

MATH 114 ELEMENTARY STATISTICS

Online 2015 Summer Syllabus



WESTMINSTER COLLEGE

Instructor: Mary Majerus

Contact Information: Since this is an online course, maintaining regular means of communication is of the utmost importance. Email and Moodle will be the primary means of communication for this course. I will also be available via Skype if you would prefer to interact that way. I will regularly post course information on Moodle, so that location must be checked at *least* daily. All assignments, quizzes, test information, etc will be shared on Moodle. It is your responsibility to refer to that site frequently and regularly. I will check my email several times a day. That will be the best means of contacting me. I anticipate being on email early in the morning, and checking again in the afternoon and evening. Email is an official means of communication for WC. It is your responsibility to be stay informed of class expectations via email and Moodle. Failure to do so does not excuse you from any announcements, due dates, or other changes made via email or Moodle. Additionally you can reach me via Skype if I am “online”.

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Skype Address: Mary_Majerus

Course Times/Location: June 1- July 10, 2015, online

College Mission Statement: *“It shall be the mission of Westminster College to educate and inspire all its students through a distinctive liberal arts curriculum and a dynamic developmental experience; to challenge them to be critically aware, life-long learners and leaders of character, committed to the values of integrity, fairness, respect and responsibility; and to prepare them for lives of success, significance and service.”*~Taken from the Westminster College website, www.westminster-mo.edu

Teaching and Learning Philosophy: My goal is to create an online learning environment to help you achieve a deeper understanding of statistics, demonstrating skills and applications as they apply to a variety of fields. I intend to share a variety of opportunities for you to explore statistical concepts and share your questions and insights. In this collaborative environment, your ideas will be challenged, and you will be reasoning with others to verify conjectures by both supporting and defending claims. My hope is that you, as a responsible learner, will thoughtfully engage in discussions of those concepts, regularly practice the skills as needed, and respectfully respond in all that is asked of you to ultimately demonstrate with fairness and integrity, your increased knowledge and understanding of statistics.

Tier I Mathematics Course: From the New Foundations description of the Tier One goals of mathematics, “Mastery of quantitative skills aids students in their ability to gather and use data to make empirical decisions.”

<http://www.westminster-mo.edu/academics/resources/policy/academic/Pages/GeneralEducationProgram.aspx>

Please note that successful completion of this course, MAT 114, fulfills your mathematics Tier One graduation requirement for Westminster College.

Prerequisites: (1) ACT math score 23 or SAT math score 540 and at least four years of high school math, including two years of algebra with at least B’s. (2) **Not having prerequisite (1) requires the student to take MAT 111, College Algebra.**

Required Text: *Elementary Statistics*, by Triola. Pearson Addison-Wesley Publishers, Twelfth Edition, including the online component of MyStatLab. Directions as to how to purchase MyStatLab with either the text or e-text will be provided at the first orientation meeting.

A TI – 84 graphing calculator is required for this class. We will be using the TI-84 Plus regularly, for both assignments and assessments. We will be using the calculator extensively, as well as the computer software, MINITAB. Free online versions of this software package exist on a trial basis for 30 days. Please note the course calendar carefully so you will be able to access the software as needed for the course. It is suggested you download the free trial version on or immediately after June 11 so you have the software available for your use as needed. *Do not download the trial version until required to do so.* You may also purchase the software for your use if you'd like; however, this is *not* required. Learning to use these technological tools to process and interpret data is a critical component of this course. Assignments will contain aspects of the technological components. In order to successfully complete the course, you will be required to participate in using the software, the calculator, and interpreting results of the technology.

Course Goals: This course is designed to help you begin to develop an understanding of statistics as it applies to everyday life. In that vein, you will become familiar with terms and technological tools used in statistical decision-making.

- You will investigate collecting, organizing, and describing data.
- You will explore probabilities and how they relate to the certainty of a situation.
- You will begin to study inferential statistics to examine conjectures.

Grading

The approximate grading scale for this class is provided below:

≥ 93%	A	73- 76%	C
90 – 92 %	A-	70- 72%	C-
87- 89%	B+	67- 69%	D+
83- 86%	B	63- 66%	D
80- 82%	B-	60- 62%	D-
77- 79%	C+	< 60%	F

Your grade will be based on the following weight distribution:

Tests (20% each test):	60%
Discussion Boards	10%
Labs/Assignments/Homework:	10%
Quizzes:	10%
Project Work	10%

Tests

There will be three tests in this class. The test dates are as follows:

Test #1	Friday, June 12
Test #2	Friday, June 26
Test #3	Friday, July 10

For each test you will need your calculator, pencils, and a formula card. More information about the formula card will be provided before each test. Each test will be a paper and pencil test. You will be required to take this test in an approved environment with a proctor, who has been approved by me, who has agreed to support the testing situation and is able to manage the paperwork required, including having a professional work email, ability to print exams, scan completed items and return those to me via email. I recommend a teacher at a local school or a librarian at your local public library. More about this will be explained at the online course meeting before the start of the course this spring. (Should you have questions about this, feel free to contact me via email at any time before the start of the course.)

