Course Syllabus Part I
DSC 640 Data Presentation and Visualization

3 Credit Hours

Course Description
Data scientists should be great storytellers, whether using visual, text, or other means. In this course, students explore the basic storytelling components of data science and apply them to different types of data for different types of clients and audiences. Presentation techniques, language use for different audiences, and visualization tools techniques are included.

Course Prerequisites
DSC 630

Course Objectives
Students who successful complete this course should be able to:

1. Evaluate different audiences to determine the most effective way to communicate the data story.
2. Generate results of analytics projects using optimal presentation methods.
3. Create optimal visualizations to highlight data findings or information quickly.
4. Apply design techniques that demonstrate understanding of data.
5. Design visualizations and presentations that appeal to various audiences.

Grading Scale

93 – 100% = A	87 – 89% = B+	77 – 79% = C+	67 – 69% = D+
90 – 92% = A-	83 – 86% = B	73 – 76% = C	63 – 66% = D
	80 – 82% = B-	70 – 72% = C-	60 – 62% = D-
			0 – 59% = F

Topic Outline

I. Handling Data
   A. Importing
   B. Formatting/Transforming

II. Importance of Context

III. Choosing the right tool & visualization
   A. Tableau
   B. PowerBI

IV. Telling stories with data

V. Visualization Ethics

VI. Visualizing Patterns

VII. Visualizing Relationships

VIII. Design Principles & Methodologies

IX. Python/R & Data Visualization
   A. Matplotlib
   B. Seaborn
   C. Ggplot
   D. Plotly