

COURSE SYLLABUS: TRIGONOMETRY, FALL 2009

Student Name: _____

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This syllabus will be posted at www.hsd401.org on the HHS website beginning in mid-September.

Welcome to Trigonometry! I am excited to have you in class. I expect this to be a fun and interesting semester. It will also be a challenging semester. During this course, you will be building your mathematical skills in algebra, with emphasis in trigonometry, which is the use of mathematics to solve problems related to angles, bearings, and direction. Trig is especially valuable to everyone who uses mathematics to interface with the physical world; in particular, physical scientists, engineers, architects, construction personnel, electricians, real estate detail personnel, and communications designers. You will also be developing and practicing skills which will help you to succeed in high school, college, and in life outside of and beyond school.

We will be using the textbook *Advanced Mathematical Concepts: Precalculus with Applications*. We will be reviewing the material in the book's Chapters 1 through 3 (Linear Relations and Functions, Systems of Equations and Inequalities, and The Nature of Graphs), studying Chapters 4 through 7 in detail (Polynomial and Rational Functions, The Trig Functions, Graphs and Inverses of the Trig Functions, and Trig Identities and Equations), and finally covering all or a portion of Chapter 8, Vectors and Parametric Equations, as time permits.

There are many skills I expect you to have before beginning this course, but if you lack them, we will try to fill in the gaps in your learning. If you are confused at any point during this course, **ask a question**. You will usually find that many others had the same question. They will thank you for asking it. If you find at any point that you are having difficulties with the material, be sure that you get help from another student, me, or another teacher soon. The Math Study Lab is available from 2:15 to 3:00 PM in the Library Monday through Thursday. Do not wait until you are really struggling to get help.

Don't let me scare you though. This should be a challenging but rewarding experience for you and for me. I am looking forward to a really successful semester. Thanks for joining me.

Activities: We will be following the structure of the text a good deal this semester. You will be expected to do some reading as well as problems almost every day and typically will have homework assignments most nights. We will be working in the classroom in groups frequently, to give you experience which will benefit you in the world of work, where many problems are solved by groups.

Guidelines for Success: Math is like all other complex skills and abilities - it takes **preparation, hard work and practice** to do well. Kobe Bryant didn't become a great basketball player by showing up at the court with a ball one day - he put forth lots of effort, which was rewarded with accomplishment. **Here are some suggestions which will lead to success:**

Do the Homework! Many of you may have skated through lower math classes doing little or no homework, relying on natural math and listening ability and still getting good or passable grades. As you go higher in math, especially starting with Algebra 2, this becomes a strategy for academic disaster. Learning by doing the work is necessary for 99% of the population in higher math classes.

Use your time well: come prepared to learn, pay attention in class, do the reading and the homework, and study for quizzes and tests.

Get plenty of sleep, 8 or 9 hours, or more if you need it. Research shows your brain needs adequate sleep after learning to organize and construct the knowledge you fill it with in the daytime; with inadequate sleep, the knowledge is poorly structured and hard to use or lost altogether.

Eat a good breakfast before school, with protein, fats, and complex carbohydrates, and go easy on the sugar level (Chocolate Frosted Sugar Bombs, the favorite cereal of cartoon character Calvin of *Calvin and Hobbes*, is NOT recommended). Research shows that adequate, even blood sugar levels are necessary for good learning. Athletes design their eating to win; so should you.

Always do your best; never give up. If you don't try hard, you won't achieve what you are capable of.

Class Rules: There are two main rules: **We respect others and their efforts, and we try our best.** These can be expanded into a limitless number of additional rules, all of which are important, but I'd rather not have to do that. Please use common sense and keep the feelings of others in mind. I will list some basic expectations:

What I expect from you (non-negotiable):

1) You will come to class on time and prepared. You will be in your seat and working when the bell rings. You are responsible for your own supplies, including paper, pencil, eraser, composition book with graph paper, and tissues for blowing your nose if you need them.

