IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	**Fall 2025**	Instructor Name:	**Perla Rodriguez**
Course Title & #:	**Math 112**	Email:	**perla.rodriguez@imperial.edu**
CRN #:	**11476**	Webpage (optional):	
Classroom:	**2721**	Office #:	**2722**
Class Dates:	**08/13 - 12/03**	Office Hours:	**T: 4:30 PM - 5:30 PM**
Class Days:	**W**	Office Phone #:	**N/A (email me)**
Class Times:	**6:30 PM - 9:40 PM**	Emergency Contact:	**email me**
Units:	**3**	Class Format/Modality:	**In Person on Campus**

Course Description

This course is a continuation of Math 110 and focuses on the conceptual understanding needed to teach elementary school mathematics. Topics include the geometry, including the development of geometric formulas, transformational geometry, similarity, relationships between shapes, English and metric measurements, Pythagorean Theorem and problem solving. (CSU) (UC credit limited. See a counselor)

Course Prerequisite(s) and/or Corequisite(s)

Successful completion of Intermediate Algebra or appropriate placement as defined by AB705

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Demonstrate an understanding of the difference between area and perimeter.
2. Determine the relationship between similar figures.
3. Develop geometric formula for area or volume.

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Solve word problems using the basic concepts of geometry and will identify various geometric patterns.
2. Topics from probability and statistics
3. Demonstrate the basic idea of congruence and similarity and actively develop a number of geometric constructions.
4. Identify and apply a variety of transformations, including translation, rotations, reflections and size change
5. Develop the relationship between two and three dimensional shapes.
6. Recognize a variety of geometric figures, and be able to use and apply the formulas in relation to area, perimeter, surface area, and volume.
7. Conversions using non-standard and standard units, including English (U.S. Standard) and Metric units.

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Textbooks & Other Resources or Links

Sowder L, Sowder, J., Nickerson, S., Whitacre, I. 2023. Reconceptualizing Mathematics. 4th W.H. Freeman and Company. ISBN: Printed Text: 9781319303730; E-Text: 9781319483135.

Course Requirements and Instructional Methods

In-Class Activities: Have a growth mindset! Sometimes math is hard to digest, but consistent effort is what leads to real understanding. Mistakes are part of the learning process – embrace it. Learning from your mistakes will make you both a better student and a better future educator. During class time: stay engaged, participate, and reflect on your learning. To be successful in this course you must use your 21st century skills: critical thinking, creativity, collaboration, and communication. This means you will be working in small group discussions, problem-solving tasks, hands-on projects, and peer reviews. Be a good team member, ask for help when needed and offer help when you can. In the real world, teachers collaborate with each other to build systems that work for students. Practice those soft skills now, so that you can be excellent at them in the future.

Homework: Homework should be submitted on time every week we meet, following the class schedule. No late homework will be accepted. I encourage you to keep up with the assignments not just for the grade, but because the material builds on itself. These concepts may show up again on exams — and more importantly, they're part of the foundation for the educator you're working to become.

Exams (3): There will be a total of three exams. If you study the material and work on the assignments you should be prepared. Do NOT wait until the last day to study. The exams will consist of multiple choice and free response. No Make-up exam. If you miss an exam and can produce an excused absence as defined by the catalog, I will replace the lowest score with the final exam score.

Quizzes: There will be a daily quiz, these might/might not be cumulative. I will drop the lowest quiz. If you miss a quiz, it will not affect your score. If you miss a lot of classes, then you should probably reconsider taking the class.

Final Exam: The final exam will consist of multiple choice and free response. If you miss, it will be recorded as a zero. If you turn in all of your assignments: Homework, quizzes, etcetera, on time and do not miss any exams, you may replace the final exam score with your lowest score, provided your final score is higher. There are no restroom breaks on exams. If you use the restroom, your exam will be turned in and that will be your grade.

Course Grading Based on Course Objectives

Quizzes: In class and/or Canvas 15%

Exams: (Three).....50%

Homework.....10%

Final Exam.....25%

A: 90% - 100%

B: 80% - 89.99%

C: 70% - 79.99%

D: 60% - 59.99%

F: Less than 60%

Final grades are not automatically rounded; they are based on the exact percentage earned unless otherwise specified.

Academic Honesty (Artificial Intelligence -AI)

IVC values critical thinking and communication skills and considers academic integrity essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and academic honesty policy and will be considered academic dishonesty, or plagiarism unless you have been instructed to do so by

your instructor. In case of any uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

Accessibility Statement

Imperial Valley College is committed to providing an accessible learning experience for all students, regardless of course modality. Every effort has been made to ensure that this course complies with all state and federal accessibility regulations, including Section 508 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and Title 5 of the California Code of Regulations. However, if you encounter any content that is not accessible, please contact your instructor or the area dean for assistance. If you have specific accommodations through ***DSPS***, contact them for additional assistance.

