

## MATH 126 0472: Structure and Concepts of Elementary Math II, 3 Units

Synchronous Online (Zoom)

Tuesdays and Thursdays 6:30 p.m. to 8:35 p.m.

Math 126 is the second of three courses that prepare individuals to teach Elementary school math. Math 125 is the prerequisite course.

In this class we will study the mathematical topics of statistics, probability, measurement, coordinate geometry, plane geometry, solid geometry, logic, relations, and functions. We will investigate the interrelationships of these topics using a problem-solving approach and appropriate use of technology.



My name is **Katherine Belden-Hillery** and my pronouns are she and her. I have been teaching at Cuyamaca College for 7 years. Students call me Professor Belden or Teacher.

My email is [Katherine.Belden-Hillery@gdccd.edu](mailto:Katherine.Belden-Hillery@gdccd.edu). The best way to communicate with me is through the Canvas Inbox. I will respond within 24 hours. I commit to responding to your emails promptly. Please extend me the same courtesy and respond to my emails, even if all you send is the word “received” or an emoji.

**Zoom Student Hours:** I am available on Zoom to assist students on Tuesday and Thursday evenings between 6:00 and 6:30 p.m. and from 8:35 to 9:05 p.m. Use this link to join: [Student Hours and Classroom Link](#). You'll also find this link on the Canvas course Home Page. If you want to speak with me at a different time, request an appointment by sending me an email with some times that you are available.

### Here is what you will need to get started in the class:

1. The textbook you used for Math 125, Reconceptualizing Mathematics.
2. A scientific calculator.
3. A manipulatives kit that is available for check out through the Cuyamaca College library starting January 31st. You will need your student ID number and evidence of enrollment in Math 126 this semester (showing self-service on your phone should work).

### A typical day in class...

This class will be held on Zoom, and we will have regularly scheduled class meetings on Tuesdays and Thursdays from 6:30 p.m. to 8:35 p.m.

## Cooperative Learning Environment

In this class, we teach each other. This is a place for you to ask lots of questions and stick with it until you get it. Please help me create a positive environment where every student feels safe and welcome. We must all work to overcome our personal biases and honor each other's accomplishments and struggles.

In our classroom, each student should feel free to express their own opinion and ideas in a respectful manner. Students should be open to listening to and appreciating differences in opinions, life experiences, worldviews, values/beliefs, and more. **Our class is a hate-free zone.** Please be mindful of how you communicate your values, beliefs, ideas, opinions, etc. While we will often disagree with other people, it does not give anyone the right to intentionally hurt others with words or to discriminate against them. Words matter. This is especially important in a remote or virtual environment. Therefore, take a moment to think about what you want to say or post in the chat or discussion board.

## Grading Categories & Weights

Course grades are an attempt to measure how well you can use the information and techniques presented this semester related to our key learning goals. Learning is a process that involves collaboration, struggle, and mistakes that culminate in a performance; therefore, some of your final grade is based on low-stakes opportunities that value teamwork, communication, and risk-taking. Other parts of the grade are based on formal assessments of your achievement of the learning goals for the course. The grading categories and grade ranges are as follows:

Homework: 30%

Quizzes and Discussions: 20%

Tests: 30%

Final Exam: 20%

### Grading Scale

A+ 100% - 97%

A <97% - 90%

B+ <90% - 87%

B <87% - 80%

C+ <80% - 77%

C <77% - 70%

D <70% - 60%

F <60%

To earn a C or better in the class a student must earn an overall grade of C or better AND an average of a C or better on all Tests & the Final Exam.

## Schedules, Deadlines, and Late Work:

The need to turn in late work occurs for a variety of reasons. The important thing is to talk to me about it so that I can support you. If you know that you are going to be absent or an emergency arises, please let me know as soon as you can, and we will arrange for you to turn in an assignment early or make it up on a different day.

Homework will be due every week. The best learning experience is one in which you keep pace with the posted due dates on Canvas. Keeping pace helps you to digest the material with deeper understanding. If you are not keeping up with the class, I will contact you to see how I can support you in this effort.

