



**DEPARTMENT OF MATHEMATICS
CENTRAL WASHINGTON UNIVERSITY**

Math 226, Winter 2022

It is your responsibility to read, understand, and follow the syllabus guidelines.

Instructor: Molly Andaya molly.andaya@cwu.edu	Where to be: SAM 115, 10AM, M – Th
Office: SAM 228K	Office Hours: 9am M – F, or by appointment

Text: Course Pack (written by me), *Mathematics for Elementary Teachers, Beckmann, 5e*. This text is also used in Math 164 (elementary) and Math 316 (middle level).

Supplies: lined paper and pencils, colored pens or pencils/highlighters, calculator (need not be graphing), binder (1½ - inch should be sufficient), 5-6 dividers with tabs

COURSE DESCRIPTION & OUTCOMES: This course is designed for students who plan to teach at the elementary or middle level grades and who have declared education as their major course of study. This course focuses on an intuitive development of geometric ideas including 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.

After completing this course, you will be able to

- Persevere when faced with new, challenging concepts
- Express mathematical ideas orally and in writing
- Make and test conjectures
- 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 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
- Identify and create basic geometric transformations
- Identify and explain different types of symmetries

Work and Assessment: **You are taking classes to become a teacher...you need to start to shift your thinking to the “teacher mentality”. Your work should start to become “teacher quality”. The work you do in the classes you are taking is practice for the work you will do for your students, their parents, as well as administrators. Everything that you turn in to me (or any other instructor) **should reflect the quality of work you will be doing as a teacher.***

- All work will be put into a category: Homework, Activities, Quizzes, Assessments.
- I will drop one item from these categories: Homework, Activities, Quizzes. Nothing dropped from Assessments category.



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Homework (10%)

- Assigned from the text and/or other handouts.
- Graded for completion (including following directions).
- These are worked on and completed at home, then submitted online. Deadlines will be noted on Canvas.

Activities (20%)

- Activities
 - These are completed in class, and submitted online. If you don't finish in class, or are absent, expect to finish at home. Deadlines will be noted on Canvas.
- Course Reflection (information on Canvas)

Quizzes (25%)

- Take Home Quizzes (handed out in class periodically throughout the quarter)
- Canvas Quizzes (completed on Canvas weekly)

Exams (45%)

- Exams
 - You will have *at least* two exams and a comprehensive final (everyone takes the final)
 - No electronic devices are allowed on exams. Calculators OK (no phone calcs)
- Note about Make up Exams
 - Make up exams will be allowed only for extraordinary circumstances.
 - You may be given a different exam than what was given in class.
 - **Make ups only considered if arranged with me *in advance* of your absence!**

Grading Scale

93-100%	90-92.9%	87-89.9%	83-86.9%	80-82.9%	77-79.9%	73-76.9%	70-72.9%	67-69.9%	63-66.9%	60-62.9%	<60%
A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

Other Important Information

Attendance

If you are to fully benefit from this class, you must attend class. As you prepare to become a teacher, you need to become accustomed to setting a good example for students. Attendance demonstrates professionalism and dedication.

- I expect that you attend this class as you would your teaching job. If you are going to be absent from your teaching job, you must arrange a sub. Likewise, if you are going to be absent from this class, you prearrange your absence.
 - Check in with your table group to find out what you miss. I expect that you complete activities and homework assignments by the same deadline as those students who were in class since you have access to course materials in the course pack and the text.
 - If you are going to be absent on a day that you are required to turn something in to me, **PREARRANGE** so that I can make a plan for you to turn in the work. ***If you do not prearrange, that item will receive a zero.*** Remember the drop in each category (see above).
 - Frequent absences may require documentation in order to receive credit for work.



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- Excused absences will not lower your overall grade in this class and are determined on a case-by-case basis. Excused absences are those that are both valid and verifiable, e.g. illness, bereavement, and school-related activities. **Documentation is required.** Excused absences do not include travel for holiday breaks, work, or non-emergency travel delays.
- In compliance with RCW 28B.137.010, Central Washington University makes every effort to deal reasonably and fairly with students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Students must present written notice to their instructor within the first two weeks of class listing the specific dates on which accommodations are required. Contact the Dean of Student Success at (509) 963-1515 for further information or questions.

Professionalism

- As a member of a peer learning community, a high degree of professionalism is necessary. CWU expects every member of the university community to contribute to an inclusive and respectful classroom culture.
- **Please leave your phone in your bag during class time. Step out of the room if you have to use your phone during class.** Remember no phone calculators.
- High quality work and organization demonstrate professionalism. The work you do while you are learning to be a teacher should start to look like the work you will do as a teacher.

Diversity

University-level education is about broadening horizons and looking at academic issues from a variety of perspectives. With this in mind, the participants in this class are encouraged to bring their own life experiences and viewpoints to bear on classroom discussions and assignments. Along with the freedom to express one's own views comes the responsibility to respect the views of others. No student will be discriminated against on the basis of race, ethnicity, age, creed, religion, gender, sexual orientation, marital status, or political ideology.

Academic Honesty

Students are on their honor to follow the student conduct code as outlined in the [Washington Administrative Code](#). Violations of this section will result in a failing grade in the course in addition to further possible university sanctions.

Disability Services

Central Washington University is committed to creating a learning environment that meets the needs of its diverse student body. Students with disabilities should contact Disability Services to discuss a range of options to removing barriers, including accommodations: Hogue Hall 126, (509)963-2214, DS@cwu.edu

Important Dates:

- **1/10: Add/Drop Ends**
- **1/17: No Classes (Holiday)**
- **2/21: No Classes (Holiday)**
- **3/15: Final Exam, 8am – 10am, SAM 115**

Good luck in this course! I hope you find it enjoyable and leave class with valuable resources, confidence and, most importantly, excitement to teach math concepts.