**Communications and Information Engineering (CIE) Program   
Statistical Inference and Data Analysis (CIE 457), Spring 2024**

**Reading and data visualization assignment**

In this **group** assignment (4-5 members per group), you are required to perform the following:

1. Select a topic/chapter from **The Data Analysis Workshop** book. Each chapter covers an exercise on data analysis along with links for datasets, codes, etc. You will need to download the data and run the code for the selected chapter.
2. Read **storytelling with data** book. As a team, you can divide the reading task among you.
3. Perform a PowerPoint presentation on the data analysis topic you selected in (a) using principles from the **storytelling with data** book. You need to apply point number (1) from the book listed below (**understand the context**) **plus** at **least 4 of the remaining 5 principles** (2-6).

1. Understand the context (Chapter 1)

2. Choose an appropriate display (Chapter 2)

3. Eliminate clutter (Chapter 3)

4. Draw attention where you want it (Chapter 4)

5. Think like a designer (Chapter 5)

6. Tell a story (Chapter 7)

1. In case you disagree with any of the principles from **storytelling with data** book, you should mention your justification and an alternative proposal.

Each group will give a **20-minutes** presentation on their topic, including 5-10 minutes for questions and answers.

**Grade distribution:**

The grades will be distributed as follows **(maximum is 15 points)**:

1. Quality and content of the presentation (clarity – figures – covering **storytelling with data principles**, etc.). **(5 points)**
2. How well you present the topic, i.e., your presentation skills, understanding of the topic, and adherence to the time schedule. **5 points)**
3. How well you respond to the questions. The questions can be general questions about **statistical inference topics** covered in the course. So, you will need to be prepared by studying the course contents related to your presentation. **(5 points)**

The grading scale per item will be on a scale from 1-5 (5 being the highest)

**Deliverables:**

1. Presentation slides to be submitted by the communicated deadline.
2. Presentation to be performed by each team based on the submitted slides.

**Bonus task (maximum 2%)**

As a further exercise on data visualization, in order to get the bonus grades, you will need to create a **dashboard** of your data analysis project using **Tableau**. You should apply the same principles used in your presentation.

The following videos can be useful as a guide:

<https://youtube.com/playlist?list=PLUaB-1hjhk8GwbqoVmo_5zuhOa0Tcl3xC&feature=shared>

You can also use Power BI instead of **Tableau** if you want.