

# MSBX 5605

## Real Estate Investment and Risk Management

### Course Syllabus for Spring 2017

<b>Lectures:</b>	TuTh 9:30am-10:45am KOBL 350
<b>Instructor:</b>	Professor Thomas G. Thibodeau
<b>Office:</b>	KOBL S417
<b>Office Hours:</b>	TuTh 8:30am-9:20am, 11:00am-noon, and by appointment.
<b>Phone:</b>	303.735.4021 (Office) 303.492.3643 (Katie Latier – CU Real Estate Center)
<b>Email:</b>	tom.thibodeau@colorado.edu

#### **Description and Objective:**

This course examines strategies for mitigating the legal, property, and portfolio risks associated with developing and operating income producing properties. The course begins by examining risks created by commercial property leases. The course then analyzes strategies for mitigating interest rate and currency risk; debt risk; and real estate development risk. The course also illustrates how the market values publicly traded Real Estate Investment Trusts (REITs). Finally, the course examines how risk changes with real estate portfolios consisting of multiple properties, and to optimally incorporate income property investments in mixed asset portfolios.

The course prepares students to be asset and portfolio managers for private real estate equity funds as well as for large real estate institutional investors (e.g. Real Estate Investment Trusts and Pension Funds). The material in this course also helps equity investors, commercial property lenders and real estate developers understand the investment attributes that institutional sources of capital want for their portfolios.

#### **Required Materials:**

1. A laptop computer is required; a financial calculator is highly recommended.
2. Copies of the PowerPoint slides used in class and assigned reading materials are available on Desire2Learn.
3. Students are required to use ARGUS-Enterprise® for this class. The software is installed in the student labs (Rooms 320 and 380). You may purchase a six-month student license of ARGUS Enterprise® for \$99. Students registered for this class will receive instructions on ordering the software directly from ARGUS.

ARGUS has initiated the ARGUS Software Certification (ASC) Program for Universities. Students who are serious about a career in real estate are ***STRONGLY ENCOURAGED*** to obtain ARGUS Enterprise® certification. This certification will differentiate you in the market for recently minted Real Estate graduate students. Professor Thibodeau is ASC.



### **Accommodation for Disabilities:**

If you qualify for accommodations because of a disability, please submit a letter from Disability Services to Professor Thibodeau in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303-492-8671 or by e-mail at [dsinfo@colorado.edu](mailto:dsinfo@colorado.edu). If you have a temporary medical condition or injury, see [Temporary Injuries guidelines](#) under the Quick Links at the [Disability Services website](#) and discuss your needs with Professor Thibodeau.

### **Religious Observances:**

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Please contact Professor Thibodeau if a course requirement conflicts with a religious observance.

### **Classroom Behavior:**

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. For more information, see the [policies on classroom behavior](#) and [the student code](#).

### **Discrimination and Harassment:**

The University of Colorado Boulder (CU-Boulder) is committed to maintaining a positive learning, working, and living environment. CU-Boulder will not tolerate acts of discrimination or harassment based upon Protected Classes or related retaliation against or by any employee or student. For purposes of this CU-Boulder policy, "Protected Classes" refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Individuals who believe they have been discriminated against should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or the Office of Student Conduct and Conflict Resolution (OSC) at 303-492-5550. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding

discrimination or harassment can be found at the [OIEC website](#). The [full policy on discrimination and harassment](#) contains additional information.

### **Honor Council:**

All students of the University of Colorado at Boulder are responsible for knowing and adhering to [the academic integrity policy](#) of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council ([honor@colorado.edu](mailto:honor@colorado.edu); 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Additional information regarding the [Honor Code policy can be found online](#) and at the [Honor Code Office](#).

### **Course Requirements and Grading:**

Your grade in this course will be determined by five, equally weighted, case studies:

1. Cascades; assigned 1/24/2017 and due 2/7/2017.
2. Financial Risk; assigned 2/7/2017 and due 2/21/2017.
3. Scottsdale 59 Apartments; assigned 2/21/2017 and due 3/7/2017.
4. Champa Self Storage; assigned 3/16/2017 and due 4/6/2017.
5. REIT Valuation; assigned 4/6/2017 and due 4/20/2017.

### **Cases:**

There are five cases assigned for this course. The cases are individual projects. You should prepare a typewritten report **not exceeding ten, double-space pages with Times New Roman 12-point font and one-inch margins** (excluding exhibits and supporting documentation). Cases should be prepared as Executive Reports. The case should begin with a one page executive summary that: 1) identifies the important aspects of the case; and 2) contains your recommendations. The remainder of the case must provide answers to the case questions. Each case is worth 20% of your course grade. Case assignments are due at the beginning of class on the due date. Late papers will not be accepted. I reserve the right to change the cases from what is listed in the syllabus.

# Class Schedule

## **Class #1 Tuesday, January 17**

- I. Commercial Lease Risk
  - A. Tenant Evaluation
    - 1. Tenant Quality
    - 2. Tenant Mix
    - 3. Tenant Rollover Analysis

Assignment: Read 370 Interlocken *prior to class*.

## **Class #2 Thursday, January 19**

- B. Evaluating Risk using ARGUS Enterprise
  - 1. Operations
    - a. Lease Risk
    - b. Market Vacancy
    - c. Operating Expenses
    - d. Capital Expenses
  - 2. Future Sale
    - a. Terminal Cap Rate Risk
      - i. Extracting Cap Rates from the Yield Curve
    - b. Refinancing Risk

## **Class #3 Tuesday, January 24**

- C. Cascades

Assignment: Read Cascades *prior to class*. The Cascades case study will be assigned today.

