MATH220 Elementary Statistics Spring 2021

Course Information

Elementary Statistics, Math 220 Section 25, Spring 2021 Credit hours: 3 Class dates: Jan 19 - May 6 Class meeting time and location: TuTh 11:20 am-12:35 pm online Student/Faculty assessment Day: 2/9, No class between 8am to 4 pm Break Days (no class): 2/17,3/12, 4/8

Instructor: Lihua Chen

Office: Roop Hall 338 Office phone: 540-568-6533 Office hours: TuTh 2:30-4:00 pm W 1:00-3:00 pm online Email: CHEN3LX@jmu.edu

Text: Essential Statistics William Navidi and Barry Monk, 2nd edition.

Course Website: All course materials will be posted in Canvas.

Goals of the Course:

1. To understand how to efficiently collect data.

2. To use graphs and numbers to display and explore data.

3. To use graphs and statistical methods to analyze the relationship between two variables.

4. To use statistical methods to make inferences about population parameters.

5. To understand the concept of variation, probability, distribution and sampling variability.

Prerequisite: MATH 155, MATH 156 or sufficient score on the Mathematics Placement Exam.

Evaluations:

Homeworks: 5 percent Quizzes: 20 percent Tests: 40 percent(Test 1: Feb 25, Thursday; Test 2: April 13, Tuesday) Final Exam: 35 percent May 4, Tuesday 8:00 am- 10:00 am

Note your letter grade will depend on your overall weighted grade on homeworks, quizzes, tests and the final exam. No extra credit assignents will be given upon individual request.

Homework: Roughly one homework assignment will be given for each chapter. You need to log in Aleks account to finish your homework assignments.

Quizzes: Approximately 8 to 10 Quizzes will be given and quizzes may NOT be made up. The quiz time will be announced at least one day ahead so please check your jmu email at least once a day. Up to TWO quizzes with lowest scores may be dropped. Note one purpose of this policy is to take care of missed work due to excused absences. If you miss more than you are allowed to drop due to excused absences, please let me know and I will deal with this on an individual basis.

Exams: The exam will be open book and open notes if it is given online. Make sure you have a laptop that you can use to take an online quiz or exam.

The final exam is cumulative.

Attendance:

Note that attendance will be automatically taken for synchoronous online classes.

Adding/Dropping Classes

Students are responsible for registering for classes and for verifying their class schedules on e-campus. Please refer to

https://www.jmu.edu/registrar/_files/deadlines-spring.pdf

for deadlines for adding or dropping a class.

Disability Accommodations

If you need an accommodation based on the impact of a disability, you should contact the Office of Disability Services (Wilson Hall, Room 107, www.jmu.edu/ods, 540-568-6705) if you have not previously done so. Disability Services will provide you with an Access Plan Letter that will verify your need for services and make recommendations for accommodations to be used in the classroom. Once you have presented me with this letter, you and I will sit down and review the course requirements, your disability characteristics, and your requested accommodations to develop an individualized plan, appropriate for Math 220.

Religious Observation Accommodations

All faculty are required to give reasonable and appropriate accommodations to students requesting them on grounds of religious observation. The faculty member determines what accommodations are appropriate for his/her course. Students should notify the faculty by no later than the end of the Drop-Add period the first week of the semester of potential scheduled absences and determine with the instructor if mutually acceptable alternative methods exist for completing the missed classroom time, lab or activity.

Inclement Weather Policies Please find JMU's cancellation policy at http://www.jmu.edu/JMUpolicy/1309.shtml.

Learning Center

The Science and Math Learning Center (SMLC) is located on the first floor of the Student Success Center and provides free, drop-in tutoring (i.e. No appointment needed). The Statistics tutors can help with Math 105, Math 220 while the Math tutors can help with Math 103, 155, 156, 205, 231, 232, 233, 234, 235, 236, and 237. The open time of SMLC will be announced later.

Academic Honesty

You are expected to finish all the quizzes and tests of this course on your own. Getting help from others on a quiz or test will be considered academically dishonest. The consequence of such behavior ranges from failure on the quiz or test to dismissal from university. The honor code of the university will be strictly enforced. The JMU Honor Code is available from the Honor Council Web site http:// www.jmu.edu/honor/code.shtml.

Disruptive behavior will result in the reduction of the student's final grade.

No Honors option will be offered in this course.

Others:

For locations of computers, see http://www.jmu.edu/computing/labs/locations/index.html

Tentative Outline

Chapter	1:	Basic ideas: Sampling, Types of data, Design of experiments, Bias in study
Chapter	2:	Graphical summary of data
Chapter	3:	Numerical summaries of data
Chapter	4:	Probability: Addition rule, Multiplication rule,
		Conditional probability
Chapter	5:	Discrete probability distributions
Chapter	6:	The normal distribution: Normal curve, Sampling
		distribution, Central limit theorem
Chapter	7:	Confidence intervals: For a population mean and a proportion
chapter	8:	Hypothesis testing: For a population mean and a proportion
chapter	9:	Inference on two samples: Difference between two means,
		Difference between two proportions
chapter	10	: Tests with qualitative data: chi-square test
chapter	11	Correlation and regression
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This is a tentative schedule. The actual contents may be altered based on the time limitation and the needs of the students.