



Basic Course Information

Semester:	Spring 2026	Instructor Name:	Carlos Duarte
Course Title & #:	Geometry in Elementary Math	Email:	carlos.duarte@imperial.edu
CRN #:	20051	Webpage (optional):	
Classroom:	2721	Office #:	NA
Class Dates:	Feb 17 - Jun 12, 2026	Office Hours:	By appointment on Wednesdays (email confirmation on Wednesday) 5:30 -6:30 pm
Class Days:	Wednesdays	Office Phone #:	NA
Class Times:	6:30 PM – 9:40 PM	Emergency Contact:	Silvia Murray (760) 355-6201
Units:	3	Class Format:	Hybrid (Face-to-Face)

Face-to-Face

In a hybrid class, course activity occurs both online and face-to-face on campus; both the online and face-to-face portion are required. The face-to-face meetings occur on scheduled days and times. All online content is delivered in Canvas.

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:

Demonstrate problem solving strategies by identifying an appropriate method to solve a given problem, correctly set up the problem, perform the appropriate analysis and computation, and share their interpretation of the conclusion or the outcome, using correct grammar or in an oral presentation. This outcome will be assessed through selected exercises on exams throughout the semester. (ILO1, ILO2).

Course Objectives

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

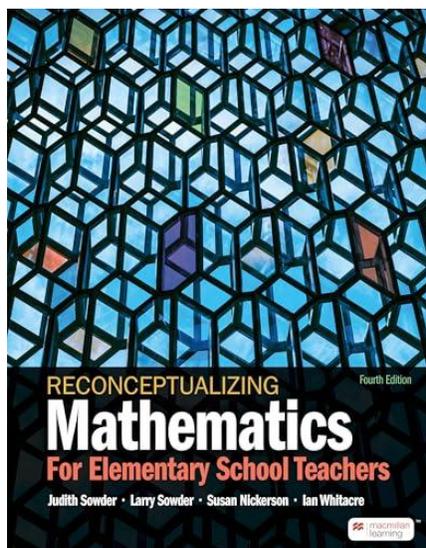
1. Solve word problems using the basic concepts of geometry and will identify various geometric patterns.
2. Topics from probability and statistics
3. Demonstrate the basic idea of congruence and similarity and actively develop a number of geometric constructions.
4. Identify and apply a variety of transformations, 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.

Textbooks & Other Resources or Links

Reconceptualizing Mathematics, Fourth Edition ©2023, *Judith Sowder; Larry Sowder; Susan Nickerson; Ian Whitacre*, ISBN:9781319483050

- Macmillan Learning (Achieve) **Make sure you sign up through Canvas. See “Student Registration Instructions for Canvas” towards the end of this syllabus.**



NO SHARING OF CALCULATORS WILL BE ALLOWED, EVEN IF YOU ARE DONE WITH THE TEST.

Course Requirements and Instructional Methods

Homework (10%) Make sure you use the same email you use for Canvas and Macmillan Learning (Achieve)

ALL homework will be done through the Macmillan Learning (Achieve) which you need to access via Canvas. All deadline dates are online at the site. **NO LATE HOMEWORK WILL BE ACCEPTED. Everything on Macmillan Learning (Achieve) is considered homework. No homework will be accepted after the final exam.**

YOU MUST HAVE AN ACTIVE (NOT EXPIRED) ACCOUNT UP UNTIL A WEEK AFTER THE LAST DAY OF THE SEMESTER.

Tests (75%) 75 Minute Maximum Time Limit (1 hour, 15 minutes)

You can't show up late for tests! You will have a total of 3 tests each worth 25% (total of 75%). The tests will consist of problems similar to the homework and may contain essay questions where you will have to explain concepts. Tests will be announced at least one day before, but I am hoping to give you more notice if possible. Tests will be on the chapters being covered and most likely will include some material from previous tests. You can only miss ONE test. If you miss a test, the NEXT test will count for two scores (the previous test will NOT be counted as two scores). If you miss two or

more tests, the other tests will be given zeros for a score. You must take the test in the class you are registered for (no exceptions). You will have 75 minutes max to complete your test.

