Math 40  Geometry for Educators

Instructor:      Karla Karstens
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Office Hours:  MW 1:10 – 2:00 p.m.   TTh 1:15 – 2:30 p.m.  (Other times by appointment)
Required Text:  College Geometry:  A Problem Solving Approach with Applications, 2nd edition

Please no open laptops or texting during class.

Course Goals:
• Develop problem-solving skills, especially with geometric applications
• Learn the fundamental properties of two- and three-dimensional geometric shapes and foster an appreciation for the usefulness of geometry
• Deepen conceptual understanding of geometry by constructing proofs to verify geometric relationships and solve problems
• Provide a variety of methods: Euclidean, coordinate, and transformational geometry to solve problems
• Explore topics beyond the high school curriculum to deepen your knowledge and appreciation of geometry
• Gain experience explaining geometry topics and presenting geometric ideas in a classroom setting

Course Topics:
Chapter 4  Reasoning and Triangle Congruence
Chapter 5  Parallel Lines and Quadrilaterals
Chapter 6  Similarity
Chapter 7  Circles
Chapter 8  Coordinate Geometry

Additional Topics:
The Pythagorean Theorem, Logic and Proof, Axiomatic Systems, Constructions, Finite Geometries, Hyperbolic and Elliptical Geometry, Rigid Motions, Geometry of Space, Spherical Geometry

Course Policies:
Attendance:  I will be taking attendance every day.  More than 2 absences (excused or unexcused) may result in a lower grade.

Homework:  Homework will be assigned with a specific due date.  Homework that is late may result in a loss of points.  Homework should be done neatly for full credit.

Tests:  There will be a Midterm and a Final Exam for this course.  Make-up tests are possible, but should not be assumed.  Students with special needs are responsible for talking to me about necessary arrangements prior to the test days.

Midterm Exam:  Friday, October 14
Final Exam:  Monday, December 12  7:30 – 10:15 a.m.

Grading Policy:     20%  Homework  40%  Midterm  40%  Final Exam