



THE OHIO STATE UNIVERSITY

FISHER COLLEGE OF BUSINESS

BUSINESS FINANCE #: 7241

COURSE NAME: Real Estate Finance

Spring 2023

COURSE DESCRIPTION:

This graduate course will examine real estate as an asset class and reinforce the position that real estate is an important component of well-diversified portfolio. The course's goal is to provide students with a solid foundation in the building blocks of real estate finance. The abbreviated course will step through a review the major real estate sectors – Multifamily, Retail, Office, Industrial plus Hotel. It will move with an overview of Modern Portfolio Theory (MPT) and Capital Asset Pricing Model (CAPM) and discuss the real estate finance concepts such as Capitalization Rate (Cap Rate), Discounted Cash Flow (DCF) and Mortgage Amortization. The class will review the real estate capital stack 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 real estate valuation. The course will conclude with the underwriting of an industrial acquisition and the completion of Investment Committee Memorandum (IC Memo).

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 real estate valuation

CLASS MEETINGS:

Gerlach Hall; Room 355

Th. 6:15-9:30 p.m.

CLASS MATERIALS:

- Real Estate Finance and Investments – Risk and Opportunities, Peter Linneman, Ph.D. and Bruce Kirsch – Fifth Edition. The Fifth Edition has an on-line companion that students may find helpful.
- Book is available at www.linnemanassociates.com.
- 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 for Worksheet Assignment.
- Microsoft Excel.
- Course readings/presentations 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.

PRINCIPAL INSTRUCTOR:

Stephen Stuckwisch, MBA, CFA, CAIA

Fisher College of Business

614-537-4887 (cell)

stuckwisch.1@osu.edu

sestuck@gmail.com

OFFICE HOURS

Fisher Hall, Room 301C

- M,W 1:00 – 2:00 p.m.
- By Appointment

GRADING:

IC Memo/Worksheets/Participation	Date	% of Grade
Group Project - IC Memorandum	February 24, 2023	40
- IC Memorandum Presentation	February 23, 2023	
Worksheet Assignments		30
- Amortization Worksheet	January 26, 2023	
- Cap Rate Worksheet	February 2, 2023	
- Real Estate Capital Stack Worksheet	February 9, 2023	
- Waterfall and Impact of Sponsor Promote Worksheet	February 16, 2023	
- Development Feasibility Worksheet	February 23, 2023	
Participation		30
Total		100

Worksheets Assignments:

The class will have five worksheet assignments that cover various parts of real estate finance. These will be due the following class after the material has been covered. These are open book assignments and need to be completed independently by each student.

IC Memorandum and Presentation:

Students will form five-member IC Project Groups using Carmen. Project groups will need to be formed by Sunday, January 15, 2023. Each Project Group will appoint one member to be group Lead. I will communicate with each Lead on the project. The Lead is responsible to keep the Project Group on pace with the IC Memo. Each group will be responsible for evaluating an actual broker Offering Memorandum (OM) for a newly constructed core industrial building that was offered for sale. Over the term, each group will research the market, analyze the comparable properties and prepare an IC Memo. Examples of IC Memos will be available on Carmen. The IC Memo will be due by 11:59 p.m. Friday, February 24, 2023. Each team will present its IC Memo at the final class on February 23, 2023 during a Mock

Investment Committee of industry practitioners. The OM for the industrial property that will be analyzed will be posted to Carmen by January 9, 2023.

Class Participation/Three Questions:

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 for each of the two broader topic areas (a total of six questions per week) that we will be covering each week and be ready to discuss if call upon. I will be tracking attendance and participation and expect each one 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) or other real estate publications. I highly encourage students to read the WSJ on a daily basis. The participation grade will include thoughtful questions, respect for your fellow students and prohibition of electronic devices in class, except for laptops/iPads and business calculators.

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:

The IC Memo will serve as the final exam in the course. **All students must be present for the IC Memo Presentation on Thursday, February 23 from 5:45 – 9:45 p.m. There will be no excused absences for this date.**

Extra Credit

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

Office Hours and Communication

In addition to the set office hours, but will be available to speak to any student by appointment. Please e-mail at both my OSU (stuckwish.1@osu.edu) and my personal (sestuck@gmail.com) 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.

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](#), which includes wearing a face mask in any indoor space, even if vaccinated, and maintaining a safe physical distance when able. Non-compliance will be warned first and disciplinary actions will be taken for repeated offenses

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 Office of Disability Services verifies students with specific disabilities and develops strategies to meet the needs of those students. Students requiring accommodations based on identified disabilities should contact the instructor at the beginning of the semester to discuss his/her particular needs. All students with a specific disability are encouraged to contact the Office of Disability Services to explore the potential accommodations available to them.

Student Covid-Related Accommodation Process:

The university is committed to supporting students and program participants with COVID-19 based risk factors. Student Life Disability Services, in conjunction with the Office of Institutional Equity, will work with students who are vulnerable to complications from COVID-19 to ensure that they have the necessary resources to participate in university life as safely as possible. Ohio State students from any campus may submit a COVID-related accommodation request. Students registered with Student Life Disability Services can work directly with their assigned Access Specialist to modify their accommodations or make additional COVID-based accommodation requests.

Covid Process:

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the

university's request process, managed by Student Life Disability Services. 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. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Accommodated Exams - Covid-19:

Operational Adjustments In order to promote the health and safety of students, Student Life Disability Services will only proctor exams for students with accommodations that necessitate in-person testing for autumn 2021. Modified exam hours for Autumn 2021 are 9 AM – 5 PM. Students with the following exam accommodations may schedule to take their exams at SLDS:

- Accessible formats (e.g. braille, large print, screen-free)
- Assistive technology (e.g. JAWS, CCTV)
- Private testing room accommodation
- Test assistant (reader or scribe)

Students requesting exam accommodations not listed above, such as extended time or a small-group testing space, will need to take their exam off-site utilizing Carmen or other virtual assessment method. For more information on operational changes, visit the SLDS website.

CLASS SCHEDULE:

Week	Date	Topic
<u>Section 1 - CAPM and the RE Financial Foundation</u>		
WEEK 1	January 12, 2023	Review of the Major Property Types+Hotels/Risk and Returns
		MPT - Real Estate as an Asset Class and Capital Asset Pricing Model (CAPM)
WEEK 2	January 19, 2023	Annuities, Present Value and Amortization
		Perpetuities, Gordon Model and Capitalization Rate (Cap Rate)
WEEK 3	January 26, 2023	Real Estate Capital Stack (Equity versus Debt)
		Real Estate Equity/Use of Debt and Mortgages - Underwriting Metrics
		Amortization Worksheet
WEEK 4	February 2, 2023	Construction, Transitional and Permanent Debt Financing
		Sale Leaseback, Participating Debt and Ground Leases
		Cap Rate Worksheet
<u>SECTION 2: Due Diligence, Financial Modeling and Real Estate Value</u>		
WEEK 5	February 9, 2023	Real Estate Cycles and Analyzing Metropolitan Long-term Growth Patterns
		Real Estate Due Diligence and Commercial Lease Analysis
		Real Estate Capital Stack Worksheet
WEEK 6	February 16, 2023	Real Estate Owners Exit Strategies and Return Profiles
		Development Feasibility and Real Estate Proforma (DCF)
		Waterfall and Impact of Sponsor Promote Worksheet
<u>SECTION 3: Investment Committee Memorandum</u>		
WEEK 7	February 23, 2023	IC Memorandum Presentation
		Development Feasibility Worksheet
	February 24, 2023	Group Project Due - IC Memorandum due by 11:59 p.m.

(Note: This syllabus is subject to change)