

COURSE SYLLABUS

CONTACT INFORMATION

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**Office Hours:**

**M-Th 11:00am-12:00pm**

**Th 2:00-3:00pm**

**F 10:00-11:00am (virtual)**

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## Course Description Course Objectives

This course is an introduction to statistical methods and techniques with applications in the fields of business, behavioral and social science, as well as in science, technology, engineering, and mathematics. Topics include descriptive measures of central tendency and variability, probability, binomial and normal distributions, random variables, sampling, estimating, hypothesis testing (parametric and nonparametric), correlation and regression.

**Advisories:** ENGL 125 and 126

**Prerequisites:** Math 103 or equivalent

## Student Learning Outcomes

Upon completion of this course, students will be able to:

1. Organize, analyze, and utilize appropriate methods to draw conclusions based on sample data by using tables, graphs, measures of central tendency, and measures of dispersion.
2. Apply concepts and terminology of statistics.
3. Implement the rules of probability.
4. Collect data, interpret and communicate the results using statistical analyses such as confidence intervals, hypothesis tests, and regression analysis.

In the process of completing this course, students will:

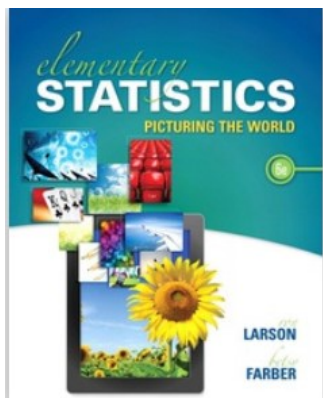
1. Distinguish among different scales of measurement and their implications;
2. Identify the standard methods of obtaining data and identify advantages and disadvantages of each;
3. Interpret data displayed in tables and graphically;
4. Calculate measures of central tendency and variation for a given data set;
5. Apply concepts of sample space and probability;
6. Calculate the mean and variance of a discrete distribution;
7. Calculate probabilities using normal and t-distributions;
8. Distinguish the difference between sample and population distributions and analyze the role played by the Central Limit Theorem;
9. Construct and interpret confidence intervals;
10. Determine and interpret levels of statistical significance including p-values;
11. Interpret the output of a technology-based statistical analysis;
12. Identify the basic concept of hypothesis testing including Type I and II errors;
13. Formulate hypothesis tests involving samples from one and two populations;
14. Select the appropriate technique for testing a hypothesis and interpret the result;
15. Use linear regression and ANOVA analysis for estimation and inference, and interpret the associated statistics; and
16. Use appropriate statistical techniques to analyze and interpret applications based on data from disciplines including business, social sciences, psychology, life science, health science, and education.

## Course Materials

- ⇒ My Math Lab access code
- ⇒ Graphing Calculator (TI 83 or TI 84 recommended)
- ⇒ Larson, R., et al. *Elementary Statistics*, 6th ed. Pearson, 2015 (optional)

**Recommended Apps/Websites**

- ⇒ Khan Academy





## Attendance and Participation

Regular class attendance is expected. It is your responsibility to withdraw from the class with Admissions and Records if you find that you can no longer attend or possibly receive an F.

You **may** be dropped for excessive tardiness or after 4 absences.

If you reach 8 absences, for **any reason**, you will be dropped from the class.

Being an active participant in class is key to your success. Therefore, If you are tardy, leave early, or leave class and return later, this will affect your attendance count, as will doing unrelated work, homework or using electronic devices during class. (i.e. cell phones, MP3 players, etc.)

You will be considered late if you arrive after attendance has been taken.

Each tardy is equal to one half of an absence, i.e. 2 tardies = 1 absence

If you do not sign the attendance sheet you will likely be marked absent.

*“I have discovered a truly marvelous proof of this, which however the margin is not large enough to contain.”*

*-Pierre de Fermat (referring to his ‘last theorem’)*

## Assignments & Exams

### In-Class Activities, Worksheets and Practice Exams

Periodically you will be working in groups on in-class activities that will be required to be turned in at the end of class or at the next class meeting for credit. All work falling under this category cannot be made up if you are absent for any reason.

### Homework

Homework is assigned on Thursday each week and is

due on My Math Lab the following Wednesday. To use My Math Lab you will need to purchase an access code. **You are not required to purchase a textbook for this course.**

### Late Work

Turning an assignment in late for **any reason** will result in a 40% point reduction. No late homework will be accepted after the final exam. Late extra credit assignments will not be accepted.

### Tests

There will be four tests and a cumulative final exam in this course. If absent on the day of an exam for any reason, **no make-ups will be allowed.** If you have a legitimate reason for missing the exam then your missed exam score will be replaced with your final exam percentage. Being unprepared for the exam is not a legitimate excuse.

## Academic Honesty



Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure that this education is honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors.

Academic dishonesty in any form is a very serious offense and will incur serious consequences, including but not limited to receiving a grade of F on the assignment or in the course. For the college policy on cheating and plagiarism see the college catalog.

