



# Course Syllabus

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## ECO5417 SAS FOR ECONOMISTS SYLLABUS



### COURSE INFORMATION

- **Course Hours:** 1:20PM-2:35PM MW
- **Course Meeting Location:** BELLAMY BLDG, Room 259
- **Credit Hours:** 3 hours

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### COURSE DESCRIPTION

This course will familiarize students with the SAS programming language and how to use the language to analyze typical economic issues. Topics covered in this course include how to input and manipulate data, how to perform statistical analyses (including regressions), and more advanced topics such as macro programming.



### COURSE INSTRUCTOR




 **Dr. Simona Andrei**

 Teaching Professor I

 [sandrei@fsu.edu](mailto:sandrei@fsu.edu) (mailto:sandrei@fsu.edu)

 BEL 260

 MW 2:45 PM - 3:45 PM; F 11: 45 AM - 12:45 PM and by appointment

🔙 Emails will be responded to within 24 to 48 hours.



## LEARNING OBJECTIVES


At the completion of this course, students will be able to write programs in SAS to:

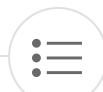
1. Read in, check, and clean datasets.
2. Create and modify variables.
3. Subset, modify, and combine datasets.
4. Produce descriptive statistics.
5. Conduct basic statistical procedures.
6. Conduct regression analyses and diagnostics.
7. Write code efficiently using the macro facility.



## COURSE MATERIALS

### Recommended

- Delwiche, Lora D. and Susan Slaughter (2019). *The Little SAS Book: A Primer*, 6th edition, Cary, NC: SAS Institute Inc.
- SAS Certified Specialist Prep Guide: Base Programming Using SAS 9.4
- Extensive online documentation provided by SAS:  
[https://documentation.sas.com/doc/en/pgmsascdc/9.4\\_3.5/pgmsashome/home.htm](https://documentation.sas.com/doc/en/pgmsascdc/9.4_3.5/pgmsashome/home.htm)   
([https://documentation.sas.com/doc/en/pgmsascdc/9.4\\_3.5/pgmsashome/home.htm](https://documentation.sas.com/doc/en/pgmsascdc/9.4_3.5/pgmsashome/home.htm))



## STUDENT RESPONSIBILITIES

- Students should log on to Canvas at least every other day to check for course updates.
- Students are expected to keep up with the class, engage with the course material, and submit assignments by the due dates.
- To be successful in this course, students need to complete all required assignments and tests.



## GRADING POLICY

Evaluation will be based on programming assignments, a midterm exam, a cumulative final exam, and class participation. Final grades will be calculated according to the following weights:

**programming assignments 40%, quizzes 5%, midterm exam 25%, cumulative final exam 30%.**

You should expect to have a programming homework assignment almost every week. You **MAY** discuss assignments with other students, although all final work submitted should be your own. Typically you will have one week to complete an assignment. Homework assignments must be submitted by the due date and time. Late homework assignments will receive a penalty of 20% for each day (or part of a day) late.

There will be five Canvas-based quizzes throughout the semester. The purpose of the quizzes is to check your understanding of basic concepts introduced in class. The quizzes will be available in Canvas for 3 days. Once you start taking a quiz, you will have 10 minutes to complete it. Only the highest 4 quiz scores will count toward the calculation of the final grade. No makeup quizzes will be given, for any reason.

There will be one midterm exam, which will be held during regular class time. The midterm exam is tentatively scheduled for **Wednesday, October 11**. This date may change at the discretion of the instructor. The final exam is cumulative and is scheduled by the university for **Wednesday, December 13, from 12:30 PM - 2:30 PM**. All exams are closed book, closed notes. Missed exams will be assigned a score of zero.



## GRADING SCHEME

The following grading standards will be used in this class:

Grading Scheme Breakdown

Grade	Range
A	100% to 93%
A-	< 93% to 90%
B+	< 90% to 87%
B	< 87% to 83%
B-	< 83% to 80%



C+	< 80% to 77%
C	< 77% to 73%
C-	< 73% to 70%
D+	< 70% to 67%
D	< 67% to 63%
D-	< 63% to 60%
F	< 60% to 0%



## TECHNOLOGY REQUIREMENTS

Course content is accessible through Canvas.

**SAS 9.4** is available on the machines in the computer lab (BEL 259).



## CANVAS SUPPORT

Need help with Canvas? Contact FSU Canvas Support:

✉ **Email:** [canvas@fsu.edu](mailto:canvas@fsu.edu) (<mailto:canvas@fsu.edu>)

📞 **Phone:** (850) 644-8004

🌐 **Website:** [support.canvas.fsu.edu](http://support.canvas.fsu.edu) (<http://support.canvas.fsu.edu>)

🕒 **Hours:** 8am to 5pm, Monday - Friday



## COURSE POLICIES

### COMMUNICATIONS/IN-PERSON AND ONLINE ETIQUETTE

#### For Email Communication:

- For email, please respond to your instructor's and peers' messages promptly.
- Include the **course number in the subject line**.



