

Mount Saint Mary College
Newburgh, NY 12550
Division of Mathematics and Information Technology

MTH 2070 01 & 02 – Elementary Statistics – 3 credits

Fall 2020 – Asynchronous, Fully Online

Dr. Kathy Venable

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Virtual Office Hours: MW 1 – 2, TR 11 – 1 By Appointment Only.

Sign up at: <https://calendly.com/kathleen-venable/virtual-office-hours>

Course Description:

This course introduces the student to the fundamental concepts of Elementary Statistics, including mean, variance and standard deviation, graphical representation of data, distributions, correlation and regression, contingency tables, and hypothesis testing.

Pre-requisites: MTH 1000 or satisfactory MSMC math placement

Required text: Johnson & Kuby., Elementary Statistics, 11th Ed, Thomson Publishing, 2007.

The book will be an ebook found through using WebAssign. Students will have to sign up for WebAssign and can purchase the license for the book and program from WebAssign.net. In eClass I have posted a video that will help you sign up. The classkey is as follows:

ClassKey: **msmc.ny 5633 0049**

Additional requirements: eClass access at my.msmc.edu, Scientific or graphing calculator (can be an online calculator), WebAssign, and Adobe Scan App for phone (or other scanning program).

Course Objectives: At the conclusion of this course, the student will be able to:

- Understand the uses and abuses of statistics
- Utilize methods of descriptive statistics and apply them appropriately for data analysis, and interpret results
- Analyze the appropriate methods of hypothesis testing and interpret results

Homework:

Homework constitutes a significant portion of the grade in this class. Homework will be assigned and submitted weekly always due by Sunday of that week at 11:59 PM. Homework will be assigned through WebAssign, so WebAssign access is mandatory for this course.

It is permissible to discuss problems with other students while working on the assignment, and I encourage you to use the eClass HW discussion forum each week to do so, however; every student must turn in their own work. Copying is not allowed.

Occasionally I will need you to submit part of the HW that cannot be completed on WebAssign. In these rare instances you will have to submit the file on eClass as a .pdf. In order to get a .pdf file you can use the app Adobe Scan to scan your work and then it automatically converts it to a .pdf file. This file will then be submitted in the assignment on eClass.

Late HW assignments will NOT be accepted.

Online Discussion Groups:

Weekly there will be some sort of discussion group. There are six mandatory online discussion groups during the course of the semester: in Week 1 – Introductions forum, Weeks 3, 5, 8, 11, and in Week 14. These constitute for 18% of your grade in this course. Instructions will be included in the discussion forum each time there is a required online discussion group.

Typically, you will have to post one discussion post of your own and then respond to several classmates' posts. There are also weekly HW discussion groups that are NOT mandatory but could be useful for students to discuss homework problems or other things they are having trouble with or on the other side interesting insights into what you are learning. When you log in to see the next week's work you'll see if it says REQUIRED next to it or not.

Grading for online discussion groups will be completed as soon as possible after the Sunday 11:59 PM deadline. Typically, you should see your grade by Wednesday for online discussions in the WebAssign gradebook.

Tests:

There will be five tests given in this course and all will be on eClass. They will be online and will be available as per the syllabus schedule, and there is a time limit of 120 minutes from when you click to start it to when it is automatically submitted. The material on the tests will be based on the problems given on the homeworks, from the reading, from videos and online class discussions. You only get ONE attempt at tests so do not click on the link to begin the test until you are ready to spend the entire time on completing it. There will be no make-ups for missed tests, except in documented and excused cases. You must contact me BEFORE the test if you are going to miss it, and I will decide if it can be made up on a case-by-case basis. As with everything else tests will be due on Sunday at 11:59 PM.

Grading for tests will be completed as soon as possible after the Sunday 11:59 PM deadline. I always look for partial credit on tests and need time to go through each one. Typically, you should see your grade by Wednesday for tests in the WebAssign gradebook.

Final Exam:

Students in this course will complete a final exam based on the techniques you will learn during the course. The final is cumulative, is worth 20% of the final grade, and has a time limit on it of 150 minutes. There will be no make-ups for a missed final, except in documented and excused cases. You must contact me BEFORE the final if you are going to miss it, and I will decide if it can be made up on a case-by-case basis.

Unlike every other assignment in this class, the final will be at a SPECIFIC time designated by the registrar during finals week Dec 7th – 11th. As soon as I know the date and time of the final I will let you all know in an announcement so that you can be sure not to schedule anything else on that date and at that time.

