



## **SYA 3400**

# **Introduction to Quantitative Social Research**

Section: RVC

Internet/Fully Online

Fall Term 2025

**Course Time Zone | Eastern Time (ET). Course due dates are according to this time zone.**

## **Professor Information**

---

Qing Lai

**Roles:** Primary Instructor

**Email:** [qlai@fiu.edu](mailto:qlai@fiu.edu)

**Phone:** 3053486663

**Office Hours:** Monday 8:30-9:30 AM

**Office Location:** SIPA 313

**Department or Academic Unit:** Department of Global and Sociocultural Studies

## **Course Prerequisites**

---

Course prerequisites, if any, are listed below.

## Course Description and Purpose

---

In this course we will study the basic logics and skills of quantitative data analysis in social research. It covers basic principles of statistics, various techniques of data analysis, common public-use data sources, and the basics of survey research. This is a fully online course. All coursework will be conducted on Canvas.

This course maintains a strong emphasis on the social background of data analysis. All class examples and assignments pertain to social, demographic, or economic issues. You will become familiar with the conventions of quantitative analysis in social research, as well as the common pitfalls. By the end of the course, you are expected to have sufficient background to critically evaluate the research claims made in academic work and mass media.

You do not need previous statistical computing experience to do well in this course, nor do you have to be a "math-oriented" person. Students who apply good study skills — consistently reading assigned materials, watching assigned lectures, and completing all assignments and exams on time — can expect to do well in the course.

## Textbook and Course Materials

---

**No Textbook Required for purchase**

**Required/Recommended:** N/A

**Authors:** N/A

**Publisher:** N/A

**Publication Date:** N/A

**Copyright Date:** N/A

**ISBN 10:** N/A

**ISBN 13:** N/A

**Panther Book Pack**

The Panther Book Pack rental program provides your required print and digital course materials at a flat rate of \$20 per undergraduate credit hour. When you registered for your classes this session, you were notified via email of the required course materials that are included in the Panther Book Pack.

Make sure to review the pricing for all materials across your classes this semester and compare the cost to the Panther Book Pack flat rate. If the Panther Book Pack is not your best option, you may opt out up to three days after the add/drop deadline. The deadline to opt back into the Panther Book Pack is also three days after the add/drop deadline.

If you do not opt out of the Panther Book Pack rental program, you will be charged \$20 per undergraduate credit hour for which you are registered and the course materials will be reserved in your name. For more details and to learn how to access your course materials, visit [onestop.fiu.edu/bookpack](https://onestop.fiu.edu/bookpack).

## **Student Learning Outcomes/Objectives**

---

Student learning outcomes allow faculty to assess the level of proficiency in content knowledge and skills that their students acquire in a course.

If the objective meets a special designation, you will see the code after the objective:

University Core Curriculum: UCC

Gordon Rule Writing: GRW

Global Learning: GL

Civic Literacy: CL

- to critically evaluate research claims in quantitative social sciences
- to perform basic analysis with quantitative data for social research
- to be ready for further training in quantitative methods in social science research

## **Expectations of this Course**

---

This is an online course, which means most (if not all) of the course work will be conducted online. Expectations for performance in an online course are the same as a traditional course. In fact, online courses require a degree of self-motivation, self-discipline, and technology skills which can make these courses more demanding for some students.

Students are expected to:

- review and follow the course calendar and weekly outlines;
- log in to the course as many times as necessary per week;
- submit assignments by the corresponding deadline. No late work will be accepted.

The instructor will:

- log in to the course 5 times a week;
- respond to Canvas Messages within 24 hours;
- grade assignments and/or provide feedback within 2 days of the assignment deadline.

## Course Communication

---

Communication in this course will take place via the Canvas Inbox. Check out the [Canvas Conversations Tutorial](#) or [Canvas Guide](#) to learn how to communicate with your instructor and peers using Announcements, Discussions, and the Inbox. I will respond to all correspondences within 24 hours.

## Policies & Resources

---

Before starting this course, please review the Policies & Resources Page in Canvas which includes comprehensive information on various University and Course Level Policies such as:

- University Policies
- Accessibility and Accommodations
- Online Etiquette
- Technical Requirements and Skills
- Computer & Digital Literacy Skills
- Course Technology Accessibility Statements and Privacy Policies
- Academic Integrity
- Copyright Statement
- Core Principles of This Course
- Nondiscrimination Statement
- Panthers Care & Counseling and Psychological Services (CAPS)
- Fair Use Policy

## Assignments & Assessments

---

### Lectures

You are required to watch the pre-recorded lectures on YouTube for each learning module. The video links and lecture notes are available in the **Modules**. Refer to the course outline for the weekly schedule.

### Assignments

There will be a total of nine *handwritten* assignments. All the assignment sheets are posted in the **Modules** section (with "Asg" in the file name), but your completed work should be submitted via "Assignment upload links" in the **Assignments** section. You may scan or take a picture of your completed work (one picture per sheet) and upload them to Canvas. Please write your full name and Panther ID on each sheet of your work.

Some assignments contain "Computer Problems" with Stata instructions and datasets. They are provided as optional study materials. **You are not required to finish and submit any computer problems.**

Study group is a good idea but you are expected to complete all the assignments independently.

Each assignment will be graded either 0 or 5 on the basis of timely completion. You heard it right--mistakes will be tolerated as long as you complete the problems with decent effort and submit in time. Make sure to check the assignment keys posted after each due date. Collectively, the nine assignments account for 45% of your final course grade.

