



SCHOOL  
OF BUSINESS

# Marketing Analytics Nanodegree Program

## Syllabus

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## Marketing Analytics

### Nanodegree Program

**Course 1:** Introduction to Data Analysis

**Course 2:** Data Visualization

**Course 3:** Google Analytics

**Course 4:** Marketing Analytics

# Course 1: Introduction to Data Analysis

*Learn how to use statistics and visuals to find and communicate insights. Develop Excel skills to manipulate, analyze, and visualize data in a spreadsheet. Build Excel models to analyze possible business outcomes.*

<b>Week One</b>	<b>Descriptive Statistics</b>	In this course, you will learn about data types, measurement centers, and the basics of statistical and mathematical notation, as well as measures of spread, shape, and outliers as associated with quantitative and inferential statistics.
<b>Week Two</b>	<b>Spreadsheets</b>	This course will take you from the basics of spreadsheets to manipulating data, analyzing data, and visualizing data in spreadsheets.
<b>Mid Course Project</b>	<b>Interpret a Data Visualization</b>	In this project, you'll explore an interactive data dashboard to uncover insights. You'll write a short report explaining each insight, and how you found the information to reach your conclusion from the dashboard.
<b>Week Three</b>	<b>Manipulate Data</b>	In this course, you will learn basic spreadsheet function: sort and filter data, use text and math functions, split columns, and remove duplicates, how to summarize data with aggregation and conditional functions, and how to use pivot tables and lookup functions.
<b>Week Four</b>	<b>Visualize Data</b>	In this course, you will build data visualizations for quantitative and categorical data; create pie, bar, line, scatter, histogram, and boxplot charts, and build professional presentations.
<b>Course Final Project</b>	<b>Analyze NYSE Data</b>	In this project, you'll use statistics and spreadsheet programs like Excel to analyze data from over 500 companies on the New York Stock Exchange. You'll also forecast financial metrics based on three possible scenarios for a company of your choice from the NYSE dataset.

# Course 2: Data Visualization

*Learn to apply design and visualization principles to create impactful data visualizations, build data dashboards, and tell stories with data.*

<b>Week One</b>	<b>Introduction to Data Visualization</b>	In this lesson you will learn how to evaluate the quality of data visualizations and build high quality visualizations, starting with the fundamentals of data dashboards.
<b>Week Two</b>	<b>Design</b>	In this lesson you will learn to implement the best design practices, add to us the appropriate chart for a particular situation.
<b>Mid Course Project</b>	<b>Storytelling With Data</b>	In this project, you 'll leverage the lessons you've learned about storytelling with data and evaluate a data set to craft a story for a question of your choosing focused on an e-commerce retailer.
<b>Week Three</b>	<b>Data Visualizations in Tableau</b>	This course teaches you how to build data visualizations in Tableau using data hierarchies, filters, groups, sets, and calculated fields, as well as map-based data visualizations in Tableau.
<b>Week Four</b>	<b>Making Dashboards &amp; Stories in Tableau</b>	In this course you will learn how to build interactive Tableau dashboards and tell impactful stories using data.
<b>Course Final Project</b>	<b>Data Visualization</b>	In this project, you'll build interactive dashboards with Tableau and use them to discover and communicate insights from data. You'll use a dataset of flight delays in the US to visualize the quality of airlines and airports, find the best times to fly, and more.

# Course 3: Google Analytics

*In this course you'll acquire in-depth knowledge of Google Analytics, as you learn to use advanced reporting techniques, analyze and optimize results, build fluency with Data Studio, and produce actionable insights that power significant business growth.*

<b>Week One</b>	<b>Intro to Google Analytics</b>	In this course, you learn how to use Google Analytics to evaluate your audience, measure the success of your acquisition and engagement efforts, evaluate your user's conversions to your goals, and use those insights to plan and optimize your marketing budgets.
<b>Week Two</b>	<b>Advanced Displays, Segmentation, and Filtering</b>	Learn how to understand data by using Google Analytics for creating advanced graphical displays and segmenting audiences.
<b>Mid Course Project</b>	<b>Use Advanced Displays, Create Segments and Apply View Settings and Filters</b>	Use advanced reporting displays and features to make more detailed observations, and map GA advanced segments to their constituencies. Then, configure view filters and settings to refine and enrich raw GA data for use in identifying audiences for remarketing and testing.
<b>Week Three</b>	<b>Acquisition, Conversion, Ecommerce, &amp; Attribution</b>	Learn how to use UTM tagging for campaigns and the channel customization process, and step through the fundamentals of using Google Attribution 360.
<b>Week Four</b>	<b>Dashboards, Custom Reports, Alerts</b>	Learn about the fundamentals of creating custom reports, and step through the process of building data dashboards in Google Analytics & Data Studio.
<b>Course Final Project</b>	<b>Navigating, Reports, &amp; Dashboards</b>	Decode, build and troubleshoot campaign URLs. Engage in channel customization to maximize analytics measurements and attribution. Then, visualize data insights using advanced reporting techniques, including GA custom reports and Data Studio dashboards.

# Course 4: Marketing Analytics

*In this course you will learn about a wide range of marketing and business metrics, and how to evaluate the growth and health of your marketing efforts.*

<b>Week One</b>	<b>Introduction to Marketing Analytics</b>	In this course you will learn how marketing data is collected and distributed, the common questions we seek to answer in marketing, and how to gather and evaluate the necessary metrics. You'll also learn how to set business goals and define the metrics used to determine if you've met those goals. This course will also explore ways to develop confidence in our reporting skills and how to make every analytics project actionable.
<b>Week Two</b>	<b>Metrics That Matter</b>	This course will show you how to identify the correct metrics to be using, and how to use a variety of frameworks to report on your findings. Additionally, you'll learn how to create an Analytic Brief, and explore the most popular tools for collecting data across every marketing channel.
<b>Mid Course Project</b>	<b>Crafting an Analytic Brief</b>	In this project you'll create an analytic brief to answer pertinent questions about your business, your customer, and how you will test & learn from your marketing analytics initiative. You will use a sample company, or pick a company you are familiar with, to complete this exercise.
<b>Week Three</b>	<b>Analyzing Marketing Data</b>	This course will explain how to put all your marketing analytics skills in practice. You'll go hands-on with various formulas to calculate the most common marketing metrics.
<b>Week Four</b>	<b>Macro Digital Analysis</b>	In this course, you will learn how to zoom out and explore the world of analytics from a different perspective. You'll learn how to calculate important business metrics such as Market Size, Brand Equity, Trends, Competitors, and your Net Promoter Score.
<b>Course Final Project</b>	<b>Crafting A Campaign Report</b>	In this project, you'll use statistics, spreadsheet programs, and presentation software to develop a comprehensive marketing report based on a sample dataset. You'll be tasked with exploring how well a sample company performed against its objectives as well as performing specific marketing-related calculations to report on campaign performance and audience insights.