



# An introduction to business intelligence

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Business intelligence (BI) is an algorithmic/technology-driven process for analyzing/presenting data/information to give decision-maker more insights or information. Business intelligence should be divided into querying, reporting, online analytical processing (OLAP), alerting/rating tool, and business analytics, where business analytics is the subset of BI focusing on statistics, prediction, and optimization, rather than the reporting functionality.

## Course Contents:

- 1- BI, definition, scope, context and use cases (2 weeks)
- 2- Data exploration and visualization with Python (2 weeks)
- 3- Business modeling and data mining concepts (3 weeks)
- 4- BI technology stacks (2 weeks)
- 5- KPI, KRI concepts and case studies (2 week)
- 6- Story Telling with data and dashboards (2 weeks)
- 7- Identifying/prioritizing BI opportunities/mistakes (2 weeks)
- 8- Student project presentations (2 weeks)

## Recommended Texts:

- 1- Wilfried Grossmann, Stefanie Rinderle-Ma, **Fundamentals of Business Intelligence**, Springer-Verlag 2015.
- 2- Robert Dempsey, Python Business Intelligence Cookbook, Packt Publishing, 2015.
- 3- Larissa T. Moss, Shaku Atre, **Business Intelligence Roadmap: The Complete Project Lifecycle for Decision-Support Applications**, Addison Wesley, 2003.
- 4- Dwight Barry, **Business Intelligence with R: From Acquiring Data to Pattern Exploration**, 2016.
- 5- \* Cindi Howson, **Successful business intelligence, Secrets to Making BI a Killer App**, The McGraw-Hill, 2008.
- 6- \* Jay Gendron, **Introduction to R for Business Intelligence**, Packt. Publishing, 2016.
- 7- \* Rick Sherman, **Business Intelligence Guidebook, From Data Integration to Analytics**, Elsevier, 2015.

## Grading:

In-class Activities/quizzes	20%
Project and its presentation	20%
Final Exam	60%
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