

Basic Course Information					
Semester:	Fall 2022	Instructor Name:	Dr. Alejandro Cozzani		
Course Title & #:	Math 119	Email:	alex.cozzani@imperial.edu		
CRN #:	10055	Webpage (optional):	Refer to Canvas		
Classroom:	2727	Office #:	2767		
Class Dates:	August 15-December 10, 2022 Last Day to Add: 08/27/22 Drop Deadline with W: 11/05/22	Office Hours:	Monday-Wednesday 10:45-11:15 AM and 3:15-3:45 PM Tuesday-Thursday 10:00-11:00 AM		
Class Days:	Mondays and Wednesdays	Office Phone #:	760-355-5720		
Class Times:	3:45-5:50 PM	Emergency Contact:	Silvia Murray 760-355-6201		
Units:	4.0	Class Format:	F2f or in person		

# **Course Description**

Graphical representation of statistical data, calculations, and uses of various averages, measures of variability, introduction to probability, probability distributions, confidence intervals, sample size determination and hypothesis testing, ANOVA, linear regression and Chi-square analysis. Students will learn to use technology to find confidence intervals, test statistics, regression lines, and to produce graphics. This course also provides supervised practice in the appropriate use of technology designed to assist students in calculations required in beginning statistics. (CSU, UC).

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

MATH 091 with a grade of "C" or better or appropriate placement.

# **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. Determine and interpret a confidence interval for a population mean. (ILO2, ILO4)
- 2. Apply statistical inference to conduct formal significance tests concerning single populations. (ILO2)
- 3. Demonstrate the ability to use technology in computing and interpreting basic descriptive or inferential statistics. (ILO2, ILO4)
- 4. Apply techniques of linear modeling to explore the relationship between two numerical variables. (ILO2).

# **Course Objectives**

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



- 1. Distinguish the various ways of organizing, displaying, and measuring data.
- 2. Derive the numerical relationship that exists between bivariate data sets.
- 3. Demonstrate an understanding of the theory of probability and proficiency in solving problems of this nature.
- 4. Compute and interpret expected values and variance and learn about the binomial distribution for discrete random variables.
- 5. Compute and interpret expected values and variance and learn about the normal distribution or continuous random variables.
- 6. Examine the joint probability structure of two or more random variables and understand the limiting behavior of the sum of independent random variables as the number of the sample becomes larger.
- 7. Use the various types of distributions that are derived from the normal distribution.
- 8. Calculate and interpret confidence intervals for a population mean to show how probability connects to this type of statistical inference.
- 9. Use hypothesis testing as a formal means of distinguishing between probability distributions on the basis of random variables generated from one of the distributions.
- 10. Compare the means of the data from experiments involving more than two samples, including the single factor analysis of variance (ANOVA).
- 11. Fit a straight line to the given data in graphical form.
- 12. Make use of Chi-square distributions to analyze counts.

# **Textbooks & Other Resources or Links**

The student has several options:

- Mario F. Triola. *Elementary Statistics using Excel* (7<sup>th</sup> Edition). Pearson. Textbook ISBN-13: 9780136937432
- 2. Michael Sullivan, III. Fundamentals of Statistics: Informed Decisions Using Data (5<sup>th</sup> Edition). Pearson.
- 3. Barbara Illowsky and Susan Dean. Introductory Statistics. Openstax (Free OER).

# **Course Requirements and Instructional Methods**

- 1. <u>Exams or Tests</u>: There will be <u>3</u> tests and there will be <u>no</u> makeup exams given. Zeros will be given for all missed tests. Please refer to calendar for dates.
- 2. *Final Exam*: The common final will be given during the last week of the semester. A score of 0 will be given if the final is missed. Please refer to calendar for dates.
- 3. <u>Homework</u>: The purpose of homework is to provide students with sufficient practice to master all topics and to do well on tests and the final exam. Homework is done using MyLabstatistics (all assignments are listed online as well as the deadline). It is student's responsibility to complete them on or before the deadline regardless of whether he/she is absent. Please keep in mind that after the deadline you will not be able to work on that specific assignment because the program will lock it automatically. If your overall score is 80% or higher you will get full credit, otherwise your grade will be your overall percentage translated to points. For example: if you score 80%=100 points, if you score 72%=72 points.



MyLabStatistics Code: cozzani71688. Please refer to webpage:

(<u>https://mlm.pearson.com/northamerica/</u>) for assignments and deadlines as well as registration.

- There is a 14-day grace period so you can register right away and start with the homework. After that, you need to buy access and use the same login information so you will retrieve your work.
- Enrollment dates: 8/15/22 through 11/30/22.
- Course dates: 8/15/22 through 12/04/22 (No exceptions!). After the deadline the course cannot be open as it will be expired.
- o DO NOT WAIT until the last minute to do the HW as it may be overwhelming!
- 4. Complete an individual or team project (maximum 2 per group) on statistical methods: Identify, compare, and contrast two articles that include both descriptive and inferential statistics on the same research topic (Sample projects are available in Canvas as an example) but you must select your own topic.
- 5. There will be <u>no extra credit</u>. Students must learn the material to pass this course.
- 6. It is up most important that students review the material to do well on exams. Students are encouraged to form study groups and to attend tutoring sessions to keep up with assignments and to study for tests.
- 7. Students will not be allowed to make up an exam or final exam unless they have a powerful reason to miss a test (e.g., hospitalization, jury duty, etc. and bring the corresponding paperwork as evidence). It is students 'responsibility to notify the instructor via e-mail or by phone to make arrangements.
- 8. <u>Notes/formulas</u>: During exams, students cannot use any notes unless otherwise directed by the instructor. No exceptions!
- 9. <u>Out of Class Assignments</u>: 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.

