

Statistics Workshops

Summer 2026

The **Center for Statistical Computing** (CSC) invites all graduate students, staff, and faculty to participate in our hands-on statistics workshops designed to support research, teaching, and professional development. Workshops are offered in person in **Lab C** (Upper Level, Healey Library), online via **Zoom**, and in the **AI Lab** (for the Statistics with ChatGPT sessions).

This semester's offerings include workshops in Stata, SPSS, R, RStudio, ChatGPT, Excel, Python, and Logistic Regression, featuring practical applications in data science and research. Participants will receive step-by-step handouts, program files, and example datasets to support continued learning and practice.

Workshop descriptions, schedules, and registration links are provided below.

Statistics Workshop Descriptions:

SPSS is a hands-on workshop designed to empower attendees with the skills to conduct meaningful data analysis using SPSS for Windows. Topics covered include entering and reading data, documenting variable and value labels, examining frequency and crosstab tables for individual and group data, recoding variables, performing independent sample t-tests, and conducting simple linear Regression.

Introduction to Stata provides a comprehensive overview of the Stata software, covering both the graphic user interface and intuitive command syntax approaches. This hands-on workshop is designed to efficiently introduce participants to the fundamentals of using Stata for data analysis. Topics include data browsing and management, descriptive statistics, independent samples *t*-test, Chi-square tests, linear and logistic regression models. Practice datasets and Stata do-files are provided to support hands-on learning. No prior experience with Stata or statistical software is required.

Introduction to R provides a comprehensive introduction to the R statistical software, with an emphasis on conducting fundamental statistical analyses. This hands-on workshop is designed to efficiently introduce participants to the basics of using R for data analysis. Topics include descriptive statistics, frequency distributions, Chi-square tests, independent sample *t*-tests, one-way ANOVA, and linear and logistic regressions. Additional topics include downloading and installing R packages, reading and writing data files, and creating graphical displays in R. Practice datasets and R scripts are provided to support hands-on learning. R is free, open-source software supported by a large and active user community. No prior experience with R or programming is required.

Statistical Analysis Using Excel provides practical guidance on improving efficiency in data analysis using Microsoft Excel. This hands-on workshop covers data entry and organization, descriptive statistics, frequency distribution and crosstabulations, independent and paired sample *t*-tests, correlation analysis, and simple linear regression. The workshop also briefly discusses the strengths and limitations of Excel and highlights when more advanced statistical software, such as SPSS or R, is recommended for more complex analyses.

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Introduction to Python for Data Analysis is a beginner level, hands-on workshop that uses Spyder to provide a ready-to-use Python computing environment. No prior programming or statistical software experience is required. The workshop begins with an introduction to basic Python concepts and essential data types. Participants will learn to use *pandas* and *NumPy* for simple data manipulation, and *statsmodels* for fitting and interpreting basic statistical models. Topics include descriptive statistics and simple linear regression using practical examples from social sciences.

Statistics using ChatGPT provides a hands-on introduction to using ChatGPT as a support tool for conducting statistical analysis. This workshop introduces the fundamentals of ChatGPT and demonstrates how it can assist participants with statistical programming, model specification, and interpretation of results. Topics include independent sample *t*-tests, one-way ANOVA, Chi-square tests, and linear regression. The workshop aims to equip participants with practical strategies for effectively and responsibly leveraging ChatGPT in various statistical analysis scenarios.

Logistic Regression and Random Forest in R: A Practical Introduction: This workshop is designed to introduce the fundamental principles of classification techniques in data science, with a particular emphasis on Logistic Regression and Random Forest using R programming language. Participants will develop a conceptual understanding of both models, gain hands on experience implementing them in R, and examine their respective strengths and limitations through real-world examples. The session aims to equip students with the analytical skills needed to critically evaluate and apply classification methods in research and data analysis across a range of academic disciplines.

Introduction to RStudio provides a comprehensive introduction to RStudio, a user-friendly integrated development environment for the R programming language. This hand-on workshop is designed to efficiently introduce participants to the basics of working in R through RStudio. Topics include basic R concepts and data structures, importing data into R, and performing simple statistical procedures such as descriptive statistics, *t*-tests, and linear regression. Participants will also learn to use *ggplot2* to create and interpret graphical displays, including simple regression plots. No prior experience with R or programming is required.

Registration Procedures:

Seats and handouts are limited. Please register in advance.

1. Click the 'In-Person Register' or 'On-Zoom Register' under Registration.
2. Fill out all the information and submit your registration form.
3. Join the workshops via a Zoom link in the confirmation email or attend an in-person session for in-person workshops.

All in-person workshops will be held in **Lab C** on the upper level (UL) of Healey Library.

Please contact Mr. Inal Mashukov at inal.mashukov001@umb.edu for any questions regarding the workshops.

Web: https://www.umb.edu/academics/graduate/info_for_graduate_students/center_for_statistical_computing

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Location: [Healey Library, Lab C](#). (From the main elevators in Healey Library, take the Upper level (UL). Turn right leaving the elevator, and you'll find Lab C on the right in the hallway)

Summer 2026 Statistical Workshop Schedule:

<i>Topic</i>	<i>Date</i>	<i>Day</i>	<i>Time</i>	<i>Registration</i>
Intro. to Stata	June 2	Tuesday	11:00-1:00 P.M.	In-Person Register --- On-Zoom Register
SPSS	Jun. 11	Thursday	11:00-1:00 P.M.	In-Person Register --- On-Zoom Register
Intro. to R	Jun. 22	Monday	11:00-1:00 P.M.	In-Person Register --- On-Zoom Register
Statistics with ChatGPT	Jun. 24	Wednesday	11:00-1:00 P.M.	In-Person Register --- On-Zoom Register
Statistics using Excel	Jun. 29	Monday	11:00-1:00 P.M.	In-Person Register --- On-Zoom Register
Logistic Regression and Random Forest	Jun 30	Tuesday	11:00-1:00 P.M.	In-Person Register --- On-Zoom Register
Python in Statistics	Jul. 1	Wednesday	11:00-1:00 P.M.	In-Person Register --- On-Zoom Register
Intro. to R Studio	July 6	Monday	11:00-1:00 P.M.	On-Zoom Register
Intro. to Stata	July 8	Wednesday	11:00-1:00 P.M.	On-Zoom Register