



THE OHIO STATE UNIVERSITY

FISHER COLLEGE OF BUSINESS

BUSINESS FINANCE #: 4410

COURSE NAME: Real Estate Finance

Spring 2024, M, W

COURSE DESCRIPTION:

This course will exam real estate as an asset class and its importance as a component of well-diversified portfolio. The course's goal is to provide students with a solid foundation in basic real estate finance. The course will start with looking careers in real estate and at the major real estate sectors – Multifamily, Retail, Office, Industrial and Hotel. It will move on with an overview of Modern Portfolio Theory (MPT) and Capital Asset Pricing Model (CAPM) and an in-depth discussion of the real estate finance concepts such as Capitalization Rate (Cap Rate), Discounted Cash Flow (DCF), Mortgage Amortization and Equity Waterfall. The class will take a further look at the real estate capital stack started in BusFin 3400-Intro to Real Estate and discuss the use of equity and debt in the financing of real estate. The course will touch on the various types of real estate debt from construction to permanent financing along with the current underwriting metrics used by today's practitioners. The course will then move into real estate due diligence, financial modeling and basic real estate valuation. The course will conclude with a discussion of the forces that changed the real estate industry forever. Throughout the term, Project Groups will underwrite a real estate acquisition and the complete of Investment Committee memorandum (IC Memo) that will be presented to the class for approved funding.

At the completion of the class, students should be able to demonstrate a fundamental understanding of:

- Real estate as an asset class in a well-diversified portfolio.
- Real estate capital stack – equity and debt financing
- Various real estate debt structures along with current underwriting metrics.
- Alternative financing structures including sale-leasebacks, participating debt and ground leases.
- Real estate due diligence, financial modeling (DCF) and basic real estate valuation

PREREQUISITES:

BusFin3400 – Intro to Real Estate.

CLASS MEETINGS:

- M, W 7:05 – 8:25 p.m.; Hitchcock Hall, Room 031

CLASS MATERIALS:

- Real Estate Finance and Investments – Risk and Opportunities, Peter Linnenman, Ph.D. and Bruce Kirsch – 5.2. The 5.2 Edition has an on-line companion that students may find helpful.
- Book is available at www.linnemanassociates.com and the OSU Bookstore.
- Business calculator – HP12C or TI BA II Plus. You will need to become acquainted quickly with these calculators. These will be used in class and on exams.
- Microsoft Excel.
- Course readings and worksheet assignments will be posted on Carmen (<http://carmen.osu.edu>).

- Any additional course material will also be posted to Carmen prior to class. It is expected that student be ready to actively participate in class discussion. The link and information to access the material will be posted on the content section of the course website. Please check this regularly
- Supplemental readings related to current events may be added to the course website and/or distributed in class. I am planning on taking the first 10-15 minutes of class to discuss any interesting current real estate market news. Students are encouraged to bring articles for discussion. Good resources are the WSJ, Heartland News, JLL, Colliers and CBRE.
- Wall Street Journal, on-line subscription is highly recommended.

PRINCIPAL INSTRUCTOR:

Stephen Stuckwisch, MBA, CFA, CAIA
 Fisher College of Business
 614-537-4887 (cell)
stuckwisch.1@osu.edu

OFFICE HOURS:

- Fisher Hall, Room 314
- M, W; 4:00 – 5:00 p.m.
 - By appointment

GRADING:

Exams/IC Memo/IC Member/Participation	Date	% of Grade
Midterm 1	February 7, 2024	15
Midterm 2	March 4, 2024	15
IC Memo	April 2, 2024	20
- Investment Committee 1	April 3, 2024	
- Investment Committee 2	April 10, 2024	
- Investment Committee 3	April 22, 2024	
Investment Committee Participation	After each IC Date	5
Worksheets		10
Midterm 3	April 17, 2024	15
Class Participation	Every Class	20
Total		100

Exams:

The class will have three midterm exams. The three exams will be given electronically on Carmen and will utilize Respondus LockDown Browser. Students need to have a laptop or similar device to allow them to access the exam. Business calculators will be necessary. Both graphing calculators and Excel will not be allowed during exam.

