

BUSI 331: Real Estate Investment Analysis and Advanced Income Appraisal

PURPOSE AND SCOPE

The *Real Estate Investment Analysis and Advanced Income Appraisal* course BUSI 331 is intended to build upon the foundations of appraisal learned in previous courses. Students will be introduced to the theory and techniques involved in the appraisal and analysis of income real estate investments. The course will provide students with detailed information on cash flow analysis, leasing, taxation, appraisal, and risk management.

After reading the text and proceeding through the course workbook, the student should have an in-depth understanding of the methods and techniques involved in income property appraisal and real estate investment analysis. Listed below are general objectives for what a student should learn from this course:

- Understand the attributes of real estate investments and the objectives of real estate market participants.
- Be able to analyze traditional accounting statements to produce a stabilized net operating income for appraising a property.
- Understand the difference in various types of leases and the advantages to both the lessor and the lessee of creating a leasehold interest in a property.
- Understand the typical clauses found in leases, especially those affecting appraisal.
- Be able to calculate the present value of the various interests in a leased property.
- Understand how taxation policies affect investments in real estate.
- Understand various return measures that can be used to evaluate investments in real estate.
- Understand the theory and application of the various income methods of appraisal.
- Understand the basics of applying the mortgage equity and residual approaches to value.
- Be able to analyze the risks involved in real estate investment.
- Understand the various ownership structures available for real estate investments and be able to identify the advantages and disadvantages of each.
- Understand the benefits of diversification in a real estate investment portfolio.

LESSON 1 – Overview of Real Estate Assets/Markets and Math Review

1. Describe the investment characteristics of real estate.
2. Describe the nature of real estate markets.
3. Describe the characteristics of real estate markets in the context of competitive/efficient markets.
4. Describe the attributes of real estate investments, their advantages and disadvantages, and the objectives of real estate market participants.
5. Describe the elements of a five-step real estate investment analysis process.
6. Distinguish between basic measure, discounted cash flow techniques, and portfolio analysis criteria in investment decision-making.
7. Explain three different investment/development scenarios and describe the general approach to be taken in undertaking a feasibility study.
8. Compare and contrast appraisal and feasibility analysis.

9. Complete the following real estate financial calculations:
 - differentiate between nominal and periodic rates of interest;
 - understand how to use the HP 10BII/10BII+ calculator to solve basic mathematical problems;
 - calculate future and present values for lump sums;
 - calculate payments and outstanding balances for mortgage loans;
 - calculate principal and interest portions of mortgages with varying payment frequencies and terms;
 - calculate the market value of a fully or partially amortized vendor take-back mortgage;
 - calculate the NPV and IRR of a series of cash flows; and
 - recognize the financial functions in Microsoft Excel.

LESSON 2 – Analysis of Income and Expenses

1. Describe the differences between Canadian GAAP and IFRS.
2. Analyze traditional accounting statements to produce a stabilized net operating income for appraising a property.
3. Explain the use of accounting statements for different intended applications requiring financial analysis, income tax impact analysis, cash flow analysis and appraisal.
4. Explain the difference between depreciation expense and capital cost allowance and their relative importance in appraisal and investment analysis.
5. Describe the steps in creating a pro forma income or cash flow statement, and explain the potential impact of inaccuracies in and variability of the forecasted factors.
6. Explain the use of ratio analysis to ensure that a property is analyzed and valued consistently with market experience.
7. Explain risk/reward in terms of the degree of operating leverage and breakeven analysis.
8. Describe some of the major and most common rental and expense covenants encountered in lease agreements.
9. Complete before- and after-tax cash flow analysis and prepare basic pro forma statements.

LESSON 3 – Introduction to Leasing

1. Define commonly used lease terminology.
2. Recognize the various interests that may exist in a property.
3. Differentiate between lease types, in particular gross and net leases.
4. List the critical elements of a binding lease document and the typical clauses found in a standard lease.
5. Explain the advantages to both the lessor and the lessee of creating a leasehold interest in a property.
6. Evaluate the advantages and disadvantages of registering a lease in a land titles or registry office.
7. Discuss dispute resolution mechanisms for a lease.
8. Describe lease clauses appropriate to different types of real property.
9. Discuss the basics of tenancy law.
10. Explain the types of risk associated with lease cash flows.

LESSON 4 – Lease Analysis

1. Identify the various interests in a leased property.
2. Explain the process of lease negotiation, including the role of the landlord, tenant, broker, and other supporting professionals.
3. Analyze the shared and conflicting goals of landlords and tenants in a lease negotiation.
4. Apply techniques and tools for review of lease agreements, including the rent roll and lease abstract.
5. Identify key clauses in a commercial lease agreement and the impact of these provisions on property value.
6. Discuss the importance of due diligence and thoroughness in review of lease agreements.

