

Geometry Syllabus

Mr. Zach Craig
Classroom: 108G
Math Office 220H
2023 -2024

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Course Description:

Welcome to Geometry! We will be learning about properties and relations of points, lines, surfaces, solids, and higher dimensional analogs. Applications of these concepts will also be implemented into the curriculum.

Communication:

- Class Updates/ Changes:
 - Schoology and Email
- Email or Schoology message:
 - zcraig@west-fargo.k12.nd.us (never hesitate to email me! I check it throughout the day)
 - Please make sure to include your class period when you email me.
 - I will always look to reply to emails before the next class period the student would have with me.
- Phone:
 - (701) 356-2050

EMAIL IS THE BEST WAY TO CONTACT ME!

Materials:

- WFPS issued iPad (and charging accessories) **MAKE SURE IPAD IS FULLY CHARGED**
- WFPS issued Logitech crayon

Course Logistics:

- Everything you will need for this class will be linked in **SCHOOLGY**.
- OneNote is the application that will hold all of our notes, homework, and review materials (link to get to this will be in Schoology).
- Every week will be organized by folders with dates included (the current week will always be located at the top of the list).

Daily performance can be affected by:

1. Attendance. Tardiness and bathroom trips reflect your willingness to stay in the classroom and work.
2. Work performance DURING class. (Stay on task.)
3. Accurate completion of homework.
4. Willingness to ask questions.
5. Participation in class discussions, group work, and enrichment activities.
6. Cooperation with teachers and classmates.

Homework: Homework is designed to help prepare you for the in-class learning where we have deeper mathematical discussions. Late work will still receive up to 80% credit. **(After the Unit Test is given, the homework from that section is closed)**

Quizzes: Quizzes will be given approximately once a week.

Tests: A test will be given after each chapter/unit and occasionally a unit may be split and tested halfway through the unit. It is important to show all work. Partial credit may be given.

Grade:	Grading Scale:	Grading Weight:
	A = 90 – 100%	65% Tests
	B = 80 – 89%	5% Graded Homework
	C = 70 – 79%	10% Quizzes
	D = 60 – 69%	20% Cumulative Test
	F = Below 60%	

I DO NOT OFFER INDIVIDUAL EXTRA CREDIT.

CLASSROOM RULES

1. Come to class on time and prepared. Always bring your iPad, pencils, and notebook (if you want paper for notes/practice problems).
2. Remain on task during lessons.
3. When I am talking, you are listening. When you are talking, the rest of us are listening. Respectful listening will be practiced in this classroom.
4. Obey all school rules. This includes no cell phones, food, or beverages (unless clear liquid)
5. Show respect to others' rights, feelings, and property.
6. Do not use putdowns or profanity.

Math Help

The following online sites may be of assistance.

- a. tutornd.com (This site is recommended by administration because there are live tutors available Sunday-Thursday from 6PM-10PM. You MUST first log in at the high school to create a username and password before you can access from home.)
- b. brightstorm.com
- c. www.khanacademy.org

Course Objectives:

Upon completion of Geometry, students will be able to ...

- Identify the undefined notions used in geometry (point, line, plane, distance) and describe their characteristics.
- Identify angles, circles, perpendicular lines, parallel lines, rays, and line segments
- Define angles, circles, perpendicular lines, parallel lines, rays, and line segments precisely using the undefined terms.
- Draw transformation of reflections, rotations, translations, and combinations of these using graph paper, transparencies, and/or geometry software.
- Determine the coordinates for the image (output) of a figure when a transformation rule is applied to the pre-image (input).
- Distinguish between transformations that are rigid (preserve distance and angle measure- reflections, rotations, translations, or combinations of these) and those that are not (dilations or rigid motion followed by dilations).
- Calculate the number of lines of reflection symmetry and the degree of rotational symmetry of any regular polygon.
- Draw a specific transformation when given a geometric figure and a rotation, reflection, or translation.
- Predict and verify the sequence of transformations (a composition) that will map a figure onto another.
- Define rigid motions as reflections, rotations, translations, and combinations of these, all of which preserve distance and angle measure.
- Define congruent figures as figures that have the same shape and size.
- Identify corresponding sides and corresponding angles of congruent triangles.
- List the sufficient conditions to prove triangles are congruent.
- Identify and use the properties of congruence, reflexive, transitive and symmetric in proofs.
- Correctly interpret geometric diagrams by identifying what can and cannot be assumed.
- Use theorems, definitions and postulates in proofs about lines and angles including:
 - a. Vertical Angles are congruent.
 - b. When a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent, and same-side interior angles are supplementary;
 - c. Points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.
- Use theorems, postulates, or definitions to prove theorems about triangles, including:
 - a. Measures of interior angles of a triangle sum to 180° ;