Investment Committee (IC) Memorandum and Presentation:

Students will form five member groups using Carmen. IC Project Groups will need to be formed by Friday, January 19, 2024 and one member needs to serve as the Lead. Leads need to be selected no later than Friday, September 26, 2024 and the name e-mail to me. Each IC Project Group will be

responsible for evaluating an actual broker Offering Memorandum (OM) for a real estate property that was offered for sale. Over the course of the semester, each group will underwrite the real estate opportunity by researching the market, analyze comparable rental and sales, modeling the property, and preparing an Investment Committee (IC) Memorandum (Memo) that will address the investment rationale, including the different valuation methods, the hold period and the investment returns. Various actual IC Memos will be available on Carmen that may be used as examples and serve as templates. Each group will present their recommendation to the rest of the class, which will act as the Investment Committee (IC). This will take place during the three classes toward the end of term. The IC Memo will be due by 11:59 p.m. Tuesday, April 2, 2024. Each project group will be assigned sequentially an IC date the weeks of April 3rd, April 10th and April 22nd. The OM for the acquisition to be analyzed will be posted to Carmen by August 8, 2024. When presenting to the IC, each team member must present a portion of the recommendation.

Participation as an IC Member:

The rest of the class will serve as the IC. As an IC member, you will be responsible for evaluating the presenting teams' presentations and recommendations. As IC member you will need to vote on whether to approve the acquisition for the price recommended and why. In addition, each IC member will rank the presenting teams' presentation – 1, 2 and 3. The winning team for each IC date will receive two extra points for the IC Memo project. The IC member evaluation forms are available on Carmen. The IC member evaluations are due by 11:59 p.m. the day of each IC presentation.

Worksheet Assignments:

There are seven worksheet assignments. Students are encouraged to collaborate on these assignments, but the assignments must be submitted individually via Carmen before the start of class the assignment is being discussed. The seven assignments are:

1. Mortgage Amortization
2. Capitalization Rate
3. Discounted Cash Flow
4. Real Estate Capital Stack
5. Equity Waterfall
6. Development Feasibility
7. Impact of Sponsor Promote

Class Participation:

Participation during class is a vital part of this class. It is expected that you have read the material prior to class and come prepared to discuss in class. Each student is expected to prepare three questions/comments that are relevant to the class readings. These will need to be submitted on Carmen prior the start of each class. I will be tracking attendance and expect each student to contribute to the class on a regular basis. In addition to attendance, we will be discussing current real estate events at the beginning of class. These may come from the Wall Street Journal (WSJ), The New York Times, or other real estate publications. I encourage students to read the WSJ on a daily basis and purchase an on-line subscription. The participation grade will include thoughtful questions, respect for your fellow students and prohibition of electronic devices in class, except for laptops/iPads.

Wall Street Journal:

WSJ offers a discounted Student on-line subscription at <https://store.wsj.com/shop/us/us/wsstudentinterns23>

The New York Times

OSU offers free subscriptions to The New York Times at

<https://usg.osu.edu/resources/initiatives/new-york-times-subscription>

Grading Scheme:

This class will follow the OSU standard Grade Scheme. The OSU Standard Grade Scheme is:

The OSU Standard Grade Scheme	
93-100	A
90-92.9	A-
87-89.9	B+
83-86.9	B
80-82.9	B-
77-79.9	C+
73-76.9	C
70-72.9	C-
67-69.9	D+
60-66.9	D
Below 60	E

EXPECTATIONS:

Electronic Devices:

The absence of unnecessary distractions and interruptions is essential for positive and effective learning environment. Therefore, students ***may only*** use a laptop or iPad to access the presentations during class or take notes. Except for business calculators, any other electronic device ***may not*** be used in class without submitting a prior written request and receiving explicit permission from the instructor. All non-approved electronic devices must be turned off and put away prior to the start of the class. The instructor reserves the right to disallow laptops and iPads if they are used for other purposes other than accessing the current class material or taking notes.

Exam Policy:

There are three midterm exams. The IC Memorandum and presentation are in lieu of a final exam.

There will be no make-up exams unless prior written approval from the instructor prior to the exam date. Students with an exam accommodation, it is your responsibility scheduled your exam with SLDS testing center within three days after the exam is scheduled and e-mail me with the day and time provided by SLDS. Please e-mail this information at least three days before the original exam date.

Extra Credit:

Extra credit will not be offered unless it is available to the entire class.

Office Hours and Communication:

In addition to set office hours, I will be available to speak to any student by appointment. Please e-mail at my OSU (stuckwisch.1@osu.edu) to make an appointment. In the e-mail, please give me a general idea of the topic you wish to discuss so I may be better prepared before our appointment. I will respond as soon as I am able, but no later than 48 hours.

