uCertify

Course Outline

Data Analysis and Visualization with Excel

04 Aug 2025

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   Chapter 7: Creating Geospatial Visualizations with Excel

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1. 📖 Course Objective

Use the Data Analysis and Visualization with Excel course and lab to learn the skills of excel data visualization. The course and lab provide knowledge and skills required for analyzing data with formulas and functions; analyzing data with PivotTables, presenting visual insights with dashboards in excel, and many more. This course also provides knowledge related to analyzing data with the data analysis ToolPak, connecting to Data with Queries and many more.

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. ⏱ 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.

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QUIZ

4. ⚡ 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.

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FLASHCARDS
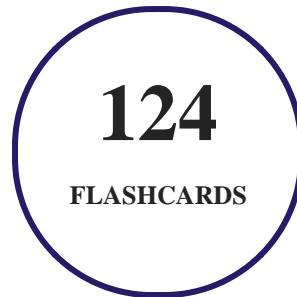
5. 📖 Glossary of terms

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.

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GLOSSARY OF TERMS
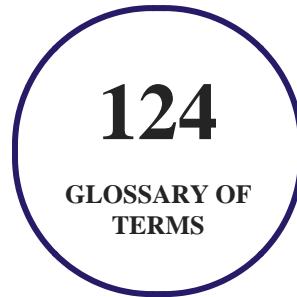
6. 👥 Expert Instructor-Led Training

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.

7. ⊛ 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.

8. 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.

9. 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

10. ⚙ 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

- Course Description

- How to Use This Course

- Course-Specific Technical Requirements

Chapter 2: Data Analysis Fundamentals

- Topic A: Introduction to Data Science

- Topic B: Create and Modify Tables

- Topic C: Sort and Filter Data

- Summary

Chapter 3: Visualizing Data with Excel

- Topic A: Visualize Data with Charts

- Topic B: Modify and Format Charts

- Topic C: Apply Best Practices in Chart Design

- Summary

Chapter 4: Analyzing Data with Formulas and Functions

- Topic A: Analyze Data with Formulas and Named Ranges

- Topic B: Analyze Data with Functions

- Topic C: Implement Data Validation, Forms, and Controls

- Topic D: Create Conditional Visualizations with Lookup Functions

- Summary

Chapter 5: Analyzing Data with PivotTables

- Topic A: Create a PivotTable

- Topic B: Analyze PivotTable Data

- Summary

Chapter 6: Presenting Visual Insights with Dashboards in Excel

- Topic A: Visualize Data with PivotCharts

- Topic B: Filter Data Using Slicers and Timelines

- Topic C: Create a Dashboard in Excel

- Summary

Chapter 7: Creating Geospatial Visualizations with Excel

- Topic A: Create Map Charts in Excel

- Topic B: Customize Map Charts in Excel

- Summary

Chapter 8: Performing Statistical Analysis

- Topic A: Visualize Trendlines and Sparklines with Excel

- Topic B: Analyze Data with the Data Analysis ToolPak

- Summary

Chapter 9: Getting and Transforming Data

- Topic A: Connect to Data with Queries

11. ⊙ Practice Test

Here's what you get

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PRE-ASSESSMENTS QUESTIONS

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POST-ASSESSMENTS QUESTIONS

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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.

12. 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

Data Analysis Fundamentals

- Analyzing Data
- Creating and Modifying a Table
- Sorting and Filtering Data

Visualizing Data with Excel

- Creating Charts
- Modifying and Formatting Charts
- Applying the Best Practices of Chart Design

Analyzing Data with Formulas and Functions

- Analyzing Data Using Formulas
- Analyzing Data Using Functions
- Working with Logical Functions
- Implementing Data Validation
- Implementing Form Controls
- Using LOOKUP Functions

Analyzing Data with PivotTables

- Creating PivotTables
- Analyzing the PivotTable Data

Presenting Visual Insights with Dashboards in Excel

- Visualizing Data with PivotCharts
- Filtering Data Using Slicers
- Filtering Data Using Timelines
- Creating a Dashboard in Excel

Creating Geospatial Visualizations with Excel

- Creating Map Charts in Excel
- Formatting and Customizing Map Charts

Performing Statistical Analysis

- Visualizing Trendlines in Excel
- Visualizing Sparklines in Excel
- Installing and Activating the Data Analysis ToolPak
- Performing Statistical Analysis with the Data Analysis ToolPak

Getting and Transforming Data

- Connecting to Data with Microsoft Power Query
- Cleaning and Combining Data using the Power Query Editor

Modeling and Analyzing Data with Power Pivot

- Installing and Activating Power Pivot
- Creating Data Models with Power Pivot
- Creating Power Pivots
- Creating a KPI
- Creating a New Perspective

Presenting Insights with Reports

- Creating a Report in Excel
- Creating a Template of a Report

Here's what you get

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LIVE LABS	VIDEO TUTORIALS	HOURS

13. 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.

You can't stay away! Get
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