- b. Base angles of isosceles triangles are congruent;
 - c. The segment joining midpoints of two sides of a triangle is parallel to the third side and half the length;
 - d. The medians of a triangle meet at a point.
- Use theorems, postulates, or definitions to prove theorems about parallelograms, including:
 - a. Prove opposite sides of a parallelogram are congruent;
 - b. Prove opposite angles of a parallelogram are congruent;
 - c. Prove the diagonals of a parallelogram bisect each other;
 - d. Prove that rectangles are parallelograms with congruent diagonals.
 - Define inscribed polygons (the vertices of the figure must be point on the circle).
 - Determine that two figures are similar by verifying that angle measure is preserved and corresponding sides are proportional.
 - Use theorems, postulates, or definitions to prove theorems about triangles, including:
 - d. A line parallel to one side of a triangle divides the other two proportionally;
 - e. If a line divides two sides of a triangle proportionally, then it is parallel to the third side;
 - f. The Pythagorean Theorem proved using triangle similarity.
 - Use triangle congruence and triangle similarity to solve problems
 - Calculate sine, cosine and tangent ratios for acute angles in a right triangle when given two side lengths.
 - Solve right triangles by finding the measures of all sides and angles in the triangles.
 - Use the Pythagorean Theorem to solve for an unknown side length of a right triangle.
 - Solve application problems involving right triangles, including angle of elevation and depression, navigation, and surveying.
 - Identify central angles, inscribed angles, circumscribed angles, diameters, radii, chords, and tangents.
 - Describe the relationship between a central angle, inscribed angle and circumscribed angle and the arc it intercepts.
 - Recognize that the radius of a circle is perpendicular to the tangent where the radius intersects the circle.
 - Calculate the area of a sector using the ratio of the intercepted arc measure and 360° multiplied by the area of the circle.

Prior to Geometry, students should already be able to ...

- g. Graph linear and quadratic equations
- h. Solve linear and quadratic equations
- i. Factor quadratic expressions
- j. Simplify radicals
- k. Simplify polynomials

West Fargo High School Attendance Policy

The School Board has adopted the following policy regarding attendance:

"Students must not be absent more than 10 times from each semester course in which they are enrolled if they are to receive credit that will count toward graduation. Exceptions which may be approved include illness substantiated by a statement from a doctor, supporting a family, or other special circumstances approved by the principal."

Note: Students are only allowed 5 days absent in a block course per semester due to the daily extended learning time.

The attendance standard indicated above is a minimum course requirement for successfully completing all courses. When students' absences go beyond the required limits, school administration will decide if the student will stay in the class or be dropped from the class, possibly assigning the student to a study area for the remainder of the semester during the period they were scheduled for that class. Credits lost due to poor attendance may be made up in the regular school program, in summer school, or via online credit recovery.

Students who are not yet sixteen years of age and do not attend school regularly will be considered truant and will be referred to the juvenile authorities as the law requires. NORTH DAKOTA LAW "15-34-01 School's Compulsory Attendance Every parent, guardian, or other person who resides in any school district and has control over an educable child of any age of seven years to sixteen years shall send or take to a public school each year during the entire time such school is in session." NORTH DAKOTA LAW '15-1-20-03 (section #4) states, "Any person who fails to ensure that a child is in attendance as required by this chapter is guilty of an infraction for a first offense and is guilty of a class B misdemeanor for a second or subsequent offense."

The following reasons for absences from school will be excused:

- Sickness of student
- Sickness in the student's family necessitating their absence
- Conditions over which the student has no control such as poor weather conditions

The following reasons for absences from school will be excused *and exempt* from counting toward the 10-absence limit:

- Documented medical note (doctor, dentist, etc.) including the date(s) of absence (code: M)
- School-sanctioned activity, field trip, etc. (code: A)
- Emergency situations as determined in collaboration with the school administrator, such as a death in the student's family (code: S)

West Fargo Public Schools recognizes the need to attend school regularly. Therefore, to miss school because of work will result in an unexcused absence.

Families are encouraged to take vacations during school breaks so students will not miss large amounts of class time. If students plan to be absent for some special reason, the students and their parents/guardians must check with the principal or an assistant prior to the absence if possible.

West Fargo High School Procedure:

- 5 absences: Letter 1 is mailed home to families.
- 7 absences: Letter 2 is mailed home to families and the administrator connects with the student.
- 9-10 absences: The administrator connects with the family and the student to establish a plan outlining expectations. If expectations are not met, the student will be dropped from the course(s) at a pre-determined number of days.
 - If the student is passing multiple classes, the connection will be a family meeting including teachers.
 - If the student is not passing multiple classes, the connection can be a phone call.

West Fargo High School Tardy and Unexcused Absence Policy

Every fifth unexcused tardy will convert to an unexcused absence and the student will be assigned one hour of detention. This is per class period and will adhere to the attendance policy.

To convert the fifth unexcused tardy to an unexcused absence, the teacher of the class will record the fifth unexcused tardy as UV in PowerSchool instead of UT and include a note in the comments (5th tardy, 10th tardy, etc.). This will direct the Main Office to assign the hour of detention and help address any family concerns (as a phone call will automatically go home).

Students who skip classes will be given time in detention to make up for at least every minute they miss (1 hour for regular classes, 30 minutes for advisory, etc.). A pattern of skipping will result in a meeting to consider educational alternatives for the student.

