

# Honors Geometry - Course Information

Teacher: Rachel Chou

## COURSE INTRODUCTION AND EXPECTATIONS:

Welcome!!! I hope each of you had a wonderful summer, filled with time to rest, relax, and recuperate from what I am sure was an active school year. It is the beginning of a new school year, and I hope that each of you is excited to begin!

*Honors Geometry* is a fun, exciting, and academically rigorous course. We will explore the relationships within and among figures in a plane. We will also lay the foundation for a study of trigonometry. We will draw connections between geometric and algebraic representations of similar mathematical ideas. We will begin to appreciate the Geometry we see in nature and in art. Throughout the course, you will be asked to attack problems which you have not seen before. Your confidence in doing this will grow as the year moves on.

**COURSE EXPECTATIONS.** It is important that before we begin our study together, that I am clear about my philosophies and expectations for you in my class. One of my most important expectations is that you come to class with an open mind, and with a helpful and engaged disposition. Students all over the United States, at one time or another have asked their math teachers the question: "When are we ever going to need to use *this?*!"

While much of what we will study this year has direct applications in a variety of career fields that might one day interest you, I want to begin the year discussing the less direct applications. In almost any professional field that might interest you, practitioners spend their days doing the following: Using lots of facts that they *do* know to help them figure out new facts, and ideas in order to solve a myriad of possible problems. As high school students, you are asked to take science, history, English, foreign language, mathematics, and elective courses. While all of these courses train you in the specifics of different disciplines, the experiences that you have in each of these classes has at least these goals in common: to train you to think analytically, to train you to be problem-solvers, to hone your creativity from as many angles as possible. That is one of the most basic purposes of schooling.

To that end, I want you to try, as much as possible, to engage in the activities and endeavors at hand. Often, it is hard to understand exactly what it is you are gaining from a particular learning endeavor or experience until the experience is over. I put a lot of effort into choosing topics and problems that I believe will have a positive effect on your ability to think critically, and on your general ability to be mathematically creative. To that end, please approach each class meeting, activity, or assignment with an open mind and a positive disposition toward learning!

**WHAT TO DO WHEN MATH GETS HARD.** The following is taken from the Menlo Upper School Math Department Website. At some point in your career at Menlo, more than likely, a unit of study is going to feel quite challenging, maybe even 'too hard.' It is at this point, that you should immediately speak up! I can only cater my instruction to meet your specific needs, if you do your part - give me necessary and timely feedback. Telling me, the day before a test, "I just really had trouble understanding everything in this unit..." is probably less than useful. What I need is daily feedback. When I ask, "How did the homework go last night?" I really want to hear honest and thoughtful answers. Only then will I be able to re-work my daily plans to best suit your immediate learning needs.

Furthermore, you should feel comfortable making regular extra-help appointments with me and emailing me at night to let me know how the homework problems are going. An email such as: "Dear Ms. Chou, I had a lot of trouble putting together the right ideas to complete problem #5 from last night's homework." lets me know *\*in advance\** that there is a particular mathematical idea that could use further study and discussion the following day.

The basic point is that you should feel comfortable expressing your learning frustrations to me. Only honest feedback will allow me to organize the timely instruction on a particular topic that you are needing.

**MEETING WITH YOUR TEACHER:** If you know in advance that you would like to meet with me, it is a good idea to set up an appointment, so that I know to be free for you; however, I also know that this is not always realistic. As much as possible, **please try to set up appointments**, but also feel free to come and find me during any free period, lunch, or other free time during the day such as before/after school, or after assemblies. To that end, you should know when I am free, and how to reach/find me! Some pertinent information:

My email is: \_\_\_\_\_

My phone number at school is: \_\_\_\_\_

My free periods are: \_\_\_\_\_

When I am not in my classroom, a good place to find me is: \_\_\_\_\_

Finally, if you know that you will miss a class for a sport or other school-sponsored event, then please meet with me **prior** to the missed class so that you can avoid being behind. If a school-sponsored activity causes you to miss school the day of a quiz or test, **you must make arrangements to take this assessment prior to the missed class**. If you miss class due to illness, please email me as soon as possible so that we can make arrangements for you to take the assessment upon your return.

