## Fall 2021 Course Syllabus

This is HYBRID course. We will meet during the following times throughout the week:

- Mondays IN PERSON from 12-1:30PM in Lark 2042
- Tuesdays IN PERSON from 12-1:30PM in Lark 2042
- Thursdays ONLINE (via Zoom) from 12-1PM. See Canvas page for the class Zoom link.

# Instructor Information

Instructor: Cortney Schultz Phone: (707) 527 – 4705 Office location: Kunde Hall 219 Email: <u>cschultz@santarosa.edu</u> Website: <u>https://profiles.santarosa.edu/cortney-schultz</u>

In-Person office hours (held in Kunde 219): M 1:30PM-2:30PM & 4:30-5:30PM, T 1:30-2:30PM Zoom office hours (<u>https://santarosa-edu.zoom.us/j/97109763128</u>): W 1:30-2:30PM, TH 1:30-2:30PM

**Prerequisite/Corequisite:** Completion of MATH 161 OR MATH 156 OR MATH 154 OR MATH 155 or appropriate placement based on AB 705 mandates.

**Math 15 Course Description:** 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.

**Student Learning Outcomes:** Here is the link for Math 15 course outline at SRJC. <u>https://portal.santarosa.edu/srweb/SR\_CourseOutlines.aspx?CVID=48790&Semester=20195</u>

## Grading for Math 15

Traditional grading scheme

		$A \ge 90$
ALEKS Homework	20%	$80 \le B < 90$
Exams (3 @ 20% each)	60%	$70 \le C < 80$
Comprehensive Final Exam	20%	$60 \le D < 70$
	100%	F < 60

## **Required Course Materials**

**Calculator**: A graphing calculator is <u>required</u> for this course. I recommend using a TI–83, 83+, 84, or 84+. I will be demonstrating on a TI-84+.

Graphing Calculators are available to check out at the Mahoney Library for FREE all semester with a student ID.

Textbook: Elementary Statistics, 4th edition, by William Navidi and Barry Monk

ALEKS Online Homework: Homework will be completed and submitted and graded online.

# Class Code: AMA3U-VKTNK

Here are three purchasing options:

Option #1: Purchase the hardback textbook and the ALEKS access code (E-textbook included).

Option #2: Purchase the loose-leaf textbook and the ALEKS access code (E-textbook included).

<u>Option #3:</u> Purchase only the ALEKS access code (E-textbook included).

With the following access code, you will receive 2 weeks of temporary access. Before the 2 weeks expire, you will be expected to purchase access to the course for the rest of the semester,

# Financial Aid Access Code: BD147-FBCAD-CEB4E-31B05

#### Exams

Three midterm exams and a comprehensive final exam will be given IN PERSON during the semester. <u>Make-ups are not given</u>, and all exams must be taken on the scheduled dates. If you miss an exam, contact me within 24 hours. If it is an excused absence, your final exam score will replace that missed midterm score.

#### **ALEKS Online Homework**

Homework objectives will be due once a week (generally Sundays by 11:59PM). In addition, there are Knowledge Checks every other week to check if you're retaining the information you've learned in class.

Your homework grade is based on how many topics you have learned. There is no penalty for getting answers wrong; the goal of the homework is learning and mastery.

ALEKS uses artificial intelligence to determine precisely what each student knows, doesn't know, and is most ready to learn in a given course. When students first log on to ALEKS they take the Initial Knowledge Check, which is a 25-30 question adaptive assessment. ALEKS chooses each question based on the student's answers to all of the previous questions. Each set of assessment questions is unique to that student and therefore are impossible to predict.

By the time the student has completed the Knowledge Check, ALEKS has developed a precise picture of the student's knowledge of the course, knowing which topics are mastered and which topics are not. The student's knowledge is then represented by a multi-colored pie chart. Each pie slice depicts an area of the course; the student knows exactly how many topics they know and don't know in each area.

#### Canvas

Throughout the course, I will be posting notes, handouts, chapter review keys, and exam keys on Canvas. You may also keep up with your current grade by using Canvas.

#### Attendance

Daily attendance is essential. You may be dropped from the course if you have more than 4 absences. Arriving late or leaving class early may count as an absence.

### **Class Behavior Rules**

- Students are to act respectfully and pay attention while in class.
- Please arrive on time and stay for the entire class period.
- Cell phones are to be turned off or set to silent mode.
- Students are expected to watch lecture videos before coming to class.
- Students are expected to read the textbook.
- Students are expected to ask questions.
- Students are expected to be active participants in their education and do their best every day.

#### **Important Academic Calendar Dates**

MONDAY, DECEMBER 13th	FINAL EXAM (10-12:45PM)
Sunday, November 14 <sup>th</sup>	Last day to drop a class with "W" symbol
Sunday, September 5 <sup>th</sup>	Last day to drop a class without a "W" symbol
Sunday, August 29 <sup>th</sup>	Last day to drop a class and receive a refund
Monday, August 16 <sup>th</sup>	Classes begin

### **Cheating/Plagiarism**

Please read SRJC's policy/procedure on academic integrity at <a href="http://www.boarddocs.com/ca/santarosa/Board.nsf/goto?open&id=A63TMC78051C">http://www.boarddocs.com/ca/santarosa/Board.nsf/goto?open&id=A63TMC78051C</a> All quizzes & exams (including the final) must be done by the student alone. Any student who violates this rule will receive a zero. A student who commits a second offense may receive a failing grade in the class.

