# Tentative Course Schedule
## GGE 6505/ GGE5405 Introduction to Big Data and Data Science- Winter 2022

| Session | Date | Lecture/ Hands-on/Presentation | Notes |
|---|---|---|---|
| 1 | Jan 10 | Introduction to Big data and Data Science | |
| 2 | Jan 12 | Introduction to Big data and Data Science<br>Brief Introduction to Python | Student Groups<br>Assignment 1- GitHub-Jira |
| 3 | Jan 17 | Introduction to Python | 5 min group talks<br>Upload Assignment 1 |
| 4 | Jan 19 | Data Access | |
| 5 | Jan 24 | Working with APIs | Assignment 2 |
| 6 | Jan 26 | Data Storage and retrieval | |
| 7 | Jan 31 | Assignment 2 Presentation: Data Access | |
| 8 | Feb 2 | Working with Databases - PostgreSQL | Groups present on selected topics |
| 9 | Feb 7 | MongoDB - Data Wrangling | Assignment 3 |
| 10 | Feb 9 | Data Wrangling- cleaning- intro to pandas | Assignment 5 |
| 11 | Feb 14 | Assignment 3 Presentation: Data Storage | |
| 12 | Feb 16 | Data Wrangling – Integration, Transformation, Reduction | |
| 13 | Feb 21 | Holiday- No Classes | |
| 14 | Feb 23 | Data Reduction – Data Viz and Storytelling | Final project Discussion |
| 15 | Feb 28 | Data Visualization hands on -Power BI, Python | |
| 16 | Mar 2 | Assignment 4 Presentation: Data wrangling | |
| 17 | Mar 7 | March Break – No Classes | |
| 18 | Mar 9 | March Break – No Classes | |
| 19 | Mar 14 | Machine learning- Linear Regression- Classification | |
| 20 | Mar 16 | Assignment 5 Presentation: Data Viz | |
| 21 | Mar 21 | Industry Talk | |
| 22 | Mar 23 | Machine learning- Clustering- RL | |
| 23 | Mar 28 | Machine learning- NN- Deep Learning | |
| 24 | Mar 30 | Big Data Pipeline and Tools | |
| 25 | Apr 4 | Hands on: Pyspark | |
| 26 | Apr 6 | Industry Talk | |
| 27 | Apr 11 | Project Presentations | Group 1 - 2 - 3 |
| 28 | Apr 13 | Project Presentations | Group 4 - 5 - 6 |