# STA 3024 SAS for Data and Statistical Analyses
# Spring 2023

TuTh 9:45AM - 11:00AM
CSL 1003
**Instructor:** Dr. Justin Shows
Office: OSB 307
Email: jshows@fsu.edu

In-person office hours: 1:00-2:00 TuTh
Zoom appointments for other times may be requested by e-mail.
https://fsu.zoom.us/j/4722571439 with Meeting ID 472 257 1439.

## COURSE OBJECTIVES

Course Description: This course will introduce the student to the SAS programming language in a lab-based format. The objective is for the student to develop programming and statistical computing skills to address data management and analysis issues using SAS. The course will also provide a survey of some of the most common data analysis tools in use today and provide decision-making strategies in selecting the appropriate methods for extracting information from data.

Students who complete this course will be able to:
• Manipulate data sets including as inputting raw data from external files.
• Create data subsets.
• Implement if...then...else structures, and loops.
• Write SAS numeric, character, and probability functions.
• Produce descriptive statistics with graphics.
• Conduct basic statistical estimation and testing using SAS.
• Employ statistical modeling on both qualitative and quantitative data in the SAS environment.

**Prerequisite:** Introductory statistics course at or above the 2000 level or consent of the instructor.

**Credit Hours**: 3

## Certificate in *SAS Programming and Data Analysis:*

This is the core course that is required (plus three elective courses) for the SAS Programming and Data certificate offered by FSU and recognized as an academic specialization by the SAS Institute. Students interested in the program must apply to the program before the end of the semester in which the second course in the program is taken. In addition, a portfolio is required to be submitted in the last semester of program and a representative assignment and/or project from this course must be included. For more details see http://stat.fsu.edu/sas-certificate.

**Computer Competency for Statistics Majors:**

In order to fulfill FSU's Computer Competency Requirement, the student must earn a "C-" or better in the course.

## MATERIALS

**Textbook:** Optional**:** Elliott, R.J. (2010), Learning SAS in the Computer Lab, Third Edition, Brooks/Cole. (ISBN 0-495-55968-7).

**SAS**: SAS software will be used in the course. Previous SAS experience is not necessary. The instructions for registering for the SAS Studio course site are posted on Canvas.

**Computer**: It is recommended that you bring a laptop to class so that you can following along with the SAS examples in SAS Studio.

## 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.

The syllabus is intended to be an agreement between you (student) and I.

The presence of your name on your section roster after drop/add ends indicates that you have read and understood all of the information and documents posted on the course Canvas site, you have had your questions about them answered, and you accept and will abide by my policies.

Please understand that I deal with hundreds of students each term, and in the interests of fairness, I will not do for one student what we cannot do for all students who are likely to request the same.

## ATTENDANCE, ABSENCE AND DROP/WITHDRAWAL

Attendance will be taken the first day of class via an ungraded online quiz. If you are absent, the Registars Office will drop you from the course. I expect you to keep up-to-date with the lessons, activities and announcements by getting in touch with a classmate or with me, **and** by reading the course site on Canvas. Drop and withdrawal deadlines are given in the University's academic calendar at https://registrar.fsu.edu/registration_guide/fall/academic_calendar/

### 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.

**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/academic-resources/academic-integrity-and-grievances/academic-honor-policy.)

**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) bring a letter to the instructor indicating the need for accommodation and what type.
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.
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
https://dsst.fsu.edu/oas

**ASSESSMENTS AND GRADING**

The assignments will consist of problems that will be solved using SAS. All assignments are to be turned in on the Friday that they are due no later than 11:59 PM. Assignment documents are uploaded via Canvas and no emailed assignments will be accepted.

Assignments are graded on several components: Correct functions and/or procedures, correct data format, properly executable, correct results, interpretations, and adequate commenting. Assignments will be submitted electronically through Canvas.

You are free to discuss the assignment with any of your classmates; however, the activity of students "working together" is not permitted. Your programming, interpretation, and write-up must be done independently. That is, all code, output, and explanations must be generated by you. Your interpretations must be in your own words. Sharing documents and using any portion of another

student's (past or present) work, representing it as your own, will result in a score of zero on the assignment.

Late assignments submitted within 3 days of the due date will be penalized by 25%. Assignments submitted more than 3 days after the due date will not be accepted. Lowest assignment score will be dropped.

Warning about Using SAS Studio Online: Access to SAS Studio is done through a web browser and is mostly reliable. However, the program is run on SAS's servers and SAS allocates the resources in order for the program to run smoothly. In the past students have experienced outages and, although these are generally temporary, these can cause students to take longer to complete tasks than would normally be anticipated. Around assignment due dates and times can be especially problematic as several people are attempting to get on the server at once and therefore experience more outages. Understanding this, a temporary server outage is not a valid excuse to turning in an assignment late. Good advice is to allow yourself plenty of time to complete your assignments. Please start assignments early to avoid the frustration that a server outage can cause. Trying to complete an assignment at the last minute is a formula for creating extreme stress and potentially adversely affecting your grade.

Privacy: I strictly follow FERPA rules and guidelines. For example, grades cannot be given out in e-mail. For more information, read https://registrar.fsu.edu/records/ferpa/

**Grading:**

Assignments 100%

Weighted Average is rounded up to the next integer.

**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 |