

Business Statistics

Instructor: Dr. Abhinanda Sarkar (abhinanda.sarkar@myra.ac.in)

The course will run over the duration of Term 1. We will meet in class twice a week, Thursdays and Fridays. On those days, individual discussions can also be arranged.

We will be using an online textbook *OpenIntro Statistics*. It is available on the website <http://www.openintro.org/stat/>

The pdf file of the book is available on the website under “Textbook”. Please download and store on your computer. We will refer to it regularly in class and readings will be assigned.

On the website, you will find instructions on how to download R under “Labs”. Please follow those instructions and install R on your computer before the first day of class. We will do extensive hands-on work on R throughout the course.

We may also be using data available on websites like <https://data.gov.in/> to use as examples, for class discussions, and for assignments.

In case mathematical concepts need to be reviewed, online video learning material can be found at <https://www.khanacademy.org/math> as well as business mathematics texts.

The course is designed to cover the following topics, each lasting approximately two weeks:

- A. Introduction to R
- B. Summarizing Data
- C. Probability
- D. Hypothesis Testing
- E. Categorical Data
- F. Correlation and Regression

Grading for the class will be based on:

1. Weekly written quizzes to test understanding. This is a technical course, keeping up with the material is essential. (20% of grade)
2. Monthly assignments. These will involve data from industrial and social situations. You must work independently and acknowledge any and all collaboration. (20% of grade)
3. Daily data analysis. Each day, we will do hands-on exercises to practice the theory. Attending class and participating in these exercises is mandatory. (10% of grade)
4. A written final exam. The date and format of this will be announced later. It may also involve making in-class presentations on assigned topics. (50% of grade)

This course is a prerequisite for several other courses that follow, particularly courses in marketing, finance, operations, and analytics. You are clearly expected to use data and statistical analysis for your projects. *So it is important that the material presented in this course is practiced, put to use, and is not forgotten after the class ends.*