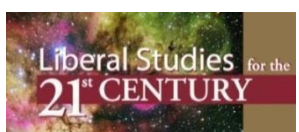
	<p style="text-align: center;">DEPARTMENT OF STATISTICS STA 2122 Section 32, Fall 2021 INTRODUCTION TO APPLIED STATISTICS 3 credit hours</p>	 <p style="text-align: center;">QUANTITATIVE AND LOGICAL THINKING</p>
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<p><b>Instructor:</b> Ms. Anisha Das <b>Email:</b> <a href="mailto:ad20fx@my.fsu.edu">ad20fx@my.fsu.edu</a> <b>Office Hours:</b> on Zoom by appointment only</p> <p><b>We will not be using Honorlock.</b></p>	<p>The lecture part of this class will be taught <b>online</b> and <b>asynchronously</b> from Aug 23rd to Dec 3rd through the use of lecture videos posted on Canvas (<a href="https://canvas.fsu.edu">canvas.fsu.edu</a>).</p> <p><b>We will not have any cumulative final exam.</b></p>
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### 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.

### 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. In order 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

- A personal computer, reliable internet connection, and Chrome or Firefox browser.
- 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. Instead, you will need to watch lecture videos and study the notes used in the videos.
- The instructor of this class will provide all required course notes and exercises. The following free online textbook is an additional resource that you might find useful: Introductory Statistics from OpenStax, Print ISBN 1938168208, Digital ISBN 1947172050, [www.openstax.org/details/introductory-statistics](http://www.openstax.org/details/introductory-statistics).

### LECTURE VIDEOS

Watching the lecture videos is equivalent to attending class and listening to lectures. We acknowledge that the lecture videos are not short, but remember that class time would have been 50 or 75 mins - not short either. On the bright side, however, you may pause the video at any time and return to it later - you would not have been able to do that with live lectures. Therefore, we fully expect you to watch the lecture videos in their entirety. Pause whenever you need to, but always be sure to return and finish watching the video.

Please note that the recorded lectures are the property of Florida State University and are made available only to the students enrolled in this class. Students are not permitted to share the recorded lectures with any other persons outside of this class. Copyrights of the recorded lectures are reserved by the instructor and Florida State University.

### OPTIONAL MATERIALS

+ Paper, writing materials, and access to a printer.

OR

+ Tablet, so that you can make handwritten notes on a pdf document.

Ideally, it would aid your learning if you are able to fill in the blank notes yourself (on paper or on tablet) as you watch the lecture videos. But if you are unable to, you will still be able to do well in the class. I will post the filled-in notes that I use in the videos, so you will be able to review them after you watch the lecture videos.

### EMAIL & COMMUNICATION

~ Please **turn on the course notifications on Canvas** by going to Account/Notifications and checking the *Notify me right away* option for all of the items under Course Activities.

~ We will communicate with you by sending emails to your [@my.fsu.edu](mailto:@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](mailto:@my.fsu.edu) account.

~ Please send assessment-related enquiries least 36 hours before the assessment is due.

~ You may expect a response to your email within one work day. But if you email me with an enquiry that was previously addressed in the syllabus, in a class email or in a course announcement, you may not get a response.

**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 lecture videos, calculator videos, notes, exercises, etc.

**QUIZZES**

A student grades will be based on **10** quizzes that will be available as the coursework progresses. A total of **12** quizzes will be held during the entire **14** weeks. A student is eligible for at max **3** extensions for quizzes during the entire course duration. There will be **6** quizzes plus **LSQA** during the first **8** weeks, and **5** quizzes during the next **6** weeks. The quiz named **LSQA** is a compulsory quiz and cannot be dropped. The quiz with the lowest grade among the first **6** quizzes, and the quiz with the lowest grade among the last **5** quizzes will be dropped (not be counted towards final grading).

**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.**

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

Assessment	Weight
<b>Liberal Studies Quantitative Assessment (LSQA):</b> <ul style="list-style-type: none"> <li>- collaboration and internet sources (except the course Canvas) are <u>not permitted</u></li> <li>- 2 timed attempts are allowed</li> <li>- cannot be dropped</li> </ul>	<b>10%</b>
<b>Timed Quizzes (TQ):</b> <ul style="list-style-type: none"> <li>- collaboration and internet sources (except the course Canvas) are <u>not permitted</u></li> <li>- 2 timed attempts are allowed for each quiz</li> <li>- grades from one of the first 6 and one from the second 5 (excluding LSQA) will be dropped</li> </ul>	<b>90%</b>
<b>Total</b>	<b>100%</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.

Numerical	Letter	Numerical	Letter	Numerical	Letter	Numerical	Letter	Numerical	Letter
≤59	F	67–69	D+	77–79	C+	87–89	B+	FSU does not award A+	
		63–66	D	73–76	C	83–86	B	≥93	A
		60–62	D-	70–72	C-	80–82	B-	90–92	A-

### Grade Review

If you believe that a correct answer was counted as incorrect on a quiz, **please email the 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).

### How to complete this class successfully

#### For each topic:

- ~ watch the relevant lecture videos and calculator videos (if any),
- ~ if you are able to, fill in the blank notes (on paper or on tablet) as you watch the lectures,
- ~ study thoroughly the information and examples in the filled-in class notes – be aware that the notes are incomplete without the filled-in examples,
- ~ attempt the relevant Open Quiz,
- ~ do all of the try-on-your-own exercises in the notes,
- ~ do all of the extra/investigative exercises posted with the notes,
- ~ study the solutions even if you get the answers right because the solutions can provide insights to the problems,
- ~ make sure you know how to use your calculator appropriately,
- ~ go back and finish up the relevant Open Quiz, then
- ~ take the relevant Timed Quiz.

**Remember that you can email me or come to my office hours if you need help.**

### 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

~Course Drop and Withdrawal deadlines are given in the University's academic calendar at <https://registrar.fsu.edu/calendar/>.

~ First-day attendance will be taken electronically on the course website. Students are required to complete the un-graded quiz named "Pre-requisite Math Skills" within the first day of class to count themselves *present* for the course.

- ~ 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.

Link to resources at the Office of Faculty Development and Advancement:

<https://fda.fsu.edu/academic-resources>.

### University Attendance 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.

### **REQUEST**

Please note that the materials posted on this course website were put together for your individual use only. While you may share these materials with classmates, we ask that you do not share them with third parties who are not enrolled in our class. If you seek help outside of class, you may, of course, allow your helper to see the materials, but please do not allow them to make copies or in any other way take our material. We appreciate your co-operation in protecting our material. Thank you!

### **MESSAGE FROM FSU PRESIDENT THRASHER REGARDING COVID-19 VACCINATION**

I would like to encourage those who have not been vaccinated to go ahead and get the Covid-19 vaccine. You can get it free at any of FSU's walk-in Covid-19 vaccine clinics

(<https://vaccine.fsu.edu/>). My family and I all got it, and we encourage everyone else to get it too!