IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	**Fall 2025**	Instructor Name:	**Humberto Pena**
Course Title & #:	**Geometry in Elem Math (Math 112)**	Email:	**humberto.pena@imperial.edu**
CRN #:	**10048**	Webpage (optional):	**N/A**
Classroom:	**2723**	Office #:	**N/A**
Class Dates:	**Aug 11 – Dec 06**	Office Hours:	**Fridays via zoom, 1:00 – 2:00 PM**
Class Days:	**T/Th**	Office Phone #:	**N/A**
Class Times:	08:00 AM – 09:25 AM	Emergency Contact:	**email**
Units:	3	Class Format/Modality:	In person

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)

PREREQUISITES: - 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 & Company. ISBN: Printed Text: 9781319303730; E-Text: 9781319483135. (OPTIONAL)

Course Requirements and Instructional Methods

The classroom: Classroom time will consist of lecture and select practice exercises. I highly encourage you to participate in class and ask questions, no matter how trivial it seems. The course will follow a particular pace to make sure we cover everything in class, but I am more than willing to slow down and re-explain or re-do an example if asked to. All three exams and the final will be taken in person and will be graded no later than two weeks after the exam has been completed.

Outside the classroom: You will be expected to complete your homework outside of class time. It is your responsibility to check the due dates for any homework assigned. You will also be expected to study accordingly for your exams. If you feel like you could use some extra help, I invite you to attend my office hours via zoom on Fridays OR go to the tutoring services offered by Imperial Valley College.

Course Grading Based on Course Objectives

The overall course will of a set of homework for each chapter we cover, three exams, a math trail project (more info later in the semester), and one final exam, which will be weighted as follows:

Homework	**15%**
Math Trail Project	**10%**
Exams	**45% (3 exams, 15% each)**
Final Exam	**30%**

Once everything has been graded, the grade distribution will be as follows:

100% - 90%	**A**
89% - 80%	**B**
79% - 70%	**C**
69% - 60%	**D**
59% - 0%	**F**

If for some reason you find yourself unable to complete a homework assignment by the due date, please contact me ASAP so that we may discuss the situation on an individual basis.

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.

Course Policies

Attendance: All students are expected to attend every class session. Incidentally, you must attend the first meeting of the course. For those who are enrolled but not present on the first day of class, as per the college's policy, will be dropped from the class. Constant absences are also grounds for dropping you from the course. If you have an emergency, please email me or let me know somehow to take it into consideration. ***Long story short, come to class!***

Academic honesty: You are expected to show your own work in both homework and exams. Cheating is not tolerated by Imperial Valley College under any circumstance. Anyone caught cheating will receive a zero on the assignment/exam and will be reported to the Campus Disciplinary Officer who may file an incident report. Multiple instances of cheating will result in a failing grade (F) and/or disciplinary action. Please refer to the General Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service. ***Another long story short, don't cheat!***

Classroom behavior: You are expected to respect everyone around you, including your professor(s), fellow peers, and the classroom environment. Instances of disruptive behavior will result in me asking you to leave the classroom for the day. Multiple instances will result in filing a report with the Campus Disciplinary Officer.

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.

Anticipated Class Schedule/Calendar

Week	Topic	Important Dates
Week 1 August 11 - 15	Syllabus & Chapter 16.1, 16.2	
Week 2 August 18 - 22	Chapter 16.3, 16.4	
Week 3 Aug 25 – 29	Chapter 17	
Week 4 Sep 01 - 05	Chapter 18	No class on 09/01
Week 5 Sep 08 – 12	Review, Exam 1	Exam 1 on 09/11
Week 6 Sep 15 – 19	Chapter 20	
Week 7 Sep 22 – 26	Chapter 21	
Week 8 Sep 29 - Oct 03	Chapter 22	

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Week	Topic	Important Dates
Week 9 Oct 06 – 10	Review, Exam 2	Exam 2 on 10/09
Week 10 Oct 13 – 17	Chapter 23.1, 23.2, 23.3	
Week 11 Oct 20 – 24	Chapter 23.4, 25	
Week 12 Oct 27 – 31	Chapter 26	
Week 13 Nov 03 – 07	Ch 19	
Week 14 Nov 10 – 14	Review, Exam 3	No class on 11/10 Exam 3 on 11/13
Week 15 Nov 17 - 21	Cumulative Review	
Week 16 Nov 24 - 28	THANKSGIVING BREAK (No class)	No class from Nov 24 – 28
Week 17 Dec 01 - 05	Final Exam	Final exam on 12/04

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