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Basic Course Information

Semester:	**Fall 2021**	Instructor Name:	**Jill Kitzmiller**
Course Title & #:	**Math 112**	Email:	**jill.kitzmiller@imperial.edu**
CRN #:	**10048**	Webpage (optional):	
Classroom:	**online**	Office #:	
Class Dates:	**8/16/21 – 12/10/21**	Office Hours:	**12:30 – 1 pm MW or 4:30 - 5 W or 11–11:30T by email/ zoom or 11–1 TH by text/zoom**
Class Days:	**MW**	Office Phone #:	**858-354-7136 (mobile)**
Class Times:	**1 – 2:25 live zoom**	Emergency Contact:	**Sylvia Murray – Staff Sec 760-355-6201**
Units:	**3**	Class Format:	**Online hybrid**

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)

Prerequisite: Appropriate placement as defined by AB705 or MATH 098 or MATH 091 with a grade of "C" or better.

**** Prior to taking this course you are expected to be familiar with names of geometric shapes, concepts of perimeter, area and volume; know the formulas associated with these attributes; and be able perform computations using these formulas.**

Online Courses

This class is a synchronous online course, which means that **you have to attend the lectures**. The code for the zoom class will stay the same for the semester, and sent on an announcement / email prior to the start of the semester, and also posted on the home page of Canvas. The zoom classes normally last about 1 ½ hours and cover the notes posted on Canvas. Recordings of the class will be posted on Canvas after every class meeting so you can review the material or watch the lecture later if you miss class.

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 (ILO1, ILO2, ILO3).
2. Determine the relationship between similar figures (ILO1, ILO2, ILO3).
3. Develop geometric formula for area or volume (ILO1, ILO2, ILO3).

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 3rd edition; Sowder. Freeman ISBN-13: 978-1-4641-9333-0.
The e-book is a good option or you can order a used book online if you don't have the text already.

A scientific calculator is needed. Worksheets done in class each day are posted on Canvas. You will need to be able to print a few documents during the semester. You will also need a **ruler**, a **compass** (to draw circles), and **scissors**. Some blocks and colored pencils or markers are also useful.

Course Requirements and Instructional Methods

The textbook for this class is designed for learning through discussions and activities and generally does not give examples to follow. Some of the important material is given in homework problem format, not as material to read. It will be difficult to understand the material or pass the class if you do not attend all the zoom class meetings (or keep up with the material by watching the recordings of class meetings) and do all of the homework.

Lectures will follow PowerPoint slides from the textbook and cover the associated worksheets posted on the home page. You should have the text book on hand to reference, and either print the worksheets or have them available during each lesson. Ask questions during lecture if you are having difficulty with the material or get extra tutoring online from the Math Lab or Library Services Study Skills Center (links are on the homepage of Canvas.) You cannot learn mathematics without doing the problems.

Evaluation is based on examinations and homework assignments.

HOMEWORK: There will be homework assigned for each of the 11 mandatory chapters. Homework points will be awarded on the basis of completeness and quality of work, minimal quality (including just turning in answers with no corresponding work) will receive minimal points. Homework will be a maximum of 10 points each chapter regardless of length of assignment. There will be worksheets and projects assigned that will supplement homework, and must be quality work. Problems done for homework, and discussed during class, are designed to help you understand concepts and learn to communicate mathematically. All due dates are posted on Canvas. All work will be turned in online using a link in Canvas where you upload your work.

EXAMS: I recommend using **Google Chrome Browser** on your computer to open tests. This seems to work best with pictures. There will be 3 exams and one cumulative final exam. Each test (other than the final) will consist of two parts, one part multiple choice taken online and the second part is a pdf that you print and do your work on, then turn in upload of the written work. The final exam is multiple choice only. Each exam is available for several days after it is assigned, and you can choose the time when you take the exam. You only have one chance to take each exam and once you open an exam, you have to finish it within a limited amount of time.

There are **NO make-up exams**. **The final exam is cumulative and mandatory for all students.**
Any missing exam grade will be recorded a 0. **I DO NOT give make up assignments**. You must complete the work and turn it in on time.

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.

Course Grading Based on Course Objectives

Points in this course are earned and grades are given according to the scale outlined below. All assignments are posted on Canvas along with the corresponding points and due dates. If any modification to assignments is necessary, students will be notified and changes will be made on Canvas. Grades are not negotiable. All students will be treated equally. Your scores on each assignment or exam will be posted on Canvas. Your grade will be based on the percent of points you have earned by the end of the semester.

GRADING

Breakdown: 90% and up = A, 80 – 89% = B, 70 – 79% = C, 60 – 69% = D, below 60% = F.

INCOMPLETE GRADES: To receive a final grade of incomplete, you must be passing the class and be unable to take the final exam.