Final Exam (15%) 75 Minute Maximum Time Limit (1 hour, 15 minutes)

The Final Exam will consist of 20 questions. It will be comprehensive. **You CAN'T miss the final exam. USE OF AN UNAUTHORIZED ELECTRONIC DEVICE (CELL PHONE, TABLET, ECT...) WILL RESULT IN A ZERO SCORE. Any internet searches will result in a Zero Grade too.** You will have 75 minutes max to complete your Final Exam. **Class is over at the conclusion of the Final Exam.**

Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

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Course Grading Based on Course Objectives

		GRADE DISTRIBUTION	
A	100 – 90	Tests (3 tests @ 25% each)	75%
B	89 – 80	Macmillan Learning (Achieve) <i>(Computer Homework/Tests/Videos)</i>	10%
C	79 – 70		
D	69 – 60	Final Exam	15%
F	59 – under		

Course Policies

Attendance

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See [General Catalog](#) for details.
- **Regular attendance in all classes is expected of all students. A STUDENT, WHOSE CONTINUOUS, UNEXCUSED ABSENCES EXCEED THE NUMBER OF HOURS THE CLASS IS SCHEDULED TO MEET PER WEEK MAY BE DROPPED. (2 ABSENCES ALLOWED). You can't be absent for more than 2 classes.** For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.
- Four instances of the following may result in you being dropped from the course:
 1. Missing class
 2. Leaving class early
 3. Missing a quiz
 4. Missing an exam
 5. Failure to complete assignments

Classroom Etiquette

- **Electronic Devices: Cell phones and electronic devices must be turned off and put away during class unless otherwise directed by the instructor.**
- **TURN OFF YOUR CELLULAR PHONES.** Courtesy please. **IF IT RINGS, YOU WILL BE ASKED TO LEAVE AND IT WILL BE MARKED AS AN ABSENCE. YOU WILL NOT BE ALLOWED TO STAY IN CLASS. NO TEXTING IN CLASS.**
- **NO calculators, cell phones, tablets, or ipod type devices are allowed.**
- **THE USE OF AN UNAUTHORIZED ELECTRONIC DEVICE (CELL PHONE, TABLET, ECT...) IN ANY TEST AND/OR FINAL EXAM WILL RESULT IN A ZERO SCORE.**
- Respect class start and end time. DO NOT come in late or leave early from class (it disrupts the flow of the class).
- Copies of books are not allowed in class.
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed.
- Humor is a big part of the class. To break up the monotony of class, I will pick points during class to stop so that the four hours and fifteen minutes do not seem as long. This is strategically done to help students cope with the long class.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the [General Catalog](#).
- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

Online Netiquette

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!)].

Academic Honesty

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- Plagiarism is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to "cite a source" correctly, you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course 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;



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(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.

Additional Student Services

Imperial Valley College offers various services in support of student success. The following are some of the services available for students. Please speak to your instructor about additional services which may be available.

- **CANVAS LMS.** Canvas is Imperial Valley College's main Learning Management System. To log onto Canvas, use this link: [Canvas Student Login](#). The [Canvas Student Guides Site](#) provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.
- **Learning Services.** There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your [Campus Map](#) for the [Math Lab](#); [Reading, Writing & Language Labs](#); and the [Study Skills Center](#).
- **Library Services.** There is more to our library than just books. You have access to tutors in the [Study Skills Center](#), study rooms for small groups, and online access to a wealth of resources.
- The classroom notes, old tests, study guides are available through www.MyMathLab.com under "View Course Documents"
- Also suggest looking for tutorials on www.youtube.com and www.khanacademy.org

Disabled Student Programs and Services (DSPS)

Any student with a documented disability who may need educational accommodations should notify the instructor or the [Disabled Student Programs and Services \(DSP&S\)](#) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313. Please contact them if you feel you need to be evaluated for educational accommodations.

Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee.

- **Student Health Center.** A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC [Student Health Center](#) at 760-355-6128 in Room 1536 for more information.
- **Mental Health Counseling Services.** Short-term individual, couples, family and group counseling services are available for currently enrolled students. Services are provided in a confidential, supportive, and culturally sensitive environment. Please contact the IVC Mental Health Counseling Services at 760-355-6310 or in the building 1536 for appointments or more information.

Veteran's Center

The mission of the [IVC Military and Veteran Success Center](#) is to provide a holistic approach to serving military/veteran students on three key areas: 1) Academics, 2) Health and Wellness, and 3) Camaraderie; to serve as a central hub that connects military/veteran students, as well as their families, to campus and community resources. Their goal is to ensure a seamless transition from military to civilian life. The Center is located in Building 600 (Office 624), telephone 760-355-6141.

