



## STA 2122 Section 0026/27 Fall 2021

	<p>DEPARTMENT OF STATISTICS STA 2122 Sections 0026-27 FALL 2021 INTRODUCTION TO APPLIED STATISTICS Section 26: T/Th 8:00AM - 9:15AM, OSB 110 Section 27: T/Th: 6:35PM-7:50PM OSB 108 3 credit hours</p>	  QUANTITATIVE AND LOGICAL THINKING
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***Instructor and Contact Info:***

Instructor: Mark Zamani

Email: [mcz16@my.fsu.edu](mailto:mcz16@my.fsu.edu)

Office Hours: Monday 1:30PM-2:30PM via Zoom. See Zoom section on Canvas.

My office is OSB 331A if student request F2F help.

**SYLLABUS CHANGE POLICY**

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.

**COURSE DESCRIPTION**

**Prerequisite:** A grade of “C- “or better in MAC 1105 College Algebra (or equivalent).

**Special Note:** Subsequent credit for STA 5126 is not permitted. No credit given for STA 2122 if a grade of “C- “or better is earned in STA 2171, STA 3032 or QMB 3200.

The course covers Normal distributions, sampling variation, confidence intervals, hypothesis testing, one-way and two-way analysis of variance, correlation, simple and multiple regression, contingency tables and chi-square tests, non-parametric statistics.

The purpose of this course is to prepare students for further study and job preparation in the field of Natural Sciences. It will emphasize understanding of data and interpretation of statistical analyses. It will require students to think of data, and report the results of their analyses, in context.

Students will need to follow the University's current health and safety guidelines.

**LEARNING OBJECTIVES**

This course has been approved to meet FSU’s **Liberal Studies Quantitative and Logical Thinking** requirements and is designed to help you become a critical analyst of quantitative and logical claims. To fulfill the State of Florida's College mathematics and computation requirement the student must earn a “C-” or better in the course. By the end of the course, students will:

- (1) Select and apply appropriate methods (i.e., mathematical, statistical, logical, and/or computational models or principles) to solve real-world problems.

- (2) Use a variety of forms to represent problems and their solutions. The above two competencies will be assessed in the Liberal Studies Quantitative Assessment for STA 2122, which includes a written summary of results.
- (3) Use descriptive statistics and graphical methods to summarize data accurately.
- (4) Use inferential statistics to make valid judgments based on the data available.
- (5) Select the appropriate statistical tools to analyze a particular problem.
- (6) Describe the goals of various statistical methodologies conceptually.
- (7) Develop a healthy skepticism toward statistical studies and their results based on a sensible consideration of the techniques employed.

**REQUIRED MATERIALS**

- Class notes: Print out class notes from course website and have them available to fill in during class on a regular basis. We will fill in the class notes during lecture. If you are able to write on an electronic version of the notes, you may wish to do so.
- A TI-84 Plus or equivalent calculator. We will teach you how to use a TI-84 series calculator, but we cannot promise to be able to help with any other type of calculator. - A textbook is not required for this class.

**Additional Resource:**

The following free online textbook is an additional resource that you might find useful: Introductory Statistics from OpenStax, Print ISBN 1938168208, Digital ISBN 1947172050, [https://urldefense.com/v3/\\_http://www.openstax.org/details/introductory-statistics\\_!!Epnw ITfSMW4! Ld-z ZX8Wp8F3OBq26NVyWg6pDbP2L9va\\_xGreakMIL2oCFFKsYAJ\\_xnf6Ndh\\_MJQ\\$](https://urldefense.com/v3/_http://www.openstax.org/details/introductory-statistics_!!Epnw ITfSMW4! Ld-z ZX8Wp8F3OBq26NVyWg6pDbP2L9va_xGreakMIL2oCFFKsYAJ_xnf6Ndh_MJQ$) .

