MATH 15: Elementary Statistics
Section 5110: TTH 1:00pm-3:00pm, Shuhaw 1737
Santa Rosa Junior College, Spring 2019

Instructor: Greg Morre, PhD Mathematics, UNM	**Office:** Shuhaw Hall, 1726
Phone: 707-527-4357	**E-mail:** gmorre@santarosa.edu
Office Hours: MW 3:30pm-4:00pm, 8:30pm-9:00pm	TTH 12:00pm-1:00pm, 3:00pm-3:30pm,
	4:30pm-5:00pm, 7:00pm-7:30pm

Topics: Exploration of concepts in statistics, descriptive statistics, probability theory, Central Limit Theorem, estimation of population parameters from a sample, hypothesis testing, correlation and linear regression, introduction to analysis of variance, and computer simulations.

Pace of Class: This is a 4 unit course. This means you need to have at least 8 to 12 hours outside of class per week to devote to homework and study for this course.

Canvas: Internet access is important. This course includes MyStatLab online homework. Information regarding this course and access to MyStatLab can be found on Canvas.

Textbook (required): Elementary Statistics (13th Edition), Mario Triola (ISBN-13:978-0-13-446245-5) with MyStatLab Access Code. Students may also purchase the MyStatLab Access Code separately and use the eText.

Participation: Students are encouraged to ask questions and answer questions I ask. It is not a competition however. If during a class you have already responded to a question, let other students have a chance to answer the next question. During lecture exercises will be assigned. You should attempt these exercises and help your fellow students when you can. Class will include group activities. Work with your group in a courteous and helpful manner.

Attendance: It is very important that you attend and are on time for **every** class. However, if you do miss a class you are responsible for all announcements and material covered in your absence. Students who have missed over 10% of class time or miss two tests may be dropped from the course.

Reading: Check the schedule on Canvas and read each section before we cover it in class.

Calculator Policy: A TI-83/84 calculator is required for this course.

Cell Phone Policy: Cell phones must be **turned off** at the beginning of class, put away and remain so for the duration of class, except during the break. Students who do not comply will be asked to leave for the remainder of that class! On some occasions students may be allowed to use a phone to photograph the board.

Other Electronic Devices: Laptops, headphones, and other electronic devices are not to be used during class. Tablets may be allowed for legitimate note-taking. Additional rules may be added for any electronic devices not mentioned in this syllabus.

Communication: Please check Canvas for the updated schedule and announcements before each class. If any student needs to be contacted individually it may be through Canvas or via email. Don't forget to check your email.

Important Note: Notes of any kind, 3x5 cards, books, cell phones, computers, headphones etc. are not allowed on any tests, including the Final Exam.

Drops: If a student wishes to drop the course it is the students responsibility to do so. A student who stops attending will not necessarily be dropped from the course.

Class Conduct: You are expected to act in a mature and courteous manner toward me and your classmates. Students are expected to conduct themselves in a manner which reflects their awareness of common standards of decency and the rights of others. Interference with the Districts mission, objectives, or community life shall be cause for disciplinary action. Please refer to https://student-conduct.santarosa.edu/code-conduct-0 for more information.

Academic Integrity: Cheating on exams and quizzes will not be tolerated! For more information, please see the link https://rightsresponsibilities.santarosa.edu/academic-integrity.

Students with Disabilities: If you need disability related accommodations for this class, such as a notetaker, test-taking services, special furniture, etc., please provide the Authorization for Academic Accommodations (AAA letter) from the Disability Resources Department (DRD) to the instructor as soon as possible. You may also speak with the instructor privately during office hours about your accommodations. The terms of this syllabus may be altered to accommodate students with disabilities. If you have not received authorization from DRD, it is recommended that you contact them directly. DRD is located in Bertolini Student Center on the Santa Rosa Campus, and Jacobs Hall on the Petaluma Campus.

A Word of Advice: If you are struggling with the material, please please please come and see me! If my office hours do not fit your schedule you can make an appointment. Also, there is plenty of **free extra help** available on campus.

Extra Help Resources: Aside from my office hours, you have the following available to you:

- **Computer and Mathematics Lab** in Shuhaw Hall, room 1733 and 1735.
- **Santa Rosa Campus's Tutorial Center** on the first foor of library
- **Petaluma Campus's Tutorial Center** in Kathleen Doyle Hall, 2nd Floor, Rm 247.

Furthermore, for any student who has declared a Calculus based Science Major, you can join MESA, located in Bertolini. They have tutoring services and so much more!

Library Reserve Desk: Copies of the text are available at the Doyle Library at the reserve desk. The call number is QA276.12 .T76 2018.