# Grading

## Grading Scale:

A	89.5% - above
B	79.5%-89.4%
C	69.5%-79.4%
D	59.5%-69.4%
F	59.4% and below

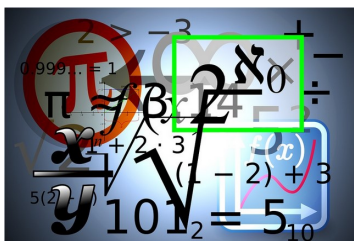
## Grading:

50% Tests
20% Final Exam
20% Homework
10% In-Class Activities, Worksheets and Practice Exams

## Finding your Grade:

I will be tracking your grades and attendance on Canvas. I strongly recommend you check it regularly for accuracy so there are no surprises at the end of the semester.

**Tip:** Use the 'What if' option to see how possible assignment scores will effect your grade.



**“Do not worry to much about your difficulties in mathematics, I can assure you that mine are still greater.” - Albert Einstein**

# Resources

## Other Students in Class

Successful students form study groups of 3 to 5 students and work together outside of class. In addition, it is helpful to have a classmate you can call to get missed work and notes if you are absent.

## Your Instructor

I will be happy to help you at the beginning of class or in my office. My office hours are listed at the beginning of this syllabus. If you cannot come during my office hours you can make an appointment to come at a different time. You may also ask questions through email, Remind and Twitter.

## Math Study Center, FEM 1

The STEM Math Study Center is a free tutoring resource available to all Reedley College math students. The MSC offers drop-in tutoring facilitated by our math faculty and well-qualified student tutors. The MSC has 20 computers and online access available to students with online math homework.

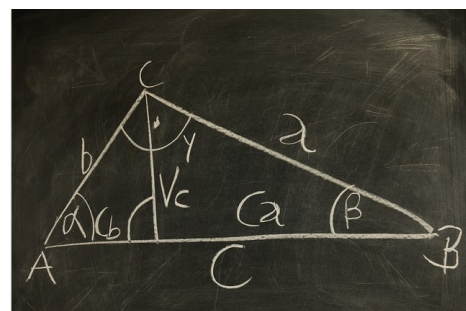
**Open M-Th 8am-4pm, F 8am-12pm**

# Accommodations for Students with Disabilities

Disabled Students Programs & Services (DSP&S) is designed to provide specialized services and accommodations that assist students with documented physical, psychological and learning disabilities reach their maximum potential while achieving their educational goals. Staff specialists interact with all areas of the campus to eliminate physical, academic and attitudinal barriers. Disabled Stu-

dents Programs & Services takes a personal interest in meeting the special needs of students with disabilities.

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic tex, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.





## Important Dates \*

August 14	(M)	Start of Fall 2017 semester
August 14 - October 13	(M-F)	Short-term classes, first nine weeks
August 25	(F)	Last day to drop a Fall 2017 full-term class for full refund
August 25	(F)	Last day to register for a Fall 2017 full-term class in person
September 1	(F)	Last day to drop a Fall 2017 full-term class to avoid a "W" in person
September 3	(SU)	Last day to drop a Fall 2017 full-term class to avoid a "W" on WebAdvisor
September 4	(M)	Labor Day Holiday (no classes held, campus closed)
September 8	(F)	Last day to change a Fall 2017 class to/from Pass/No-Pass grading basis
October 13	(F)	Last Day to drop a full-term class (letter grades assigned after this date)
October 16 - December 15	(M-F)	Short-Term classes, second nine weeks
November 10	(F)	Veterans Day observed (no classes held, campus open)
November 23-24	(Th-F)	Thanksgiving holiday (no classes held, campus closed)
December 11-15	(M-F)	Fall 2017 final exams week
December 15	(F)	End of Fall 2017 semester



## Tentative Calendar

# AUGUST

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14* Semester Begins	15 1.1-1.2	16 1.3	17 2.1	18	19
20	21 2.2	22 2.3	23 2.4	24 2.4	25*	26
27	28 2.5	29 3.1	30 3.2	31 3.3		

# SEPTEMBER

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1*	2
3**	4 No School	5 3.4	6 Review	7 Exam 1	8*	9
10	11 4.1	12 4.1	13 4.2	14 4.3	15	16
17	18 5.1	19 5.2	20 5.2	21 5.3	22	23
24	25 5.4	26 5.5	27 5.5	28 Review	29	30

# OCTOBER

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2 Exam 2	3 6.1	4 6.2	5 6.2	6	7
8	9 6.3	9 6.3	10 6.4	11 6.4	13*	14
15	16 7.1	17 7.2	18 7.2	19 7.3	20	21
22	23 7.3	24 7.4	25 7.4	26 Review	27	28
29	30 Exam 3	31 8.1				

# NOVEMBER

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 8.1	2 8.2	3	4
5	6 8.2	7 8.3	8 8.3	9 8.4	10 No School	11
12	13 8.4	14 9.1	15 9.1	16 9.2	17	18
19	20 9.2	21 Review	22 Exam 4	23 No School	24 No School	25
26	27 10.1	28 10.2	29 10.2	30 10.3		

# DECEMBER

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4 10.4	5 10.4	6 Review	7 Review	8	9
10	11 Final Exam 1-2:50pm	12	13	14	15 End of the Semester	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30