Discussion Boards

For each assigned reading, there will be discussion questions posed to discuss the topics at hand, similar to what would happen in a typical classroom setting. There will be approximately 6 discussion boards held throughout the course. I will pose a series of questions each Monday morning to consider in order to encourage initial discussion of the topic. For each discussion board posed, you will be expected to initially post two of your own comments, and a minimum of two additional comments posted as follow-up to the posts others have made. This is an opportunity to share with the instructor and your classmates your insights and observations on the readings, data, etc. which was posted as reading to enhance your learning of the statistical concepts. The posts must be completed by each Thursday night at midnight. A rubric describing the grading of the posts will be placed on Moodle. It should be noted that simply making a statement or claim is not sufficient for “participating” in the discussion board. Identifying work and comments which support your statement or claim is necessary in order for credit to be earned.

Assignments and labs/experiments: Homework for your practice will be given on a daily basis. The goal of practice homework is to allow you the opportunity to practice your skills and assess your own knowledge without any negative consequences on your grade. The more you increase your ability in practice work, your skills will not only improve, but your confidence in your ability to do the mathematical work will improve as well. I would encourage you to engage in the practice work frequently and regularly in order to help you achieve success in the course. **Any assignments which are directed to be turned in are due at the date and time posted.** Late assignments will not be accepted, barring extenuating circumstances, and then are only accepted with a penalty of 20% per day. You will also have experiments or lab type of activities in which you are expected to participate. The results of those experiments and labs will be shared as indicated when posted.

Quizzes will typically be given twice a week, posted on Tuesdays and alternate Fridays. They will be based on homework assignments and class notes and are worth 10% of your grade as indicated. Quizzes will be taken online, and will have an open window of 36 hours for the opportunity to take the quiz, with a time limit on the quiz once you begin the quiz itself. Your lowest quiz score in the semester will be dropped. *No make-ups are given for missed quizzes.* For tests, make-ups will only be given if I am notified in advance by you **and** if extenuating circumstances exist for which you can provide official documentation.

Project Work

Throughout the course, you will be working on a project for the final class presentation. The project will be a three step process, with each step of the project’s expectations being posted on Moodle. The three steps focus on data collection, summarizing and describing results, and finally reporting the results of data analysis. The final project will be uploaded onto Moodle with the opportunity for your classmates to view as well as the instructor. More details will be posted as the semester unfolds.

General expectations: You are responsible for all material covered in class, the sections of the text that are assigned, the reading of each section in the textbook, and any experiments. Video tutorials and links will also be shared for you to use as needed. Homework will be given on a daily basis. Graded assignments are due on the date and time indicated on the schedule, or as updated in assignments posted. Graded assignments will be at most two times per week, and you will typically have 1-2 days to complete the assignment. It is imperative for you to read your email and read all postings from me on Moodle. You can access your Moodle account through the college’s homepage <http://moodle2.westminster-mo.edu/> or MyWC.

In order to achieve success in this course it is *essential* that you do your daily work and fully prepare for discussions, labs, and assessments.

Netiquette: It is important to remember that you are part of a higher education learning community. As such, I remind you to be thoughtful and respectful in all of your interactions with your peers and with me. Proofread your work to be sure it represents your best meaning and intentions, and that it is your own work. I look forward to having engaging discussions with you about statistics and its many uses (and abuses) in today's data-driven society.

Abuses of Trust: Students are expected to abide by the Honor Code as presented in the current Westminster College Student Handbook. The code states, "No Westminster student shall commit any act of academic dishonesty in order to advance the academic progress of others." Students are advised to consult the Student Handbook for more detail concerning violations and penalties. Plagiarism, cheating on homework, quizzes, projects, or exams, or copying another student's work or files is considered academic dishonesty. This includes 'lending' your work, homework, or files to another. If the student is unsure whether an act violates the Honor Code, it is the student's responsibility to discuss the situation with the instructor. See the *Westminster Student Handbook* for specific penalties.

ADA Statement:

Americans with Disabilities Act. Westminster College is committed to the full and total inclusion of all individuals and to the principle of individual rights and responsibilities. It is the policy of Westminster College to comply with the Americans with Disabilities Act of 1990 (ADA), Section 504 of the Rehabilitation Act of 1973, and other applicable federal and state laws and regulations that prohibit discrimination on the basis of disability. We encourage students with disabilities to consult with the instructor early in the course regarding appropriate accommodations. If appropriate, you should also contact the Learning Opportunities Center for additional assistance. Please seek the help you need in order to succeed at Westminster College. Westminster's ADA policy is posted on the College's website:

http://www.westminster-mo.edu/explore/offices/business/hr/Documents/ADA_index.pdf

All students are responsible to maintain coursework and contact via Moodle, MyStatLab, and email.