

COURSE OVERVIEW

Microsoft Excel Data Mining & Formulas 2007 / 2010 -2 Days

2/22/11

Excel is an excellent tool for data management. This class is designed for people who use Excel in their daily work and need to improve their data, discovery and formulas skills. This course will focus on Excel databases and formulas along with the most popular data extract methods. You will learn the pit falls to avoid, the shortcuts and many options for extracting data.

Prerequisites

The student must be a current Excel user and have taken at least the Fundamentals and Intermediate Excel or have equivalent experience.

Outline (The following examples will help guide you in the topics that are covered in class)

- **Named Ranges**
I really am getting to like range names. I have started defining range names for many of the workbooks. However, how can I make recently created range names show up in previously created formulas?
 - **Sorting in Excel**
How can I sort sales transaction data so that transactions are sorted first by salesperson, then by product, then by units sold, and finally in chronological order from oldest to most recent?
 - **Filtering Data and Removing Duplicates**
How can I identify all transactions in which Jen sold lipstick in the East Region? How can I clear filters from a column or database? How can I identify all sales occurring in 2010 or 2011?
 - **Creating Subtotals**
Is there an easy way to set up a worksheet to calculate total revenue and units sold by region? Can I also obtain a breakdown by salesperson of sales in each region?
 - **Using Pivot Tables to Describe Data**
What is a PivotTable? What are the different PivotTable layouts in Excel 2007? How can I easily change the format in a PivotTable?
 - **Summarizing Data with Database Functions**
How many dollars worth of lip gloss did Jen sell? What was the total dollar amount of all makeup sold by Emilee or in the east region? How many units of makeup were sold for a price of at least \$3.20?
 - **Estimating Straight Line Relationships**
I manage a plant that produces small refrigerators. National headquarters tells me how many refrigerators to produce each month. For budgeting purposes, I want to forecast my monthly operating costs. How can I determine the relationship between monthly production and monthly operating costs?
 - **Summarize Relationships with Correlations**
How are monthly stock returns on Microsoft, GE, Intel and Cisco related?
 - **Lookup Functions**
How do I write a formula to compute tax rates based on income?
 - **The Index Function**
I have a list of distances between US cities. How do I write a function that returns the distance between, for example, Seattle and Miami?
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- **The Match Function**

Given monthly sales for several products, how do I write a formula that returns the sales of a product during a specific month? For example, how much of product 2 did I sell during June?

- **Text Functions**

Everyday I receive data about US sales, which is computed in a cell as the sum of East, North and South region sales. How can I extract East, North and South sales to separate cells?

- **The IF Statement**

If I order up to 500 units of a product, I pay \$3.00 per unit. If I order between 501 and 1200 units, I pay \$2.70 per unit. If I order between 1201 and 2000 units, I pay \$2.30 per unit. If I order more than 2000 units, I pay \$2.00 per unit. How can I write a formula that expresses the purchase cost as a function of the number of units purchased?

following: count the number of cells in a range containing numbers, count the number of blank cells in a range, count the number of nonblank cells in a range.

- **The SumIF and SumIFS Functions**

How can I answer the following questions: How many units were returned, What was the total dollar amount of sales in or after 2010, What was the total dollar amount of lipstick sold by a specific salesperson?

- **The Offset Function**

How can I create a reference to a range of cells that is a specified number of rows and columns from a cell or another range of cells?

- **The Count and CountIF Functions**

How do I perform operations such as the