Course Description

Transformation in business and society requires executives, leaders and managers to make faster and better decisions, to adopt a holistic leadership and become a voice in data and technology discussions to drive digital transformation. In this workshop, students will experience firsthand the design of a lean and scalable data process, which will produce fast and accurate analytics to support daily decisions. They will learn how to use raw data to discover in minutes where we need to focus, how to connect financial and operational data to identify where our actions are required, or how to use a wide variety of metrics to understand what drives our activity. Working from real data sets, they will learn how to start with the relevant questions that lead to concrete actions. They will learn how to research relevant data and design an efficient data collection process that will prepare the data for easier, higher-quality connections and calculations. Last, they will stretch our analytics with the application of Machine Learning algorithms to see the signals in the noise.

Learning Objectives

On successful completion, students will be able to:

- Capture raw data and transform it into a sustainable asset for analysis
- Stretch analytics with advanced visualisation and AI techniques
- Identify which solutions can boost analytics performance
- Lead with confidence in a fast changing digital world

Intended Audience

Executives, team leaders, heads of departments and managers eager to build a solid understanding of data analytics and increase their performance and their teams. Professionals with a working knowledge of spreadsheets (formulae, charts, and pivot tables), math and statistics who seek to learn about data analytics.

Prerequisites

None specified.

Session by Session Summary

Total course contact hours: 8 hours

Module	Theme	Topics	Assignments/ Readings
1	Understand the real drivers and foundation for digital transformation	• What's really at stake with mastering analytics • How to properly frame the bearings of your analytics • The key for fluid and "FAIR" data and the notion of data supply chain	• Doing v. Being digital, DeMarcoChesbrough, 2019 • Competitor Collaboration Before a Crisis • What is Fair-data • Pyramid Analytics discovery Case • Economic Freedom Case
2	Technology and Data management: what's essential to know	• The solutions that will support your analytics performance • The key best practices for efficient data management	• Datawarehouse and Business Intelligence Glossary • The Titanic Case
3	Stretch your insight with advanced analytics	• How to tame AI and Machine Learning for your business needs • How to leverage the power of advanced visualizations	• Opinion _ They Stormed the Capitol. Their Apps Tracked Them. - The New York Times • Five things you can do to prepare for a cookieless future • The Lego case • Machine Learning Cases : churn, fraud, client cluster and spending predictions
4	Lead with confidence in a digital world	• How to drive change • Design lean analytics processes • The keys to a data culture at scale	• Simpson's Paradox and Interpreting Data _ by Tom Grigg _ Towards Data Science • What Great Data Analysts Do — and Why Every Organization Needs Them.

			• Cut-Bez and Chesbrough, FOLF chapter, 2020 • Open Innovation and the multi-unit backend problem-Seran Bez 2020 CMR.

Required Reading

No text book is required. Required readings will be provided to students in the form of handouts, articles, papers, case studies via the Learning Management System.

Methods of Instruction

This workshop provides students with the opportunity to learn by analysing cases they have personally experienced. Each session will consist of an interactive lecture to understand the theoretical underpinnings of the concepts and methods presented. In group work, students will apply and discuss these conceptual learnings and share their individual expertise. Guided discussions and presentations will allow students to deepen their understanding of the learnings and reflect on their practical implementation in their work. Between sessions, students will complete practical assignments and pre-readings.

Course Requirements

Discussion & Participation	10%
Assignments and Case Studies	30%
Data Research Project	60%

Total	**100%**

Credentialing

Students are eligible to receive a Type-C certificate as a completion award if they successfully complete all course requirements.

The award document will read:

<student Name>
has successfully completed the
Expert Workshop: Boost Your Performance with AI, Business Analytics and Data Visualization
Program End/Award Date

Each student's record of credit or CEU courses will be maintained in the UC Berkeley Extension Registrar's Office.