Extended Opportunity Program and Services (EOPS)

The Extended Opportunity Program and Services (EOPS) offers services such as priority registration, personal/academic counseling, tutoring, book vouchers, and community referrals to qualifying low-income students. EOPS is composed of a group of professionals ready to assist you with the resolution of both academic and personal issues. Our staff is set up to



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understand the problems of our culturally diverse population and strives to meet student needs that are as diverse as our student population.

Also under the umbrella of EOPS our CARE (Cooperative Agency Resources for Education) Program for single parents is specifically designed to provide support services and assist with the resolution of issues that are particular to this population. Students that are single parents receiving TANF/Cash Aid assistance may qualify for our CARE program, for additional information on CARE please contact Lourdes Mercado, 760-355- 6448, lourdes.mercado@imperial.edu.

EOPS provides additional support and services that may identify with one of the following experiences:

- Current and former foster youth students that were in the foster care system at any point in their lives
- Students experiencing homelessness
- Formerly incarcerated students

To apply for EOPS and for additional information on EOPS services, please contact Alexis Ayala, 760-355-5713, alexis.ayala@imperial.edu.

Student Equity Program

- The Student Equity Program strives to improve Imperial Valley College’s success outcomes, particularly for students who have been historically underrepresented and underserved. The college identifies strategies to monitor and address equity issues, making efforts to mitigate any disproportionate impact on student success and achievement. Our institutional data provides insight surrounding student populations who historically, are not fully represented. Student Equity addresses disparities and/or disproportionate impact in student success across disaggregated student equity groups including gender, ethnicity, disability status, financial need, Veterans, foster youth, homelessness, and formerly incarcerated students. The Student Equity Program provides direct supportive services to empower students experiencing insecurities related to food, housing, transportation, textbooks, and shower access. We recognize that students who struggle meeting their basic needs are also at an academic and economic disadvantage, creating barriers to academic success and wellness. We strive to remove barriers that affect IVC students’ access to education, degree and certificate completion, successful completion of developmental math and English courses, and the ability to transfer to a university. Contact: 760.355.5736 or 760.355.5733 Building 100.
- The Student Equity Program also houses IVC’s Homeless Liaison, who provides direct services, campus, and community referrals to students experiencing homelessness as defined by the McKinney-Vento Act. Contact: 760.355.5736 Building 100.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC [General Catalog](#).