# **Objectives**

The student's grade will depend on the following areas (not on total points):

CATEGORY	WEIGHT	DESCRIPTION
Exams (3)	40%	There will be <u>3</u> tests and there will be no makeup exams given. Zeros will be given for all missed tests.
Final Exam	20%	The final will be given during the last week of the semester. A score of 0 will be given if the final is missed.
Quizzes and Discussions	15%	Done in Canvas



Homework	15%	Done online-Pearson Webpage
Special Project	10%	Refer to Canvas for details
TOTAL	100%	

### Grades are displayed in Canvas, and you must earn at least a "C" to pass the class.

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

Grades will be displayed in Canvas and you need to earn at least a "C."

### **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 <u>General Catalog</u> for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absence exceed the number of hours the class is scheduled to meet per week may be dropped. 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.

# **CLASSROOM ETIQUETTE**

- <u>Electronic Devices</u>: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- <u>Food and Drink</u> are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- <u>Disruptive Students</u>: 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 <u>General Catalog</u>.
- <u>Children in the classroom</u>: 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

- 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; (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.

### **Other Course Information**

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: <u>Canvas</u> <u>Student Login</u>. The <u>Canvas Student Guides Site</u> 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.
- <u>Learning Services</u>. There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your <u>Campus Map</u> for the <u>Math Lab</u>; <u>Reading</u>, <u>Writing & Language Labs</u>; and the <u>Study Skills Center</u>.
- <u>Library Services</u>. There is more to our library than just books. You have access to tutors in the <u>Study Skills Center</u>, study rooms for small groups, and online access to a wealth of resources.
- 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 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.
- Any student with a documented disability who may need educational accommodations should notify the instructor or the <u>Disabled Student Programs and Services</u> (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.

#### **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 <u>http://www.imperial.edu/studentresources</u> or click the heart icon in Canvas.

#### **Anticipated Class Schedule/Calendar**

#### \*\*\*Subject to change without prior notice\*\*\*

WEEK #	CORE CONTENT	ASSIGNMENTS – TESTS
DATE		
	Course Syllabus	
1-August 15	Module 0-Getting Started	Read Module 0
		Refer to Canvas
2- August 22	Module 1: Introduction to	Read Module 1
	Statistics	Refer to Canvas



3- August 29	Module 2: Descriptive Statistics	Read Module 2
		Refer to Canvas
4- September 05	Module 3: Probability	Read Module 3
		Refer to Canvas
5- September 12	Module 4: Discrete Probability	Read Module 4
	Distributions	Refer to Canvas
6- September 19	Review for Exam # 1 (day 1) Exam # 1 (day 2)	Exam # 1: Modules 2-3-4
7- September 26	Module 5: Normal Probability	Read Module 5
	Distributions	Refer to Canvas
9. October 02	Madula C. Estimatos and Cample	Dood Madula C
8-October 03	Module 6: Estimates and Sample	Read Module 6
	Sizes	Refer to Canvas
9- October 10	Module 7: Hypothesis Testing	Read Module 7
		Refer to Canvas
10- October 17	Review for Exam # 2 (day 1) Exam # 2 (day 2)	Exam # 2: Modules 5-6-7
11-October 24	Module 8: Inferences from Two	Read Module 8
	Samples	Refer to Canvas
12- October 31	Module 9: Correlation and	Read Module 9
	Regression	Refer to Canvas
13-November 07	Module 10: Goodness of Fit and	Read Module 10
	Contingency Tables	Refer to Canvas
14- November 14	Review for Exam # 3 (day 1) Exam # 3 (day 2)	Exam # 3: Modules 8-9-10
November 21	Thanksgiving Break	No Class
15- November 28	Review all chapters for final exam Final Project Presentations	Final Project Due HW Due
16-December 05	Final Exam-All Chapters (Day one) Grades and questions (Day two)	Final Exam: All modules (2- 10)



### **MyLabStatistics - Student Registration Instructions**

To register for Math 119 CRN 10055 Fall 2022:

1. Go to <a href="https://mlm.pearson.com/northamerica/">https://mlm.pearson.com/northamerica/</a>

2. Sign in with your Pearson student account or create your account. For Instructors creating a Student account, do not use your instructor credentials.

- 3. Select any available access option, if asked.
  - Enter a prepaid access code that came with your textbook or from the bookstore.
  - Buy instant access using a credit card or PayPal.
  - Select Get temporary access without payment for 14 days.
- 4. Select Go to my course.
- 5. Select Math 119 CRN 10055 Fall 2022 from My Courses.

# If you contact Pearson Support, give them the course ID: cozzani71688

#### To sign in later:

- 1. Go to https://mlm.pearson.com
- 2. Sign in with the same Pearson account you used before.
- 3. Select Math 119 CRN 10055 Fall 2022 from My Courses.