Students marked “unverified” will be recorded on a “call down list” at the end of each instructional day. The following day, administrators will connect with students on the list to discuss the absence/assign detention. It is extremely important for attendance to be accurately recorded (changing UVs to UTs if necessary, etc.) to properly inform and not delay this process.

West Fargo High School Absence Policy

When students are absent, a parent/guardian must call the office before 9:00 AM on the day the student is absent and indicate the reason for the absence. If the high school does not receive a phone call, the school will call to inform the parent/guardian that their student is not in school. The bring-a-note-from-home system will not be used. Fake phone calls from someone other than parents/guardians will result in one hour of detention. Students who return to school on time from being absent the day before need not check into the office.

Students who are absent will be reported to the teachers. If the absence is excused, the student will be allowed to make up the work missed and will be given full credit for the work if done within the given period of time, which is at least one day more than the length of the absence. Students who do not complete make-up work on time cannot receive full credit for the work unless otherwise determined by the teacher and administrator.

Students who arrive or return to school after the school day has begun must check into the office, so they know they are here. Students who are absent for only part of a school day should be responsible for assignments for the entire day. Students should contact the teachers whose classes they miss to hand in any assignments that are due and to receive any assignments that may be due the next day. Whenever students are at an appointment or under a doctor's care during an absence from school, they should bring a note from the doctor involved when returning to school, since these days are not considered in the limit of ten absences mentioned in the attendance policy. Students must not in any way alter the excuse provided by the doctor. Any attempt to do so will result in the appropriate administrator calling the clinic and doctor to verify the excuse or to report the altering of the doctor's statement. Parents/guardians will be notified, and detention may be given. Students should access Schoology to find assignments and other information from their classes when absent from school. Each student has a Schoology login and username. If internet access is not available, parents/guardians may call to get work for their child after the second day a student is absent.

If a student is planning to be excused absent a prolonged period of time (such as a family vacation), they must communicate with their administrator and receive a document to record upcoming assignments for their classes. To complete the document, they should connect with each of their teachers, inform them of the upcoming absence and learn about the instruction and assignments they will miss and establish a plan to make it up.

West Fargo High School Food and Drink Policy

- No food in hallways
 - This includes Period 1 and Period 2 breakfasts
 - This includes all lunches (purchased from school, brought from home, fast food, take-out, etc.)
- Food in classrooms must be provided by teacher(s)
- All drinks must be in a container with non-spill lid
- **Food or drinks NOT in a non-spill lid will be directed to be thrown away**

West Fargo High School Cell Phone Policy

West Fargo Public Schools holds high expectations for student behavior, academic integrity, and responsible use of existing and emerging technology, such as cell phones, iPods, iPads, laptops, and other personal electronic devices capable of transmitting data or images. Students who possess and/or use such devices at school or school-sponsored events shall demonstrate the greatest respect for the educational environment. Standards for responsible use at school, on busses, or at school activities:

- Students shall not use any electronic device that in any way disrupts or detracts from the educational environment. Electronic devices are inclusive of cell phones, smart watches, earbuds, and school-issued devices.
- Cell phones must be out-of-sight and out-of-use from the first bell to the last bell of all classes, including during study halls and within flexed learning spaces that are an extension of a classroom.
- Cell phones may be used appropriately and respectfully in common spaces during non-instructional times, including passing time, the student lunch period, and before and after school.
- It is the student's responsibility to secure their electronic devices to show care for their technology devices and personal information. The school is not responsible for lost or stolen items or individual service plan charges related to use of electronic devices.
- Students are expected to respect the network and adhere to the Acceptable Use Policy (AUP) when using school-issued and personal electronic devices. Students will be expected to access the district's Wi-Fi network via their iPad during designated school activities unless connections are unavailable. Wi-Fi is not available for students' personal electronic devices.
- Photographing or recording of another person should be used for educational purposes as defined by the teacher. Any use of an electronic device for other than educational purposes will result in a consequence. Messages and photos on an electronic device are subject to viewing by administration given reasonable suspicion of a crime or school infraction.
- The USE of cellular phones or other personal electronic devices is strictly prohibited in locker rooms and restrooms.

West Fargo High School Procedure:

- The first time a phone is delivered to the Main Office due to an infraction of this policy, it will be returned to the student at the end of their instructional day.
- The second time a phone is delivered to the Main Office due to an infraction of this policy, the student must check the phone into the Main Office before the instructional day begins for the next five school days. Even if the student claims to be leaving the phone at home, they must report to the Main Office at the start of each day to check in with their administrator. The student can pick up the device at the end of their instructional day.
- The third time a phone is delivered to the Main Office due to an infraction of this policy, a family meeting will be scheduled by the student's administrator. Until the time of the family meeting, the student must check the phone into the Main Office before the instructional day begins. Even if the student claims to be leaving the phone at home, they must report to the Main Office at the start of each day to check in with their administrator. The student can pick up the device at the end of their instructional day. At the family meeting, further ramifications will be determined.
- Additional violations will be addressed by the discretion of the administrative team.