Communication and Feedback Policies

I strive to check my email every day and try to respond to everyone within 24 - 48 hours if you require a response. I prefer that you email me using your IVC email address or from Canvas, sometimes emails from other sources go to junk mail and I do not see them. If you do **not** email me through Canvas, be sure to include the class you are enrolled in in the subject of your email. If you have not heard from me within the time period above, you can assume that I did not get your email and contact me again. I DO NOT look at email on the weekends (Friday- Sunday) or on holidays.

I communicate with the entire class during live zoom lectures and using announcements. I will answer questions during live zoom classes or by email. I do not have live office hours, but will accommodate brief meetings after class. **Please check Canvas regularly for announcements.** Any updates, reminders, or changes, I will post as an announcement or send an email via Canvas messaging.

All assignments should be turned in using Canvas. Normal turn around for grading assignments is within one week of the due date. If you are emailing an assignment because you had an issue with turning it in using Canvas, give me a few extra days to grade it. Grades will be posted as they are scored and will be kept track on Canvas' grade book in which students can access**.** Answer keys to some assignments will be posted and questions on assignments discussed in class.

Course Policies

Attendance and drop Policy

You must log into the course the first week of class and take the syllabus quiz, 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.

It is the student's responsibility to drop or officially withdraw from the class.

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. **For online courses, students logging into Canvas is not considered attendance. Students who fail to complete and submit required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.**

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 are intended to serve as examples of unacceptable academic conduct.

- Copying from others on a quiz, test, examination, or assignment;
- Allowing someone else to copy your answers on a quiz, test, exam, or assignment;
- Having someone else take an exam or quiz for you;
- Conferring with others during a test or quiz

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.

Netiquette and Online Behavior

You should always conduct yourself with professionalism and respect for the instructor and your fellow classmates. Attending a virtual meeting can be a challenge when there are many students on one conference call. Participating in such meetings may count as class attendance, but disruptive behavior may also result in you not being admitted to future meetings. Follow the tips listed below are some of the ones recommended by IVC for best results: Be respectful, find a quiet location and silence your phone, be ready to learn and pay attention, use your mute button when not speaking, remember to unmute when speaking, stay focused and participate in the meeting. When communicating by email be sure to identify yourself, be concise, and use appropriate language and emotion to clearly convey meaning.

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.

Here is a short list of some of the most commonly used links available for students.

- CANVAS LMS. Canvas is Imperial Valley College's Learning Management System. To log onto Canvas, use this link: Canvas Student Login. The Canvas Student Guides Site (Links to an external 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 (Links to an external site.). In order to accommodate students and maximize student success during the COVID-19 Pandemic, all tutoring support is being provided through one Zoom link (IVC online Tutoring (Links to an external site.)). When campus is open again, there are several learning labs to assist students. Whether you need support using computers, or you need a tutor, please consult your Campus Map (Links to an external site.) for the Math Lab (Links to an external site.); Reading, Writing & Language Labs (Links to an external site.); and the Study Skills Center (Links to an external site.).
- To request a loaner laptop, MYFI device, or other electronic device, please submit your request here: https://imperial.edu/students/student-equity-and-achievement/ (Links to an external site.)

Anticipated Class Schedule/Calendar

Tentative Schedule – Math 112 - Fall 2021 – ***Subject to change without prior notice***

Math 91 – CRN 10045	Monday	Wednesday
Week 1 – August 16 – 19	Introduction	16.1 - 16.2
Week 2 – August 23 – 26	16.2 - 16.3	17.1 / 17.3 (17.2 on worksheet)
Week 3 – August 30 – Sept. 2	17.3 – 17.4	17.5 (review 17.2)
Week 4 - September 6 – 9	HOLIDAY	18.1 – 18.2
Week 5 – September 13 – 16	19.1	19.2 / project
Week 6 – September 20 – 23	Review / Exam 1	20.1
Week 7 – September 27 – 30	20.2	20.3
Week 8 – October 4 – 7	21.1 – 21.2	Project Ruler and compass needed
Week 9 – October 11 –14	22.1 – 22.2	23.1
Week 10 – October 18 – 21	23.2	Review / Exam 2
Week 11 – October 25 – 28	24.1 – 24.2 Surface area and volume	24.1 Area
Week 12 – November 1 – 4	25.1 Perimeter and Area formulas	25.2 Area /Surface area formulas
Week 13 – November 8 – 11	25.2 Volume formulas	26.2 Pythagorean Theorem
Week 14 – November 15 – 18	26.2 Pythagorean Theorem	Review / Exam 3
Week 15 – November 22 – 25	HOLIDAY	HOLIDAY
Week 16 – November 29– Dec. 2	Review for final	Review for final
Week 17 – December 6 – 9	Final	Final