

Office: FEM 3
Office HRS: MW 10:00-11:00, T 12:00-1:00 in LRC 106, or by appointment
Phone: (559) 638-3641 ext. 3744
E-Mail: doug.gong@reedleycollege.edu

Math 102-56018: Plane Geometry (3 Units)
Class meets: MWF (11:00-11:50) RM# FEM 4E
Text: Discovering Geometry, Serra, 4th ed. **ISBN:** 1-55953-882-1
Prerequisite: Math 101 or its equivalent.
Basic Skills Advisories: Eligibility for English 126.

Description

Angles, parallel lines, congruent and similar triangles, circles, geometric constructions, right triangle trigonometry, application of formulas for perimeters, areas, and volumes of geometric figures. Logic and deductive reasoning.

Expectations / Responsibilities

Instructor

- Provide the necessary instruction and model the quality of work to be successful in Math 102.
- Clearly communicate progress being made in a timely fashion.
- Cancelled classes will be posted on Blackboard and the Reedley College website.

Student

- Turn **OFF** your phone.
- Follow the class rule – **Be Nice**.
- Learn the material that is taught and **get help** when necessary.
- Complete at least 70% of the chapter's homework prior to each test.
- Monitor the class Blackboard site regularly, provide a working e-mail address, and monitor grades online.
- Students are responsible for officially dropping the class.

Attendance

- Be in each class on time from **REEDLEY** to **TIGERS**.
- You may be dropped if you have more than 3 absences.

Grading

Scale **A** 90-100% **B** 80-89% **C** 70-79% **D** 60-69%

Tests 75% There will be four tests and a final. A homework score of at least 70% must be earned prior to each test. There are **no make-up tests**. A test may be taken early with prior approval.

Homework 20% Homework may be assigned online, from the text, or from handouts. **No late homework** is accepted.

Quizzes 5% Quizzes will be given at random. There are **no make-up quizzes**. There is **no extra credit**.

Important Dates

January 30, 2009	Friday	Last day to register for a full-term fall class
January 30, 2009	Friday	Last day to drop a fall full-term class to avoid a "W"
February 17, 2009	Friday	Last day to change a class to/from Pass/No Pass
March 13, 2009	Friday	Last day to drop a full-term class to avoid a grade
May 19, 2009	Tuesday	Final Exam 11:00-12:50

NOTE: If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act or section 504 of the Rehabilitation act please contact me as soon as possible.

Please refer to SCCCD policies for guidance on all matters relating to this course.

ACADEMIC DISHONESTY

Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely.

Plagiarism is a specific form of cheating: the use of another's words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights. Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on the particular examination, paper, project, or assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents.

COURSE OUTCOMES:

Upon completion of this course, students will be able to:

- A. construct plane geometric figures.
- B. apply inductive and deductive reasoning to real world situations.
- C. apply the relationships between the sides and angles of a triangle.
- D. apply formulas for basic geometric shapes.
- E. form a conjecture.
- G. apply the properties of **polygons** to real world applications, such as construction.
- H. apply the properties of **circles** to real world applications.

COURSE OBJECTIVES

In the process of completing this course, students will:

- A. make geometric constructions using a compass and straight edge.
- B. perform geometry investigations and make discoveries by observing common features or patterns.
- C. use discoveries to solve problems through a process called inductive reasoning.
- D. use inductive reasoning to discover patterns.
- E. use deductive reasoning in a logical argument or geometric proof.
- F. demonstrate knowledge of right triangle properties to construct right angles and solve for the measurements of a right triangle.
- G. identify the conditions that guarantee that triangles are congruent.
- H. demonstrate the correct usage of formulas for plane geometric figures including, but not limited to, triangles, squares, circles, trapezoids, parallelograms, and regular n-sided polygons.
- I. write definitions of many geometry terms and geometrical figures.
- J. understand the difference between a property and a definition.
- K. identify the properties and relationships of **polygons** among their angles, sides, and diagonals.
- L. identify the properties and relationships of **circles** among chords, arcs, and angles.
- M. discover properties of tangent lines.
- N. prove circle conjectures.

COURSE OUTLINE

- A. Reasoning
- B. Constructions
- C. Angle and Line Concepts
- D. Review Algebraic Postulates.
- E. Congruent Triangles
- F. Transformations
- G. Parallel Lines
- H. Quadrilaterals
- I. Geometric Solids
- J. Area and Volume
- K. Similarity
- L. Pythagorean Theorem
- M. Right Triangles
- N. Circles
- O. Polygons