Course Overview: What is Geometry at WUHS all about?

At WUHS we use a curriculum designed by the Mathematics Vision Project (MVP). The MVP classroom experience begins by confronting students with an engaging problem and then allows them to grapple with solving it. As students’ ideas emerge, take form, and are shared, the teacher orchestrates the student discussions and explorations towards a focused mathematical goal. As conjectures are made and explored, teachers use formative assessment to guide students as they embrace effective strategies for analyzing and solving problems. Students justify their own thinking while clarifying, describing, comparing, and questioning the thinking of others leading to refined thinking and mathematical fluency. What begin as ideas become concepts which lead to formal, traditional mathematical definitions and properties. Strategies become algorithms that lead to procedures supporting efficiency and consistency. Representations become tools of communication which are formalized as mathematical models. This is how students learn mathematics. They learn by doing mathematics. They learn by verbalizing the way they see the mathematical ideas connect and by listening to how their peers perceived the problem.

Units and Activities: What will we be learning about and doing in this course?

Module 1: Transformations & Symmetry
Module 2: Congruence, Construction & Proof
Module 3: Geometric Figures
Module 4: Similarity & Right Triangle Trigonometry
Module 5: Circles a Geometric Perspective
Module 6: Connecting Algebra and Geometry
Module 7: Modeling with Geometry
Module 8: Probability

Standards: What knowledge and skills will I gain by the end of this course?

Anchor Standards: A student will have multiple opportunities to show their proficiency in each Anchor Standard below.
- Arguing and Critiquing - Students will learn arguing skills and then be able to critique the work of others.
- Using Tools Strategically - Students will use a ruler, compass, protractor, technology and other tools.
- Attending to Precision - Students will communicate precisely to others.
- Making Use of Structure - Students will look closely to discern a pattern or structure.
- Recognizing and Using Patterns - Students notice if calculations are repeated, and look both for general methods and for shortcuts.

Course Standards: This course builds student knowledge and skill using the Common Core State Geometry standards. The course standards for Geometry are:
- Circles, Congruence, Geometric Measurement and Dimension, Expressing Geometric Properties With Equations,
- Modeling with Geometry, Similarity, Right Triangles and Trigonometry
Assessment of Learning

Assessment Types:

Three types of assessments will be used to determine if you have gained the necessary knowledge and skills of this course: Formative assessments, Summative assessments, and Habits of Work for Learning. Each is briefly described below:

**Formative Assessments:** *Formative = Forming my knowledge and skills.* Formative Assessments receive a weight of .1 in the overall grade. Formative assessments are information for teachers, students, and parents on the progress students are making as they practice gaining knowledge and skills found in Anchor Standards. Teachers use the results of these assessments as data to understand individual student learning needs, adjust instructional pathways, and modify lessons to help students better meet course standards. Students use the results of these assessments to determine how they are progressing and to plan steps to ensure their success.

**Summative Assessments:** *Summative = Summation of my knowledge and skills.* Summative Assessments can receive three different weights: 1, 1.5, or 2 depending on the size of the assessment, and therefore have the greatest impact on the Overall Course Mastery Grade. Summative assessments are used as a measure of independent student achievement in Anchor Standards. Throughout this course, summative assessments provide benchmark student achievement data. A summative assessment will always have clear scoring criteria for students to understand how they are performing.

**Habits of Work for Learning:** Habits of Work for Learning (HOWLs) are skills and dispositions that are essential to the learning process but do not provide evidence of what a student knows or can do in relation to content. WUHSMS teachers work to foster Habits of Work for Learning in three categories: preparation, participation, and perseverance.

Assessment Scoring:

Teachers will provide framing for summative assessment scores using proficiency level scoring criteria for grading similar to the example below:

<table>
<thead>
<tr>
<th>Anchor Standard: Computational Modeling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Standards: NGSS HS-L2-1 Use mathematical and/or computational representations to support explanations of factors that affect the carrying capacity of ecosystems at different scales. NGSS HS-LS2-4 Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Representation</th>
<th>Approaching</th>
<th>Proficient</th>
<th>Distinguished</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can identify the components of a system.</td>
<td>I can represent the components of a system using numbers or variables.</td>
<td>I can show connections between components of a system using a computational model.</td>
<td>I can use mathematics and/or a computational representation to make predictions about how changing one variable or component will affect the system.</td>
</tr>
<tr>
<td>I can use a given computational model to explore relationships between components of a system.</td>
<td>I can use a given computational model as evidence to support a claim or explanation of a system.</td>
<td>I can create and/or revise a computational model and use it as evidence to support a claim or explanation of a system.</td>
<td>I can expand the computational model to illustrate how a change in a system component can impact all other relevant components.</td>
</tr>
</tbody>
</table>

*scores in the "Beginning range" are well below proficient and thus they are below passing.
HOWLs will be scored at least once per checkpoint, and will be based on the frequency with which students demonstrate each of the habits: preparation, participation, and perseverance.

**How is my Overall Course Grade Determined?**
Overall course grades will be reported as letter grades and will be comprised of:

- Formative & Summative Scores: 95%
- HOWLs: 5%

For more information, please see the WUHSMS student handbook.

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**Communication:**

**How Do I Know My Grades?**

- On Summative Assessments, a teacher will provide both a 4-point grade and a letter grade.
- You can monitor your progress in the following ways:
  - By reading feedback and scoring returned to students on summative assessments
  - By monitoring the scores and Overall Course Mastery Grade in the Parent/Student portal on JumpRope
  - By monitoring the grades sent home quarterly through report cards

**Where Can I Find This Syllabus during the School Year?**

- This syllabus will be available on the school website in each subject’s department tab once the school year is up and running.

**How Do I See What’s Due?**

- Summative assessment due dates and handouts are posted to the blue “Upcoming Assessment” section of the JumpRope Parent/Student Portal on or before the day they are assigned to students.

**How Do I See What’s Past Due?**

- If a student is missing an assessment, it will be listed in the red “Missing Assessment” section of the JumpRope Parent/Student Portal along with any attachments.

Try first to email me at hvonada@wcsu.net. You can call me at 457-1317 x1003 but I don’t answer the phone while in class.

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**Materials:**

Students should bring a writing utensil and math 3 ring notebook to class everyday.

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**Schoolwide Procedures:**

*Please see the Student Handbook for Procedures and Policies related to:* Due dates and deadlines, extra credit, retaking assessments, and turnaround time for grade entry.

**Personal Mobile Devices:** This class will follow the procedures outlined in the student handbook

**Classroom Expectations are created by the students in this class. If you would like a copy of those please email me.**
I have read this syllabus, and I have contacted the teacher with any questions I have.

Student name (printed): _________________________________

Student Signed: _______________________________ Date: __________________

Parent/Guardian name (printed): ________________________________

Parent Signed: _______________________________ Date: __________________

Any Additional Comments you would like me to know!?