

# uCertify

## Course Outline

**Microsoft Excel Data Analysis and Business Modeling**



29 Apr 2024

1. Course Objective
2. Pre-Assessment
3. Exercises, Quizzes, Flashcards & Glossary  
Number of Questions
4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
6. State of the Art Educator Tools
7. Award Winning Learning Platform (LMS)
8. Chapter & Lessons  
Syllabus  
Chapter 1: Introduction  
Chapter 2: Basic worksheet modeling  
Chapter 3: Range names  
Chapter 4: Lookup functions  
Chapter 5: The INDEX function  
Chapter 6: The MATCH function  
Chapter 7: Text functions and Flash Fill  
Chapter 8: Dates and date functions  
Chapter 9: IF, IFERROR, IFS, CHOOSE, SWITCH, and the IS functions  
Chapter 10: Time and time functions  
Chapter 11: The net present value functions: NPV and XNPV  
Chapter 12: The internal rate of return: IRR, XIRR, and MIRR functions  
Chapter 13: More Excel financial functions  
Chapter 14: Circular references  
Chapter 15: The Paste Special command  
Chapter 16: Three-dimensional formulas and hyperlinks  
Chapter 17: The auditing tool and the Inquire add-in  
Chapter 18: Sensitivity analysis with data tables

Chapter 19: The Goal Seek command

Chapter 20: Using the Scenario Manager for sensitivity analysis

Chapter 21: The COUNTIF, COUNTIFS, COUNT, COUNTA, and COUNTBLANK functions

Chapter 22: The SUMIF, AVERAGEIF, SUMIFS, AVERAGEIFS, MAXIFS, and MINIFS functions

Chapter 23: Summarizing data with histograms and Pareto charts

Chapter 24: Summarizing data with descriptive statistics

Chapter 25: Summarizing data with database statistical functions

Chapter 26: Consolidating data

Chapter 27: Creating subtotals

Chapter 28: The OFFSET function

Chapter 29: The INDIRECT function

Chapter 30: Spin buttons, scrollbars, option buttons, check boxes, combo boxes, and group list boxes

Chapter 31: Conditional formatting

Chapter 32: Excel tables and table slicers

Chapter 33: Basic charting

Chapter 34: Advanced charting

Chapter 35: Filled and 3D Maps

Chapter 36: Sparklines

Chapter 37: Importing data from a text file or document

Chapter 38: The Power Query Editor

Chapter 39: Excel's new data types

Chapter 40: Sorting in Excel

Chapter 41: Filtering data and removing duplicates

Chapter 42: Array formulas and functions

Chapter 43: Excel's new dynamic array functions

Chapter 44: Validating data

Chapter 45: Importing past stock prices, exchange rates, and...to currency prices with the STOCKHISTORY function

Chapter 46: Using PivotTables and slicers to describe data

Chapter 47: The Data Model

Chapter 48: Power Pivot

Chapter 49: Use Analyze Data to find patterns in your data

Chapter 50: An introduction to optimization with Excel Solver

Chapter 51: Using Solver to determine the optimal product mix

Chapter 52: Using Solver to schedule your workforce

Chapter 53: Using Solver to solve transportation or distribution problems

Chapter 54: Using Solver for capital budgeting

Chapter 55: Using Solver for financial planning

Chapter 56: Using Solver to rate sports teams

Chapter 57: Warehouse location and the GRG Multistart and Evolutionary Solver engines

Chapter 58: Penalties and the Evolutionary Solver

Chapter 59: The traveling salesperson problem

Chapter 60: Estimating straight-line relationships

Chapter 61: Modeling exponential growth

Chapter 62: The power curve

Chapter 63: Using correlations to summarize relationships

Chapter 64: Introduction to multiple regression

Chapter 65: Incorporating qualitative factors into multiple regression

Chapter 66: Modeling nonlinearities and interactions

Chapter 67: Analysis of variance: One-way ANOVA

Chapter 68: Randomized blocks and two-way ANOVA

Chapter 69: An introduction to probability

Chapter 70: An introduction to random variables

Chapter 71: The binomial, hypergeometric, and negative binomial random variables

Chapter 72: The Poisson and exponential random variable

Chapter 73: The normal random variable and Z-scores

Chapter 74: Using the lognormal random variable to model stock prices

Chapter 75: Weibull and beta distributions: Modeling machine life and duration of a project