LESSON 5 – Appraisal of Income Producing Properties

1. Discuss the conceptual basis for the income approach.
2. Explain the steps in the capitalization of single year net income.
3. Apply the direct method of capitalization.
4. Derive the overall capitalization rate by applying different approaches.
5. Apply the discounted cash flow method of indicating property value.
6. Compare and contrast direct capitalization and discounted cash flow techniques, outlining differences and when each is most appropriate.
7. Analyze market and contract rents and explain the difference between the two.
8. Calculate the present value of the various interests in a leased property, subject to simple leases and leases with rental escalations.
9. Calculate the value of property that is subject to a lease containing a percent rent clause.

LESSON 6 – Taxation of Real Estate Investments

1. Describe the fundamentals of the Canadian Income Tax System.
2. Identify whether a gain realized on the disposition of real estate will be treated as business income or as a capital gain.
3. Identify the characteristics and allocation of expenditures.
4. Apply the basic rules of capital cost allowance (CCA) as applicable to real estate investment, including calculating CCA claims with and without tax loss restrictions.
5. Calculate CCA on leasehold interests.
6. Define soft costs and describe their current status.
7. Calculate cash flows upon disposition of real property, including CCA recapture and capital gains, or capital losses and terminal losses.
8. Explain how apportionment affects taxes paid upon disposition.
9. Describe the taxation of non-resident income from Canadian real estate.
10. Identify the impact of GST/HST on real estate transactions.
11. Discuss how real estate may be used as a tax shelter and how this influences the value of income-producing property.
12. Explain the basics of property taxes and real estate taxes.

LESSON 7 – Real Estate Investment Analysis

1. Define, apply, and evaluate the advantages and disadvantages of single-period investment criteria used by investors.
2. Describe various return methods that evaluate investment returns over either a portion of or the entire investment holding period.
3. Calculate the justified investment price or net present value (NPV) of a real estate investment.
4. Distinguish between an IRR (internal rate of return) on equity and an IRR on capital.
5. Describe alternatives to IRR and the objectives of each.
6. Explain deficiencies implicit in the IRR technique.
7. Explain the objectives of the financial management rate of return (FMRR) and how it differs from the IRR.
8. Calculate the IRR, adjusted rate of return, and FMRR.
9. Discuss the reinvestment rate issue.

LESSON 8 – Mortgage-Equity and Residual Valuation Techniques

1. Explain the use of the band of investment formula.
2. Explain the use of mortgage-equity analysis in yield capitalization for real estate valuation.
3. Describe alternative mortgage-equity approaches.
4. Explain advantages of the DCF mortgage-equity approach.
5. Derive an overall capitalization rate using band of investment and mortgage-equity approaches.
6. Describe physical and financial residual techniques used in direct capitalization.
7. Lay out the steps appropriate to each residual technique.
8. Explain how residual techniques account for situations in which different elements of a property attract different yields.
9. Explain the relevance of, and be able to apply, the Inwood and Hoskold methods.
10. Identify specialized valuation assignments where residual techniques might be appropriate.
11. Explain the limitations of mortgage-equity approaches and residual techniques.
12. Explain, evaluate, and apply techniques defined by Ellwood and Akerson.

LESSON 9 – Risk Determination, Measurement, and Analysis

1. Identify and define the main types and sources of risks in real estate investment.
2. Distinguish between risk and uncertainty.
3. Explain various techniques for dealing with uncertainty and risk.
4. Explain the relevance of risk tolerance to an appraiser or real estate analyst.
5. Analyze risk using analytical tools such as variance, standard deviation, coefficient of variation, and the normal distribution formula.
6. Explain the impact on risk of operating and financial leverage.
7. Consider risk subjectively using crude methods.
8. Perform sensitivity or "what if" risk analyses.
9. Assess risk using probabilistic simulation, e.g., Monte Carlo.

LESSON 10 – Ownership Structures

1. Identify the six primary types of business structures and relationships employed in real estate ownership.
2. Define the co-ownership form of business structure and explain the key features and relationships.
3. Define the divided ownership form of business structure and explain the key features and relationships.
4. Define the corporate form of ownership and explain the key features and relationships.
5. Explain how trusts can be used in the ownership of real property and explain the key features and relationships.
6. Explain the partnership ownership form and its key features.
7. Understand the implications of organization form on the taxation status, investors' liability, divisibility and liquidity and management position.
8. Explain the tax implications of partnerships.
9. Define real estate investment trusts (REITs) and explain their role in Canada.
10. Define a syndication and explain its applications to real estate investment.

LESSON 11 – Real Estate Investments – Portfolio Analysis and Management

1. Define the concept of diversification and implications for real estate investment.
2. Develop "reward to risk ratios" as decision-making criteria for considering investments.
3. Explain the difference between diversifiable and non-diversifiable risk in a portfolio.
4. Explain the relevance of intra-market and inter-market diversification in real estate holdings.
5. Describe methods for estimating risk premiums for a specific property.
6. Evaluate the extent of diversification that might be achieved in a mixed-asset portfolio.
7. Explain the implications of international diversification.
8. Describe strategic considerations in forming an optimal portfolio for a specific investor.
9. Explain possible reasons for and costs of portfolio revision for a real estate investor.