

MATH 3703-01
Geometry for P-8 Teachers

Instructor: Kyunghee Moon, Ph. D.
Office: Boyd Building, Room 216
Contacts: Email: kmoon@westga.edu (Primary contact)
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 **may 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 and disallowed to return for the day.

Grading: The final grade in the course will be based on the performance on one writing assignment (5 points), homework (10 points), three mid-term exams (60 points total), and a final exam (25 points).

- There will be a writing assignment during the course. The details will be announced later.
- Homework will be assigned regularly and due two class days prior to each midterm. 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

4 Points: Students' own work with more than 75% correctness and completeness
3 Points: Students' own work between 50% to 75% correctness and completeness
2 Point: Students' own work between 25% to 50% correctness and completeness
1 Point: Students' own work between 0% to 25% correctness and completeness
0 Point: Copy of the textbook answer keys or other students' work (Penalty for wasting my time and effort)

Note: A written copy of someone's work will results in 0 point for both the original and the copy.

- There won't be no makeup exams provided for midterms in any case. 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 that is relevant 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>	
Writing	5%	A	90-100
Midterm 1	20% (Sep. 19 th)	B	80-89
Midterm 2	20% (Oct. 24 th)	C	70-79
Midterm 3	20% (Nov. 21 st)	D	60-69
Homework	10%	F	Below 60
Final Exam	25% (Dec. 12 th at 11:00-1:00pm)		

Common Language Link

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

Conferences: Students are encouraged to seek additional help in case they have difficulties understanding materials. Students may drop by the instructor's office during office hours or get help from the Math Tutoring Center (located on the second floor of Boyd Building). Students may also communicate with the instructor through emails.

Academic Dishonesty: Any instance of academic dishonesty will result in a failing grade for this course and may result in additional disciplinary action.

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