**COURSE SUPPLIES:** You will need:

- (a) A textbook: *the Art of Problem Solving Introduction to Geometry*, by Richard Rusczyk
- (b) a 3-ring binder
- (c) 5 subject dividers
- (d) a mechanical pencil
- (e) a colored pen (not dark blue or black)
- (f) a calculator from the TI-84/TI-83 family.
- (g) a copy of Geometer's Sketchpad software, to be purchased directly from me
- (h) a protractor
- (i) a compass
- (j) and finally **a healthy attitude for studying and learning.**

**COURSE GRADING:** Your grade will be broken into the following 4 categories:

(i) **20% - Homework, Class Participation/Preparedness, and Organization.**

Homework assignments will make up 20% of your grade. Some of them will be graded on an effort basis, and some of them will be graded for accuracy. A separate document entitled *Homework Guidelines* outlines my philosophy on homework, and exactly how homework assignments will be assessed. Please feel free to talk to me about my policies.

As I do not believe that your mathematical growth in this course can be summarized in a handful of tests or quizzes, I plan to incorporate your work during daily activities into your overall homework grade. It is not simply important that you complete assigned problems, but rather, it is necessary that you really engage in the topic of the homework assignment so that you are prepared to engage in mathematical discussion during the next class meeting. I will often take notes on daily participation levels and on the quality of your work during

presentations. In addition to presenting your own ideas to your classmates, you will also be asked to listen respectfully to the ideas of your peers.

I will give you several handouts throughout the course of this class.

It is imperative that all of your course materials be kept together in an orderly manner so that you can refer to old notes as needed. To that end, I require that each of you keep an organized notebook. Your notebook, along with your other course materials should be brought to class each and every day. You will be given a separate handout detailing guidelines on how to keep a proper notebook.

**(ii) 30% - Quizzes**

You will have both announced and un-announced quizzes (better known as pop-quizzes). Expect these to happen up to once a week. For announced quizzes, you will be told about these 1-3 days in advance. The purpose of quizzes is just to allow you to monitor how you are keeping up with new ideas - these are not major assessments.

**(iii) 50% - Tests**

Tests will usually come after a specific unit. You will always be given advanced notice of when to expect on a particular test. You will also be given a review sheet, and sometimes a practice test to guide your studying. Finally, you might also be assigned out-of-class projects that will count as test grades. When this happens, you will be given ample time to prepare.

**A NOTE ON CALCULATOR USE:** While a calculator is a required supply for this class, calculator usage in this class will be monitored. I will let you know if you should use a calculator on specific homework assignments, and I will also let you know in advance if calculators will be allowed on upcoming tests/quizzes. My rationale for monitoring calculator will be discussed further during class.

Name: \_\_\_\_\_

Date: August, 2007

Block: \_\_\_\_\_

## Geometry: Course Materials Reading Quiz

*Teacher: Ms. Chou*

**INSTRUCTIONS:** For each question, circle true or false. If the statement is false, either explain why, or correct the statement to make it true.

1. True/False: Any old calculator is appropriate for this class.
2. True/False: You will be allowed to use a calculator in this class all of the time.
3. True/False: You need to keep an organized notebook for this class.
4. True/False: Daily homework assignments are for your own benefit and growth, and are therefore optional.
5. True/False: Ms. Chou would like you to come to class with a bad attitude and a negative disposition toward learning.
6. True/False: Ms. Chou will never tell you when tests will be given. You are supposed to guess.
7. True/False: When other students are presenting their ideas, it is OK to do your own thing, chit chat with a neighbor, or take a nap on your desk. In fact, Ms. Chou prefers when you are rude to your classmates!