Program Curriculum

**Module I**

March 11 -16, 2018  Singapore

A. Economic Analysis for Decision Making:
   i. Decision Analysis and Decision Trees
   ii. Economic Costs vs. Accounting Costs
   iii. Pricing and Profit Optimization
   iv. Strategic Interaction
   v. Incentives in Organizations

B. Data and Decisions:
   i. Effective data visualization and basic concepts
   ii. Probability and Random Variables
   iii. Statistical Tests
   iv. Linear regressions
   v. Building a data-driven culture

**Module II**

Virtual Sessions

Three 120 minutes sessions, each covering business case/applications

**Module III**

June 4 - 8, 2018  Berkeley

A. Inference and measurement:
   i. A/B testing
   ii. Regression models
   iii. Multiple regression models
   iv. Model selection
   v. Micro-econometric methods

B. Forecasting and trends:
   i. Time series analyses

C. Applications:
   i. Data Driven Health Care
   ii. Data Driven Policy I
   iii. Behavioural Biases
   iv. Industry Panels

**Module IV**

Virtual Sessions

Critical discussion of group project proposals, 30 minutes each

**Module V**

August 27 - 31, 2018  Berkeley

A. Machine Learning and Artificial intelligence
   i. Supervised Learning methods
   ii. Training and feature selection
   iii. Unsupervised Learning methods

B. Assembling a Data Science Team
   i. Organizing data science
   ii. The skill-set landscape

C. Applications:
   i. Data Driven Finance
   ii. Data Driven Policy II
   iii. Industry Panels
   iv. Capstone presentations and critical discussions