With the understanding that keeping up with the work is what is best going to support your learning, I understand that life happens and sometimes it is not possible to get something done

by the due date. Don't be worried if you miss something. I've built in these safeguards so that if you do miss something, your overall grade will not be harmed.

### Grade Saving Safeguards

- The two lowest scores from the Homework category will be dropped so that if you unexpectedly miss a deadline or two due to illness or personal reasons, your grade will not be harmed.
- You will receive full credit for your homework assignments that are completed by the day of the Exam for those sections. Any homework submitted after the exam date will receive 50% credit. Overall, it isn't a good idea for you (or me) to do all these later in the semester, this is meant so that you can make up missing assignments.
- The exams have a due date, but you may resubmit these until you earn the grade you hope to earn.
- You are allowed three attempts on each quiz.

### Important Dates

- **January 30, Tuesday**      First day of class
- **February 11, Sunday**      Last day to add or drop and apply for a refund
- **February 16-19**      **Holidays** – (Presidents' Days) No Classes
- **March 8, Friday**      Last day to apply for Fall 2024 Degree/Certificate
- **March 25 - 30**      **Spring Recess** - No Classes
- **April 28, Sunday**      Last day to drop with a "W"
- **May 23, Thursday**      Last day to apply for Pass/No Pass
- **May 29, Wednesday**      Instructor Grade Deadline

### Attendance Policy

In this class we function as a team – teaching and learning together in small groups that are frequently reorganized from one module to the next. As a result, throughout the semester you'll become increasingly vested in the success or failure of your classmates and vice versa.

Less than full participation in this course is extremely disruptive to the learning environment, so I reserve the right to drop you if:

1. You do not show up the first week to the Zoom sessions.
2. You do not show up for four total Zoom sessions, you have not done any work for class, AND you do not email me about your absence.

However, if you quit participating in this class, you should not assume that I would drop you. Should you choose to drop, ultimately it is your responsibility to officially withdraw.

### **Academic Accommodations**

Academic accommodation is available for students with disabilities. If you have a documented disability and need accommodations for this class, please send me your DSPS Academic Accommodation form as early as possible. You must complete the [Student Registration for Test Proctoring](#) form on the [Test Proctor Website](#) or contact the Test Proctor directly at [cuyamaca.dspstesting@gcccd.edu](mailto:cuyamaca.dspstesting@gcccd.edu).

## **Student Support**

### **Tutoring**

Cuyamaca tutoring is free and available in many modalities. You can request a Zoom Video Tutoring session, an Email Tutoring session, or an In-person tutoring session right from your Canvas container by clicking the blue “Tutoring” link on the left side of your course container and completing the request form. You may also email [Cuyamaca.Tutoring@gcccd.edu](mailto:Cuyamaca.Tutoring@gcccd.edu), visit their website at [www.cuyamaca.edu/tutoring](http://www.cuyamaca.edu/tutoring) or leave a message with your callback information at (619) 660-4525.

### **Cuyamaca Cares**

Cuyamaca College believes that food, housing, and mental wellness are basic rights that you deserve to have. Cuyamaca Cares is a program that offers many opportunities for help with these issues and more. Their website, [www.cuyamaca.edu/cuyamaca-cares](http://www.cuyamaca.edu/cuyamaca-cares), has a lot of useful information.

### **Other Notes**

Any information in this syllabus is tentative and may change at the discretion of the instructor at any time. This course adheres to the policies outlined in the Cuyamaca College catalog. For further information, see Academic Policies stated in the catalog.

Cuyamaca College students are bound by the Student Code of Conduct. In this course, cheating, plagiarism, fraud and/or lying may result in a grade of “F” for the assignment or test with no make-up work permitted. Any of these infractions may also result in formal disciplinary action by the Associate Dean of Student Affairs as described in the Student Code of Conduct.