Course Grade Breakdown:

HW	12%
Online Discussion Groups	18%
Tests:	50%
Final Exam:	20%

Weekly Checklist:

Each week I have provided a weekly checklist for all of the REQUIRED material for the week. If you use that checklist and check things off as you've completed them each week it should serve as a helpful tool to keep you on track with what needs to be completed and how far along in completing everything you are. In addition to this, I have put the words REQUIRED prior to each

assignment that I need you to complete each week. At a quick glance, these are easy to spot as you look at the week's material. You must complete all REQUIRED material each week if you want to be successful in this course.

Attendance:

As this is an online course I expect students to be logging in frequently to spend as much time as needed in watching videos and reading to be able to complete necessary homeworks, class discussions and tests. Participation in class discussion groups will also require time spent on the computer.

Although attendance will not be taken, remember that each online chapter will build upon the previous chapter, and so missing even one assignment can be detrimental to the final grade.

Also, please keep in mind that although this is an online course there is still a good deal of reading, practicing problems, participating in online discussions, doing homework and taking quizzes or tests. If you space out the work during the week it is entirely manageable, but please do not wait until Sunday to try to get all of your work completed on time.

Communication:

Each week I will send out an announcement email on Monday mornings to remind you of anything that is due that week as well as touch on anything that may have come up in the previous week. You must be sure that you MSMC email is current and that you check it often.

If you email me asking me a question during the week I promise a 24 hr or less turnaround in answering your question. If you write to me on the weekend, it might take me longer to respond. If the HW question is urgent, I again advise you to post on the weekly HW discussion forum where a classmate or I will respond to your question as quickly as possible or you can use the tutor.com resource.

Academic Honesty Policy:

The mission of Mount Saint Mary College is concerned with "...the development of sound values, goals and commitments on the part of students. Equipping students to play responsible roles in society has been a consistent aim of our institution." Instances of academic dishonesty subvert the mission of the College and the experience students derive from it. These instances harm the offender as well as students who maintain academic honesty. The Mount community, therefore, commits itself to do all in its power to prevent such dishonesty and imposes impartial sanctions upon those who harm themselves, their fellow students and the College in this way.

Definitions:

Generally, academic dishonesty may be defined in the following ways:

- a. Cheating: using or attempting to use, giving or attempting to give, unauthorized materials, information, assistance or study aids in any academic exercise or evaluation (tests), unless the nature of the academic exercise legitimizes cooperative learning;
- b. Plagiarism: copying or imitating the language, ideas or thoughts of another person, and passing off the same as one's original work;
- c. Falsification: forgery, alteration or misuse of academic documents, records or forms.

For additional information, please go to the Student Handbook located on www.msmc.edu under **Student Services**.

Services for persons with disabilities:

It is the policy of Mount Saint Mary College to accommodate students with disabilities in accordance with federal and state laws. If you, as a student with a disability, have difficulty accessing any part of the course materials or activities for this class, please notify the instructor immediately.

Accommodations for test-taking should be arranged in advance. Students with disabilities are encouraged to contact the Disability Services Office as soon as possible so that appropriate accommodations can be determined. Please call the office at 845-569-3638, or email them at disabilityservices@msmc.edu.

If you have met with the Coordinator in the Disability Services Office and have been given an accommodation letter, please make an appointment to speak with me as soon as possible so that we can discuss the logistics and implementation of your accommodations. Students who require accommodations on exams should notify me of the conditions of the accommodation a minimum of 1 week before the scheduled exam, for each exam during the semester.

Counseling:

Many students face personal challenges or have psychological needs that may interfere with their academics, social life, or emotional well-being. MSMC Counseling Services offers a variety of confidential services to help students through difficult times including counseling, crisis intervention, consultations, and mental health screenings. Students can contact Counseling Services by phone at 845-569-3115 or email at counseling@msmc.edu. For more information about Counseling Services go their webpage at https://www.msmc.edu/Student_Services/Counseling.

Tutoring resources:

If you are need in extra assistance, I am available during my office hours and you can set up an appointment on calendly at <https://calendly.com/kathleen-venable/virtual-office-hours>. There is also free tutoring available through the Center for Student Success. They are open from 9 am to 5 pm, Monday through Friday. Please call at 845-569-3176, or email oss@msmc.edu for more information. In addition to these options you can also use the tutor.com resource available to you. You can find more information about this in the supplemental online tutoring resource tab on eClass.

