

**Lake Tahoe Community College**  
**Math 153 – Euclidean Geometry**  
**Winter 2011 – Section 1**

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**Instructor:** Katie Larkin  
**Email:** larkin@ltcc.edu  
**Time:** T/Th 1:00 – 2:50pm  
**Room:** E100

**COURSE CONTENT**

This is a formal course in Geometry covering the basics of lines, planes, angles, triangles and congruence, the Pythagorean Theorem, similarity, and special right triangles. The methods of deductive reasoning will be studied in depth.

**REQUIRED TEXT**

Geometry by Bass, Charles, Johnson, and Kennedy - Prentice Hall

**STUDENT LEARNING OUTCOMES (SLOs)**

1. Prove geometric statements using classical axioms and theorems.
2. Perform ruler and compass constructions.
3. Make deductions using the rules of logic.
4. Solve problems involving parallel lines, triangles, and angles.

**COURSE WORK**

- **Attendance (5%):** Attendance will be taken at the start of class. You will get 2 points for arriving on time and leaving when the class is dismissed. If you're late or leave early, you will receive 1 point and if you are absent you will receive 0. Please see me if you have to miss class. Please do not disrupt the lecture once class has begun.
- **Homework (15%):** There will be 10 homeworks collected. Answers without work will be marked wrong. I will only accept late assignment up to one class period past due for 20% reduction in grade.
- **Quizzes (10%):** Quizzes will be completed in class. Quizzes will not always be announced and no make-ups will be given unless arrangements have been made with me PRIOR to the day the quiz is given. No late assignments will be accepted for course credit.
- **Midterm Exams (45%):** Three exams, each worth 15% will be given. If a student has a conflict, they must notify me BEFORE the day of the exam so that an alternative date can be made. **ABSOLUTELY NO MAKE-UPS WILL BE GIVEN** without a valid excuse submitted to me PRIOR to exam day.
- **Cumulative Final Exam (25%):** The MANDATORY final exam will be given on Thursday, Mar. 24<sup>th</sup> from 1pm-2:50pm. No make-ups will be given.

All exams and assignments will be graded on the following straight scale:

A: 90 - 100%, B: 80 – 89%, C: 70 - 79%, D: 60 - 69%, F: Below 60%

*Note: If you take the course P/NP, keep in mind that a C or above is passing (P).*

## GradeSource

Your grade will be available online at [www.gradesource.com](http://www.gradesource.com). Go to 'Student Reports' > Instructor name: Larkin > Click on class: Math 153 > Your secret number will be on your first quiz.

## COMPUTERS

Computers are available for your use in the following locations on campus:

- Learning Assistance Center (LAC) (Rm. 201): Mon – Th 10 – 6, Fri 10 – 2, Sat 11 – 3.
- Math Success Center (MSC) (Rm. 201): Mon – Th 9 – 6, Fri 10 – 2, Sat 11 – 1.
- Open Labs in the D-wing which have available times posted by the door of each lab.

## CLASSROOM RULES

Cell phones and any other “noise-makers” (ipods, mp3 players, etc.) must be turned OFF (not on vibrate, OFF) before entering the classroom and must remain stowed for the entire lecture. Disruptive activity during class will not be tolerated. While I am lecturing or other classmates are asking questions, you should not be talking. If you are consistently disruptive during class, you will be suspended from the class for up to 2 days.

## HOW TO SUCCEED IN THIS COURSE

- **Keep up with the work!** Math is a difficult subject; it is **imperative** that you keep up with the work in this class! Pay attention to the schedule and don't miss assignments.
- **Come to class prepared!** Before each class you should read the appropriate material (see schedule). You should also be sure to review previous lectures and bring any homework questions to class.
- **Make use of the Math Success Center!** I do not have office hours, therefore it is imperative that you get the most out of my lectures and go to the Math Success Center if you're having any trouble at all and need some assistance. The Math Success Center, staffed with knowledgeable tutors, is located in room 201 and is open from M-TH from 9-6, FRI 10-2, and SAT 11-3. There are also computers available for use there.
- **Form study groups!** They can be a great source of help! You can work together on homework assignments, but you need to submit the answer you believe is correct.

## IMPORTANT DATES

- **Jan 14:** Last day to drop with a full refund
- **Jan 28:** Last day to drop with no record or declare P/NP
- **Feb 17:** Last day to drop with a 'W'

## STUDENTS WITH DISABILITIES

If you have a certified learning disability that may affect your performance in this class, be sure to discuss your special needs with me during the first week of class. Learning disabilities will be accommodated.

## ACADEMIC INTEGRITY

**Cheating will be defined as but not limited to:** (1) using any method to copy another's work on an exam or final (2) directly copying another student's homework assignment (3) using any method other than your own honest efforts to complete exams or the final.

**The following activities are NOT cheating:** (1) collaborating with other students to complete homework assignments (2) working with math tutors or academic coaches to complete homework assignments (3) working with other students to study for exams or the final.

**Disciplinary actions for cheating in this class:** Cheating will result in a grade of zero on the item on which the cheating occurred. The worst thing about cheating, however, is compromising your character for such a small reward.

