## **Data Science and Machine Learning**

Delivery Schedule 14 Jan 2023

| Course                                | Торіс                                                                                                                                                     | Content Release<br>Date | Assessment<br>Deadline | Weekend Starting<br>(Sat) | Mentored Learning Session                              |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------------|---------------------------|--------------------------------------------------------|
| Prework                               | Python Programming and Basic Statistics & Probability                                                                                                     | Available on enrollment |                        |                           |                                                        |
| Foundations of Data Science           | Python for Data Science                                                                                                                                   | Available on enrollment | 22-Jan-2023            | 21-Jan-2023               | Yes                                                    |
|                                       | Statistics for Data Science                                                                                                                               | 19-Jan-2023             | 29-Jan-2023            | 28-Jan-2023               | Yes                                                    |
|                                       | Project 1                                                                                                                                                 | 19-Jan-2023             | 29-Jan-2023            | -                         |                                                        |
|                                       | Learning Break                                                                                                                                            |                         |                        | 4-Feb-2023                |                                                        |
| Making Sense of Unstructured Data     | Introduction, Clustering, Spectral Clustering, Components, and Embeddings                                                                                 | 25-Jan-2023             | 12-Feb-2023            | 11-Feb-2023               | Yes                                                    |
|                                       | Learning Break w/ Hands-on Masterclass 1                                                                                                                  |                         |                        | 18-Feb-2023               |                                                        |
| Regression and Prediction             | Classical Linear and Nonlinear Regression and Extensions, Modern Regression with High-Dimensional Data, The Use of Modern Regression for Causal Inference | 9-Feb-2023              | 26-Feb-2023            | 25-Feb-2023               | Yes                                                    |
|                                       | Learning Break w/ Hands-on Masterclass 2                                                                                                                  |                         |                        | 4-March-2023              |                                                        |
| Classification and Hypothesis Testing | Hypothesis Testing and Classification                                                                                                                     | 23-Feb-2023             | 12-Mar-2023            | 11-Mar-2023               | Yes                                                    |
|                                       | Project 2                                                                                                                                                 | 23-Feb-2023             | 12-Mar-2023            | -                         |                                                        |
|                                       | Learning Break w/ Hands-on Masterclass 3                                                                                                                  |                         |                        | 18-Mar-2023               |                                                        |
| Deep Learning                         | Deep Learning                                                                                                                                             | 9-Mar-2023              | 26-Mar-2023            | 25-Mar-2023               | Yes                                                    |
| Recommendation Systems                | Recommendations and Ranking, Collaborative Filtering, Personalized Recommendations                                                                        | 23-Mar-2023             | 2-Apr-2023             | 1-Apr-2023                | Yes                                                    |
|                                       | Project 3                                                                                                                                                 | 23-Mar-2023             | 2-Apr-2023             | -                         |                                                        |
| Networking and Graphical Models       | Introduction, Networks, Graphical Models                                                                                                                  | 30-Mar-2023             | -                      | 8-Apr-2023                | Optional Masterclass                                   |
| Self-paced Modules                    |                                                                                                                                                           |                         |                        |                           |                                                        |
| Predictive Analytics                  | Predictive Modeling for Temporal Data, Feature Engineering                                                                                                | 6-Apr-2023              | -                      | 15-Apr-2023               | Optional Masterclass                                   |
|                                       | Hackathon Closing Ceremony                                                                                                                                | 14-Apr-2023             | 16-Apr-2023            | 22-Apr-2023               | PM will share the details<br>PM will share the details |

## Note

The schedule is subject to change based on any improvements in the program structure or the availability of the mentor.

Assessment here means either a Quiz or a Project.

Mentored learning sessions and additional sessions will either happen on a Saturday or a Sunday on the weekend.