Your grade in this course will be current in the WebAssign gradebook. When you log in you'll be able to see a fairly close to real-time value for your grade. Typically after an assignment is due it will have updated in a day. When grading online discussions and tests it will take me a bit longer to input those grades into the gradebook as I need to look at the assignment for partial credit but once they are entered they will automatically update your grade in the course. In addition, at any time you can click on your grade and see exactly how it is calculated for the work you have completed thus far. I hope that this will allow students to know where they stand in the course throughout the course. At the end of the semester, do NOT ask me to change your grade. Your grade will be what you see in the WebAssign gradebook and will be what you EARNED in the course.

Grading Scale:

A	95 – 100	B	83 – 86	C	73 – 76	D	60 – 64
A-	90 – 94	B-	80 – 82	C-	69 – 72	F	below 60
B+	87 – 89	C+	77 – 79	D+	65 – 68		

Remember ALL work is due on Sunday at 11:59 PM each week.

Class Week	Chapter(s)	Topic
Week 1	1	Introduction to Statistics, Analysis & Presentation of Single Variable Data
	O.D. #1	WebAssign Homework: 1.1 – 1.3 The Basics
		Syllabus Quiz = Bonus Points on First WebAssign HW
		Online Discussion #1 – Introduction
Week 2	2.1 – 2.4	Graphing and frequency histograms
		WebAssign Homework: 2.1 – 2.4 Stem & Leaf, Freqs, Mean, SD & Var
Week 3	2.1 – 2.4	Review and Test on Chapters 1 – 2.4
	Review, Test	WebAssign Homework: None
	O.D. #2	Online Discussion #2 – Hans Rosling
		Test #1 – Chapters 1 & 2.1 – 2.4
Week 4	2.5, 2.6	Percentiles, Empirical rule and Chebychev's Theorem
		WebAssign Homework: Percentiles, z, Empirical & Cheby
Week 5	2	Review and Test on Chapter 2
	Review, Test	WebAssign Homework: OPTIONAL Chapter 2 Test Review
	O.D. #3	Online Discussion #3 – TBD
		Test #2 – Chapter 2
Week 6	3.1, 3.2	Bivariate data, Linear Correlation
		WebAssign Homework: Bivariate Data & Linear Correlation
Week 7	3.3	Linear Regression
		WebAssign Homework: Line of Best Fit
Week 8	3	Review and Test on Chapter 3
	Review, Test	WebAssign Homework: OPTIONAL Chapter 3 Test Review
	O.D. #4	Online Discussion #4 - TBD
		Test #3 – Chapter 3
Week 9	6.2, 6.3	Standard Normal Distribution, z-scores and probabilities
		WebAssign Homework: Normal Distributions & Probabilities
Week 10	8.2, 8.3	Confidence Intervals and Hypothesis Testing
		WebAssign Homework: Confidence Intervals & Hypothesis Testing
Week 11	6 & 8	Review and test on chapters 6 & 8
	Review, Test	WebAssign Homework: OPTIONAL Chapters 6 & 8 Test Review
	O.D. #5	Online Discussion #5 - TBD
		Test #4 – Chapters 6 & 8
Week 12	11.1, 11.2	Chi-square distributions, expected frequencies
		WebAssign Homework: Chi-square Intro and Test Statistic
Week 13	11.3	Chi-square with contingency tables
		WebAssign Homework: Chi-square with Contingency Tables
Week 14	11	Chi-square review and test
	Review, Test	WebAssign Homework: OPTIONAL Chapter 11 Test Review
	O.D. #6	Online Discussion #6 - TBD
		Test #5 – Chapter 11
Week 15	1, 2, 3, 6, 8, 11	Review all previous materials & tests to prep for the cumulative final.
	1, 2, 3, 6, 8, 11	WebAssign Homework: OPTIONAL Final Review
		Final Exam

Health statement:

As a member of the Mount community, I AGREE to take cooperative steps to protect the health and safety of every member of our campus and local community in the midst of this global pandemic. Furthermore, I recognize that my efforts keep me, and those with whom I live and learn, safer and healthier. I understand that my personal and academic success are dependent on staying healthy and agreeing to shared behavioral practices – wearing a face covering, maintaining sanitized work areas, and social distancing across campus – that will keep me and other members of the College and local community protected from illness. **I AGREE** to invite others to participate with me in our mutual responsibility to sustaining the health and wellbeing of our cherished community.