We are here to support you and ensure that you have equal access to all course materials.

Course Policies

Attendance Policy: You must attend the first day of class or you will be dropped from the course as a 'No Show'. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. Regular attendance in all classes is expected of all students. Students who accumulate **more than 1 class session in a row,** at any point in the semester may be dropped. Consistent non-participation in class activities, assignments, quizzes, or exams may result in a drop at the instructor's discretion. It is always the student's responsibility to drop or officially withdraw from class if you decide not to continue with the course.

Academic honesty: Cheating, copying, or using AI tools (unless approved by me) is not allowed, if you are caught you will earn a zero. If you cheat, you are lying to yourself and to me. Trust that it is in you to understand the content, take time to learn it and study.

Communication is Key: Should you encounter any challenges (academic, personal, or technical), **contact me immediately**.

Class Expectations:

1. Respect the Learning Environment: Silence phones, listen when others speak, support your peers, and contribute positively.
2. Cellphones are NOT allowed during class time. It distracts you from learning, from being present, and it is rude.
3. Be prepared to learn every day. Show your professionalism as a student as this will be who you become as a future educator.
4. Be present and Engaged: Attend class every day and be on time. Participate in discussions and Activities.
5. Communicate Early & Often: Should you encounter any challenges (academic, personal, or technical), **contact me immediately** before assignments or exams are missed.

Financial Aid

Your Grades Matter! In order to continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Makings SAP means that you are maintaining a 2.0 GPA, you have successfully completed 67% of your coursework, and you will graduate on time. If you do not maintain SAP, you may lose your financial aid. If you have questions, please contact financial aid at finaid@imperial.edu.

IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit http://www.imperial.edu/studentresources or click the heart icon in Canvas.

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Anticipated Class Schedule/Calendar

Week	Activity, Assignment, and/or Topic	Due Dates
Week 1 August 11-15	Syllabus & Introduction 16.1: Polygon Vocabulary 16.2: Organizing Shapes	
Week 2 August 18-22	16.3: Triangles and Quadrilaterals 16.4: Problem Solving Strategies	Homework #1 Due
Week 3 August 25-29	17.1: Faces and Nets 17.3: Represent and Visualize Polyhedra 17.2: Introduction to Polyhedra	Homework #2 Due
Week 4 September 1-5	17.4: Congruent Polyhedra 17.5: Special Polyhedra 18.1: Symmetry of shapes: Planes and polyhedra 18.2: Symmetry of shapes: Planes and polyhedra	Homework #3 Due
Week 5 September 8-12	19.1: Tessellations: Planes and Space 19.2: Tessellations: Planes and Space Review	Homework #4 Due
Week 6 September 15-19	Exam 1 20.1: Similarity and Dilations in Planar Figures	Homework #5 Due
Week 7 September 22-26	20.1: Similarity and Dilations in Planar Figures 20.2: More about similar figures 20.3: Similarity in 3D figures	
Week 8 September 29 - Oct 3	21.1: Planar Curves and Constructions 21.2: Curves Surfaces 22.1: Rigid Motion	Homework #6 Due
Week 9 October 6 - 10	22.2: Rigid Motion 22.3: Rigid Motion 22.4: Rigid Motion 23.1: Conceptionalizing and Measuring Length	Homework #7 Due
Week 10 October 13 - 17	Review Exam 2	Homework #8 Due
Week 11 October 20 - 24	23.2: Key Ideas of Measurement 23.3: Conceptualizing and Measuring Angle 23.4: Conceptualizing and Measuring Angle	
Week 12 October 27 - 31	24.1: Area and Surface Area 24.2: Volume	Homework #9 Due
Week 13 November 3 - 7	25.1: Circumference, Area and Surface Area Formulas 25.2: Volume Formulas	Homework #10 Due
Week 14 November 10 - 14	Review Exam 3	Homework #11 Due
Week 15 November 17 - 21	26.1: The Pythagorean Theorem 26.2: Other Kinds of Measurements	
Week 16 November 24 - 28	**THANKSGIVING BREAK**	**THANKSGIVING BREAK**
Week 17		Homework #12 Due

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Week	Activity, Assignment, and/or Topic	Due Dates
December 1-5	Final Exam	

*****Subject to change without prior notice*****