**EMAIL & COMMUNICATION**

- ~ I will communicate with you by sending emails to your @my.fsu.edu account and posting announcements on the course website. Please check your FSU email and the Canvas announcements every day.
- ~ If you email us, please send from your @my.fsu.edu account.
- ~ Please send assessment-related enquiries least 24 hours before the assessment is due.
- ~ Always include your name when you email me.
- ~ You may expect a response to your email within one workday

**TENTATIVE PACING SCHEDULE:**

WK	Topic	Assessments (Fridays)
1	Introduction	
2	Summary Statistics	Intro TQ (9/3)
3	Summary Statistics	
4	Normal Distributions	SS TQ (9/17)
5	Central Limit Theorem	
6	One-sample Confidence Interval	ND + CLT TQ (10/1)
7	One-sample Hypothesis Test	LSQA (Based on OSCI) (10/8)
8	One-way ANOVA	OSHT TQ (10/15)

9	Probability	
10	Simple Linear Regression Basics	OWA + Prob TQ (10/29)
11	Simple Linear Regression Inference	
12	Simple Linear Regression Inference / Chi-Square Tests	
13	Chi-Square Tests	SLR + SLRI TQ (11/19)
14	Multiple Regression	
15	Two-way ANOVA	CS TQ (12/3)
Final Exam Week	No cumulative exam, but last 2 timed quizzes available for 24 hours on 12/7	MR TQ & TWA TQ (12/7)

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### **FINAL EXAM RESCHEDULE POLICY:**

You may not take the final exam before final exams week. Individual students who need to reschedule the final exam for

a different time during final exams week will need to

- (i) talk to me about it first and get my permission to reschedule,
- (ii) fill out the “Request to Reschedule Final Examination” form at

[https://artsandsciences.fsu.edu/sites/g/files/upcbnu321/files/2020-09/Request\\_to\\_Reschedule\\_revised.pdf](https://artsandsciences.fsu.edu/sites/g/files/upcbnu321/files/2020-09/Request_to_Reschedule_revised.pdf)  
and get it

approved by the Dean of Arts and Sciences office, and

- (iii) let me have the approved form by the last day of classes.

If you experience a documented emergency that prevents you from observing the above deadline, contact me as soon

as you are able to, and we’ll take it from there.

### **Note on Technology-dependent Assessments**

This course is heavily technology-dependent. While we will do our best to work with you on technology issues, please be aware that if you take an assessment but we can find absolutely no record of the fact, then we will not be able to give you credit for it. Please **DO NOT USE SAFARI** when you take assessments on Canvas – **please use Chrome or Firefox**.

### **ASSESSMENT AND GRADING**

We will allow absolutely no make-ups, no extra credit assignments, and in general, no opportunities for grade improvement, after the Last Day of Class, so please do your best during the term.

Assessments that are not submitted will receive a grade of zero. When a makeup is submitted, the zero will be replaced with the earned grade. During assessments you are permitted to use any and all materials obtained from the course Canvas, including the calculator, notes, exercises, etc.

**Your overall course grade will consist of the following:**

Assessment	Weight
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<b>Liberal Studies Quantitative Assessment (LSQA):</b> <ul style="list-style-type: none"><li>- NO collaboration or internet sources are permitted</li><li>- 2 timed attempts (1 hour) are allowed</li><li>- cannot be dropped</li></ul>	<b>10%</b>
<b>Timed Quizzes (TQ):</b> <ul style="list-style-type: none"><li>- NO collaboration or internet sources are permitted</li><li>- 2 timed attempts (1 hour) are allowed for each quiz</li><li>- the lowest percentage grade will be dropped at the end of the semester</li></ul>	<b>90%</b>
<b>Open Quizzes (OQ):</b> <ul style="list-style-type: none"><li>- Practice problems will be uploaded for every section</li><li>- Will not count for a grade</li><li>- Collaboration is allowed and encouraged</li></ul>	<b>0%</b>

**Due dates will be provided on Canvas.**

### OVERALL COURSE GRADE

Please ignore the grade totals or averages that you may see on the course website; they are not correct.

In this class, we only store and display individual assessment grades on the course website, we do not do grade calculations there. All grades will be recorded as percentages, and these percentages (not points) will be used in your overall course grade calculation. Your letter grade will be selected from the table below after rounding the overall numerical course grade UP to the next higher whole number.

### GRADING SCALE:

Average	Letter
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
0-59	F

**GRADE REVIEW**

If you believe that a correct answer was counted as incorrect on a quiz, **please email me about it within 24 hours after you submit the quiz.** If it turns out that your answer was correct, you will be given credit for it.

