



**DEPARTMENT OF MATHEMATICS
CENTRAL WASHINGTON
UNIVERSITY
COURSE SYLLABUS WINTER 2022**

1. **MATH 226**

<u>ROOM</u>	<u>INSTRUCTOR</u>	<u>Course Number</u>	<u>TIME/DAY</u>	<u>BLDG/</u>
11351	9:00 – 9:50 MTWTH	SAMU 116		Dr. Janet Shiver

2. **Textbook and Materials:**

Supplies necessary for the successful completion of this course include:
Textbook, Mathematics for Elementary Teachers with Activities, 5th edition by
Sybilla Beckmann.

3. **Office Hours and Phone Numbers:**

Office: Samuelson 208

Phone: 509-963-2109

Email: janet.shiver@cwu.edu

Office hours: Daily from 2:00 – 3:00 or by appointment. If you need to meet
virtually, please email me and we will set up a time to talk via Zoom.

4. **Course Description:** This course is designed for students who plan to teach at the elementary or middle grades level and who have declared education as their major course of study. This course focuses on an intuitive development of geometric ideas including point set Euclidean geometry, measurement, area, perimeter, volume, and transformational geometry. Students completing the course should develop precise mathematical language, improve their understanding of geometric concepts, and develop methods to teach geometry for understanding in grades K – 9.

5. **Course Outcomes:** After completing this course you will be able to

- Express mathematical ideas orally and in writing
- Make and test conjectures, write simple proofs
- Formulate counterexamples
- Find the perimeter, area, and volume of geometric figures
- Use standard and non-standard units of measure to solve problems
- Convert from one unit of measurement to another in standard and metric measurement systems
- Name and discuss two and three dimensional figures
- Demonstrate a knowledge of the relationship between parallel lines and angle measure
- Demonstrate a knowledge of the properties of triangles and special cases of triangles
- Demonstrate understanding of the sum of interior, central and exterior angles of polygons
- Explain and use the properties of quadrilaterals

- Explain and use the concepts of similarity and congruence and apply them to real world problems
- Identify and create basic geometric transformations
- Identify and explain different types of symmetries

5. **Course Expectations:** Students will be expected to complete all assigned problems and projects on time, keep a well-organized notebook, and to seek outside assistance when difficulties are encountered. Late assignments and activities will be accepted up to one day late but 10 points will be deducted from the grade received on the assignment for any late work. All assignments and activities should be NEATLY written in pencil and all supporting work must be shown.

6. **Absence Policy:** Regular attendance is essential for successful completion of this course. A student absent from a test or other class assignment will be given a **zero** unless excused in advance by the instructor. Extenuating circumstances such as illness or injury will be evaluated on a case- by- case basis but must be **accompanied by a doctor's note or an official form of documentation.** Please have supporting documentation available for review upon returning to class or you will not be allowed to make up the missed work.

7. **Grading Policy:** The course grade will be determined as follows:
 2 Unit Tests = 15% each
 Weekly Quizzes = 20%
 Activities = 15%
 Homework = 15%
 Attendance = 5% (0-1 absences – 100, 2 absence – 90, 3 absences – 80, etc.)
 Final Exam = 15%

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
93-100%	90-92%	87-89%	83-86%	80-82%	77-79%	72-76%	70-72%	67-69%	63-66%	60-62%	<60%

8. **Academic Honesty:** The integrity of students and their written and oral work is a critical component of the academic process. There are times when it is proper to get help from others and times when it is not. Feel free to ask others for help on homework, activities and take-home assignments. When completing quizzes and written assessments, all work will be done individually. All written work submitted in this course must properly document all outside sources used. The submission of another's work as one's own is plagiarism, and will be dealt with using the procedures outlined in the Undergraduate Catalog.

9. **Disability Accommodations:** Any student requiring instructional modifications due to a documented disability should make an appointment to meet with me as soon as possible. An official copy of your "Confirmation of Eligibility for Academic Adjustments" from the Disability Support Services Office documenting the disability will be expected to receive such accommodations.

10. **Course Outline:** This schedule is a **rough** estimation of the time that will be spent on the following topics. The instructor may modify this schedule at any time during the course.

Week of	Topic	Assessment
January 4	Geometry Basics	Quiz 1
January 10	Angles	Quiz 2
January 17	Circles and Polygons (Martin Luther King Holiday, Monday 17 th)	Quiz 3
January 24	Polygon Angles and Circles	Test 1
January 31	Symmetry and Transformations	Quiz 4
February 7	Polyhedron Circular Solids	Quiz 5
February 14	Cross Sections and Euler's Law	Quiz 6
February 21	Measurement (Presidents Day Holiday, Monday 21 st)	Test 2
February 28	Perimeter and Area	Quiz 6
March 7 th	Surface Area and Volume	Quiz 7
March 16 th , Wednesday	Final Exam: 8:00 – 10:00	Final Exam

Student Success

Multiple resources are available to help students move past challenges and become academically successful.

Academic Success Center

The CWU Academic Success Center helps students learn strategies that can increase GPA and improve course pass rates. All services are available online via Zoom unless otherwise noted. Expanded hours are available to meet student need. To access, go to www.cwu.edu/asc or <https://tutortrac.cwu.edu>, use your CWU login and password, and click the **Schedule an Appointment** link.

Tutors

Several forms of peer tutoring are available. All Canvas courses include a direct link to a tutoring resources page. The PALS program pairs a trained tutor with a faculty member to promote learning strategies and content comprehension in specific courses. eTutoring allows students to get online help in 15 subjects with expanded hours of 5am-midnight, 7 days per week. To access, students visit www.etutoringonline.org, select CWU, and request a password link be sent to their CWU email address. A list of subjects is available at <https://www.cwu.edu/academic-success/online-tutoring/online-tutoring>

Academic Coach

Students can work one-on-one with an [academic coach](#) in individualized sessions that focus on building academic strength. Students can improve time management, develop a study plan, unpack how to process new information for deep understanding, increase reading and comprehension skills, and more. Coaches help students discover learning best strategies, maximize academic experiences, and reduce stress.

Writing Center

Learning to write well can be a difficult skill set to develop, a process made easier via targeted feedback via the [CWU Writing Center](#). Students submit papers for review and receive detailed video comments from writing consultants in various disciplines. Students can also request a phone consult. Best results are achieved when students plan early for multiple rounds of feedback and revision.

Math Center

Learning mathematics is challenging for many students. Students who struggle with math can access the [CWU Math Center](#). Students can connect with a math tutor for live help sessions that deal with all Quantitative Reasoning, 100-level, and other math courses. Zoom meetings, whiteboards, and other tools are used to promote deeper understanding of mathematics.