

Reedley College

Fall 2010

Course: Math 102 - Plane Geometry - 3 units

Schedule #: 56034

Location: FEM 4E

Time: 11:00 – 11:50

Days: M W F

Instruction: August 16 to December 13

Final Exam: Wednesday December 15 11:00 – 12:50

End of semester: Friday, December 17

Instructor: Marv Watts

Office: Building FEM room 4A

Office Hours: Monday 1:00 – 1:50, Tuesday 1:00 – 1:50, Thursday 1:00 – 1:50,

Phone: 209 638-3641 ext 3279

Text Book: Geometry (2nd ed.) by Harold R. Jacobs

W.H. Freeman and Co.

Course Description: Math 102 is a one semester course in plane geometry. The course covers geometric figures, congruence, parallel lines and parallelograms, circles, congruent and similar polygons, logic and deductive reasoning, constructions, and application of formulas for perimeters, areas, and volumes of polygons.

Prerequisite: Prerequisites will be rigorously enforced - Math 101(Elementary Algebra or equivalent) with a grade of "C" or better.

Drop Policy: Students with 5 or more absences may be dropped from class! Every 2 tardies will count as 1 absence. It is the student's responsibility to recognize when dropping a course becomes necessary.

Drop Deadline: Friday, October 15: The drop deadline will be at the end of the ninth week; after that date, the student must be given a letter grade.

Attendance: You are expected to attend **all** class meetings and **be on time**. If you arrive late, it is your responsibility to inform the instructor after class so your absence will be changed to a tardy. Regular attendance and completion of assignments are imperative for success. Please be on time to class. It is distracting, rude and unfair to fellow classmates when a student is late. **Note** - Students whose absences exceed the limit of 4 after the drop deadline (March 12) may have their grade lowered by one letter grade for each absence over the limit. Students leaving class before the end of class will be counted as being absent.

Calculators: Calculators are not essential. If calculators are allowed on tests, there will be no sharing of calculators.

Cell Phones: Turn off cell phones before entering class! Do not use your cell phone as a calculator.

Homework: Homework should be written **clearly** and **neatly** on **one side** of standard size paper (8 1/2" x 11"). Homework should be written with pencil - **don't use ink!** Write down the homework problem and **show all** steps and calculations. No work - No credit, unless answer is obvious. Record your name, homework section and #, and date on each homework assignment. Each assignment will be worth 0 to 10 points. When collected problem assignments will be spot checked. Not all assignments will be collected. Homework will be assigned at the end of each class and usually due at the beginning of the next class meeting. Late homework (no more than one day late) will receive 5 points. Homework grades will be averaged at the end of the semester and a final homework grade from 0 to 100 will be assigned. Remember - your homework will also be graded on **completeness** and **neatness**.

Examination Procedures: Approximately 5 to 6 exams, homework, class participation, and a final will be given. The final will be comprehensive and must be taken; final will count as two exams. Class participation will consist of student board work, short quizzes, oral participation and all written work done in class. There will be **no make-up exams** if student is absent on exam day unless absence is for an authorized reason (see attendance policy). No test scores will be dropped. Each exam is worth 100 points and the final is 200 points. Partial credit will be given on exams and final. Exams and final will generally be closed book.

Grading: The following is the grading scale:

100 to 87 A

86 to 77 B

76 to 67 C

66 to 58 D

below 58 F

Tentative credit for course work:

Exams:	400 to 600 points
Final:	200 points
Homework:	100 points
Class participation:	100 points

We will not meet for class on the following dates:

Monday, September 6

Thursday, November 11

Thursday & Friday, November 25-26

Labor Day Holiday

Veterans Day Holiday

Thanksgiving Holiday

Academic Dishonesty: Academic dishonesty in any form is a very serious offense and will incur serious consequences.

II. COURSE OUTCOMES:

(Specify the learning skills the student demonstrates through completing the course and link critical thinking skills to specific course content and objectives.)

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.

III. COURSE OBJECTIVES:

(Specify major objectives in terms of the observable knowledge and/or skills to be attained.)

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.
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- 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.