## **Class #4 Thursday, January 26**

- D. Valuing Lease Options

Assignment: Reading materials tbd.

## **Class #5 Tuesday, January 31**

- II. Financial Risk
  - A. Interest Rate Swaps
  - B. Interest Rate Caps

Assignment: Reading materials tbd.

### **Class #6 Thursday, February 2**

#### C. Currency Risk

Assignment: Reading materials tbd.

### **Class #7 Tuesday, February 7**

#### D. Financial Risk Example

Assignment: Reading materials tbd. Cascades case study due; Financial Risk case study assigned.

### **Class #8 Thursday, February 9**

#### E. Debt Risk: Capital Markets

1. Leverage
  - a. Fixed vs Float
  - b. Recourse vs Non-Recourse
  - c. Loan Terms
  - d. The Capital Stack
    - i. Senior Debt
    - ii. Mezzanine Debt
    - iii. Preferred Equity
    - iv. Equity
2. Choice of Lender (Pros and Cons)
  - a. Bank Loan
  - b. Life Company Loan
  - c. CMBS
  - d. Other
3. Stress Tests
  - a. L/V
  - b. Cap Rates
  - c. NOI

Assignment: Reading materials tbd.

### **Class #9 Tuesday, February 14**

#### III. Development Risk

##### A. Highrise Development

1. Land Acquisition
2. Entitlement
3. Finance
4. Construction

5. Sales
6. Examples
  - a. 500 Lake Shore
  - b. 111 West Wacker

Assignment: Reading materials tbd.

### **Class #10 Thursday, February 16**

#### IV. REIT Valuation

- A. Relative Valuation Techniques
  1. Price/FFO
  2. Price/Cash Available for Distribution
  3. Price/Net Asset Value
  4. Dividend Yield

Assignment: Reading materials tbd.

### **Class #11 Tuesday, February 21**

#### V. Deal Structure Risk

Assignment: Reading materials tbd. Financial Risk case study due; Scottsdale 59 Apartments assigned.

### **Class #12 Thursday, February 23**

- II. Financial Risk (continued from 2/9)
  - B. Distress Debt, Foreclosure and Federal Bankruptcy
    1. Examples
      - a. 400 Lake Shore Drive

Assignment: Reading materials tbd.

### **Class #13 Tuesday, February 28**

- III. Development Risk (continued from 2/14)
  - B. Development Risk Overview
    1. Preliminary Development Stage
    2. Market Risk
    3. Site Selection Risk
    4. Impact of Pre-Leasing or Pre-Sale

Assignment: Reading materials tbd.

**Class #14 Thursday, March 2**

- C. Legal Risk
  - 1. Negotiating LOI/Purchase Agreements
    - a. P & S
    - b. Partnership
    - c. Loan (s)
    - d. A/E, General Contractor, Civil, Consultants
  - 2. Closing risk on purchase, loans, sale

Assignment: Reading materials tbd.

**Class #15 Tuesday, March 7**

- D. Due Diligence Risk
  - 1. Physical due diligence: environmental, soil, egress/ingress, traffic studies
  - 2. Project Guideline Checklist

Assignment: Reading materials tbd. Scottsdale 59 Apartments due.

**Class #16 Thursday, March 9**

No class. Go to the 2017 Real Estate Forum. EXDO Event Center. 10:00am-5:00pm.

**Class #17 Tuesday, March 14**

- E. Entitlement Risk
  - 1. City Approval (including all Revenue Generating Units)
  - 2. Timing and Cost Risk

Assignment: Reading materials tbd.

**Class #18 Thursday, March 16**

- F. Construction Cost Risk

Assignment: Reading materials tbd. Assign Champa Self Storage case study.

**Class #19 Tuesday, March 21**

- G. Debt/Equity Risk
  - 1. Deal Structure

Assignment: Reading materials tbd.

### **Class #20 Thursday, March 23**

- H. Development Risk Summary
  - 1. Post closing on the land.
  - 2. Timing and cost risk.

Assignment: Reading materials tbd.

### **Week of March 27: Spring Break**

### **Class #21 Tuesday, April 4**

#### IV. REIT Valuation (continuation of 2/16)

- B. Absolute Metrics
  - 1. Recent Sales
  - 2. Implied Cap Rates
- C. Discounted Cash Flow
  - 1. Computing Beta
  - 2. PV
- D. REIT Capital Structure
- E. REITs vs Interest Rates
- F. Real Estate ETFs

Assignment: Reading material tbd.

### **Class #22 Thursday, April 6**

#### III. Development Risk (continued from 3/23)

- I. Planning a New Neighborhood in Downtown Chicago

Assignment: Reading materials tbd. Champa Self Storage due. REIT Valuation Case Study assigned.

### **Class #23 Tuesday, April 11**

#### V. Income Property Portfolio Risk

- A. Benchmark Indices
  - 1. Publicly traded real estate
  - 2. Direct real estate investments
- B. Selecting markets
- C. Selecting property mix

Assignment: Reading materials tbd.



**Class #24 Thursday, April 13**

Discuss Champa Self Storage case study.

**Class #25 Tuesday, April 18**

VI. Mixed Asset Portfolio Risk

- A. Direct investments
- B. In-direct investments

Assignment: Reading materials tbd.

**Class #26 Thursday, April 20**

Discuss REIT Valuation Case Study.