









**Department of Sociology**  
**Course Name SOC316 Stats. Res. Met- II**  
 **Semester: Spring 2025**  
 **Instructor: Dr Rime Hanane Abdalli**  
 **Email: [Rym.sociologie@gmail.com](mailto:Rym.sociologie@gmail.com)**

## **Course Description**

In this course, we'll explore how numbers and data help us understand the society. We'll learn to use statistics to discover insights about individuals and societies, from their preferences to social trends. By the end, you'll have the skills to uncover the richness of human life through statistics.

## **Learning Outcomes**

By the end of this course, students will:

-  Define sociology and articulate its objectives.
-  Design and implement sociological surveys.
-  Collect, clean, and manage quantitative data.
-  Apply statistical techniques to analyze sociological data.
-  Interpret and present statistical findings effectively.

# **Course Outline**

## **Week 1: Introduction to Statistical Research in Sociology**

- Overview of quantitative research
  - Role of statistics in sociology
- Ethical considerations in survey research

## **Week 2: Survey Research Design**

- Types of surveys (cross-sectional, longitudinal, panel, etc.)
- Sampling methods (probability vs. non-probability sampling)
  - Writing effective survey questions

## **Week 3: Data Collection Methods**

- Online, phone, mail, and face-to-face surveys
- Challenges in data collection (response bias, missing data)
  - Ensuring data quality and reliability

## **Week 4: Preparing Data for Analysis**

- Data entry and coding
- Cleaning and managing datasets
- Handling missing data and outliers

## **Week 5: Descriptive Statistics**

- Measures of central tendency (mean, median, mode)
- Measures of dispersion (variance, standard deviation, range)
  - Data visualization techniques

## **Week 6: Inferential Statistics & Hypothesis Testing**

- Sampling distributions
  - Confidence intervals
- T-tests and chi-square tests

## **Week 7: Correlation and Simple Regression Analysis**

- Understanding relationships between variables
  - Pearson and Spearman correlation
  - Simple linear regression

## **Week 8: Multiple Regression Analysis**

- Assumptions of regression models
- Interpreting coefficients and significance
  - Dummy variables in regression

## **Week 9: Generalized Linear Models**

- Logistic regression for binary outcomes
  - Poisson regression for count data
- Multinomial regression for categorical outcomes

## **Week 10: Survey Data Analysis Techniques**

- Weighting survey data
- Addressing survey non-response
- Complex survey designs (stratification and clustering)

## **Week 11: Communicating Statistical Findings**

- Writing sociological research reports
  - Effective data visualization
- Avoiding misinterpretation of statistics

## **Week 12: Final Project & Review**

- Presenting survey research findings
  - Peer feedback and discussion
  - Course review and Q&A