Basic Statistics Workshops

Spring 2026

The **Center for Statistical Computing** (CSC) invites all graduate students, staff, and faculty to join our hands-on statistics workshops designed to support research, teaching, and professional growth. Workshops are offered in person in **Lab C** (Upper Level, Healey Library) or online via **Zoom.** This semester's offerings include SPSS, SAS, Stata, R, RStudio, Python, and ChatGPT, featuring practical examples. Participants will receive step-by-step handouts, program files, and example datasets. Workshop descriptions, schedules, and registration links are provided below.

Statistics Workshop Descriptions:

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 sample *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.

SPSS 1 provides a comprehensive introduction to SPSS for Windows, covering essential tools for data analysis. Topics include entering and importing data, documenting variable and value labels, examining frequency and crosstab tables for individual and group data, creating and interpreting graphical displays (e.g., bar charts, histogram, and boxplots), recoding variables, performing independent sample *t*-tests, and conducting simple linear regression with regression plots. Practice datasets are provided to support hands-on learning. No prior experience with SPSS is required.

SPSS 2 builds on the concepts and skills introduced in SPSS 1 and focuses on advanced data management and statistical procedures. Topics include selecting cases, combining cases from multiple files, and linking datasets containing different types of information. Statistical procedures covered include Chi-square tests, one-way ANOVA, repeated measurement analysis, non-, multiple regression, and logistic regression. Practice datasets are provided.

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.

Basic Statistics Workshops

Spring 2026

Introduction to SAS provides a practical introduction to the SAS system, covering both the SAS DATA step and commonly used PROC procedures for data management and statistical analysis. This hands-on workshop is designed for beginners and focuses on building a solid foundation for working with SAS. Topics include creating and managing SAS datasets, importing data, assigning variable and value labels, and performing basic statistical analyses using PROC FREQ, PROC MEANS, and PROC GLM, as well as an introduction to regression diagnostics. No prior experience with SAS or programming is required.

Introduction to Python in Statistics 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. We begin 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 focus on descriptive statistics and simple linear regression using practical examples from social sciences.

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.

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.

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

Basic Statistics Workshops

Spring 2026

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)

Spring 2026 Basic Statistical Workshop Schedule:

Topic	*Date*	*Day*	*Time*	*Registration*
Intro. To Stata	**Feb. 3**	**Tuesday**	**10:00-12:00 P.M.**	In-Person Register --- On-Zoom Register
Intro. To R	**Feb. 10**	**Tuesday**	**10:00-12:00 P.M.**	In-Person Register --- On-Zoom Register
SPSS 1	**Feb. 12**	**Thursday**	**10:00-12:00 P.M.**	In-Person Register --- On-Zoom Register
Statistics using Excel	**Feb. 17**	**Tuesday**	**10:00-12:00 P.M.**	In-Person Register --- On-Zoom Register
SPSS 2	**Feb. 19**	**Thursday**	**10:00-12:00 P.M.**	In-Person Register --- On-Zoom Register
Intro. To SAS	**Feb. 24**	**Tuesday**	**10:00 – 12:00 P.M.**	In-Person Register --- On-Zoom Register
Intro. To Python in Statistics	**Feb.26**	**Thursday**	**10:00 – 12:00 P.M.**	In-Person Register --- On-Zoom Register
Statistics using Excel	**March 4**	**Wednesday**	**9:00-11:00 A.M.**	On-Zoom Register
Intro. To RStudio	**March 9**	**Monday**	**9:00-11:00 A.M.**	On-Zoom Register
Intro. To Stata	**March 11**	**Wednesday**	**10:00-12:00 P.M.**	On-Zoom Register
Intro. To SAS	**March 23**	**Monday**	**10:00-12:00 P.M.**	On-Zoom Register
Intro. To R	**March 25**	**Wednesday**	**9:00-11:00 A.M.**	On-Zoom Register
SPSS 1	**March 30**	**Monday**	**9:00-11:00 A.M.**	On-Zoom Register
Statistics with ChatGPT	**April 2**	**Thursday**	**10:00-12:00 P.M.**	In-Person Register --- On-Zoom Register