

# Course Syllabus for DS 700: Foundations of Data Science

**NOTE:** This syllabus document contains the basic information of this course. The most current syllabus is available in the full course.

## Course Description

This course provides an introduction to data science and highlights its importance in business decision making. It provides an overview of commonly used data science tools along with spreadsheets, relational databases, statistics, and programming assignments to lay the foundation for data science applications.

## Course Objectives

By the end of this course, you will be able to:

- Define data science and explain its role in decision making.
- Provide examples of opportunities and challenges related to data science.
- Explain analytical competencies and various tools and techniques.
- Describe various database technologies and their strengths and weaknesses.
- Write and execute SQL statements to retrieve and manage data.
- Explain key statistical concepts that can help build a foundation for advanced courses in the program.
- Analyze data to solve basic analytics problems using Excel and R.
- Explain best practices that can improve the effectiveness of data science projects and mitigate risks associated with such projects.

## Grading

Your mastery of course content is assessed using a variety of methods:

Activity	Percentage of Grade
Assignments	35%
Weekly Quizzes	20%
Group Discussions	15%
Final Project	28%

Self Intro & Assessment	2%
Total	100%

Final grades are assigned using the following scale:

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**A 90-100%**

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**B 80-89%**

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**C 70-79%**

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**D 60-69%**

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**F At or below 59%**