Chapter 76: Using moving averages to understand time series

Chapter 77: Ratio-to-moving-average forecast method

Chapter 78: Making probability statements from forecasts

Chapter 79: The Winters method and the Forecast Sheet tool

Chapter 80: Forecasting in the presence of special events

Chapter 81: Introduction to Monte Carlo simulation

Chapter 82: Calculating an optimal bid

Chapter 83: Simulating stock prices and asset-allocation modeling

Chapter 84: Fun and games: Simulating gambling and sporting-event probabilities

Chapter 85: Using resampling to analyze data

Chapter 86: Advanced sensitivity analysis

Chapter 87: Pricing stock options

Chapter 88: Determining customer value

Chapter 89: The economic order quantity inventory model

Chapter 90: Inventory modeling with uncertain demand

Chapter 91: Queuing theory: The mathematics of waiting in line

Chapter 92: Estimating a demand curve

Chapter 93: Pricing products by using tie-ins

Chapter 94: Pricing products by using subjectively determined demand

Chapter 95: Nonlinear pricing

Chapter 96: Recording macros

Chapter 97: The LET and LAMBDA functions and the LAMBDA helper functions

Videos and How To

9. Practice Test

Here's what you get

Features

10. Live labs

Lab Tasks

Here's what you get

11. Post-Assessment

## 1. Course Objective

Get a hands-on experience in Microsoft Excel data analysis with uCertify's course Microsoft Excel Data Analysis and Business Modeling. This course is designed for candidates whose job role involves summarizing, reporting, and analyzing data. This course might also involve building analytic models to help your employer increase profits, reduce costs, or manage operations more efficiently. The course contains interactive objective-based lessons with quizzes, flashcards, and labs to give candidates a live experience of working with Excel data analysis and business modeling.

## 2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

## 3. 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.

**180**  
EXERCISES

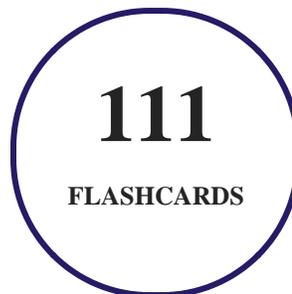
## 4. Quizzes

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.



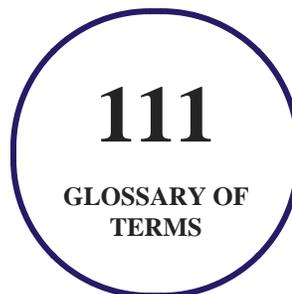
## 5. flashcards

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.



## 6. 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.



## 7. 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.

## 8. 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.

## 9. 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.

## 10. 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

## 11. 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: Introduction

- What you should know before reading this course?
- How to use this course?

## Chapter 2: Basic worksheet modeling

- Answers to this lesson's questions
- Problems

## Chapter 3: Range names

- How can I create named ranges?
- Answers to this lesson's questions
- Remarks
- Problems

