

MATH 3703-02
Geometry for P-8 Teachers

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Phone: 678-839-4151 (During office hours; do not leave messages)
Office hours: 12:30-3:00 (T & Th at Carrollton campus)

Textbook:

Billstein, R., Libeskind, S., & Lott, J. (2015). *A Problem solving approach to mathematics for elementary school teachers*, 12th Edition. Pearson Addison-Wesley: Boston, MA.

Goals and Objectives of the Course include, but not limited to,

- Define point, line, and angle (such as interior angle, exterior angle, parallel lines, perpendicular lines, collinear points) and their associated properties and use them correctly in problem solving.
- Find area, perimeter, surface area, and volume of two- and three-dimensional figures (such as triangle, rectangle, parallelogram, circle, rectangular prism, cone, and pyramid).
- Describe similar and congruent figures and be able to solve problems using the property of similarity.
- Be able to determine interior and exterior angles and line measures of polygons using properties.
- State Pythagorean Theorem and use the theorem in various problems.
- Know rotation, translation, and size transformation of geometric figures and use them in problem solving.
- Define important mathematical ideas such as slope and intercepts and solve problems regarding rotation and translation.

Attendance and Classroom Rules:

- Students must be **punctual** and **always** attend class. There could be unforeseen emergencies that do come up. However, anyone missing classes **Five times or more** during the semester **might not** receive a credit for the course. Medical excuses are only accepted when provided with documentation.
- Attendance will be checked at the beginning of each class. Anyone who is not present at the time will be recorded as absence. If students are late, they should report to the instructor at the end of the class to be marked as tardiness. The first two tardiness combined will be considered as one absence. After two tardiness, each tardiness will be considered as one absence.
- Students who disrupt the class for any reason will be escorted to outside of the classroom, disallowed to return for the day, and marked absent.

Use of Electronics: Students cannot use any electrical device other than scientific calculators in the classroom. No cell phone calculator is allowed. Students who do not abide by this rule will be escorted to outside of the classroom, disallowed to return for the day, and marked absent.

Grading: The final grade in the course will be based on the performance on homework assignments (10 Points), three mid-term exams (20 points each), one writing assignment (5 points), and a final exam (25 points), totaling 100 points.

- Homework will be assigned regularly and collected one class day prior to each midterm exam. Homework grades will be based on the organization (numbers should be in order), completeness, and correctness. Homework must include **ALL THE NECESSARY WORK LEADING TO THE ANSWERS**. Late homework won't be accepted.

Homework Grading Rubric

3 Points: More than 75% correctness and completeness

2 Points: More than 50% correctness and completeness

1 Point: More than 25% correctness and completeness

0 Point: Less than 25% correctness and completeness

- There will be one writing assignment during the course. The details will be announced later.
- **NO** make-up exam will be allowed in any case. For midterm exams, if a student misses an exam due to her/his own medical emergency that can be documented, the student's midterm score will be determined by her/his score on the final exam portion that is related to the midterm materials.

- If a student misses the final exam, the final exam score will be 0, with no exception.

<u>Grade Components and Dates</u>			<u>Final Course Grade</u>	
Homework:	10%		A	90-100
Midterm 1	20%	Feb. 7 th	B	80-89
Midterm 2	20%	March 12 th	C	70-79
Midterm 3	20%	April 18 th	D	60-69
Writing	5%		F	Below 60
Final Exam	25%	May 7 th (11am-1pm)		

Common Language Link

<https://www.westga.edu/administration/vpaa/common-language-course-syllabi.php>.

Tentative Schedule

Week	Materials
1, 2 & 3	Textbook-Chs. 11.1, 11.2 & 11.3
4, 5 & 6	Textbook-Chs. 12.1, 12.2 & 12.4
7, 8 & 9	Textbook-Chs. 13.1, 13.2 & 13.3
10 & 11	Textbook-Chs. 14.1, 14.2
12, 13 & 14	Textbook-Chs. 14.3, 14.4 & 14.5
15	Review
16	Final Exam