

Moravian College
MATH107-B Elementary Statistics
M, F 1:10-2:20 p.m. PPHAC112
W 1:10-2:20 p.m. PPHAC101

Course Description: Introduction to statistical concepts and methods without the use of calculus. Topics include descriptive statistics, elementary probability, discrete and continuous probability distributions, correlation and regression, estimation, and hypothesis testing.

Course Goals: After successfully completing this course students will:

- have an understanding of how data is collected and gain experience collecting their own data sets.
- be able to effectively summarize data using graphical displays, interpret data and draw conclusions based on graphical display of data.
- understand that the purpose of collecting and analyzing data is to answer questions and make informed decisions.
- understand the role of probability and uncertainty in data analysis.
- be able to explain clearly, both orally and written, how the results of statistical analyses relate to the context from which they were obtained.
- learn to think critically about data and the results of data analyses that occur in their everyday lives.

Department Outcomes

- Read and demonstrate comprehension of new mathematical material
- Write mathematics with awareness of audience, mathematical context, and proper notation and terminology
- Model a significant real world problem and solve it using mathematical techniques.
- Demonstrate awareness of the role specific mathematical concepts play in several areas of mathematics.

Textbook: Peck, R., Olsen, C., & Devore, J. L. (2016). *Introduction to statistics and data analysis* (5th ed.). Boston, MA: Cengage Learning.

Technology: TI-83/84 and/or MS Excel

Instructor: Prof. A. Rolón
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Office Hours: PPHAC 223
Monday, Wednesday: 2:30 – 3:00 p.m.

Method of Assessment:

Exam #1.....	15%
Exam #2.....	15%
Exam #3.....	15%
Attendance/In-Class work.....	10%
Quizzes.....	15%
Final Exam.....	20%
Final Project.....	10%

Final Grade: The final grade will be given as follows:

A = 93 – 100	B+ = 88 – 89	C+ = 78 – 79	D+ = 68 – 67
A– =90-92	B = 83 – 87	C = 73 – 77	D = 60 – 67
	B– = 80 – 82	C- = 70 – 72	F = 0 – 59

Homework problems will be assigned for each section discussed in class. It is expected that the student complete the homework problems prior to class. If you have any questions regarding any homework problem feel free to ask in class or see me during office hour.

Quizzes will reflect the problems in the homework and will be administered in class or take-home. You must complete the quizzes on time or your score will be a zero for that quiz. No make-up quizzes will be given. In case when you have to turn in a quiz, you **MUST** be present to collect and turn it in or you must make arrangements with me to turn it in at an earlier time. Late quizzes will not be accepted and carry a grade of zero

Tests are more challenging. You need to apply the concepts learned to more difficult problems. You have the entire class period to complete each test. You may have to use either the TI calculator or Excel to complete the questions on the test; **NO SHARING** of calculators will be allowed during tests.

Exam#1: Chapters 1-3

Exam#2: Chapters 4&5

Exam#3: Chapters 7-9

Final Exam: Inferential Statistics

Final Project: This project will consist of data collection and conducting a statistical analysis. Begin the process of finding a data set that you would like to analyze. The analysis will need to apply the statistics learned in class and it must involve a hypothesis test. The project topic must be approved by me in order to advise you of the type of analysis you will have to conduct.

Attendance/In-Class Dynamics: often you will be asked to work in groups in class. This work is for reinforcing the topics discussed as well as having you work in groups so that you can communicate more effectively. This work will be collected and graded. Therefore you **MUST** be in class to take advantage of these activities; in-class work cannot be made up as it is a group effort.

EXTRA CREDIT: I do not offer any extra credit. You already have enough work to complete. Put forth all efforts in the work that is already assigned. Extra credit translates as extra work for the instructor.

ANY MISSED QUIZ/TEST WITHOUT PRIOR NOTIFICATION WILL RESULT IN AN AUTOMATIC ZERO. NO MAKE-UP QUIZ/TEST WILL BE GIVEN.

If you are absent when a test will be administered, or any work to be handed-in, you must contact me before that day (i.e. via email, phone, prior notice, secretary, or note in my mailbox) otherwise you will receive a zero for that test, or item. Late notices will also have the same consequences.

You *can* make-up a test if advanced notification was given to the instructor; however this will happen during the next class meeting.

Cell-phones/Smart phones/iPads/i_____ etc., etc., etc., MUST be turned off or in silent mode during class. In case you have an e-book, please make sure that the book reader is only displaying the textbook and nothing else. If you are expecting a call, let the instructor know before class begins. Cell phones CANNOT be used as calculators at all during tests/quizzes and NO exceptions will be given. I don't want to see them; I don't want to hear them. You will be asked to pack your "stuff" and leave if caught using any of these devices during class. Courtesy is appreciated.

Sleeping WILL NOT be tolerated. You will be asked to leave class if caught sleeping. If you are tired, please stay home and get the necessary rest in order to be an active learner/participant in class.

Communication: The best way to communicate with me is via email. Please note that I will **NOT** check emails at nights (after 4:00 p.m.) or on weekends. So if you send me an email after 4:00 p.m. Friday, I will not respond to it until Monday.

Student Accommodation

Students who wish to request accommodations in this class for a disability should contact the Academic Support Center, located in the lower level of Monocacy Hall, or by calling [610-861-1401](tel:610-861-1401). Accommodations cannot be provided until authorization is received from the Academic Support Center.