

# Table of Contents

---

**Overview** ..... v

**Seminar Schedule** ..... ix

## **SECTION 1**

### **Part 1. The Basics of Spreadsheets**

Preview Part 1..... 1  
Using Spreadsheet Programs in Real Estate Appraisal ..... 3  
Keyboard Fundamentals ..... 5  
Spreadsheet Fundamentals ..... 7  
Using Basic Commands..... 10  
1.13 In-Class Exercise..... 26  
Review Part 1 ..... 31  
Review Quiz ..... 32

### **Part 2. Basic Applications for Appraisers**

Preview Part 2..... 33  
Using the “Function – fx” in MS Excel ..... 35  
Basic Mathematical Functions..... 37  
2.11 In-Class Exercise..... 51  
Review Part 2 ..... 53  
Review Quiz ..... 54

### **Part 3. Designing a Spreadsheet for the Three Approaches to Market Value**

Preview Part 3..... 55  
Sales Comparison Approach ..... 57  
Cost Approach ..... 63  
Income Capitalization Approach..... 71  
3.11 In-Class Exercise..... 75  
Review Part 3 ..... 77  
Review Quiz ..... 78

## SECTION 2

### Part 4. Using Spreadsheets for Real Estate Statistical Analysis

Preview Part 4.....	79
Averages—Measures of Central Tendency .....	81
Standard Deviation/Coefficient of Variation.....	83
Graphing Data—Industrial Property.....	84
Obtaining Data Directly from an MLS System.....	88
Finding the Correct Unit of Comparison.....	92
4.7 In-Class Exercise.....	96
Review Part 4. ....	99
Review Quiz.....	100

### Part 5. Solving Real Estate Problems with Spreadsheets

Preview Part 5.....	101
5.1 Problem. GLA and Garage Area .....	103
5.2 Problem. Tax Calculations.....	105
5.3 Problem. Leased-Fee Estate.....	107
5.4 Problem. Extraction of the Rate of Change in Market Conditions .....	108
5.5 Problem. Indicated Rate of Change in Prices .....	109
5.6 Problem. Extracting Depreciation .....	110
5.7 Problem. Leverage .....	111
5.8 Problem. Adjustment in the Sales Comparison Approach.....	113
5.9 Problem. Market Extraction .....	115
5.10 Problem. Retirement Income .....	117
Review Part 5. ....	119
Review Quiz.....	120

## APPENDIX

Commercial Green and Energy Efficient Addendum

# Overview

---

## Seminar Description

*Using Spreadsheet Programs in Real Estate Appraisals – The Basics* was developed for both residential and non-residential real estate appraisers. Real estate brokers, review appraisers, and underwriters may also find the class useful.

The technological advances of the last 10 years have brought about significant changes in the real estate appraisal profession. For example, nearly all databases are computerized today, and it is imperative for appraisers to be able to retrieve, list, and analyze large quantities of data. Additionally, residential appraisers are searching for diversified client bases. This seminar introduces skills used for diverse services such as reporting statistical analysis and using graphs to make information clear. Participants will be introduced to common application in spreadsheet programs that apply to real estate appraisal and can be used in the sales comparison approach and a cost approach summary.

The seminar consists of five parts, which are divided into two sections. Parts 1 and 2 make up Section 1. Part 1 covers the basic advantages and uses of spreadsheets, and Part 2 demonstrates the use of common tools with a focus on the needs of appraisers. Part 3, which is the first part in Section 2, focuses on designing a spreadsheet for the three approaches to value. This is followed by Part 4, which is more advanced and covers statistical analysis. The final part, Part 5, consists of problems. Most classes will not complete all the material in Part 5. These problems were added for reference and study at home.

Class participation is strongly encouraged, since much can be learned from the collective experiences of the participants.

## Learning Enhancements

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

- **Preview.** To give you a taste of what is to come, a Preview page begins each part and identifies learning objectives to consider as you move through the content.
- **Learning Objectives.** Each learning objective covers essential information you need to know to fully understand the concepts in the seminar. Look them over before each 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.

- ***In-Class Exercises and Problems.*** Exercises and problems provide you with additional hands-on practice as you absorb what you are learning.
- ***Examples.*** A number of examples are scattered throughout the handbook to provide everyday illustrations of what you are learning.

## **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 one 15-minute break during the morning session and one 15-minute break during the afternoon session unless otherwise noted by the program sponsor. The lunch break is one hour. A meal is not provided unless specified in the sponsor's advertising or in your seminar confirmation materials.
- **Attendance sheets** will be distributed during class to verify your attendance during the morning and afternoon sessions. Attendance for the entire seminar is required.
- **Certificates of completion** will be e-mailed after completion of the program.

## Required Equipment

- All participants are expected to have a laptop computer with Microsoft Excel 2007 loaded on it.
- Spreadsheets you will use in class are available to download from the Knowledge Center at [knowledgecenter.appraisalinstitute.org](http://knowledgecenter.appraisalinstitute.org). Please be sure to bring these downloads to class.