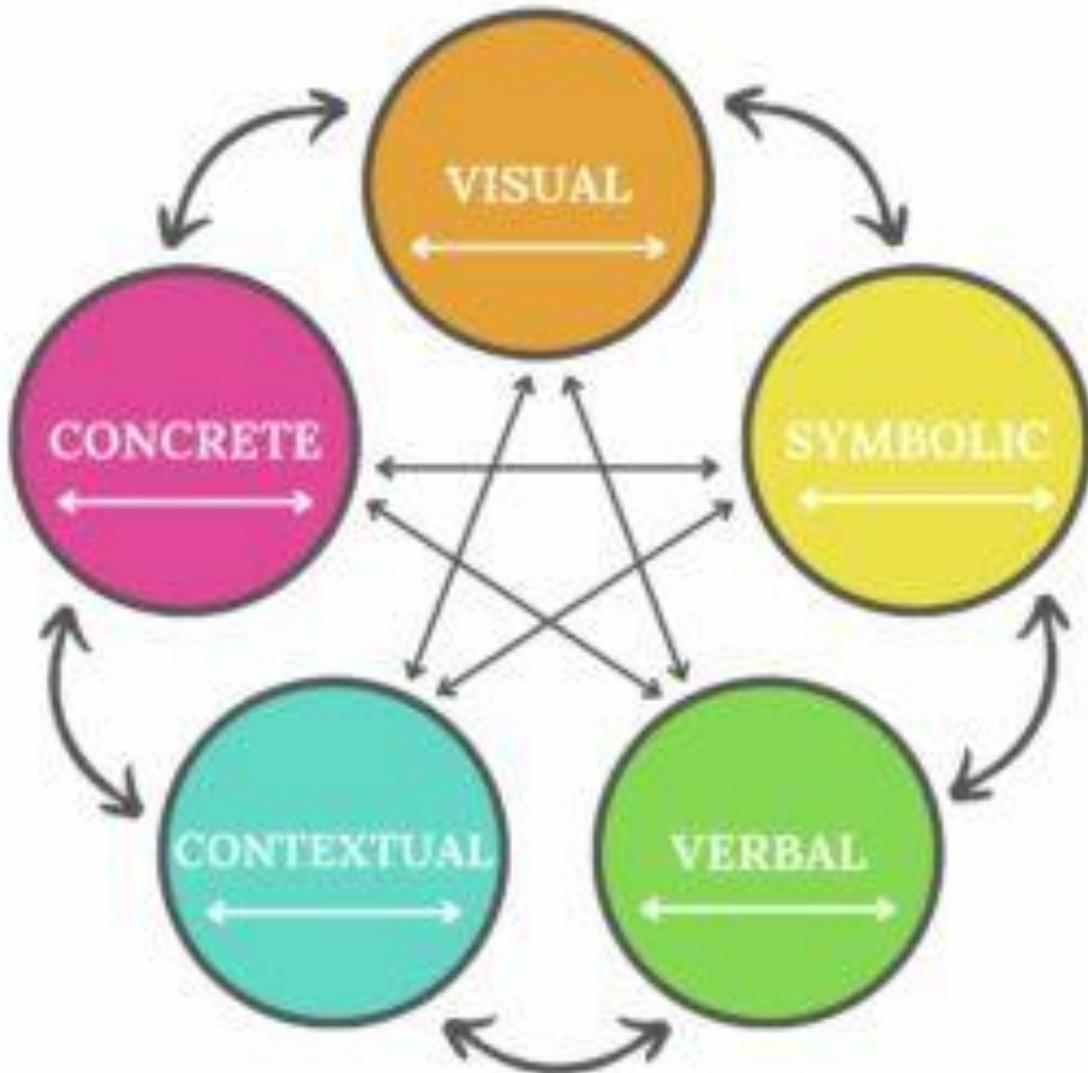
Information Literacy

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC [Library Department](#) provides numerous [Information Literacy Tutorials](#) to assist students in this endeavor.

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.

LESH MODEL OF MODALITIES



Anticipated Class Schedule/Calendar

WEEK	TOPIC	
1-6	<p>Chapter 16 Polygons Goals for Reconceptualizing Mathematics 16.1 Review of Polygon Vocabulary 16.2 Organizing Shapes 16.3 Triangles and Quadrilaterals 16.4 A Focus on Problem-Solving Strategies 16.5 Issues for Learning: Some Research on Two-Dimensional Shapes Review</p> <p>Chapter 17 Polyhedra Goals for Reconceptualizing Mathematics 17.1 Shoeboxes Have Faces and Nets! 17.2 Introduction to Polyhedra 17.3 Representing and Visualizing Polyhedra 17.4 Congruent Polyhedra 17.5 Some Special Polyhedra 17.6 Issues for Learning: Dealing with 3D Shapes Review</p> <p>Chapter 18 Symmetry Goals for Reconceptualizing Mathematics 18.1 Symmetry of Shapes in a Plane 18.2 Symmetry of Polyhedra 18.3 Issues for Learning: What Is Geometry in the Pre-K–8 Curriculum? Review</p> <p>Chapter 19 Tessellations Goals for Reconceptualizing Mathematics 19.1 Tessellating the Plane 19.2 Tessellating Space Review</p>	Test #1 at the end of Week 6
7-12	<p>Chapter 20 Similarity Goals for Reconceptualizing Mathematics 20.1 Similarity and Dilations in Planar Figures 20.2 More About Similar Figures 20.3 Similarity in 3D Figures 20.4 Issues for Learning: Similarity and Proportional Reasoning Review</p> <p>Chapter 21 Curves, Constructions, and Curved Surfaces Goals for Reconceptualizing Mathematics 21.1 Planar Curves and Constructions 21.2 Curved Surfaces 21.3 Issues for Learning: Standards for Mathematical Practice Review</p> <p>Chapter 22 Transformation Geometry Goals for Reconceptualizing Mathematics 22.1 Some Types of Rigid Motions 22.2 Finding Images for Rigid Motions 22.3 A Closer Look at Some Rigid Motions 22.4 Composition of Rigid Motions 22.5 Transformations and Earlier Topics 22.6 Issues for Learning: Promoting Visualization in the Curriculum Review</p> <p>Chapter 23 Measurement Basics Goals for Reconceptualizing Mathematics 23.1 Conceptualizing and Measuring Length 23.2 Key Ideas of Measurement 23.3 Conceptualizing and Measuring Angle 23.4 Further Exploration of Angles 23.5 Issues for Learning: Measurement of Length and Angle Size Review</p>	Test #2 at the end of Week 12
13-16	<p>Chapter 24 Area, Surface Area, and Volume Goals for Reconceptualizing Mathematics 24.1 Area and Surface Area 24.2 Volume 24.3 Issues for Learning: Measurement of Area and Volume Review</p> <p>Chapter 25 Counting Units Fast: Measurement Formulas Goals for Reconceptualizing Mathematics 25.1 Circumference, Area, and Surface Area Formulas 25.2 Volume Formulas 25.3 Issues for Learning: What Measurement Topics Are in the Curriculum? Review</p> <p>Chapter 26 Special Topics in Measurement Goals for Reconceptualizing Mathematics 26.1 The Pythagorean Theorem 26.2 Some Other Kinds of Measurements</p>	Test #3 and Final Week 16 Location to be determined