## Quizzes

Three online exams are scheduled on Canvas for 9/21 (Sunday), 10/26 (Sunday), and 11/30 (Sunday). Exam links (titled "Exam1", "Exam 2", and "Exam 3") will be available in the **Quizzes** section. You may take the exams anytime between 9 AM and 11:59 PM. Once started, you have 60 minutes to finish all the questions in one sitting. If you have schedule conflicts with the online exams, please contact me as soon as possible to make alternative arrangements.

You should not discuss questions with anyone else during the exam, but you may consult your notes or the course materials.

In the **Modules** section, you can find a module dedicated to exam preparation (titled "Exam Reivews"), which consists of three practice exams (in PDF) and links to three

prep videos.

You need reliable computer and internet to take the exams online.

Each exam accounts for 15% of your final course grade.

## Grading

---

Course Grades Distribution Table

| Course Requirements          | Number of Items | Points of Each | Total Points Available | Weight      |
|------------------------------|-----------------|----------------|------------------------|-------------|
| Attendance (watching videos) | 21              | 0.714          | 15                     | 15%         |
| Assignments                  | 9               | 5              | 45                     | 45%         |
| Exams                        | 3               | 15             | 45                     | 45%         |
| <b>Total</b>                 | <b>10</b>       | <b>N/A</b>     | <b>105</b>             | <b>105%</b> |

Letter Grade Distribution Table

| Letter Grade | Total Points |
|--------------|--------------|
| A            | 95 - 105     |
| A-           | 90 – 94.99   |
| B+           | 87 – 89.99   |
| B            | 83 – 86.99   |

| Letter Grade | Total Points |
|--------------|--------------|
| B-           | 80 – 82.99   |
| C+           | 77 – 79.99   |
| C            | 70 – 76.99   |
| D            | 60 – 69.99   |
| F            | 0 – 59.99    |

## Canvas Schedule

---

| Due Date | Assignment Name              | Assignment Type | Points |
|----------|------------------------------|-----------------|--------|
| 8/31/25  | <a href="#">Assignment 1</a> | Assignment      | 5      |
| 9/7/25   | <a href="#">Assignment 2</a> | Assignment      | 5      |
| 9/14/25  | <a href="#">Assignment 3</a> | Assignment      | 5      |
| 9/21/25  | <a href="#">Exam 1</a>       | Quiz            | 15     |
| 9/28/25  | <a href="#">Assignment 4</a> | Assignment      | 5      |
| 10/5/25  | <a href="#">Assignment 5</a> | Assignment      | 5      |
| 10/12/25 | <a href="#">Assignment 6</a> | Assignment      | 5      |
| 10/19/25 | <a href="#">Assignment 7</a> | Assignment      | 5      |
| 10/26/25 | <a href="#">Exam 2</a>       | Quiz            | 15     |



| Due Date | Assignment Name              | Assignment Type | Points |
|----------|------------------------------|-----------------|--------|
| 11/9/25  | <a href="#">Assignment 8</a> | Assignment      | 5      |
| 11/23/25 | <a href="#">Assignment 9</a> | Assignment      | 5      |
| 11/30/25 | <a href="#">Exam 3</a>       | Quiz            | 15     |

## Schedule of Topics

---

### 8/25-31 Introduction; Frequency distribution; Frequency table; Histogram

- Watch lecture videos 1-1 and 1-2
- Assignment 1 due 8/31

### 9/1-7 Measures of central tendency and variability

- Watch lecture videos 2-1 and 2-2
- Assignment 2 due 9/7

### 9/8-14 Standardized distribution; Z-score; Normal distribution

- Watch lecture videos 3-1 and 3-2
- Assignment 3 due 9/14

### 9/15-21 Exam 1

- Watch exam 1 review video

- Online Exam 1 on 9/21

### **9/22-28 Sampling distribution; Standard error**

- Watch lecture videos 4-1 and 4-2
- Assignment 4 due 9/28

### **9/29-10/5 Hypothesis test; Z-test for one mean**

- Watch lecture videos 5-1 and 5-2
- Assignment 5 due 10/5

### **10/6-12 t-test for one mean**

- Watch lecture videos 6-1 and 6-2
- Assignment 6 due 10/12

### **10/13-19 t-test for two independent samples; t-test for two related samples**

- Watch lecture videos 7-1 and 7-2
- Assignment 7 due 10/19

### **10/20-26 Exam 2**

- Watch exam 2 review video
- Online Exam 2 on 10/26

**10/27-11/2 Confidence intervals**

- Watch lecture videos 8-1
- No assignment due (but you should begin to work on Assignment 8)

**11/3-9 Chi-square test**

- Watch lecture videos 8-2
- Assignment 8 due 11/9

**11/10-16 Scatterplot and Correlation**

- Watch lecture videos 9-1
- No assignment due (but you should begin to work on Assignment 9)

**11/17-23 Simple regression**

- Watch lecture videos 9-2
- Assignment 9 due 11/23

**11/24-30 Exam 3**

- Watch exam 3 review video
- Online Exam 3 on 11/30

## 12/1-12/6 Final review

- Fill out SPOT survey
- Extra credit assignments (to be assigned after Exam 3)

## Nondiscrimination Statement

---

The **Office of Civil Rights Compliance and Accessibility (CRCA)** is responsible for ensuring that FIU maintains a workplace and learning environment free from discrimination, where current and prospective faculty, staff, and students are treated equitably. If any student, employee, or applicant has a sincere and reasonable belief that they have been discriminated against or harassed based on age, color, disability, marital status, ethnic or national origin, race, religion, retaliation, sex, or any other protected category, they can report their concerns to the CRCA team through [report.fiu.edu](https://report.fiu.edu).