

**Center for Talent Development  
Northwestern University  
Course Syllabus  
Session: 2010-2011  
Gifted LearningLinks Program**

**Course Title:**

- a. *Geometry Honors*

**Course Description:**

- a. Geometry Honors includes, but is not limited to, the structure of plane and solid geometry, coordinate geometry, and calculations involving areas and volumes of geometric figures. Creative problem solving is emphasized throughout the course, and the notion of mathematical proof and deductive structure are introduced. With the understanding of the basic concepts of plane geometry (synthetic and coordinate geometry), students engage in higher order mathematical thought to solve problems and prove statements in plane and solid geometry.

**Outcomes:** Upon successful completion of this course, students will show work to:

- a. Calculate measurements of plane and solid geometric figures.
- b. Construct logical arguments, based on axioms, definitions and theorems, to prove theorems and other results in geometry.
- c. Know and apply properties of geometric figures to solve real-world and mathematical problems and to logically justify results in geometry.
- d. Know and apply properties of geometric figures.

**Resources and Materials:**

- a. *Text: Geometry; Larson, McDougal Littell ISBN 0-618-25022-0*
- b. *Text Materials: [www.classzone.com](http://www.classzone.com)*
- c. *Materials supplied by student: homework notebook, compass, protractor, & calculator.*
- d. Instructors are required to thoroughly review any third-party web sites they intend to use in their courses for inappropriate content. However, because web content continuously changes, CTD disclaims any responsibility for any of the content contained on third-party web sites used in course materials. If you become aware of anything that may be inappropriate, please notify CTD staff immediately.

**Schedule:**

SEMESTER ONE				
	Topic/Focus	Activities & Reading Assignments	What do I need to post to the Discussion Board?	What do I need to turn in?
<b>Week 1</b>	Orientation to Online Learning	Survey	Please use email to ask questions or set up a time to use the discussion board.	Survey
<b>2 &amp; 3</b>	Basic Geometry	Read Chapter 1		Section Challenge or Book Problems, Two Application Problems SAT/ACT Quiz, & Test
<b>4 &amp; 5</b>	Reasoning & Proof	Read Chapter 2		Section Challenge or Book Problems, Two Application Problems SAT/ACT Quiz, & Test
<b>6 &amp; 7</b>	Perpendicular & Parallel Lines	Read Chapter 3		Section Challenge or Book Problems, Two Application Problems SAT/ACT Quiz, & Test
<b>8 &amp; 9</b>	Midterm Review			
<b>10 &amp; 11</b>	Congruent Triangles	Read Chapter 4		Section Challenge or Book Problems, Two Application Problems SAT/ACT Quiz, & Test
<b>12 &amp; 13</b>	Properties of Triangles	Read Chapter 5		Section Challenge or Book Problems, Two Application Problems SAT/ACT Quiz, & Test
<b>14 &amp; 15</b>	Quadrilaterals	Read Chapter 6		Section Challenge or Book Problems, Two Application Problems SAT/ACT Quiz, & Test
<b>16 &amp; 17</b>	Review			
<b>18</b>	1 <sup>st</sup> Semester Final			1-6 Test

SEMESTER TWO				
	Topic/Focus	Activities & Reading Assignments	What do I need to post to the Discussion Board?	What do I need to turn in?
19 & 20	Transformations	Read Chapter 7		Section Challenge or Book Problems, Two Application Problems SAT/ACT Quiz, & Test
21 & 22	Similarity	Read Chapter 8		Section Challenge or Book Problems, Two Application Problems SAT/ACT Quiz, & Test
23 & 24	Right Triangles & Trigonometry	Read Chapter 9		Section Challenge or Book Problems, Two Application Problems SAT/ACT Quiz, & Test
25 & 26	Midterm Review			
27 & 28	Circles	Read Chapter 10		Section Challenge or Book Problems, Two Application Problems SAT/ACT Quiz, & Test
29 & 30	Area of Polygons and Circles	Read Chapter 11		Section Challenge or Book Problems, Two Application Problems SAT/ACT Quiz, & Test
31 & 32	Surface Area & Volume	Read Chapter 12		Section Challenge or Book Problems, Two Application Problems SAT/ACT Quiz, & Test
33 & 34	Review for 2 <sup>nd</sup> Semester Final			
35	2 <sup>nd</sup> Semester Final			1-12 Test

**Student Evaluation and Grading Policies for Credit Courses Only:**

a. CTD Grading scale

<b>A+</b> 97-100	<b>B+</b> 87-89	<b>C+</b> 77-79	<b>D+</b> 67-69	<b>F</b> Below 60
<b>A</b> 93-96	<b>B</b> 83-86	<b>C</b> 73-76	<b>D</b> 63-66	
<b>A-</b> 90-92	<b>B-</b> 80-82	<b>C-</b> 70-72	<b>D-</b> 60-62	

- b. Final Grade –
  - a. Tests: 60%
  - b. Application Problems: 10%
  - c. Homework: 10%
  - d. Quizzes: 10%
  - e. Semester Finals: 10%

**Instructor Biography:**

- a. *33 years of teaching experience in math 7<sup>th</sup> grade - college*
- b. *Online teaching experience*
- c. *Degrees in mathematics and sociology*
- d. *Math department chairperson*
- e. *Minnesota state standards writing team member*
- f. *Test review experience with national algebra II testing team*
- g. *2 years with CTD*

**Contact Information:**

- a. *Email: xxx@xxx.xxx Cell: xxx-xxx-xxxx*

GLL Sample