- Use a brief description in the subject line that outlines the topic of discussion.
- Avoid using slang or profane words.
- Use your instructor's correct title he or she prefers for communication.
- Avoid using emoticons, such as smiley faces, and maintain a professional demeanor.
- Sign your email messages using your full name.
- AVOID USING ALL CAPS. This makes the message visually difficult to read and is perceived by the reader as "shouting."
- Use correct spelling, grammar, and punctuation, just as you would for any communication.
- Ask yourself whether you would be comfortable if someone other than the intended receiver were to read your message. Remember, email is not a completely secure form of communication.
- Refrain from "flaming," which is expressing a strongly held opinion without tact or regard for others. Don't assume that recipients will know the intent of the message (e.g., "just kidding"). It reads differently when it's in print (electronic or not).
- Report any inappropriate communication considered to be of a serious nature to your instructor, as it may be a violation of University policy.
- Treat others with respect by making messages clear and succinct.

## PARTICIPATION & LATENESS POLICY

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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.

## POLICY FOR MISSED TESTS

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Students with excused absences as defined by the participation and lateness policy should contact the instructor IN ADVANCE to arrange alternative testing times. Medical absences MUST be accompanied by appropriate documentation. Students who miss an exam without advance permission and/or without appropriate documentation will receive a score of zero on the exam.

## POLICY ON RESPONDING TO STUDENTS

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- Email responses typically within 24 to 48 hours.
- Graded assignments typically returned within 1 week after due date.



# UNIVERSITY POLICIES

## UNIVERSITY ATTENDANCE POLICY

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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

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The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of student's 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." (For more details, see the **[FSU Academic Honor Policy and procedures for addressing alleged violations \(http://fda.fsu.edu/academic-resources/academic-integrity-and-grievances/academic-honor-policy\)](http://fda.fsu.edu/academic-resources/academic-integrity-and-grievances/academic-honor-policy)**.)

## ACADEMIC SUCCESS

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Your academic success is a top priority for Florida State University. University resources to help you succeed include tutoring centers, computer labs, counseling and health services, and services for designated groups, such as veterans and students with disabilities. The following information is not exhaustive, so please check with your advisor or the **[Department of Student Support and Transitions \(https://dsst.fsu.edu/\)](https://dsst.fsu.edu/)** to learn more.

## PROCESS FOR RESOLVING ACADEMIC PROBLEMS OR GRIEVANCES

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Please use the *Resolving Academic Problems: A Step-by-Step Guide for Students* in the Academic Honor Policy and Grievances section of the **[Office of Faculty Development & Advancement \(https://fda.fsu.edu/academic-resources\)](https://fda.fsu.edu/academic-resources)** website to begin the process of communicating with your

instructor to resolve any confusion or difficulty you may be having in the course. Detailed information on FSU's grievance procedure, including special instructions for students enrolled in an FSU branch campus, is maintained on the FSU Undergraduate Bulletin's **Academic Integrity & Grievances** (<https://registrar.fsu.edu/bulletin/undergraduate/information/integrity/index.cfm>) webpage. Out-of-state distance learning students should review the Office of Distance Learning **Complaint Resolution** (<https://distance.fsu.edu/about-us/complaint-resolution>)\_ webpage for additional procedures.



## AMERICANS WITH DISABILITIES ACT

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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.

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, teams, zoom, etc...) with each instructor to whom a letter of accommodation was sent to review approved accommodations.

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 an alternative format upon request.

For the latest version of this statement and more information about services available to FSU students with disabilities, contact the:

**Office of Accessibility Services (Tallahassee Campus)** (<https://dsst.fsu.edu/oas>)

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) (<mailto:oas@fsu.edu>)

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

**Student Accessibility Services (Panama City Campus)** (<https://pc.fsu.edu/students/sas>)

2nd Floor Barron Building (Room 215)

Florida State University Panama City

Panama City, FL 32405

(850) 770-2172 (office)

(866) 693-7872 (toll free)

Email: [sds@pc.fsu.edu](mailto:sds@pc.fsu.edu) (<mailto:sds@pc.fsu.edu>)

<https://pc.fsu.edu/students/sas>

## FREE TUTORING FROM FSU

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On-campus tutoring and writing assistance are available for many courses at Florida State University. High-quality tutoring is available by appointment and on a walk-in basis. These services are offered by tutors trained to encourage the highest level of individual academic success while upholding personal academic integrity.

