

1. Exercises, Quizzes, Flashcards & Glossary
2. Expert Instructor-Led Training
3. ADA Compliant & JAWS Compatible Platform
4. State of the Art Educator Tools
5. Award Winning Learning Platform (LMS)
6. Chapter & Lessons

Syllabus

Chapter 1: The Value of Data

Chapter 2: Working with Data

Chapter 3: Data Typologies and Governance

Chapter 4: Business Statistics

Chapter 5: Optimization and Forecasting

Chapter 6: Programming and AI Tools for Analytics

Chapter 7: Data Visualization

Chapter 8: The Future of Data Analytics

Videos and How To

7. Live labs

Lab Tasks

Here's what you get

1. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.

36
EXERCISES

2. Quiz

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.

82
QUIZ

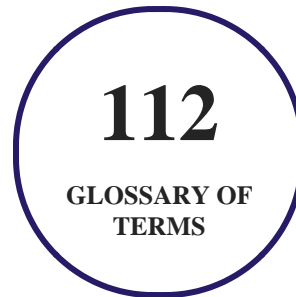
3. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.

112
FLASHCARDS

4. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



5. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

6. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

7. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

8. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**

1. Best Postsecondary Learning Solution

- **2015**

1. Best Education Solution
2. Best Virtual Learning Solution
3. Best Student Assessment Solution
4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

- **2016**

1. Best Virtual Learning Solution
2. Best Education Cloud-based Solution
3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution

6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform
2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

9. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

Syllabus

Chapter 1: The Value of Data

- Opening Case
- Introduction
- Managers and Decision Making
- The Business Analytics Process
- Business Analytics Tools
- Business Analytics Models: Descriptive Analytics, Predictive Analytics, and Prescriptive Analytics
- AI in Business Analytics
- Responsible AI and Ethics
- Summary
- Discussion Questions
- Closing Case 1
- Closing Case 2

Chapter 2: Working with Data

- Some Sample Data

- Moving Quickly with the Control Button
- Copying Formulas and Data Quickly
- Formatting Cells
- Paste Special Values
- Inserting Charts
- Locating the Find and Replace Menus
- Formulas for Locating and Pulling Values
- Basic Statistical Functions: Mean, Median, and Mode
- Using XLOOKUP to Merge Data
- Filtering and Sorting
- Using PivotTables
- Power Query for Data Cleaning
- Power Pivot and Data Model
- Dynamic Array Functions
- Excel + AI (Copilot & Formula Generation)
- Creating Dashboards with Slicers
- Using Array Formulas

- Solving Stuff with Solver
- OpenSolver: I Wish We Didn't Need This, but We Do

Chapter 3: Data Typologies and Governance

- Opening Case
- Introduction
- Managing Data
- The Database Approach
- Big Data
- Data Warehouses and Data Marts
- Knowledge Management
- Data Governance and Responsible AI
- IT's About Business: Data Privacy in AI Systems
- Summary
- Discussion Questions
- Problem-Solving Activities
- Closing Case 1

Chapter 4: Business Statistics

- Introduction to Probability
- Structure of Probability
- Marginal, Union, Joint, and Conditional Probabilities
- Addition Laws
- Multiplication Laws
- Conditional Probability
- Revision of Probabilities: Bayes' Rule
- Introduction to Hypothesis Testing
- Testing Hypotheses About a Population Mean Using the z Statistic (? Known)
- Testing Hypotheses About a Population Mean Using the t Statistic (? Unknown)
- Testing Hypotheses About a Proportion
- Testing Hypotheses About a Variance
- Solving for Type II Errors
- From Statistics to Machine Learning
- Summary
- Formulas
- Supplementary Problems

- Analyzing the Databases
- Case - Colgate-Palmolive Makes a "Total" Effort

Chapter 5: Optimization and Forecasting

- Why Should Data Scientists Know Optimization?
- Starting with a Simple Trade-Off
- Data-Driven Blending Models for Product Consistency
- Modeling Risk
- Predictive Analytics using AI models
- It is important to understand that
- Predicting customer Needs at RetailMart Using Linear Regression
- Predicting Pregnant Customers at RetailMart Using Logistic Regression
- For More Information
- Correlation
- Introduction to Simple Regression Analysis
- Determining the Equation of the Regression Line
- Residual Analysis
- Standard Error of the Estimate

- Coefficient of Determination
- Hypothesis Tests for the Slope of the Regression Model and Testing the Overall Model
- Estimation
- Using Regression to Develop a Forecasting Trend Line
- Interpreting the Output
- Machine Learning for Forecasting
- Summary
- Formulas
- Supplementary Problems
- Analyzing the Databases
- Case - Caterpillar, Inc.

Chapter 6: Programming and AI Tools for Analytics

- Getting Up and Running with Python and R
- Doing Some Actual Data Science

Chapter 7: Data Visualization

- Why Do We Visualize Data?
- How Do We Visualize Data?

- Color
- Common Chart Types
- When Our Visual Processing System Betrays Us
- Every Decision Is a Compromise
- Interactive Dashboards (Power BI / Tableau)
- AI-Generated Insights and Storytelling
- Ethical Visualization in the AI Era
- Summary

Chapter 8: The Future of Data Analytics

- Augmented Analytics
- Human + AI Collaboration
- Real-Time Decision Systems
- Prompt Engineering
- Skills for Modern Analysts
- Summary

Videos and How To

uCertify course includes videos to help understand concepts. It also includes How Tos that help learners in accomplishing certain tasks.

8

VIDEOS

14

MINUTES

10. Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations
- Access to the latest industry technologies
- Available anytime, anywhere on any device
- Break and Reset functionality
- No hardware costs

Lab Tasks

The Value of Data

- Creating a Scenario Summary Report for Forecast Analysis

Working with Data

- Using Relative, Absolute, and Mixed Cell References
- Preparing Sales Data for Analysis

- Retrieving Sales Data Using the OFFSET Function
- Analyzing Sales Data Using SUM, AVERAGE, MIN, and MAX Functions
- Using MATCH and XLOOKUP for Efficient Data Analysis
- Analyzing Sales Data Using FILTER, SORT, and UNIQUE Functions in Excel
- Cleaning Sales Data Using Power Query
- Building a Data Model for Sales Analysis
- Creating Data Visualizations in Microsoft Excel with Copilot
- Creating an Interactive Worksheet Using Slicer

Data Typologies and Governance

- Understanding the Data Hierarchy
- Understanding Primary and Foreign Keys
- Observing Performance Issues with Large Data

Business Statistics

- Applying Probability Techniques for Marketing Analytics
- Hypothesis Testing for Product Performance Analysis
- Analyzing Customer Preferences Using Set Operations

Optimization and Forecasting

- Using the IF and SUMIF Functions to Analyze and Categorize Sales Data
- Calculating Total Cost Using SUMPRODUCT
- Building a Regression Line and Making Predictions

Programming and AI Tools for Analytics

- Exploring Data Structures and Basic Functions in R
- Performing Mathematical and Matrix Operations in R
- Analyzing and Manipulating Data in R
- Generating Predictions and Summarizing Results in R
- Creating and Accessing DataFrames
- Implementing Random Forest Regression
- Exploring CSV Data
- Performing Logistic Regression for Binary Classification

Data Visualization

- Visualizing Sales Data Using Conditional Formatting and Column Charts
- Analyzing Sales Trends Using a Line Chart

The Future of Data Analytics

- Exploring Different Prompt Styles

Here's what you get

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LIVE LABS

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VIDEO TUTORIALS

01:04

HOURS

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