Also, here is a flowchart for resolving academic problems, should you find that you need it:

[https://fda.fsu.edu/sites/g/files/upcbnu636/files/Media/Files/General%20Academic%20Appeals/Academic\\_Problem-Solving\\_Flowchart\\_Binder\\_Oct-2020.pdf](https://fda.fsu.edu/sites/g/files/upcbnu636/files/Media/Files/General%20Academic%20Appeals/Academic_Problem-Solving_Flowchart_Binder_Oct-2020.pdf).

**ACADEMIC HONOR POLICY**

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <http://fda.fsu.edu/Academics/Academic-Honor-Policy>).

**ATTENDANCE, ABSENCE AND DROP/WITHDRAWAL**

- Drop and Withdrawal deadlines are given in the University's academic calendar at [https:// registrar.fsu.edu/calendar/](https://registrar.fsu.edu/calendar/).
- First-day attendance will be taken electronically on the course website.
- You are expected to adhere to all assessment deadlines.
- Lack of future planning, or mismanagement of time and other resources, are not acceptable reasons for missing assessment deadlines.
- Bear in mind that the opportunities presented in this class are made equally available to all students in the class and it is up to each individual to make the most of these opportunities.
- In the interests of fairness, we will not do for one student what we cannot do for all students who are likely to request the same.
- Documentation for missing assessment deadlines will not be accepted after the Last Day of Class.

**UNIVERSITY ATTENDENCE POLICY:**

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

**SEXUAL MISCONDUCT AND TITLE IX REPORTING**

As an instructor, I am obliged to report all instances of sexual misconduct that I become aware of to the University's Title IX Director; I cannot hold such information confidential. If you would like to discuss your situation in confidence, you may contact the Victim Advocate Program (<https://dos.fsu.edu/vap/>), the University Counseling Center (<https://counseling.fsu.edu/>), the Employee Assistance Program (<https://eap.fsu.edu/>), University Health Services (<https://uhs.fsu.edu/>), or pastoral counselors.

**CONFIDENTIAL CAMPUS RESOURCES**

Various centers and programs are available to assist students with navigating stressors that might impact academic success. These include the following:

Victim Advocate Program University Center A, Rm. 4100 (850) 644-7161 Available 24/7/365 Office Hours: M-F 8-5 <a href="https://dsst.fsu.edu/vap">https://dsst.fsu.edu/vap</a>	University Counseling Center Askew Student Life Center, 2nd floor 942 Learning Way (850) 644-8255 <a href="https://counseling.fsu.edu/">https://counseling.fsu.edu/</a>	University Health Services Health and Wellness Center (850) 644-6230 <a href="https://uhs.fsu.edu/">https://uhs.fsu.edu/</a>
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**AMERICANS WITH DISABILITIES ACT**

Florida State University (FSU) values diversity and inclusion; we are committed to a climate of mutual respect and full participation. Our goal is to create learning environments that are usable, equitable, inclusive, and welcoming. FSU is committed to providing reasonable accommodations for all persons with disabilities in a manner that is consistent with academic standards of the course while empowering the student to meet integral requirements of the course.

To receive academic accommodations, a student:

- (1) must register with and provide documentation to the Office of Accessibility Services (OAS);
- (2) must provide a letter from OAS to the instructor indicating the need for accommodation and what type; and,
- (3) should communicate with the instructor, as needed, to discuss recommended accommodations. A request for a meeting may be initiated by the student or the instructor.

Please note that instructors are not allowed to provide classroom accommodations to a student until appropriate verification from the Office of Accessibility Services has been provided.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the Office of Accessibility Services, 874 Traditions Way, 108 Student Services Building, Florida State University, Tallahassee, FL 32306-4167.

(850) 644-9566 (voice), (850) 644-8504 (TDD)

[oas@fsu.edu](mailto:oas@fsu.edu) , <https://dsst.fsu.edu/oas>

Academic accommodations will be provided as soon as possible after verification is received. Academic accommodations are not retroactive, so they will not apply to lectures/lessons and assessments that took place before verification was received.

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