Course Website:

I will maintain communication through Carmen (<http://carmen.osu.edu>). I will use this website post course material, readings and assignments. Please check this regularly. With respect to the IC Memo Project, I will communicate through the IC Project Lead.

SAFETY AND HEALTH REQUIREMENTS:

All teaching staff and students are required to comply with and stay up to date on all [University safety and health guidance](#).

DISENROLLMENT:

University Rule 3335-8-3 provides that a student may be dis-enrolled after the third instructional day of the semester, the first Friday of the semester, or the student's second class session of the course, whichever occurs first, if the student fails to attend the scheduled course without giving prior notification to the instructor.

ACADEMIC MISCONDUCT:

Academic misconduct will not be tolerated. According to University Rule 3335-1-31-02, all suspected cases of academic misconduct will be reported to the Committee on Academic Misconduct.

DISABILITY SERVICES:

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic,-or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are isolating while waiting for a COVID-19 test result, please let me know immediately. Those testing positive for COVID-19 should refer to the [Safe and Healthy Buckeyes site](#) for resources. Beyond five days of the required COVID-19 isolation period, I may rely on Student Life Disability Services to establish further reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

CLASS SCHEDULE:

Week	Date	Topic
<i>Overview/Review</i>		
WEEK 1.1	January 8, 2024	Welcome/Careers in Real Estate
WEEK 1.2	January 10, 2024	Real Estate as an Asset Class/Risk and Opportunities
<i>SECTION 2 - CAPM and the RE Financial Foundation</i>		
WEEK 2.1	January 15, 2024	MLK Day - No Class
WEEK 2.2	January 17, 2024	Review of the Major Property Types + Hotels
WEEK 3.1	January 22, 2024	Modern Portfolio Theory (MPT) and Capital Asset Pricing Model (CAPM)
WEEK 3.2	January 24, 2024	Annuities, Present Value and Amortization
WEEK 4.1	January 29, 2024	Perpetuities, Gordon Model and Capitalization Rate (Cap Rate)
		Worksheet Assignment - Amortization
WEEK 4.2	January 31, 2024	Discounted Cash Flow Analysis (DCF)
		Worksheet Assignment - Capitalization Rate
WEEK 5.1	February 5, 2024	Review Midterm 1
		Worksheet Assignment - DCF
WEEK 5.2	February 7, 2024	Midterm 1
WEEK 6.1	February 12, 2024	Real Estate Capital Stack (Equity versus Debt)
WEEK 6.2	February 14, 2024	Real Estate Equity
WEEK 7.1	February 19, 2024	Use of Debt and Mortgages - Underwriting Metrics
		Worksheet Assignment - Real Estate Capital Stack
WEEK 7.2	February 21, 2024	Construction, Transitional and Permanent Debt Financing
		Worksheet Assignment - Equity Waterfall
WEEK 8.1	February 26, 2024	Sale Leasebacks, Participating Debt and Ground Leases
WEEK 8.2	February 28, 2024	Review Midterm 2
WEEK 9.1	March 4, 2024	Midterm 2
<i>SECTION 2: Due Diligence, Financial Modeling and Real Estate Value</i>		
WEEK 9.2	March 6, 2024	Real Estate Cycles and Analyzing Metropolitan Long-term Growth Patterns
WEEK 10.1	March 11, 2024	Spring Break - No Class
WEEK 10.2	March 13, 2024	Spring Break - No Class
WEEK 11.1	March 18, 2024	Real Estate Due Diligence and Commercial Lease Analysis
WEEK 11.2	March 20, 2024	Development Feasibility and Entitlement Process
WEEK 12.1	March 25, 2024	Real Estate Owner Exit Strategies and Real Estate Return Profiles
		Worksheet Assignment - Development Feasibility
WEEK 12.2	March 27, 2024	Real Estate Financial Modeling
		Worksheet Assignment - Impact of Sponsor Promote
WEEK 13.1	April 1, 2024	Forces that Changed the Real Estate Industry Forever
	April 2, 2024	IC Memorandum Due by 11:59 p.m.
<i>SECTION 3: Investment Committees</i>		
WEEK 13.2	April 3, 2024	Investment Committee 1
WEEK 14.1	April 8, 2024	CMBS - Guest Speaker
WEEK 14.2	April 10, 2024	Investment Committee 2
WEEK 15.1	April 15, 2024	Midterm 3 Review
WEEK 15.2	April 17, 2024	Midterm 3
WEEK 16.1	April 22, 2024	Investment Committee 3

(Note: This syllabus is subject to change)