



DEPARTMENT OF STATISTICS  
STA 2122 SECTIONS 0026 & 0027  
INTRODUCTION TO APPLIED STATISTICS  
3 credit hours

**Instructor:** Mr. Zachary Nimmons

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**Course Website:** canvas.fsu.edu

**Course Structure:** Pre-recorded video lectures uploaded to course website

**Course Dates:** August 24<sup>th</sup> to December 11<sup>th</sup> 2020

**Office Hours:** Wednesdays 1-2pm and Thursdays 3-4pm, online via Zoom, or by appointment

**\*All times for this course will be in Eastern Time.**

**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.

**LIBERAL STUDIES FOR THE 21st CENTURY:**

**Quantitative and Logical Thinking**

This course (STA 2122) 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.

**COURSE DESCRIPTION**

**Prerequisite:** A grade of "C-" or better in MAC1105 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.

### COURSE OBJECTIVES

By the end of the course, students will demonstrate the ability to:

(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 (LSQA), 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 textbook is not required for this class. However, you will need to read each set of completely filled in class notes carefully after we cover them in lecture and before the next assessment. We will fill in the class notes during lectures.

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.

**Class notes:** You will need to print out class notes from the course website and use them to follow online lectures, so please budget some money for printing. The current estimate of your printing costs for the entire term is \$80.00 (about 400 pages @ 20 cents/page). **Alternatively, you may fill in the notes via electronic means.**

**Writing materials:** Notepaper and sharpened pencils.

**Calculator:** TI-84 Plus or equivalent calculator.

We will help you to learn how to use a TI-84 series calculator. We cannot promise to be able to help with any other type of calculator.

## EMAIL & COMMUNICATION

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

~ Apart from video lectures and office hours, I will communicate with you by

+ sending emails to your @my.fsu.edu account, and

+ posting announcements on the course website.

**Please check the above electronic locations every day.**

~ If you email, please send from your @my.fsu.edu account.

~ If you email with an enquiry that was already addressed in a class email, in a course announcement or in one of the syllabus documents, you may not get a response.

~ Send assessment-related questions at least 24 hours before the assessment is due to begin.

~ Be aware that email sent from outside the FSU domain may not get through, so if you send an email and you don't get a response within two working days, please try to attend office hours.

~ Please allow up to two working days for an email response. If you have an urgent question, please ask during office hours.

## 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.

## 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. Your overall course grade will consist of the following:

Assessment	Quantity	Weight
Assignments	7 total, lowest 1 dropped	15%
Quizzes	6 total, lowest 1 dropped	45%
LSQA	1	10%
Final Exam	1	30%
<b>TOTAL</b>		<b>100%</b>

### Assignments (15%)

We will have several short assignments. These assignments will be designed to see if you are engaged in the course and up-to-date with what is being taught. They will be testing both knowledge gained and effort put in. They will be in the format of an online quiz, open-notes, and multiple attempts will be allowed over 3-5 days. A generous amount of time will be allowed per attempt. **Your lowest assignment grade will be dropped; if you miss more than one assignment a make-up is allowed for an acceptable reason with documentation.**

### LSQA (10%) and Quizzes (45%)

- **LSQA cannot be dropped; make-up allowed for an acceptable reason with documentation.**
- **Your lowest quiz grade will be dropped; if you miss more than one quiz a make-up allowed for an acceptable reason with documentation.**
- For the LSQA and Quizzes 1-5, please
  - + email me within 2 calendar days of the absence,
  - + send me documentation within 7 calendar days of the absence, and
  - + make up the missed assessment within 7 calendar days of the absence.
- For Quiz 6, please contact me immediately and we will take it from there.
- Will generally not be cumulative, except in the sense that the material is naturally cumulative.
- The questions will include a few question types that were not previously presented in the class notes or exercises, but these question types will cover material that was definitely previously presented. This means that you should aim to learn the concepts and not just learn how to answer particular types of questions.
- You may use your own TI-84 Plus or equivalent calculator.
- The LSQA and Quizzes will be open-note, meaning you can use any of the course materials to guide you. They will be on Canvas on online quizzes. Two attempts will be given for each quiz with the highest score kept, however you will only be able to see your grade after each attempt and not specific question answers. You will be allowed 60 minutes for each attempt. Therefore, the best way to be ready for the quizzes is to stay up-to-date with the lecture notes and to do the try-on-your-own examples before attempting each quiz.
- **No collaboration of any sort is allowed during the LSQA and Quizzes.**
- Quiz answers will be released after all students have taken the quiz. If you would like to review your quiz, please send an email or attend virtual office hours the week after.
- We reserve the right to impose a penalty on your grade if you violate any of the guidelines above.

### FINAL EXAM (30%)

- **Mandatory. Cannot be dropped.** Email me ASAP if you anticipate not being able to take the final exam.
- Will be open on Wednesday, December 9<sup>th</sup> at 12:00am and due Friday, December 11<sup>th</sup> 11:59pm of final exam week.
- Open-note with 2 attempts, 2 hours per attempt.

