**Unit 11 Outline**

**Learning Objectives**

Study of this unit should enable the student to

* describe the various forms of depreciation;
* compare and contrast: economic life, physical life, remaining economic life, effective age, and chronological age;
* compute depreciation using the age-life (straight-line), observed condition, capitalized value, and market extraction methods;
* determine reproduction cost, cost per square foot of living area, accrued depreciation, and total property value using the cost approach, and
* complete the Cost Approach section of the URAR form.

**Unit Outline**

I. Overview

II. Accrued Depreciation—total loss in value from time of construction to date of appraisal due to all causes, including physical deterioration, functional obsolescence, and external obsolescence

A. Physical deterioration—physical wearing out of structure

1. Curable—defects that can be repaired or replaced economically; that is, the cost to cure the defect will result in an equal or greater increase in overall property value

2. Incurable—defects that are not economically justified; ordinarily these building components are expected to last for the life of the structure—such as the foundation

B. Functional obsolescence—undesirable layout, design or other features

1. Curable—includes physical or design features that are inadequate or undesirable but could be replaced or redesigned at a cost no greater than the resulting increase in property value

2. Incurable—includes currently undesirable physical or design features that could not be remedied easily or could not be economically justified

C. The Americans with Disabilities Act requires that new and remodeled places of public accommodation avoid architectural or communication barriers to prevent their accessibility to persons having a disability

D. External obsolescence—caused by factors outside the property itself and is almost always considered incurable. It can be:

1. Environmental

2. Locational

3. Economic

4. Political

E. Evaluating depreciation sources—the most difficult part of the cost approach equation to estimate accurately

1. Every structure has an economic life in which it can be used for its originally intended purpose

2. Physical life is the length of time that a structure is expected to remain standing, even if no longer usable

3. Effective age of a structure reflects the quality of its construction and the maintenance and repair it has received

F. Age-life method—based on assumption that the only form of depreciation is physical deterioration, occurring at an even rate throughout the structure's useful life—Figure 11.1

1. Limitations of the age-life method

2. Variations of the age-life method

# Exercise 11-1

G. Observed condition method—appraiser estimates loss in value for curable and incurable items of depreciation

1. Physical deterioration—curable—includes repairs that are economically feasible and would result in appraised value equal to or exceeding their cost

2. Physical deterioration—incurable—includes separate physical components of a structure, which do not deteriorate at the same rate—may be short-lived or long-lived items

3. Functional obsolescence—curable—includes physical or design features that are inadequate or undesirable but could be replaced or redesigned at low cost

4. Functional obsolescence—incurable—includes currently undesirable physical or design features that could not be remedied easily

5. External obsolescence—incurable only—caused by factors outside the subject property, so cannot be considered curable

## Exercise 11-2

H. Capitalized value method—also called the rent loss method—uses known rental values of properties comparable to subject to determine loss in rental value attributable to depreciated item

## Exercise 11-3

I. Market extraction method—also called the sales comparison or market comparison method—measures accrued depreciation by analyzing comparable sales from which depreciation can be extracted

## Exercise 11-4

III. Itemizing Accrued Depreciation—all three types of accrued depreciation (physical deterioration, functional obsolescence, external obsolescence) are estimated, added together, and deducted from the reproduction or replacement cost of the improvement to arrive at the depreciated cost of the existing structure

## Exercise 11.5

## Exercise 11.6

IV. Cost Approach Using the URAR Form—Figure 11.2

**Exercise 11-7**

V. Usefulness of the Cost Approach—especially useful when valuing buildings for which the sales comparison approach or income capitalization approach is impractical

## Exercise 11-8

## Summary

Review Questions