

**FINANCE 673
REAL PROPERTY VALUATION I**

**Department of Finance
Mays Business School
Texas A&M University**

SPRING SEMESTER 2009

COURSE SYLLABUS AND OUTLINE

Instructor: Dr. Thomas O. Jackson, AICP, MAI, CRE, FRICS
Class Hours: 12:45 to 2:00 p.m. Mondays and Wednesdays in Room 182, Wehner Building
Office Hours: By Appointment
Office Phones: 979-690-1755 (Real Property Analytics, Inc.) or 979-458-4519 (Mays Business School)
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Course website: www.real-analytics.com/FINC_673/index.html

Course Description

Real property valuation underlies many areas of real estate, including appraisal, development, finance and investment. Students with career aspirations in any of these areas will benefit from an understanding of valuation principles, methods and techniques.

More specifically, the emphasis of Finance 673 is on the valuation of income producing properties through income capitalization techniques of direct capitalization, yield capitalization and discounted cash flow analysis. In addition to overall property valuation, this course addresses the valuation of partial interests, including mortgage and equity interests, land and building components, and the interests of landlords and tenants. Upon completion of this course, the student will have an array of techniques at his or her disposal to analyze and estimate the value of income producing real estate.

While Finance 673 primarily addresses income capitalization techniques, Finance 674, Real Property Valuation II, addresses related valuation topics including the analysis of sales and cost data, and continues to develop proficiencies in income capitalization analysis techniques through case studies.

Course Materials

- *The Appraisal of Real Estate, 13th Edition*, Appraisal Institute, 2008.
- Clifford E. Fisher, Jr., *Rates and Ratios Used in the Income Capitalization Approach*, Appraisal Institute, 1995 (recommended).
- *The Dictionary of Real Estate Appraisal, 4th Edition*, Appraisal Institute, 2002 (recommended).
- Material to be downloaded from the course website and other material handed out in class.
- Material on reserve at West Campus Library.

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Evaluation of Student Performance

Homework Assignments	20%
Exam 1	25%
Exam 2	25%
Final Examination	30%

Course Outline

1. Valuation Concepts and Definitions

Readings: *The Appraisal of Real Estate, 13th Edition*, pp. 5-10, 15-32

- a. Real estate and real property
- b. Personal property, fixtures and trade fixtures
- c. Price, cost and value

2. Valuation Process

Readings: *The Appraisal of Real Estate, 13th Edition*, pp. 129-144; reserve/download materials

3. Highest and Best Use

Readings: *The Appraisal of Real Estate, 13th Edition*, pp. 277-289

- a. Highest and best use as though vacant
- b. Highest and best use as improved

(Class and take home practice problems about here)

4. Income and Expense Analysis

Readings: *The Appraisal of Real Estate, 13th Edition*, pp. 469-498; reserve/download materials

- a. Lease data
- b. Reconstructed operating statements

5. Replacement Reserves

Readings: *The Appraisal of Real Estate, 13th Edition*, pp. 459, 490-492; reserve/download materials

- a. Short and long lived building components

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- b. Methods (percentage of NOI, straight line, sinking fund)

(Homework assignment 1 about here)

6. Income Capitalization Concepts

Readings: *The Appraisal of Real Estate, 13th Edition*, pp. 445-450, 465-467, 499-517, 520-524;
Rates and Ratios Used in the Income Capitalization Approach, pp. 1-6

- a. Direct and yield capitalization
- b. Types of income to be capitalized
- c. Market value and investment value
- d. Ellwood formula and Akerson format

7. Direct Capitalization I

Readings: *The Appraisal of Real Estate, 13th Edition*, pp. 499-517; *Rates and Ratios Used in the Income Capitalization Approach*, pp. 8, 10, 12, 14, 16, 18, 20; download materials

- a. Overall rates (R_o) for direct capitalization
- b. Multipliers and ratios (NIR, NIM, OER, PGIM, EGIM)
- c. Built-up and blended overall rates (land and buildings, debt and equity, leased fee and leasehold)
- d. Residual techniques (land residual, building residual, equity residual)
- e. Debt coverage ratio (underwriter's method)

(Class and take home practice problems about here)

8. Direct Capitalization II

- a. Advanced band of investment techniques and problems
- b. Advanced residual techniques and problems
- c. Advanced highest and best analysis

(Homework assignment 2 about here)

(Exam 1 about here, material through direct capitalization)

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9. Projecting Cash Flows

Readings: *The Appraisal of Real Estate, 13th Edition*, pp. 447, 450, 456-459, 463-465, 503, 526-528