#### Accommodations for Disabilities

Please provide the Authorization for Academic Accommodations (AAA letter) from the Disability Resources Department (DRD) to me as soon as possible. You may also speak with me privately during office hours about your accommodations.

#### **Emergency Evacuation**

In the event of an emergency during class that requires evacuation of the building, please leave the class immediately and calmly. If you are a student who may need assistance in an evacuation, please see me as soon as possible to discuss an evacuation plan.

#### Tutoring

<u>Free</u> tutoring is available to all registered SRJC students.

- **SRJC Tutorial Centers** can be accessed through the website: <u>https://college-skills.santarosa.edu/srjc-tutorial-centers</u>
- Math Lab Tutorial Center: https://mathematics.santarosa.edu/online-math-lab-tutoring

#### **Calculator & Laptop Rentals**

Students may place online requests for Reserve items, including textbooks, calculators and laptops. This curbside pick-up service will be available by appointment. Loan periods will be for the entire Fall 2021 semester. Reserve item check-outs to students will be on a first-come, first-served basis, until all physical copies are gone. Students will keep Reserve items for the entire semester.

Use this link to find more information about rentals: <u>https://libguides.santarosa.edu/RemoteAccess</u>

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
	12-1:30PM (in person)	12-1:30PM (in person)		12-1PM (online)
Week 1 Aug 16 - Aug 19	Syllabus/Intro	1.1 Sampling		<b>1.2</b> Types of Data
Week 2 Aug 23 - Aug 26	<ul><li><b>1.3</b> Design of Experiments</li><li><b>1.4</b> Bias in Studies</li></ul>	<b>2.1</b> Graphical Summaries for Qualitative Data		<b>2.2</b> Graphical Summaries for Quantitative Data
Week 3 Aug 30 - Sep 2	<b>2.2</b> Graphical Summaries for Quantitative Data	<b>2.3</b> More Graphs for Quantitative Data		<b>2.4</b> Graphs Can Be Misleading
Week 4 Sep 6 - Sep 9	NO CLASS - LABOR DAY	<b>3.1</b> Measures of Center		<b>3.1</b> Measures of Center
Week 5 Sep 13 - Sep 16	<b>3.2</b> Measures of Spread	<b>3.2</b> Measures of Spread		<b>3.3</b> Measure of Position
Week 6 Sep 20 - Sep 23	<b>4.1</b> Correlation <i>Review for Exam 1</i>	EXAM 1		4.1 Correlation

### Fall 2021 - Math 15 (MT 12-1:30PM TH 12-1PM)

Lark Hall 2042

Week 7 Sep 27 - Sep 30	<b>4.2</b> Least-Squares Regression Line	<b>5.1</b> Basic Concepts of Probability <b>5.2</b> Additional Rule and Rule of Complements		<b>5.2</b> Additional Rule and Rule of Complements
Week 8 Oct 4 - Oct 7	<b>5.3</b> Conditional Probability and the Multiplication Rule	<b>5.3</b> Conditional Probability and the Multiplication Rule		<b>6.1</b> Random variables
Week 9 Oct 11 - Oct 14	<b>6.1</b> Random variables <b>6.2</b> Binomial Distribution	<b>6.2</b> Binomial Distribution <b>7.1</b> Standard Normal Curve		7.1 Standard Normal Curve
Week 10 Oct 18 - Oct 21	<b>7.2</b> Applications of Normal Distribution	<b>7.3</b> Sampling Distribution and Central Limit Theorem		<b>7.4</b> The Central Limit Theorem for Proportions
Week 11 Oct 25 - Oct 28	Catch-up / Review for Exam 2	EXAM 2		8.1 Confidence Intervals Pop. Mean w/ Pop. SD known (intro & calculate basic interval)
Week 12 Nov 1 - Nov 4	<b>8.1</b> Confidence Intervals Pop. Mean w/ Pop. SD known (applications of intervals, min sample size)	<b>8.2</b> Confidence Intervals Pop. Mean w/ Pop. SD unknown		<b>8.3</b> Confidence Intervals Pop. Proportion
Week 13 Nov 8 - Nov 11	<b>9.1</b> Basic Principles of Hypothesis Testing	<ul> <li>9.1 Basic Principles of Hypothesis Testing</li> <li>9.2 Hypothesis Testing Mean (sigma is known)</li> </ul>	NO CLASSES - PDA FLEX DAY	NO CLASSES - VETERANS DAY
Week 14 Nov 15 - Nov 18	<b>9.2</b> Hypothesis Testing Mean (sigma is known)	<b>9.3</b> Hypothesis Testing Mean (sigma is unknown)		<b>9.4</b> Hypothesis Tests for Proportions
Week 15 Nov 22 - Nov 25	Catch-up / Review for Exam 3	EXAM 3		NO CLASSES - THANKSGIVING
Week 16 Nov 29 - Dec 2	<b>11.1</b> Hypothesis Tests for the Difference Between 2 Means - Independent Samples	<b>11.2</b> Hypothesis Tests for the Difference Between Proportions		<b>11.3</b> Hypothesis Tests for the Difference Between 2 Means - Dependent Samples
Week 17 Dec 6 - Dec 9	<b>12.1</b> Testing Goodness of Fit <b>12.2</b> Testing for Independence	<b>12.2</b> Testing for Independence <b>14.1</b> One-Way Analysis of Variance		Catch-up Day / Review for Final Exam
Finals Week Dec 13 - Dec 16FINAL EXAM: MONDAY, DECEMBER 13 (10:00AM - 12:45PM) - FINAL WILL BE IN PERSON				

Note: Schedule is subject to change throughout the semester