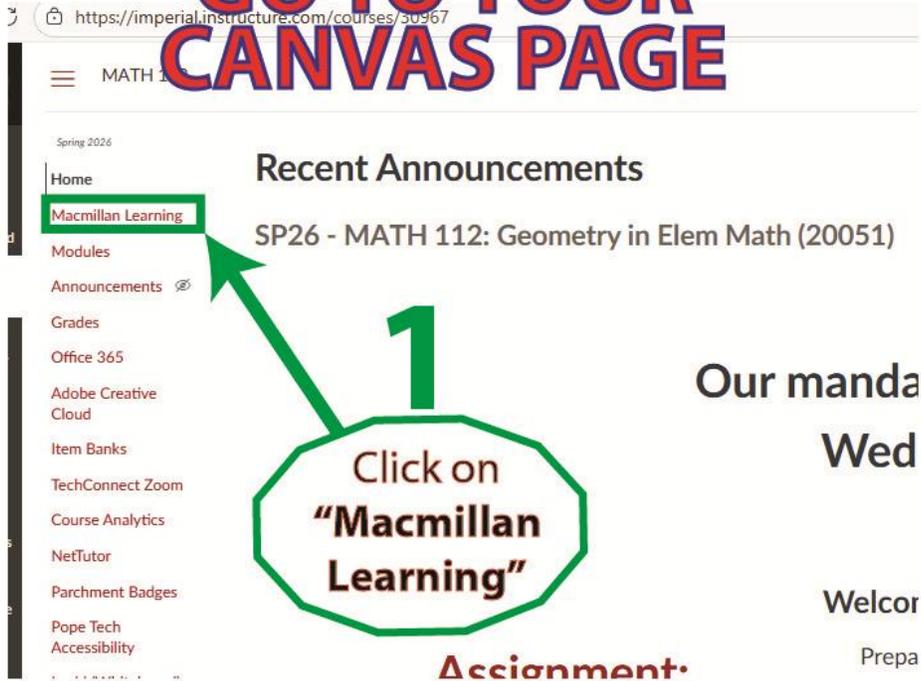
*****Tentative, subject to change without prior notice*****



HOW TO ACCESS MacMillan Learning (Achieve)

Go to your IVC Math 112 Canvas Page

GO TO YOUR CANVAS PAGE



1

Click on "Macmillan Learning"