## Chapter 4: Lookup functions

- Syntax of the lookup functions
- Answers to this lesson's questions
- Problems

## Chapter 5: The INDEX function

- Syntax of the INDEX function
- Answers to this lesson's questions
- Problems

## Chapter 6: The MATCH function

- Syntax of the MATCH function
- Answers to this lesson's questions
- Problems

## Chapter 7: Text functions and Flash Fill

- Text function syntax
- Answers to this lesson's questions
- Problems

## Chapter 8: Dates and date functions

- Answers to this lesson's questions
- Problems

## Chapter 9: IF, IFERROR, IFS, CHOOSE, SWITCH, and the IS functions

- Answers to this lesson's questions
- Problems

## Chapter 10: Time and time functions

- Answers to this lesson's questions
- Problems

#### Chapter 11: The net present value functions: NPV and XNPV

- Answers to this lesson's questions
- Problems

#### Chapter 12: The internal rate of return: IRR, XIRR, and MIRR functions

- Answers to this lesson's questions
- Problems

#### Chapter 13: More Excel financial functions

- Answers to this lesson's questions
- Problems

#### Chapter 14: Circular references

- Answers to this lesson's questions
- Problems

#### Chapter 15: The Paste Special command

- Answers to this lesson's questions
- Problems

### Chapter 16: Three-dimensional formulas and hyperlinks

- Answers to this lesson's questions
- Problems

### Chapter 17: The auditing tool and the Inquire add-in

- Excel auditing options
- Answers to this lesson's questions
- Problems

### Chapter 18: Sensitivity analysis with data tables

- Answers to this lesson's questions
- Problems

### Chapter 19: The Goal Seek command

- Answers to this lesson's questions
- Problems

## Chapter 20: Using the Scenario Manager for sensitivity analysis

- Answer to this lesson's question
- Remarks
- Problems

## Chapter 21: The COUNTIF, COUNTIFS, COUNT, COUNTA, and COUNTBLANK functions

- Answers to this lesson's questions
- Remarks
- Problems

## Chapter 22: The SUMIF, AVERAGEIF, SUMIFS, AVERAGEIFS, MAXIFS, and MINIFS functions

- Answers to this lesson's questions
- Problems

## Chapter 23: Summarizing data with histograms and Pareto charts

- Answers to this lesson's questions
- Problems

## Chapter 24: Summarizing data with descriptive statistics

- Answers to this lesson's questions
- Problems

## Chapter 25: Summarizing data with database statistical functions

- Answers to this lesson's questions
- Problems

## Chapter 26: Consolidating data

- Answer to this lesson's question
- Problems

## Chapter 27: Creating subtotals

- Answers to this lesson's questions
- Problems

## Chapter 28: The OFFSET function

- Answers to this lesson's questions
- Remarks
- Problems

## Chapter 29: The INDIRECT function

- Answers to this lesson's questions
- Problems

## Chapter 30: Spin buttons, scrollbars, option buttons, check boxes, combo boxes, and group list boxes

- Answers to this lesson's questions
- Problems

## Chapter 31: Conditional formatting

- Answers to this lesson's questions
- Problems

## Chapter 32: Excel tables and table slicers

- Answers to this lesson's questions
- Problems

## Chapter 33: Basic charting

- Answers to this lesson's questions
- Problems

## Chapter 34: Advanced charting

- Answers to this lesson's questions
- Problems

## Chapter 35: Filled and 3D Maps

- Questions answered in this lesson
- Problems

## Chapter 36: Sparklines

- Answers to this lesson's questions
- Problems

## Chapter 37: Importing data from a text file or document

- Answers to this lesson's question
- Problems

## Chapter 38: The Power Query Editor

- Answers to this lesson's questions

- Problems

### Chapter 39: Excel's new data types

- Answers to this lesson's questions
- Problems

### Chapter 40: Sorting in Excel

- Answers to this lesson's questions
- Problems

### Chapter 41: Filtering data and removing duplicates

- Answers to this lesson's questions
- Problems

### Chapter 42: Array formulas and functions

- Answers to this lesson's questions
- Problems

### Chapter 43: Excel's new dynamic array functions

- Answers to this lesson's questions

- Problems

#### Chapter 44: Validating data

- Answers to this lesson's questions
- Remarks
- Problems

#### Chapter 45: Importing past stock prices, exchange rates, and...to currency prices with the STOCKHISTORY function

- Answers to this lesson's questions
- Problems

#### Chapter 46: Using PivotTables and slicers to describe data

- Answers to this lesson's questions
- Problems

#### Chapter 47: The Data Model

- Answers to this lesson's questions
- Problems

## Chapter 48: Power Pivot

- Answers to this lesson's questions
- Problems

## Chapter 49: Use Analyze Data to find patterns in your data

- Answers to this lesson's questions
- Problems

## Chapter 50: An introduction to optimization with Excel Solver

- Answers to this lesson's questions
- Problems

## Chapter 51: Using Solver to determine the optimal product mix

- Answers to this lesson's questions
- Problems

## Chapter 52: Using Solver to schedule your workforce

- Answers to this lesson's question
- Problems

## Chapter 53: Using Solver to solve transportation or distribution problems

- Answer to this lesson's question
- Problems

## Chapter 54: Using Solver for capital budgeting

- Answer to this lesson's question
