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Overview

Course Description

This two-day course was developed as a tool to assist appraisers in preparing advanced analyses in a simpler manner and with less error. While the techniques described in this course apply to Microsoft Excel 2007 and later versions, they can be applied to other spreadsheet programs, both free and for purchase, and on-line and desktop versions. While the steps may differ slightly, the fundamental techniques are the same.

Participants should have a basic level of knowledge of spreadsheets such as those obtained from the Appraisal Institute's *Using Spreadsheet Programs in Real Estate Appraisals – The Basics*. While *Advanced Spreadsheet Modeling for Valuation Applications* will have a bit more focus on those practicing in the commercial field of appraisal, residential appraisers, reviewers, real estate brokers, and underwriters will also find the class useful.

This course outlines more advanced modeling techniques to help in valuation analysis and consulting assignments. Throughout the day, the class will cover intermediate and advanced features of programs like Excel, as well as best practices in modeling spreadsheets. The focus is on problem solving and efficiency while uncovering some of the tools of the spreadsheet program that will make your analysis stronger and increase productivity.

The course consists of eight parts, which are divided into four sections. Parts 1 and 2 will be completed in the morning session of Day 1, and Parts 3 and 4 will be covered in the afternoon. Day 2 begins with Parts 5 and 6 in the morning and concludes with Parts 7 and 8 in the afternoon. An exam concludes Day 2.

Part 1 begins with basic spreadsheet modeling techniques and best practices and is followed by Part 2, which outlines some basic modeling exercises to assist in determining land development potential for a building with on-site, surface parking. Part 3 removes the constraint of surface parking only and allows for the proposed development to have structured parking on a single site. Part 4 begins discussions on residual techniques for both land and improvements. On Day 2, Part 5 focuses on the analysis of feasibility rents. Adding to these layers, Part 6 spotlights optimum land use mix analysis. Part 7 helps to make sense of the data by focusing on techniques to sort, outline, format, and filter data. Part 8 covers pivot tables. The day ends with an exam review in Part 9. Each part includes techniques to solve real world problems and assist the class in developing best practices to modeling that can be applied to other situations.

This course is one of a series of courses that are part of the Appraisal Institute's Analytics for Valuation Professional Development Program. For more information about the program, see Professional Development Programs on the Appraisal Institute Web site at www.appraisalinstitute.org.

Learning Enhancements

The course has been designed with a variety of elements to enhance your learning experience.

- **Preview.** To give you a taste of what is to come, you will find a Preview page that begins each Part. Included on the Preview page is a brief overview on the content, learning objectives to consider as you move through the part, and learning tips that will assist you in understanding the information you are about to learn.

- *Learning Objectives.* Each learning objective covers essential information you need to know to fully understand the concepts in the course. Look them over before the Part begins so that you have a frame of reference as you move through the material. At the end of each Part, reread the objectives. Are you able to perform what is stated? If not, this is the time to ask your instructor for help. Or, review the concepts that you do not understand.

- *Discussion Questions.* In these questions, participants are asked to draw a conclusion regarding a brief scenario or state how they would apply a particular concept or technique. Suggested responses are generally provided to foster an exchange of ideas.

- *Examples.* Supplementing the discussions, we've included examples to help you visualize and practice what you are learning.

- **In-Class Exercises.** These exercises provide you with additional hands-on practice as you absorb what you are learning. In this course, you are will use the files that you downloaded before class. They provide practice using the Excel skills you have learned.

- **Practice Test.** A practice test is included at the end of Section 2. The questions are similar to the questions you might find on the exam.

- *Fill-in-the-Blanks.* It is a proven fact that when you write something down, you are more apt to remember it. Some exercises have blank spaces that you need to fill in with the correct answer as the instructor goes over the content.

- *Review.* Each Part concludes with a review. Included in the review are the learning objectives and key terms and concepts that have been covered.

- **Digging Deepe**r. Throughout the course, you will fine content labeled *Digging Deepe*r. Generally, the instructor will not cover this material in class. More advanced participants or those looking for an extra challenge can refer to the Digging Deeper sections while the rest of the class is finishing up work on individual or small group activities. **However, appraisers preparing for the Comprehensive Exam should be familiar with it, as well as all other material contained in the Course Handbook, whether or not it is presented in class**.

Symbols Used in the Course

There are a few symbols in the text that will alert you to differed types of exercises or potential problems. **Bold Text** typically refers to information that you would type into the spreadsheet program or is a menu item.

These arrows typically refer to a sequence of menu options you would follow to execute a command. For example, **Formulas→ Define Name→ Define Name** would open the **New Name** dialogue box so that you could name a cell or range of cells a common name.

Danger symbol warns of potential problems that may arise if the user is not careful. Pay close attention to any Danger symbols to avoid creating issues in your spreadsheets.

Need to Know Information symbols are found throughout the course. These boxes contain information that you will need to work some of the in-class exercises.

Classroom Guidelines

To make the learning environment a positive experience for everyone attending, please follow these guidelines when class is in session.

- 100% attendance is required. No exceptions.

- Limit use of laptops to classroom projects.

- Communicate with business associates during break time instead of class time.

- Put away reading materials such as newspapers and books that are not used in class.

- Silence cell phones and other communication devices.

- Use recording devices only if prior permission has been granted.

- Refrain from ongoing conversations with those seated near you and other distracting behavior.

General Information

- **Breaks.** There will be two 10-minute breaks during the morning session and two 10-minute breaks during the afternoon session unless noted otherwise by the program sponsor. The lunch break is one hour.

- **Attendance sheets** will be distributed during class to verify your attendance during the morning and afternoon sessions.

- **Certificates of completion** will be distributed or mailed after completion of the program, and attendance during the entire course is required.

Required Equipment & Downloads

- All participants are expected to have a laptop computer with Microsoft Excel 2007 or a later version loaded and operating. You can download a free evaluation copy (good for 60 days) at http://office.microsoft.com/en-us/try/. (**Note.** Microsoft periodically changes its Web site. If the link doesn't work, go to www.microsoft.com and look under Office and then Office Trials for the download links.

- All participants must have the *Solver Add-in* and *Analysis ToolPak Add-in* installed prior to class.

- All participants must download the Excel files used for in-class exercises and problems. These are on a secure link connected to the registration process. These files should be on your hard drive in an easy to locate folder.

- A four-function calculator is required for the exam. You may use a financial calculator such as the HP-12C if you prefer.
  Important Note. Laptops, cellular phones, tablets, iPads, wearable technology, (smart watch, Apple Watch, Google Glass, etc.) and other devices that can store data or connect to the Internet **are *NOT* permitted** during the exam. In addition, all watches, wallets, bags, and purses must be removed and stored out of reach prior to taking the exam.

Prerequisites

- Basic level of knowledge of spreadsheets, particularly Excel

Recommended

- *Using Spreadsheet Programs in Real Estate Appraisals – The Basics.*

Exam

- 20 multiple-choice questions