- a. Gross and net leases
- b. Rental units of comparison
- c. Vacancy and collection loss
- d. Operating expenses
- e. Replacement reserves in discounted cash flow format
- f. Expense pass through calculations
- g. Reversion calculations

(Class and take home practice problems about here)

(Homework assignment 3 about here)

10. Discounted Cash Flow Analysis

Readings: *The Appraisal of Real Estate, 13th Edition*, pp. 462-463, 466-467, 520-526, 528-538; *Rates and Ratios Used in the Income Capitalization Approach*, pp. 9, 11, 13, 15, 17, 19, 21

- a. Procedures and steps in DCF analysis
- b. Terminal capitalization rates
- c. Types of value that can be estimated through DCF analysis
- d. DCF model set up and calculations of value

(Class and take home practice problems about here)

11. Yield Capitalization Models and Formulae

- a. Yield and income capitalization rates
- b. Algebraic formula to solve for reversion
- c. Level income models
- d. Percentage change in value over holding period

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- e. Perpetuities
- f. Changing income patterns
- g. Exponential curve
- h. Recapture assumptions
- i. Land and building residual analysis

(Class and take home practice problems about here)

12. Stabilizing Income

- a. Stabilized income based on PV calculations
- b. Equivalent level income (ELI) based on K-factors
- c. Adjustment of R_0 with K-factors

(Homework assignment 4 about here)

(Exam 2 about here, material through income stabilization)

13. DCF with Debt Coverage Ratio

14. Risk Analysis

- a. Types of risk
- b. Sensitivity analysis

15. Supporting the Overall Yield Rate (Y_0)

- a. Relationship to R_0
- b. Investor surveys
- c. Yields on other investments

(Comprehensive Final Exam about here)

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Additional Information

To the extent that some topics are not covered this semester, they will be included in Finance 674: Real Property Valuation II in the Fall Semester.

Except for clerical errors, all requests for re-grades of examinations or homework shall be made in writing on a form downloadable from the course webpage.

After review by the student, all examinations will be retained by the instructor.

Also, please note and heed the following:

Aggie Honor Code: *An Aggie Does Not Lie, Cheat or Steal or Tolerate Those Who Do.*

Refer to the Honor Council Rules and Procedures on the web at: <http://www.tamu.edu/aggiehonor/>

Lastly, see the attached Departmental Grading Guidelines, which is incorporated herein by reference.

TO: Students & Faculty, Department of Finance, Mays Business School
FROM: Sorin M. Sorescu, Department Head
DATE: January 20, 2009
SUBJECT: Departmental Grading Guidelines

Philosophy. The Finance Department welcomes students who commit themselves, as a first choice, to authentic intellectual engagement in Finance. To reward and retain such students, the Department will strive to assure that their grades signal them reliably about their academic achievement level in Finance. The Department thus expects grades in Finance courses to track, in a meaningful way, the University's announced grading system:

<u>Grade</u>	<u>TAMU Achievement Level</u>	<u>Departmental Interpretation</u>
A	Excellent	Significantly outperforms average
B	Good	More than slightly outperforms average
C	Satisfactory	Average, or slightly above or below average
D	Passing	More than slightly below average
F	Failing	Significantly below average

Target Grade Distributions. To implement this philosophy and thus promote a culture of achievement among students who choose Finance, the Department will implement its grading philosophy by immediately adopting the following target averages for the indicated courses:

FINC341 and FINC409:	2.50 - 2.70
FINC421, FINC434, and FINC460:	2.60 - 2.80
400-level FINC Electives:	2.70 - 2.90
600-level FINC Courses:	3.20 - 3.50.

Exceptions. The target grades do not apply to the following: Honors sections, internship sections, courses in which admission is competitive or by instructor approval (e.g. Aggies on Wall Street, Tanner Fund, Foreign Exchange Trading, Titans), core MBA courses, EMBA courses, and doctoral seminars. If an instructor believes a course he or she will be teaching has unique characteristics that make these guidelines inappropriate, he or she must request a waiver from the Associate Department Head prior to the start of the course.

Implementation. Students will regard this document as having been incorporated by reference into the syllabus of any affected course. Instructors should append this document to the syllabus of any affected course. Instructors retain discretion to adopt any grading system that reasonably fulfills the intent of this document, provided the resulting grade distributions meet the targets. The Department reminds students that disagreement with a grading system is not grounds for appealing a grade. A student appealing a grade has the burden of proving that the announced grading system, whatever it may be, has been applied in error.

The grading guidelines have been approved, unanimously, by the Finance Undergraduate Curriculum Committee, and by a majority of the faculty of the Department of Finance.