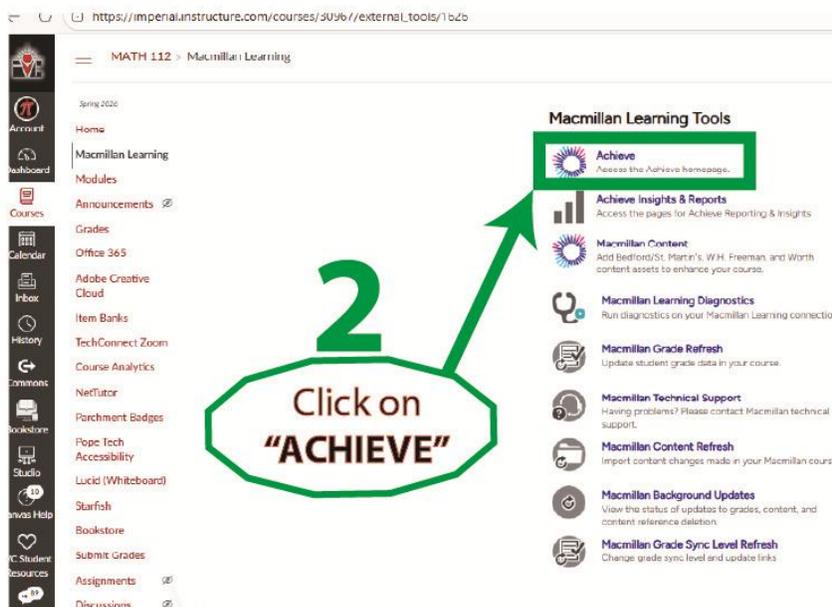
Recent Announcements

SP26 - MATH 112: Geometry in Elem Math (20051)

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Click on "ACHIEVE"



Macmillan Learning Tools

- Achieve**
Access the Achieve homepage.
- Achieve Insights & Reports**
Access the pages for Achieve Reporting & Insights
- Macmillan Content**
Add Bedford/St. Martin's, W.H. Freeman, and Worth content assets to enhance your course.
- Macmillan Learning Diagnostics**
Run diagnostics on your Macmillan Learning connection.
- Macmillan Grade Refresh**
Update student grade data in your course.
- Macmillan Technical Support**
Having problems? Please contact Macmillan technical support.
- Macmillan Content Refresh**
Import content changes made in your Macmillan course.
- Macmillan Background Updates**
View the status of updates to grades, content, and content reference deletion.
- Macmillan Grade Sync Level Refresh**
Change grade sync level and update links.



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IMPERIAL VALLEY COLLEGE ACADEMIC CALENDAR

2025-2026



JULY 2025

S	M	T	W	R	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

July 3 - Indep. Day Observed (Campus Closed)
July 24 - Summer Session Classes End
July 26-31 - No Classes (Campus Open)

2025 FALL SEMESTER							2025 SPRING SEMESTER						
AUGUST 2025							MARCH 2026						
S	M	T	W	R	F	S	S	M	T	W	R	F	S
	1	2	3	4	5	6	1	2	3	4	5	6	7
7	8	9	10	11	12	13	8	9	10	11	12	13	14
14	15	16	17	18	19	20	15	16	17	18	19	20	21
21	22	23	24	25	26	27	22	23	24	25	26	27	28
28	29	30	31				29	30	31				
31													

2026 WINTER INTERSESSION
JANUARY 2026

S	M	T	W	R	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Jan 1 - New Year's Day (Campus Closed)
Jan 2 - No Classes (Campus Open)
Jan 5 - Winter Session Classes Begin
Jan 19 - Dr. MLK Jr. Day (Campus Closed)

2026 SPRING SEMESTER
APRIL 2026

S	M	T	W	R	F	S
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Apr 1-31 - Spring Session (Campus Closed)

2026 SUMMER SESSION
JUNE 2026

S	M	T	W	R	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

June 2 - Summer Session Registration
June 4 - Primary Election
June 12 - Spring Semester Classes End
June 13 - Commencement
June 15-16 - No Classes (Campus Open)
June 19 - Juneteenth Holiday (Campus Closed)
June 23 - Summer Session Classes Begin

2026 FALL SEMESTER
SEPTEMBER 2025

S	M	T	W	R	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Sep 1 - Labor Day (Campus Closed)

2025 FALL SEMESTER
OCTOBER 2025

S	M	T	W	R	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Oct 10 - Veterans Day (Campus Closed)
Nov 24-25 - No Classes (Campus Open)
Nov 26-29 - Thanksgiving (Campus Closed)

2025 SPRING SEMESTER
MAY 2026

S	M	T	W	R	F	S
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

May 18 - Last Day to Register to Vote for the Primary Election
May 19-21 - Same Day Voter Registration
May 25 - Memorial Day (Campus Closed)

LEGEND

	No Classes (Campus Open)
	State Holiday (Campus Closed)
	District Holiday (Campus Closed)
	Recess (Campus Closed)
	Fall Semester
	Winter Session
	Spring Semester
	Summer Session
	Convocation / Commencement

Page | 11