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

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)
- BEL 260
- MW 2:45 PM - 3:45 PM
- 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

- 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

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% each, 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 in class 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 our regular class time. The midterm exam is tentatively scheduled for Wednesday, October 12. This date may change at the discretion of the instructor. The final exam will be comprehensive and is scheduled for Wednesday, December 7, from 12:30 PM - 2:30 PM. All exams will be 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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
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<tbody>
<tr>
<td>A</td>
<td>100% to 93%</td>
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<tr>
<td>A-</td>
<td>&lt; 93% to 90%</td>
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<tr>
<td>B+</td>
<td>&lt; 90% to 87%</td>
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<td>B</td>
<td>&lt; 87% to 83%</td>
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<tr>
<td>B-</td>
<td>&lt; 83% to 80%</td>
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<tr>
<td>C+</td>
<td>&lt; 80% to 77%</td>
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<td>C</td>
<td>&lt; 77% to 73%</td>
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<tr>
<td>C-</td>
<td>&lt; 73% to 70%</td>
</tr>
</tbody>
</table>
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
Phone: (850) 644-8004
Website: 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

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

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

• Email responses typically within 24 to 48 hours.
• Graded assignments typically returned within 1 week after due date.
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." (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) .)

ACADEMIC SUCCESS

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 Dean of Students office to learn more.

PROCESS FOR RESOLVING ACADEMIC PROBLEMS OR GRIEVANCES

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 and Advancement’s website (https://fda.fsu.edu/academic-resources) 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 General 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) page for additional procedures.

**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 (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)
https://dsst.fsu.edu/oas

**Student Accessibility Services (Panama City Campus)** (https://pc.fsu.edu/students/student-affairs/sas)
Office of Student Affairs
4750 Collegiate Drive
2nd Floor Barron Building (Room 215)
Florida State University Panama City
Panama City, FL 32405
FREE TUTORING FROM FSU

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 more information, visit the Academic Center for Excellence (ACE) Tutoring Services' comprehensive list of on-campus tutoring options - see the Academic Center for Excellence (ACE) Tutoring Services' website (http://ace.fsu.edu/tutoring) or contact tutor@fsu.edu (mailto:tutor@fsu.edu).

Panama City Campus

The PC campus provides both in-person and remote tutoring. In-person tutoring is available at the Robbins Center for Academic Excellence and Innovation in the Holley Building (which also houses the Digital Design Studio). Remote tutoring will be available through Zoom. To inquire about tutoring options for the PC campus, please visit the Peer Tutoring website (https://pc.fsu.edu/students/academic-advising-student-success-center/peer_tutoring) or contact an academic advisor in the Advising Center in the Holley Building to discover your options.

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 (https://dsst.fsu.edu/vap)
University Center A,
Room 4100, (850) 644-7161,
Available 24/7/365,
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
(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)
Rebecca Whitfield, LSCW
Assistant Director for Treatment Coordination
Counseling & Psychological Services
Florida State University
Phone: (850) 644-TALK (8255)
rjwhitfield@fsu.edu
https://pc.fsu.edu/students/student-affairs/counseling-Center

University Health Services (https://uhs.fsu.edu/)
Health and Wellness Center,
(850) 644-6230
https://uhs.fsu.edu/

FSU FOOD PANTRIES

FSU has established Food Pantries where students in need can pick up non-perishable food items freely and anonymously. The Food Pantry is available during the pandemic, and it is free and open to all students to take what they need. Donations for collection of non-perishable food items are encouraged.

For more information about the Tallahassee Food Pantry, visit the Tallahassee Food for Thought Pantry website (https://dos.fsu.edu/resources/food-for-thought-pantry) (https://dos.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 dsst@fsu.edu or (850) 644-2428.

For more information about the Panama City Food Pantry, visit the PC Food Pantry website (https://pc.fsu.edu/students/student-services/food-pantry) (https://pc.fsu.edu/students/student-services/food-pantry). The pantry is located at Holley West Hall. If you have questions or concerns, contact Kathleen Duval LCSW at krduval@fsu.edu or (850) 770-2174.
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."

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: the FREQ and MEANS Procedures
Module 9: Using Basic Statistical Procedures
Module 10: Multiple Regression and Regression Diagnostics
Module 11: Creating Output with ODS
Module 12: Advanced Topic--Accessing Data Using SQL
Module 13: Advanced Topic--Macro Processing