Grade: The grade for this course is based upon the following categories with the weight of each category given as a percent:

Written Homework (10%): Assignments are posted on Canvas. Follow the **written homework guidelines** which can also be found on Canvas. Assignments will be due at the beginning of each class. Late assignments due Tuesday will be accepted that Thursday. Late assignments due Thursday must be turned in at my office no later than 12:00 pm that Friday. Written homework assignments will not be accepted after this.

MyStatLab Homework (10%): MyStatLab can only be accessed for this course via Canvas. Start your MyStatLab account ASAP, you may encounter technical issues. Even if you have not purchased an access code yet, there is a free 14-day trial. Instructions for getting started with MyStatLab and the MyStatLab assignments can be found on Canvas. Assignments will be due at the beginning of each class. Late MyMathLab assignments will only receive 50% credit.

In-Class Assignments (5%): During some classes there will be in-class assignments done in groups. These will be graded for completion. There are no make-ups for in-class assignments.

Quick Questions (5%): Most days a problem will be given at the beginning of class. There will be about 3 to 5 minutes to answer this question. It will cover material from the previous class or a review question. You must be on time for the Quick Question! There are no make-ups for Quick Questions.

Quizzes (5%): There will be 4-6 quizzes throughout the semester. Either in-class or take home.

Exams (45%): There will be three exams. There are no make-up exams under any circumstances.

Final Exam (20%): The final exam is on Thursday, May 23 from 10:00am-12:45pm. It is cumulative.

Grading Scheme: The grading scheme (using interval notation) is as follows:

$$\text{A: } [90\%, 100\%], \text{ B: } [80\%, 90\%), \text{ C: } [70\%, 80\%), \text{ D: } [60\%, 70\%), \text{ F: } [0\%, 60\%)$$

Missed Assignments: Students may miss handing in homework, quizzes and even tests due to unforeseen circumstances such as illnesses, bereavement, car problems etc. In order to mitigate this:

- the 3 lowest written homework scores will be dropped,

- the lowest in-class assignment score will be dropped,

- the lowest Quick Question score will be dropped, and

- the lowest of the final exam percentage, written homework percentage or MyMathLab homework percentage will replace the lowest test score if this improves the student's grade.

Syllabus Changes: I reserve the right to change the syllabus at any point of time during the semester! However, I will make every effort to make as few changes as possible.

Course Outline:
https://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?mode=1&CVID=48790&Semester=20195

Date	Day	Math 15 Spring 2019 Tentative Schedule	Sections
		Topic	
1/15/19	T	Introduction, Statistical Thinking	1.1
1/17/19	TH	Data Collection	1.2, 1.3
1/22/19	T	PDA Day, no class	
1/24/19	TH	Frequency Distributions, Histograms	2.1, 2.2
1/29/19	T	Graphs	2.3
1/31/19	TH	Measures of Center, Measures of Variation	3.1, 3.2
2/5/19	T	Measures of Relative Standing, Probability	3.3, 4.1
2/7/19	TH	Addition and Multiplication Rules, Compliments and Coordinates	4.2, 4.3
2/12/19	T	Counting	4.4
2/14/19	TH	PDA Day, no class	
2/19/19	T	Discrete & Random Variables	5.1
2/21/19	TH	Binomial Probability Distribution	5.2
2/26/19	T	Test 1 (Chapters 1-4)	
2/28/19	TH	Poisson Probability Distributions, Standard Normal Distributions	5.3, 6.1
3/5/19	T	Applications, Sampling Distributions	6.2, 6.3
3/7/19	TH	The Central Limit Theorem, Assessing Normality	6.4, 6.5
3/12/19	T	Estimating a Population Proportion	7.1
3/14/19	TH	Estimate Mean	7.2
3/19/19	T	Spring Break, no class	
3/21/19	TH	Spring Break, no class	
3/26/19	T	Estimating a Population Variance	7.3
3/28/19	TH	Hypothesis Testing	8.1
4/2/19	T	Test 2 (Chapters 5-7)	
4/4/19	TH	Hypothesis Testing	8.1
4/9/19	T	Testing a Claim About a Proportion	8.2
4/11/19	TH	Testing a Claim About a Mean	8.3
4/16/19	T	Two Proportions	9.1
4/18/19	TH	Inferences About Two Means, Inferences About Matched Pairs	9.2, 9.3
4/23/19	T	Catch-up/Review	
4/25/19	TH	Correlation, Regression	10.1, 10.2
4/30/19	T	Test 3 (Chapters 8-9)	
5/2/19	TH	Prediction Intervals	10.3
5/7/19	T	Multinomial Experiments GOF, Contingency Tables X2	11.1, 11.2
5/9/19	TH	ANOVA	12.1
5/14/19	T	Catch-up/Review	
5/16/19	TH	Catch-up/Review	
5/23/19	TH	Final Exam, 10:00pm-12:45pm	