<b>Math 153 – Winter 2011 – Tentative Schedule</b>		
<b>Day</b>	<b>Topics Covered</b>	<b>Section in Text</b>
01/04/11	Patterns and Inductive Reasoning; Points, Lines, and Planes	1.1 - 1.2
01/06/11	Segments, Rays, Parallel Lines and Planes; Measuring Segments and Angles; Basic Constructions	1.3 - 1.5
01/11/11	Conditional Statements; Biconditionals and Definitions; Deductive Reasoning	2.1 - 2.3
01/13/11	Reasoning in Algebra; Proving Angles Congruent	2.4 - 2.5
01/18/11	Properties of Parallel Lines; Review for Exam 1	3.1
01/20/11	<b>EXAM 1 (1.1 - 1.5, 2.1 - 2.5)</b>	
01/25/11	Proving Parallel Lines; Parallel Lines and the Triangle-Angle-Sum	3.2 - 3.3
01/27/11	Polygon Angle-Sum Theorem; Constructing Parallel and Perpendicular Lines	3.4, 3.7
02/01/11	Congruent Figures; Triangle Congruence by SSS and SAS; Triangle Congruence by ASA and AAS	4.1 - 4.3
02/03/11	Using Congruent Triangles: CPCTC; Isosceles and Equilateral Triangles	4.4 - 4.5
02/08/11	Congruence in Right Triangles; Using Corresponding Part of Congruent Triangles; Bisectors in Triangles	4.6 - 4.7, 5.2
02/10/11	Concurrent Lines, Medians, and Altitudes; Review for Exam 2	5.3
02/15/11	<b>EXAM 2 (3.1 - 3.4, 3.7, 4.1 - 4.7)</b>	
02/17/11	Inverses, Contra positives, and Indirect Reasoning; Inequalities in Triangles	5.4 - 5.5
02/22/11	Classifying Quadrilaterals; Properties of Parallelograms; Areas of Parallelograms and Triangles	6.1 - 6.2, 7.1
02/24/11	The Pythagorean Theorem and its Converse; Special Right Triangles	7.2 - 7.3
03/01/11	Ratios and Proportions	8.1
03/03/11	Similar Polygons; Proving Triangles Similar; Proportions in Triangles	8.2, 8.3, 8.5
03/08/11	The Tangent Ratio; Sine and Cosine Ratios	9.1 - 9.2
03/10/11	Review for Exam 3	
03/15/11	<b>EXAM 3 (5.2 - 5.5, 6.1 - 6.2, 7.1 - 7.3, 8.1 - 8.3, 8.5, 9.1 - 9.2)</b>	
03/17/11	Review for Final Exam	
03/24/11	<b>CUMULATIVE FINAL EXAM - 1:00 - 2:50pm</b>	

*Note: Schedule may change slightly over the course of the semester.*

<b>Math 153 – Winter 2011 – Homework</b>			
<b>Section</b>	<b>Suggested Exercises</b>	<b>Required HW</b>	<b>Due Date</b>
1.1	1-49 odd	20, 36	1/13/2011
1.2	1-69 EOO*, 92-94	47, 71	
1.3	1-19 odd, 21-53 EOO, 71-83 odd	71, 80	
1.4	1-27 odd, 29-32 all, 33-77 odd (omit 49), 87-95 odd	32, 76, 92	
1.5	1-15 odd, 21-33 EOO, 41-49 odd	21, 43, 47	
2.1	1-61 odd	24, 59	1/20/2011
2.2	1-49 EOO, 55-69 odd	23, 58, 67	
2.3	1-15 all, 17-33 odd, 39-43 odd	31, 40	
2.4	1-33 odd, 43-53 odd	31, 46	1/27/2011
2.5	1-35 odd, 39-59 EOO, 67-73 odd	20, 50, 70	
3.1	1-25 odd, 32-36 all	24, 34	
3.2	1-17 odd, 21-33 EOO, 45, 49, 57-61 odd	32, 58	2/3/2011
3.3	1-11 odd, 19-35 EOO, 41-49 odd	35, 46	
3.4	1-5 odd, 9-25 EOO, 33, 41, 47, 51, 71-85 odd	24, 84	
3.7	1-33 EOO	17, 29	
4.1	1-41 odd	12, 20, 38	2/10/2011
4.2	1-29 odd, 33, 41, 43, 49-55 odd	10, 43, 50	
4.3	1-33 odd, 46-49 all	32, 46	
4.4	1-23 odd, 35-39 odd	19, 37	
4.5	1-27 odd (omit 19) 33, 34-36 all, 51-53 all	24, 36, 53	2/17/2011
4.6	1-19 odd, 28, 29, 33, 42-47 all	20, 33, 44	
4.7	1-17 odd, 23, 27, 29, 33, 39, 41	24, 39	
5.2	1-65 EOO	14, 22, 34	2/24/2011
5.3	11-16 all, 19-22 all, 27-29 all 45-51 all	20, 51	
5.4	1-25 odd, 31-39 odd, 50-55 all	39, 54	
5.5	1-25 EOO, 34-36 all, 52-55 all	26, 52	
6.1	1-12 all, 19-33 odd, 37-42 all, 46-49 all, 51-54 all, 65-73 odd	38, 54	3/3/2011
6.2	1-61 every other odd, 70-76 all	18, 35, 72	
7.1	1-3 all, 8-14 all, 15-23 odd, 44-46 all, 59-63 odd	12, 19, 46, 51	
7.2	1-23 odd, 25-61 EOO, 66, 76, 77, 81, 83	61, 76	3/10/2011
7.3	1-29 odd, 35-41 odd, 47, 48, 52-55 all	29, 41, 52	
8.1	1-21 EOO, 27-47 EOO, 57, 61, 73, 77	17, 46, 57	
8.2	1-15 odd, 21-28 all, 33-39 odd, 42, 43, 47, 57, 59	27, 38, 44	3/17/2011
8.3	1-19 odd, 23-41 odd, 49-53 odd, 57	25, 39, 53	
8.5	1-10 all, 19, 23, 31, 33, 47, 49, 60-69 all	20, 50	
9.1	1-3 all, 5-17 EOO, 27, 29, 39-43 all, 53, 55, 57, 67, 69	28, 42, 68	
9.2	1-3 all, 5-21 EOO, 23, 26, 28, 41-43 all	21, 28, 42	

\*EOO = every other odd (ie #1, 5, 9, etc.)

Subject to change.