## **Course Descriptions**

In blending the mathematical topics of statistics, probability, measurement, coordinate geometry, plane geometry, solid geometry, logic, relations and functions, the course will investigate the interrelationships of these topics using a problem-solving approach and appropriate use of technology.

Prerequisite “C” grade or higher or “Pass” in MATH 125 or equivalent

## **Course Objectives**

Students will be able to:

- 1) Identify and use various problem-solving strategies based on Polya's Four Steps.
- 2) Construct and analyze geometric shapes in both two and three dimensions.
- 3) Write justifications (proofs) for basic congruence and similarity theorems as related to triangles.
- 4) Calculate the coordinates of geometric figures and develop and use algebraic equations.
- 5) State and apply congruence and similarity properties.
- 6) Describe and illustrate families of polygons and polyhedral.
- 7) Use formulas and Pythagorean Theorem to find perimeter, area and volume.
- 8) Perform transformations using coordinate geometry.
- 9) Develop strategies to calculate the number of possible outcomes for various events.
- 10) Determine probabilities by acting out, simulating and representing various events.
- 11) Collect, organize, and display data for statistical analysis.
- 12) Analyze central tendency and dispersion of data.
- 13) Investigate rules and graphs for functions.
- 14) Solve problems involving basic algebraic concepts

## **Student Learning Outcomes**

Upon successful completion of this course, students will be able to:

- 1) Analyze the concept, structure, algorithms, and critical thinking involved in solving problems related to geometry, measurement, and probability.
- 2) Develop and reinforce conceptual understanding of mathematical topics through the use of patterns, problem solving, communication, connections, modeling, reasoning, and representation.

## Math 126 Schedule Spring 2024

<b>Date</b>	<b>In Class Topic</b>	<b>Assignments: due on the Sunday following the In-Class Date</b>
1/30/2024	Introduction Section 16.1	Homework 16.1
2/1/2024	Section 16.2	Homework 16.2
2/6/2024	Section 16.3	Homework 16.3
2/8/2022	Section 17.1 Section 17.2	Quiz 1 on Chapter 16 Homework 17.1 and 17.2
2/11/2024	Add/Drop/Refund Deadline	
2/13/2024	Section 17.3 Section 17.4	Homework 17.3
2/15/2022	Section 17.4 Section 17.5	Homework 17.4 and 17.5
2/20/2024	Section 17.6	Homework 17.6
2/22/2022	Section 18.1	Quiz 2 on Chapter 17 Homework 18.1
2/27/2024	Section 18.2	Homework 18.2
2/29/2024	Section 18.3	Quiz 3
3/5/2024	Review	
3/7/2024	Test 1	
3/12/2024	Section 19.1	Homework 19.1
3/14/2024	Section 19.2	Homework 19.2
3/19/2024	Section 20.1	Homework 20.1
3/21/2024	Section 20.2	Quiz 4 Homework 20.2

<b>Date</b>	<b>In Class Topic</b>	<b>Assignment Target Dates</b>
3/23/2024 through 3/31/2024	Spring Break	
4/2/2024	Section 20.3	Homework 20.3
4/4/2024	Section 20.4	Homework 20.4
4/9/2024	Section 21.1	Homework 21.1
4/11/2024	Section 21.2	Quiz 5 Homework 21.2
4/16/2024	Section 21.3 Review	Homework 21.3
4/18/2024	Exam 2	
4/23/2024	Section 23.1 Section 23.2	Homework 23.1 and 23.2
4/25/2024	Section 24.1 Section 24.2	Homework 24.1 and 24.2
4/30/2024	Section 27.1	Homework 27.1
5/2/2024	Section 27.2	Quiz 6 Homework 27.2
5/7/2024	Section 27.3	Homework 27.3
5/9/2024	Section 28.1	Homework 28.1
5/14/2024	Section 28.2 Section 28.3	Homework 28.2 and 28.3
5/16/2024	Exam 3	
5/21/2024	Section 28.4 Review for Final	Homework 28.4
5/23/2024	Final Exam	
5/23/2024	Last Day to Apply for Pass/No Pass	