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## COURSE DESCRIPTION

*Advanced Income Capitalization* is designed to present the wide range of income capitalization concepts and tools available for use in real estate appraisal analysis and to highlight the relationships among them. The course emphasizes that sound valuation analysis requires the correct use of techniques that truly reflect the motivations of typical investors in real estate markets. Consequently, the course's primary focus is on the mastery and interpretation of the implications of the various income capitalization methods and techniques presented herein.

The course concentrates heavily on capitalization and yield rates used to convert income into value. It explores topics including what rates are, what they do, where they come from, how they are related, and what they are applied to. Discussion of these topics keeps the course's focus on the practical implications of appraisal analysis, to help appraisers better understand, and their appraisals better reflect, the markets in which real property is bought and sold. From the initial course lecture on, participants are directed to examine the appropriateness of techniques and the reasonableness of the value estimates derived from them.

The formal course work begins with a comprehensive review of the theory and applicability of the income capitalization approach, including basic definitions, the relation of the approach to fundamental appraisal principles, and the differences in the assumptions upon which direct and yield capitalization are based. Familiar income capitalization formulas and techniques are presented and illustrated in examples that establish relationships between the various rates and techniques used to capitalize income. Session 2 is designed to ensure that participants have a thorough understanding of how to project cash flow from net operating income and reversion. The emphasis is on examining different ways of making income projections and identifying key factors that affect such projections. Cash flow forecasting with existing leases is emphasized and considerations related to typical lease terms for different property types are presented.

Session 3 discusses the importance of investment analysis in appraisals and presents a series of pre-tax and after-tax investment performance measures. The strengths and weaknesses of these measures are examined and emphasized. The purpose of this session is to establish the link between investment analyses, which form the basis for investor decisions, and appraisals, which interpret or simulate these decisions. The need for a thorough understanding of yield rates in investment analyses is emphasized here to form the foundation for later sessions on yield capitalization.

Session 4 introduces yield capitalization techniques and shows how they are applied without explicit consideration of financing. Discounted cash flow analysis is reviewed first, followed by examination of yield capitalization formulas based on expected changes in income and value. The relationship between yield capitalization techniques and the overall rates implied by them is a critical component of this session.

To clearly explicate the significance of financing as it relates to the yield anticipated from investment in real property, Session 5 is devoted to examining the effects of financial leverage on investment return and risk. The critical lesson is that leverage affects risk and the expected return to equity from an investment, but does not affect the value of an individual property. Because a thorough understanding of the effects of leverage is essential for the appraiser who uses finance-explicit valuation models, the discussion and examples in this session prepare for Session 6, which explores yield capitalization techniques that make consideration of financing explicit. The argument that investors typically consider financing when they purchase a property is the reason appraisers must be prepared to consider financing in their analyses. The examples and discussions in Session 6, therefore, deal primarily with techniques for mortgage-equity analysis. As in Session 4, the examples show discounted cash flow analysis as well as yield capitalization formulas.

The purpose of Session 7 is to teach ways to evaluate the risk associated with income property investment and to show how risk affects both capitalization and yield rates. Types of risk associated with investment in real estate are discussed, and specific mathematical techniques to quantify and evaluate risk are studied.

Sessions 8, 9, and 10 each use different vehicles to reinforce course concepts. Session 8 presents a series of examples that illustrate the application of income capitalization techniques in solving practical appraisal problems. Special considerations such as highest and best use analysis, valuation of leased fee and leasehold interests, cash equivalency, and proposed development analysis are highlighted. The series of examples in this session covers wide-ranging practical applications of the income capitalization concepts and procedures presented in Sessions 1 through 7.

Session 9 concentrates on ways to support the discount rate selected for application in yield capitalization. The theoretical components of yield rates, the importance of risk analysis in selecting an appropriate yield rate, and use of capitalization rates from comparable sales to develop a relationship between the discount rate and the expected change in property value are emphasized. These topics effectively return to the discussion of the relationships among rates, thereby tying together many of the concepts discussed throughout the course and bringing them in focus as significant considerations in the crucial selection of a valid discount rate.

Session 10 provides a series of practice problems that review specific techniques and procedures presented in the class. Through these problems, participants strengthen their ability to apply procedures correctly.