

DTC-MBD-512 Big Data and Data Governance

SEMESTER: Fall
CREDITS: 3 ECTS
LANGUAGE: Spanish
DEGREES: MBD

Course overview

The objective of this course is for students to understand the power of Big Data, its transformative and disruptive value and the value of data and how to manage them in a company properly,

By the end of the course, students will:

- Understand what Big Data is in a global way. How and why it arises and its main characteristics.
- Understand the value of the data and know how to organize a data governance to maximize its value, and company's value
- Know the ethical and legal aspects that Big Data and Advanced Analytics systems must comply, and who to design in this mode.

Prerequisites

No hay prerequisites especiales para los estudiantes en esta asignatura

Students willing to take this course should be familiar with linear algebra, basic probability and statistics, and R programming language.

Course contents

1. Introduction to Big Data. Characteristics and motivation
2. The value of the data in the decision making.
3. Government and economy of the data
 - 3.1. Principles of data governance.
 - 3.2. Management models. Figures of data management.
 - 3.3. Data cycle
 - 3.4. Data Management, quality, Security and compliance
4. Privacy and data protection. Data compliance and ethical aspects.

- 4.1. Principles of GDPR.
- 4.2. Consents and legitimate use.
- 4.3. Rights of the individual. Transparency, access, rectification, forgetting, portability, no treatment.
- 4.4. Obligations of the person in charge.
- 4.5. Anonymization and other design criteria.
- 4.6. Fines and infractions

Textbook

- Notes prepared by the lecturer (available in Moodle)
- **David Plotkin**. Data Stewardship: An Actionable Guide to Effective Data Management and Data Governance . ISBN:978-0124103894
- GDPR: REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016. <https://www.boe.es/doue/2016/119/L00001-00088.pdf> y <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32016R0679>

Recommended books&others

- **Sasha Issenberg** :The Victory Lab: The Secret Science of Winning Campaigns Paperback – September 17, 2013. ISBN-13: 978-0307954800
- **George Orwell**. 1984
- **Michael Lewis**. Moneyball: The Art of Winning an Unfair Game Paperback – March 17, 2004. ISBN: 978-0393324815 or the film 'Moneyball (2011)'. Sony Pictures Director: **Bennett Miller**

Grading

The following conditions must be accomplished to pass the course:

- A minimum overall grade of at least 5 over 10.
- A minimum grade in the final exam of 4 over 10.

The overall grade is obtained as follows:

- Class working accounts for 70% of the final grade
- Exams accounts for 30% of the final grade.