



Mrs. Michelle Bakker, Michelle.Bakker@ankenyschools.org

Mrs. Deborah Cote-Glander, Deborah.Coteglander@ankenyschools.org

School Phone: (515) 965-9630

Trigonometry / Pre-Calculus

Course Overview

This course will review and enhance conceptually many of the topics learned in Algebra 2. The central theme is the concept of a function and its graph. Topics include: functions (linear, radical, exponential, logarithmic, polynomial, piecewise and trigonometric) and their graphs, along with basic trigonometry. Students can receive dual credit with DMACC by successfully completing Pre-Calculus and Trigonometry in the spring of 2021. Trig/Pre-Calculus corresponds to MAT129 Pre-Calculus in the DMACC course guide, and students can earn 5 college credits.

DMACC Course

This is a DMACC credit course for **second semester only**. You will not be eligible to enroll in second semester if you do not pass first semester. You will only receive DMACC credit if your second semester grade is a C- or higher.

Course Topics

First Semester

- Finding Trigonometric Values
- Graphing Trigonometric Functions
- Trigonometric Identities and Their Uses
- Solving Trig Equations/Inverse Trig Values
- Applications of Trig (vectors/polar/triangles (Law of Sines and Cosines)/complex numbers)

Second Semester

- Polynomials and Rational Functions
- Logarithms and Exponents
- Limits
- Conic Sections
- Matrices
- Spiral of Trigonometric concepts

Lesson Structure

Instruction will consist of direct instruction, team collaboration, partner work, discovery activities, and use of technology.

Homework Structure

Homework has both online and written components. The online component uses Pearson's MyMathLab and DeltaMath. The written component uses textbook problems as well as printed handouts. Both are required.

Student Expectations

As you begin, you may feel anxious about the number of theorems, definitions, procedures, and equations you encounter. You may wonder if you can learn it all in time. Don't worry, your concerns are normal. This course has been designed, and our textbook has been written, with you in mind. If you attend class, work hard, and read and study effectively, you will build the knowledge and skills you need to be successful. Here's how:

1. Arrive ready (with all needed materials) and on time
2. Place your phone in the holder as you enter the classroom
3. Complete the Warm Up/Bell Ringer
4. Complete homework on time
5. Ask questions
6. Take notes
7. Be willing to help others
8. Respect your instructor, your classmates, and yourself

Daily Supplies

- 3 ring binder or folder *
- White-lined paper or spiral notebook *
- Homework notebook (spiral bound or composition)
- Graph paper
- Pen, pencils, highlighter, dry erase markers
- **TI-83 or TI-84 Calculator (not TI-86 or TI-89)**
- Whiteboard marker(s)

** You are expected to take notes in this course. Many of the examples supplement the text and cannot be found anywhere but in your notes.*

Academic Integrity

All students are expected to commit to high standards of personal and academic integrity. Students are expected to do their own work and document sources appropriately.

Grades

18-week Grade Calculation

90% of your 18-week grade is generated by your level of learning on the prioritized course standards

10% of your 18-week grade is generated by your homework scores

Semester Grade Calculation

90% of your semester grade is generated by the 18-week grade

10% of your semester grade is generated by the final exam

Grading Scale

Letter Grade: A

Minimum Percent: 92.5

Letter Grade: A-
Minimum Percent: 89.5

Letter Grade: B+
Minimum Percent: 86.5

Letter Grade: B
Minimum Percent: 82.5

Letter Grade: B-
Minimum Percent: 79.5

Letter Grade: C+
Minimum Percent: 76.5

Letter Grade: C
Minimum Percent: 72.5

Letter Grade: C-
Minimum Percent: 69.5

Letter Grade: D+
Minimum Percent: 66.5

Letter Grade: D
Minimum Percent: 62.5

Letter Grade: D-
Minimum Percent: 59.5

Letter Grade: F
Minimum Percent: Below 59.5

Guiding Practices

Homework

Homework is an opportunity for students to practice skills, apply knowledge, review and build on past learning, and extend learning. Homework is individualized and based on each student's progress towards established standards. The purpose of the assignment will determine whether or not a grade is given and will be clearly articulated to students. Through independent learning tasks (homework), students assume more responsibility for their learning and are given opportunities to apply what they have learned to new situations or experiences.

Multiple and Varied Assessment Opportunities

The summative assessments in this course are designed to collect evidence to measure student mastery of course standards over time. We will systematically collect multiple pieces of evidence of student learning over time. In this way, all students are routinely afforded "multiple opportunities to demonstrate understanding". *In this course we do not offer replacement score testing.*

Extra Credit and Bonus Points

To ensure that grades reflect progress toward and achievement of the standards, giving extra credit points or bonus points will not occur in this class.

How students will be graded on academics:

- Letter grades will continue to be assigned for all courses at the secondary level based on the 0-100 percent scale.
- When utilizing a rubric with four levels of proficiency (Beginning, Making Progress, Meeting the Standard, Exceeding), teachers will show the connection between a student's performance on the rubric to the assigned grade within the 0-100 percent scale. This connection will be communicated at the onset of its use and throughout the learning progression for the purpose of providing feedback.

Need Help?

Practice the skills being taught daily, ask questions during class, take notes, and pay attention in class. I want each of you to do the very best job you can in your study of mathematics. I really enjoy solving math problems and I hope math will be fun for you as well. 😊

Still, you may need extra help at some time during this year. Individual help may be available with me, by appointment.

Do not come in on the morning of an assessment and expect to have many questions answered! Get help right away when you need it!

Behavioral Expectations

The work habits/behavior standards are for grades 6-12 courses in our district. These work habits/behavior standards will be reported throughout the semester and are as follows:

- Organization and Readiness
- Productivity and Accountability
- Collaboration Skills

For those of you accessing this document electronically, the work habits tool can be accessed online: [Work](#)

[Habit Online Link](#). We will be using the following performance levels:

Performance Levels for Work Habits/Behavior Standards:

MS represents Meets Standard

PM represents Partially Meets Standard

DM represents Doesn't Meet Standard

NE represents No Evidence at this time

These descriptors are intended for feedback and communication and do not impact a student's GPA.

Regarding the New High School Credit Law

*In accordance with a new Iowa law awarding non-high school students HS department credit, Ankeny will be awarding department (Math, Modern Language, PE) credit for any high school course they have taken - such as Algebra I, Spanish I, French I and in some cases, Geometry or Algebra II. While Ankeny Community Schools will be awarding department credit as per the law, students will **not** have that grade calculated into a grade point average based on their performance in the class. This means they will receive a letter grade on their report card and their transcript but that letter grade will not be included in their grade point average.*

**. District Office 306 SW School Street PO Box 189 Ankeny, IA 50021-0189
P: 515.965.9600 F: 515.965.4234 W: ankenyschools.org**

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