### ***Tallahassee Campus***

For a comprehensive list of on-campus tutoring options, visit the **Academic Center for Excellence** (<https://ace.fsu.edu/tutoring>) (ACE) webpage (<http://ace.fsu.edu/tutoring>) or contact [tutor@fsu.edu](mailto:tutor@fsu.edu) (<mailto:tutor@fsu.edu>).

### ***Panama City Campus***

Peer tutoring is available for all undergraduate FSU Panama City students both in-person on campus and remotely through Zoom. If you need tutoring support, please email the peer tutor listed on the **Peer Tutoring** (<https://pc.fsu.edu/peer-tutoring>) webpage (<https://pc.fsu.edu/peer-tutoring>). Tutoring will be in-person in the **John and Gail Robbins Center for Academic Excellence and Innovation** (<https://pc.fsu.edu/students/student-services/john-gail-robbon-center>) unless you specify with the tutor that you would like to meet via Zoom instead. If you have trouble reaching a peer tutor outside their scheduled availability listed on the **Peer Tutoring** (<https://pc.fsu.edu/peer-tutoring>) webpage, you may email [advising@pc.fsu.edu](mailto:advising@pc.fsu.edu) (<mailto:advising@pc.fsu.edu>) or call (850) 770-2263 to be connected with available resources.

## CONFIDENTIAL CAMPUS RESOURCES

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

**Victim Advocate Program** (<https://dsst.fsu.edu/vap>)

University Center A

Room 4109





Phone: (850) 644-7161 (24/7)

Text: (850) 756-4320 (24/7)

Email: [Victims-Advocate@fsu.edu](mailto:Victims-Advocate@fsu.edu) (<mailto:Victims-Advocate@fsu.edu>)

Office Hours: Monday-Friday 8am-5pm

<https://dsst.fsu.edu/vap>

**Counseling & Psychological Services (Tallahassee Campus)** (<https://counseling.fsu.edu/>)

Askew Student Life Center, 2nd Floor

942 Learning Way

Phone: (850) 644-8255 / (850) 644-TALK

<https://counseling.fsu.edu>

**FSU PC Counseling Center (Panama City Campus)** (<https://pc.fsu.edu/students/student-affairs/counseling-center>)

Michael McLaughlin, LCSW

Coordinator/Therapist

Barron Building, Office 214

Phone: (850) 770-2174

Email: [mrm18bg@fsu.edu](mailto:mrm18bg@fsu.edu) (<mailto:mrm18bg@fsu.edu>)

Office Hours: Monday-Thursday 9am-4pm; Friday 9am-3pm

<https://pc.fsu.edu/students/student-affairs/counseling-center>

**University Health Services** (<https://uhs.fsu.edu/>)

Health and Wellness Center

960 Learning Way

Phone: (850) 644-6230

Office Hours: Monday-Friday 8am-4pm

<https://uhs.fsu.edu>

## FSU FOOD PANTRIES

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FSU has established food pantries where students in need can pick up nonperishable food items freely and anonymously. Donations for the collection of nonperishable food items are encouraged.

For information about the Tallahassee food pantry, visit the **Food for Thought Pantry**

(<https://dsst.fsu.edu/resources/food-for-thought-pantry>)\_webpage

(<https://dsst.fsu.edu/resources/food-for-thought-pantry>). The pantry is located at University Center A, Suite 4148. If you have questions or concerns, contact the Department of Student Support and Transitions at [foodpantry@fsu.edu](mailto:foodpantry@fsu.edu) (<mailto:foodpantry@fsu.edu>) or (850) 644-2428.

For information about the Panama City Food Pantry, visit the **Seminole Exchange**

(<https://pc.fsu.edu/students/counseling-center/food>)\_webpage

(<https://pc.fsu.edu/students/counseling-center/food>) The pantry is located at Barron Building, 2nd

floor. If you have questions or concerns, contact Michael McLaughlin, LCSW, at [mmclaughlin3@fsu.edu](mailto:mmclaughlin3@fsu.edu) (mailto:mmclaughlin3@fsu.edu) or (850) 770-2174.



## SYLLABUS CHANGE POLICY

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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.



## TENTATIVE COURSE OUTLINE

Module 1: Introduction to the SAS Windows Environment and Basic Concepts

Module 2: Reading Data Into SAS. Informats and Formats

Module 3: Creating and Managing Variables: SAS Functions

Module 4: Subsetting Data

Module 5: Combining SAS Data Sets

Module 6: Understanding DATA Step Processing, .LAST, .FIRST, RETAIN, LAG

Module 7: DO Loops and Arrays

Module 8: Producing Descriptive Statistics

Module 9: Using Basic Statistical Procedures

Module 10: Advanced Topic--Macro Processing

Module 11: Multiple Regression and Regression Diagnostics

Module 12: Creating Output with ODS

Module 13: Advanced Topic--Accessing Data Using SQL