A pre-test will be given on Monday January 14 worth 15% of the first semester exam. The exam dates are shown in the grade table 1 as well as the important dates table 2 at the end of this syllabus. Calculator policy will be determined and communicated for each individual exam. Except in the case of an excused absence (see attendance and make-up policy), a missed exam will be assigned a grade of zero. If your course average prior to the final exam is at least 95%, you will be exempted from the final exam and will receive a course grade of A. The final exam grade may be substituted for the lowest midterm exam score **provided** your combined ALEKS and participation grade is at least 75%.

Participation: I will take attendance everyday. (Note that attendance is reported to the University in compliance with various funding regulations.) You can earn up to 2 participation points per day by

- attending class for its duration and being on time;
- participating in the clicker polls conducted throughout class (at least 50% responses without respect to accuracy);
- participating in all in-class work assignments; and
- refraining from unwarranted use of electronic devices (i.e. texting, websurfing).

An unexcused absence will result in a participation grade of zero. **Repeated use of disallowed electronic devices will result in a participation grade of zero and an invitation to leave the room. Excused absences will not count against your participation grade.** The two lowest participation grades will be dropped, and the remaining will be averaged to obtain the 5% participation grade for the term.

Attendance and Make-up Policy: Regular class attendance is critical to academic success. Hence I strongly encourage you to attend all classes and keep up with assignments and course events. An unexcused absence

will result in a participation grade of zero for that day. That said, I will excuse an absence if (1) I am informed as soon as possible (via email or voicemail), and (2) there is a good reason. Good reasons include (but are not limited to) your illness or the illness of someone who depends on you, an academic or University sports commitment, a legal obligation, or an unforeseen travel issue. Reasons that are not excusable include (but are not limited to) over sleeping, or working on a project for another class.

Missing an Exam: All exams are mandatory. In order to be excused from an exam, you must notify me in advance (or as soon as circumstances allow), and provide documentation (e.g. doctor's note, order to appear, notification from a faculty adviser) of your reason for missing the exam. If you meet both of these criteria, I will allow your grade on the final exam to substitute for the missed exam. Failure to obtain an excused absence will result in a grade of zero for the exam.

Academic Integrity: Every KSU student is responsible for upholding the provisions of the Statement of Student Rights and Responsibilities, as published in the Undergraduate and Graduate Catalogs. Section II of the Statement of Student Rights and Responsibilities addresses the University's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the Department of Student Conduct and Academic Integrity (SCAI), which includes either an "informal" resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimal one semester suspension requirement.

Notice on Course Withdrawal: Students are solely responsible for managing their enrollment status in a class; nonattendance does not constitute a withdrawal. Per university policy, I will assign a grade of WF to all students who do not complete the semester, where not completing the semester is defined as ceasing to attend class and take exams prior to the last two weeks of the semester. I am required to report the last date of attendance when assigning a grade of WF. **My compliance with this policy may affect your financial aid.**

Students with Disabilities I will attempt to accommodate all students with special needs to the best of my ability, but it is the responsibility of the student to make their needs known to me. Students with disabilities

who believe they may need accommodations in this class are encouraged to contact the counselor working with disabilities at 470-578-7361 (Marietta) or 470-578-2666 (Kennesaw) as soon as possible to better assure that such accommodations are implemented in a timely fashion. (Additional contact information email: sds@kennesaw.edu and webpage: <http://studentsuccess.kennesaw.edu/sds/index.php>).

On Diversity and Inclusion: Kennesaw State University prides itself on offering a premiere, personalized educational experience for leadership and engagement within a diverse nation and world. This educational experience is achieved through recognition and appreciation of the differing backgrounds and experiences reflected within the University community. It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit.

Cell Phone, Tablet, Laptop Policy Unless otherwise stated, use of cell phones, laptops, or tablets is **not allowed during class**. At least one participation point will be deducted for unwarranted use of such devices during class. Any student who must be repeatedly asked to refrain from texting or surfing the web will be invited to leave. **At no time will still or video photography be allowed during class.**

Table 2: Important Dates

Jan. 14	PreTest (15% of Exam 1)	Jan. 21	Martin Luther King Jr. Day
Jan. 25	Exam 1	Feb. 7 & 8	Student Success Presentation: Dr. Sandra McGuire
Feb. 22	Exam 2	Feb. 27	Withdrawal Deadline
March 22	Exam 3	Apr. 1–5	Spring break
April 22	Exam 4	Apr. 29	Last day of classes spring 2019
May 1	Final Exam	8:00–10:00 am	D116