2) You will come to class ready to be involved in learning. I will not feed you your education. You must be willing to learn and also willing to help others learn.

- 3) You will respect the property, feelings, and needs of everyone else in the classroom, and refrain from distracting others and from making it difficult for me to teach. **When we are discussing as a class, one person at a time will speak.**
- 4) You will save electronics, food, and drink for lunchtime and breaks.
- 5) You will do your best possible work **at all times** in this classroom.

What you can expect from me:

- 1) I will be fair.
- 2) I will do my best to help every student be successful.
- 3) I will do my best to make learning fun and sensible.
- 4) I will be available for extra help if you need it, including after school most days. **Please ask for help if you need it.**
- 5) I will be reasonable when you share ideas, opinions, or needs with me.

Necessary Materials: You will need:

1. three sharpened **pencils**, or 1 mechanical pencil and one additional pencil,
2. paper that fits in a three-ring binder, and the binder,
3. a **bound composition book** that has graph paper just for math,
4. the textbook **Advanced Mathematical Concepts**
5. a **graphing calculator** (no cell phone calculators). If you have a graphing calculator (example TI-83 or TI-84) already, that will work fine; if you need to purchase one, I very **HIGHLY** recommend the new TI-Nspire, which will help you far beyond the extra \$40 or so it costs compared to the TI-84. The school has provided 1 set of TI-84's per math teacher for classroom use only.
6. Please come to class prepared.

Grading and homework: Grading will be based 25% on classwork, homework and projects, 15% on class participation and citizenship, and 60% on quizzes and tests. Grades will be assigned on the following basis:

90% and above: A	80% to 89%:B	70% to 79%:C
60% to 69%:D	Below 60%: F	

You start each day with 10 points for class participation and citizenship - an A+ for that 15% of your grade! You will lose points if you fail to show respect for your fellow students and the teacher, if you waste class time with activities other than math, if you use cell phones in class, if you are late or absent without excuse, or if you are otherwise not engaged in learning. You can lose points from previous days for behavior on a later day.

Absences: Math is a structural subject. This means that in most cases, each day's learning builds knowledge upon the topics learned previously. It is

essential for you to attend and participate every day in order to fully understand the mathematics we will be learning. Doing work late will hurt your homework grade and probably your quiz and test grades too.

Work missed due to excused absences must be made up within the same number of school days after the return to school as the length of the absence in order to earn full credit. For example, if you are gone two days and return on a Thursday, the work missed must be handed in on or before Tuesday. Quizzes and tests missed due to excused absences must be made up within the same period. Please call or email for assignments if you can work while absent. It is your responsibility to find out what assignments you have missed and to contact the teacher to schedule retakes of tests and quizzes.

Classwork missed due to unexcused absences cannot be made up and will earn a zero score. **Tests and quizzes missed due to unexcused absences** can be taken but the maximum earnable score will be 80%.

Late classwork and homework: If you do your work late, you will not be able to follow subsequent days' discussions well. Thus it is vital you do your homework on time. Scores will be reduced by 20% for work that is one day late, by 40% for work that is three days late to one week late, and by 60% for work that is over 1 week late. Work due in the first quarter which is handed in during the second quarter can earn no more than 30 percent of the possible points. Late work handed in during the last week of the semester which is over 2 weeks late will earn no credit. **It is your responsibility to keep a record of which homework you have done and handed in.**

Keep this syllabus for reference; put it in your binder. If you have it and can show it when the teacher asks to see it, you will earn some points.

Please complete and return the section below; it is your first assignment.

Trigonometry Syllabus - Mr. Spencer, Fall 2009

The undersigned have read, understand, and agree to abide by the requirements of the Trigonometry Syllabus for Mr. Spencer's class of Fall 2009.

Student (print) _____ **email** _____

(signature) _____ **Date** _____

Parent/Legal Guardian (print) _____ **Phone** _____

(signature) _____ **Date** _____ **email** _____