MATH 461. Applied Multivariate Statistics

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Office Hours

Office hours: 12:15 PM-1:15PM on Monday. I am also available over Zoom (ID: 4419675207) during these times if needed. If these time slots do not work, please feel free to schedule another time with me.

Textbook

- No text books required

Course Objectives

After successfully completing this course, each student can

- Explain and Implement Multiple Linear Regression
- Explain and Implement Generalized Liner Models
- Explain and Implement Factor Analysis
- Explain and Implement basic Clustering methods
- Explain and Implement methods of Multivariate Analysis of Variance

Grades
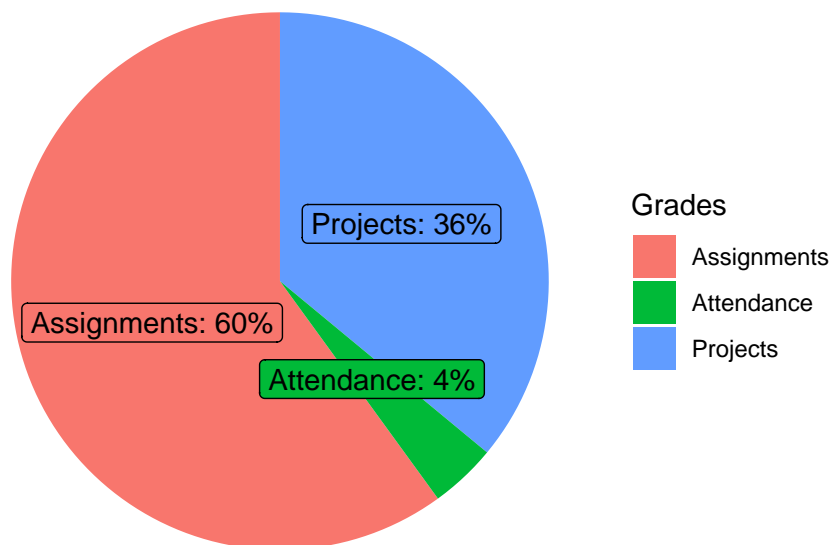
- *Project*: The projects offers you an opportunity to apply multivariate statistical techniques to an application. Projects can be done in teams of up to three students. If you have a project of such large scope and ambition that it cannot be done by a team of only three persons, you can propose doing a project in a team of four. The logistics and other details of the projects will be updated on the course webpage and Canvas.

- *Assignments*: The main purpose of the assignments is to help us understand the ideas and concepts behind the statistical/mathematical techniques. The form of submissions for assignments could be photos/scans of written answers or video recording of presentation or other formats. The assignments could be given in-class or take home.

- *Attendance*: Attendance will be checked regularly in class. Missing fewer than four class meetings will guarantee you the full credits for attendance. The grade for attendance (4%) is enough to move up a letter grade. You are responsible for obtaining course material missed during an absence.
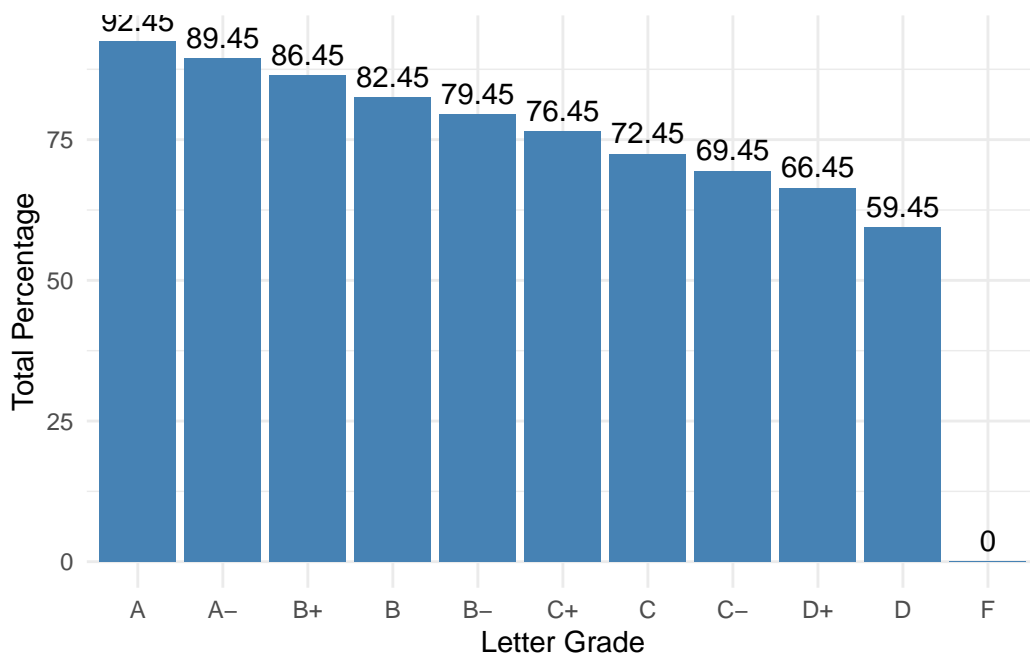
Grades Scale

The numerical grades are converted to letter grades as follows.

A	92.45 - 100%	C	72.45 - 76.44%

A-	89.45 - 92.44%	C-	69.45 - 72.44%
B+	86.45 - 89.44%	D+	66.45 - 69.44%
B	82.45 - 86.44%	D	59.45 - 66.44%
B-	79.45 - 82.44%	F	Below 59.44%
C+	76.45 - 79.44%		

Tentative Topics

- Multiple Linear Regression
- Generalized Linear Models
- Multivariate Analysis of Variance.
- Cluster Analysis
- Factor Analysis

Academic Misconduct

Cheating will result in an F as your final grade and may result in your expulsion from the University. All cheating will be reported to the Chair of the Mathematics Department and Academic Advising.

Regarding Diversity

In this course, and all your courses at Bryant, and throughout the Bryant learning community, we value and respect diversity. This includes differences in race, ethnicity, nationality, gender, gender identity, sexuality, socioeconomic status, ability, and religion.