

# MARK 7397 – Sales Analytics

Spring 2021

Last update: November 11, 2020

## Class hours

Wednesdays, 6 pm to 9 pm (face to face, until further notice)

## Instructor

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Office hours: by appointment

## Prerequisites

- MARK 6A61 – Marketing Administration
- BZAN 6310 – Quantitative Analysis for Business Decisions

## Learning objectives

- Understand how the sales function is and will be changing in times of analytics
- Be able to lead and run the development and implementation of sales analytics tools
- Be able to lead sales teams with the help of analytics tools
- Understand key success factors for driving the change toward a data-driven sales organization

## Course overview

Analytics is one of the hottest topics in today's management practice – and sales is among the business functions most strongly affected by it. In this course, you will develop a solid understanding of these changes and learn how to deploy analytics to inform decisions taken by sales managers and salespeople. To this end, the course will cover the following topics, among others:

- *Understanding the foundations of sales analytics:*
  - *Sales:* You will learn/refresh what personal selling and sales management is all about.
  - *Analytics:* You will learn/refresh what analytics is all about, revisit key statistical principles, and learn/refresh how to apply methods such as linear regression analysis, logistic regression analysis, and decision tree analysis. You will also dive into the most hyped machine learning algorithms, such as neural networks. You will also learn/refresh how to evaluate the quality of analytics models.
- *Mastering use cases of sales analytics:*
  - *The current sales analytics environment:* You will understand how sales organizations currently use analytics (e.g., dashboards) and reflect on steps required toward a more analytical future.

- *Analytics to improve sales management:* You will learn how to run analytics for use cases such as sales forecasting, target setting, sales funnel management, incentivization, and territory alignment.
- *Analytics to improve personal selling:* You will learn how to run analytics for use cases such as lead scoring, customer needs analysis, and customer churn predictions.
- *Mastering sales leadership in times of analytics:*
  - *Leading of analytics:* You will learn how to lead analytics projects end to end and thereby combine the skills of subject matter experts (e.g., sales managers and salespeople) with methods experts (e.g., data scientists and analysts). You will also get to know some common off-the-shelf tools used by sales organizations.
  - *Leading with analytics:* You will learn how to incorporate analytics in sales processes as well as the psychological effects these tools can cause in sales employees. You will learn how to deal with sales employees' resistance and manage the change toward a data-driven organization.

## **Didactics**

The course will use a variety of didactics in order to craft a valuable but also enjoyable learning experience. Didactics will include:

- Interactive lectures
- Case study discussions
- Hands-on coding (we will use the open source packages R/R Studio as well as BlueSky Statistics)
- Guest lectures from practitioners
- Student projects / experiential learning

## **Required material (TENTATIVE)**

No textbook is required for this course. We will cover selected articles and case studies, which you will need to prepare for class. These will be communicated or distributed in due course.

A list of recommended readings will be added in due course.

Require software (all freeware):

- R (version 4.0.3 or newer), can be installed from <https://cloud.r-project.org/>
- RStudio Desktop (version 1.3.1093 or newer), can be installed from <https://rstudio.com/products/rstudio/download/>
- BlueSky Statistics (version 7.0 or newer), can be installed from <https://www.blueskystatistics.com/Articles.asp?ID=301>

### Assessment (TENTATIVE)

The assessment of the course will comprise several components, probably the following:

- Analysis of the sales analytics environment in one company (in groups, 30%)
- Running analytics on a dataset (individual, 30%)
- Final multiple-choice open-book exam (individual, 30%)
- Class participation (individual, 10%)

### Time table (TENTATIVE)

Date	Class	Topic
1/20/2021	1	A crash course in personal selling and sales management
1/27/2021	2	Introduction to analytics and refresher in key statistics principles
2/3/2021	3	Mastering use cases in sales analytics: Personal selling
2/10/2021	4	Mastering use cases in sales analytics: Personal selling
2/17/2021	5	Mastering use cases in sales analytics: Personal selling
2/24/2021	6	Mastering use cases in sales analytics: Personal selling
3/3/2021	7	Mastering use cases in sales analytics: Sales management
3/10/2021	8	Mastering use cases in sales analytics: Sales management
3/17/2021		<i>Spring break</i>
3/24/2021	9	Mastering use cases in sales analytics: Sales management
3/31/2021	10	Mastering use cases in sales analytics: Sales management
4/7/2021	11	Mastering sales leadership in times of analytics: Leading of/with analytics
4/14/2021	12	Mastering sales leadership in times of analytics: Leading of/with analytics
4/21/2021	13	Mastering sales leadership in times of analytics: Leading of/with analytics
4/28/2021	14	Final exam and course closure