- Will be cumulative.
- The questions will include a few question types that were not previously presented in the class notes or exercises, but these question types will cover material that was definitely previously presented. This means that you should aim to learn the concepts and not just learn how to answer particular types of questions.
- You may use your own TI-84 Plus or equivalent calculator.
- **No collaboration of any sort is allowed during the Final Exam.**
- We reserve the right to impose a penalty on your grade if you violate any of the guidelines above.

### FINAL EXAM RESCHEDULING 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 (Zach, zdn19@my.fsu.edu) about it first and get my permission to reschedule,

(ii) fill out the “Request to Reschedule Final Examination” form at <https://artsandsciences.fsu.edu/students/undergraduate/forms-requiring-deans-approval/rescheduling-final-examination> and send it to the Dean of Arts and Sciences office to get it approved, and

(iii) send the approved form back to me 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.

### Test Question Security & Academic Honesty

The following pledge and affirmations will be on each quiz (wording may vary slightly). We regret to say that if you do not sign the pledge and affirmations, we will not grade your paper and your grade will be zero. Please bear in mind that academic dishonesty and question disclosures reduce the worth of the academic qualification that you are working toward.

*I pledge that I will never disclose the questions herein to anyone, and I will not discuss with anyone other than my course instructor. I understand that if I break this pledge at any time, the grade that I earn on this paper will be reduced to zero and my overall numerical course grade will be calculated, or re-calculated, accordingly, and my course letter grade will be demoted if necessary.*

*I affirm that I did not receive help with this assessment and I affirm that I did not help anyone with this assessment.*

### Receiving a grade of “Incomplete”

A request for a grade of “Incomplete” will

~ NOT be granted if you have completed the coursework, excluding the allowable absences.

~ be granted only if both of the following conditions are satisfied:

(1) the only assessments that you have yet to take are Quiz 6 and the Final Exam, and

(2) your course grade excluding Quiz 6 and the Final Exam is a passing grade.

### 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** as described in the following steps:

(i) Assignment Average = average of the Assignment percentages (except the lowest);

(ii) Quiz Average = average of the Online Quiz percentages (except the lowest);

(iii) Overall numerical course grade =

$0.15 * (\text{Assignment Average}) + 0.45 * (\text{Quiz Average}) + 0.1 * (\text{LSQA}) + 0.3 * (\text{Final})$ ;

(iv) Letter grade selected from the table below after rounding the above numerical 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-

### Missing Grades

~ check your grades on the course website every day to make sure your latest grade has been posted; please do this even if you already know your grade

~ if a grade is not posted, alert me immediately via email, it is important that you alert us via email so that there will be a record of the fact that you reported the matter

~ if you report a missing grade within two working days after the assessment took place, we will do our best to locate the missing grade

~ if you report a missing grade more than two working days after the assessment took place, we will not be able to help you and the missing grade will have to remain as a zero grade

### Grading Appeals

During the course of the term, if you believe that an assessment was improperly graded, please attend my office hours and talk to me about it or email within two working days after the grades for that assessment are posted on the course website. If emailing, include an explanation of the question, the correct answer, and your justification. If your answer is correct after review, grades will be adjusted. No grades will be adjusted after December 11<sup>th</sup>, 2020.

### 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/>.

~ **First-day attendance is mandatory per university regulations.** First-day attendance will be taken in the form of a Canvas quiz, due at 6 PM on the first day, Monday, August 24<sup>th</sup>.

~ Lack of future planning, or mismanagement of time and other resources, are not acceptable reasons for missing assessments.

~ 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.

~ If you cannot watch lectures, you may get the notes from me during office hours or from the course website. The filled-in packets will be posted on the course website once they have been completed in lecture. While I will not re-teach entire lessons, I can help with specific questions you may have after you have studied the material and attempted the relevant exercises. *Please come to office hours if you have questions.*

### **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; 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/>), or University Health Services (<https://uhs.fsu.edu/>).

### **AMERICANS WITH DISABILITIES ACT**

Students with disabilities needing academic accommodation should:

- (1) register with and provide documentation to the Office of Accessibility Services; and
- (2) request a letter from the Office of Accessibility Services to be sent to the instructor



indicating the need for accommodation and what type; and  
(3) meet (in person, via phone, email, skype, zoom, etc...) with each instructor to whom a letter of accommodation was sent to review approved accommodations. This syllabus and other class materials are available in alternative format upon request.

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

Academic accommodations will be provided as soon as possible after we get your letter. Because the course is online, extra time can be given for each Quiz and LSQA. You must take them on the same day as the other students. If you need to take one of these assessments on a different day, please talk to me about it first. Please do not schedule any of these assessments for a different day without first clearing it with me.

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)  
<https://dsst.fsu.edu/oas>

### **ADDITIONAL DOCUMENTS**

The following documents, located in the Syllabus Documents module on the course website, are part of this syllabus, please be sure to read them too: **Tentative Pacing Schedule, Expectations.**

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