- Problems

## Chapter 55: Using Solver for financial planning

- Answers to this lesson's questions
- Problems

## Chapter 56: Using Solver to rate sports teams

- Answer to this lesson's question
- Problems

## Chapter 57: Warehouse location and the GRG Multistart and Evolutionary Solver engines

- Answers to this lesson's questions
- Problems

## Chapter 58: Penalties and the Evolutionary Solver

- Answers to this lesson's questions
- Problems

## Chapter 59: The traveling salesperson problem

- Answers to this lesson's questions
- Problems

## Chapter 60: Estimating straight-line relationships

- Answers to this lesson's questions
- Problems

## Chapter 61: Modeling exponential growth

- Answers to this lesson's questions
- Problems

## Chapter 62: The power curve

- Answers to this lesson's questions

- Problems

### Chapter 63: Using correlations to summarize relationships

- Answers to this lesson's questions
- Problems

### Chapter 64: Introduction to multiple regression

- Answers to this lesson's questions
- Problems

### Chapter 65: Incorporating qualitative factors into multiple regression

- Answers to this lesson's questions
- Problems

### Chapter 66: Modeling nonlinearities and interactions

- Answers to this lesson's questions
- Problems for Lessons 51–53

### Chapter 67: Analysis of variance: One-way ANOVA

- Answers to this lesson's questions

- Problems

## Chapter 68: Randomized blocks and two-way ANOVA

- Answers to this lesson's questions
- Problems

## Chapter 69: An introduction to probability

- Answers to this lesson's questions
- Problems

## Chapter 70: An introduction to random variables

- Answers to this lesson's questions
- Problems

## Chapter 71: The binomial, hypergeometric, and negative binomial random variables

- Answers to this lesson's questions
- Problems

## Chapter 72: The Poisson and exponential random variable

- Answers to this lesson's questions
- Problems

### Chapter 73: The normal random variable and Z-scores

- Answers to this lesson's questions
- Problems

### Chapter 74: Using the lognormal random variable to model stock prices

- Answers to this lesson's questions
- Remarks
- Problems

### Chapter 75: Weibull and beta distributions: Modeling machine life and duration of a project

- Answers to this lesson's questions
- Problems

### Chapter 76: Using moving averages to understand time series

- Answer to this lesson's question
- Problem

## Chapter 77: Ratio-to-moving-average forecast method

- Answers to this lesson's questions
- Problem

## Chapter 78: Making probability statements from forecasts

- Answers to this lesson's questions
- Problems

## Chapter 79: The Winters method and the Forecast Sheet tool

- Answers to this lesson's questions
- Remarks
- Problems

## Chapter 80: Forecasting in the presence of special events

- Answers to this lesson's questions
- Problems

## Chapter 81: Introduction to Monte Carlo simulation

- Answers to this lesson's questions

- Problems

## Chapter 82: Calculating an optimal bid

- Answers to this lesson's questions
- Problems

## Chapter 83: Simulating stock prices and asset-allocation modeling

- Answers to this lesson's questions
- Problems

## Chapter 84: Fun and games: Simulating gambling and sporting-event probabilities

- Answers to this lesson's questions
- Problems

## Chapter 85: Using resampling to analyze data

- Answer to this lesson's question
- Problems

## Chapter 86: Advanced sensitivity analysis

- Answer to this lesson's question

- Problems

### Chapter 87: Pricing stock options

- Answers to this lesson's questions
- Problems

### Chapter 88: Determining customer value

- Answers to this lesson's questions
- Problems

### Chapter 89: The economic order quantity inventory model

- Answers to this lesson's questions
- Problems

### Chapter 90: Inventory modeling with uncertain demand

- Answers to this lesson's questions
- Problems

### Chapter 91: Queuing theory: The mathematics of waiting in line

- Answers to this lesson's questions
- Problems

#### Chapter 92: Estimating a demand curve

- Answers to this lesson's questions
- Problems

#### Chapter 93: Pricing products by using tie-ins

- Answer to this lesson's question
- Problems

#### Chapter 94: Pricing products by using subjectively determined demand

- Answers to this lesson's questions
- Problems

#### Chapter 95: Nonlinear pricing

- Answers to this lesson's questions
- Problems

#### Chapter 96: Recording macros

- Answers to this lesson's questions
- Problems

Chapter 97: The LET and LAMBDA functions and the LAMBDA helper functions

- Answers to this lesson's questions
- Problems

## 12. Practice Test

Here's what you get

**60**

PRE-ASSESSMENTS QUESTIONS

**60**

POST-ASSESSMENTS QUESTIONS

### Features

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

**Unlimited Practice**

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

## 13. 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

### **Basic worksheet modeling**

- Performing Mathematical Calculations using Formulas

### **Lookup functions**

- Accumulating Data Using the VLOOKUP Function

### **The INDEX function**

- Extracting Data Using the INDEX Function

### **The MATCH function**

- Finding the Required Data Using the MATCH Function

### **Text functions and Flash Fill**

- Creating Email Addresses Using the Excel Text Functions

### **Dates and date functions**

- Calculating the Number of Workdays Using a Date Function

### **IF, IFERROR, IFS, CHOOSE, SWITCH, and the IS functions**

- Computing Annual Sales Using the IF Function

### **Time and time functions**

- Calculating Race Timings Using the Time Functions

### **The net present value functions: NPV and XNPV**

- Calculating Net Present Value Using the NPV Function

### **More Excel financial functions**

- Determining Depreciation Using Excel Financial Functions

### **The Paste Special command**

- Using the Paste Special Command to Convert Data

### **Three-dimensional formulas and hyperlinks**

- Summarizing Data Using Three-Dimensional Formulas

### **The COUNTIF, COUNTIFS, COUNT, COUNTA, and COUNTBLANK functions**

- Counting Cells with Criteria Using COUNTIF and COUNTIFS Functions

### **The SUMIF, AVERAGEIF, SUMIFS, AVERAGEIFS, MAXIFS, and MINIFS functions**

- Calculating with Criteria Using the COUNTIF and SUMIF Functions

### **Summarizing data with histograms and Pareto charts**

- Creating Bin Ranges Using Histograms

### **Summarizing data with database statistical functions**

- Summarizing Data

### **Consolidating data**

- Consolidating Data

### **Creating subtotals**

- Creating a Subtotal using the SUBTOTAL Function

### **The OFFSET function**

- Using the OFFSET Function to Create Lagged Values

### **The INDIRECT function**

- Using the INDIRECT Function to Tabulate Data

### **Excel tables and table slicers**

- Using Excel Tables to Perform Calculations

### **Basic charting**

- Creating a Scatter Chart

## **Sparklines**

- Creating Sparklines

## **Importing data from a text file or document**

- Importing Data from a Text File

## **The Power Query Editor**

- Using the Power Query Editor to Transform Data

## **Sorting in Excel**

- Sorting Data

## **Array formulas and functions**

- Performing Calculations Using Array Functions and Formulas

## **Using PivotTables and slicers to describe data**

- Creating a PivotTable and PivotChart

## **The Data Model**

- Using the Distinct Count Option for Calculation

## **Using Solver to determine the optimal product mix**

- Determining the Profit-Maximizing Product Mix Using Solver

## **Using Solver to solve transportation or distribution problems**

- Finding an Optimal Solution Using Solver

## **Using Solver for capital budgeting**

- Obtaining Maximum NPV using Solver

#### **Using Solver for financial planning**

- Determining the Monthly Payment Using Solver

#### **The traveling salesperson problem**

- Solving the Traveling Salesperson Problem

#### **Estimating straight-line relationships**

- Creating a Scatter Chart and Adding a Trendline

#### **Modeling exponential growth**

- Creating an Exponential Trend Curve

#### **The power curve**

- Creating a Power Curve

#### **Using correlations to summarize relationships**

- Using Correlations to Find the Relationship Between Variables

#### **Introduction to multiple regression**

- Using Multiple Regression to Find the Optimal Forecasting Equation

#### **An introduction to random variables**

- Using Variance and Standard Deviation to Measure the Spread of Data

#### **The binomial, hypergeometric, and negative binomial random variables**

- Computing Binomial Probabilities

### **The Poisson and exponential random variable**

- Computing Poisson Distribution

### **The normal random variable and Z-scores**

- Calculating Z-Scores

### **Using the lognormal random variable to model stock prices**

- Calculating the Future Price of a Stock Using a Lognormal Variable

### **Weibull and beta distributions: Modeling machine life and duration of a project**

- Determining Probability Using the Beta Random Variable

### **Using moving averages to understand time series**

- Creating a Moving Average Graph

### **Ratio-to-moving-average forecast method**

- Using the Ratio-to-Moving-Average Forecasting Method

### **The Winters method and the Forecast Sheet tool**

- Estimating Smoothing Constants

### **Introduction to Monte Carlo simulation**

- Simulating the Values of a Normal Random Variable

### **Calculating an optimal bid**

- Determining the Optimal Bid using Simulation

### **Simulating stock prices and asset-allocation modeling**

- Determining Asset Allocation

### **Fun and games: Simulating gambling and sporting-event probabilities**

- Simulating the Outcome of a Sporting Event

### **Using resampling to analyze data**

- Implementing Resampling

### **Advanced sensitivity analysis**

- Creating a Spider Plot

### **Pricing stock options**

- Using Formula Protection in a Worksheet

### **Determining customer value**

- Determining Customer Value

### **Inventory modeling with uncertain demand**

- Determining the Economic Order Quantity (EOQ)
- Determining the Reorder Point

### **Estimating a demand curve**

- Plotting a Linear Demand Curve

### **Pricing products by using subjectively determined demand**

- Finding the Optimal Price Using Subjectively Determined Demand

**Here's what you get**

**60**

LIVE LABS

**60**

VIDEO TUTORIALS

**02:12**

HOURS

## 14. Post-Assessment

After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

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