

BusFin 4410 Syllabus

Sem: SP 2026

**Class Day/Time: M,W; 11:10 a.m.
And T,Th 2:30 p.m.**

**Room: Gerlach 275 and
Schoenbaum Hall 200**

Instructor: Stephen Stuckwisch, CFA, CAIA

E-mail: stuckwisch.1@osu.edu

Office Hours: M, W; 4:00 – 5:00 p.m.

Office: Fisher Hall 314

Pre-Requirements: Prerequisites BusFin 3400 Intro to Real Estate

Course Format: In-class Lecture

Course Description:

This course will examine real estate as an asset class and its importance as a component of a 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 lenders. 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 complete an Investment Committee Memorandum (IC Memo) that will be presented to the class for funding approval.

Learning course outcomes: By the end of this course, students should understand:

- 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

Required Texts/Materials:

Title: Book – Real Estate Finance and Investments, Risk and Opportunities 5.3 Edition

ISBN(13): 9798218328634

Author(s): Peter Linneman, Ph.D, Bruce Kirsch

Year: 2024

Publisher: Linneman Associates

- 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. Excel will not be permitted to be used for exams.
- Microsoft Excel.
- Course readings and worksheet assignments will be posted on Carmen (<http://carmen.osu.edu>).
- Student should 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

Optional Texts/Materials:

- 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.
- New York Times subscription is highly recommended

Evaluation Criteria:

Exams/IC Memo/IC Member/Participation	Date	% of Grade	Type
Exam 1	February 11-12, 2026	15	N □
Exam 2	March 11-12, 2026	15	N □
IC Memo	April 14, 2026	20	C □
- Investment Committee 1	April 15-16, 2026		C □
- Investment Committee 2	April 20-21, 2025		C □
- Investment Committee 3	April 22-23, 2026		C □
Investment Committee Participation	After each IC Date	5	N □
Worksheets		10	O 🐞
Exam 3	Finals Week	15	N □
Participation	Every Class	20	O 🐞
Total		100	

Requirements for each form of graded component. Failing to follow these will represent academic misconduct. See below.

Independent Work [N #]: Strictly non-collaborative, original individual work. You may discuss this assignment with your instructor only. Discussions with other individuals, either in person or electronically, are strictly prohibited.

Collaboration Required [C ##]: An explicit expectation for collaboration among students either in class or outside of class (i.e. group work).

Collaboration Optional [O 🐞]: Students are permitted, but not required, to discuss the assignment or ideas with each other. However, all submitted work must be one's original and individual creation.

Graded Component Details

Exams:

The class will have three exams. The three exams will be given electronically on Carmen using the Respondus LockDown Browser. Students need to have a laptop or similar device to allow them to access the exam. Business calculators will be necessary. Excel will not be permitted for exams.

Investment Committee (IC) Memorandum and Presentation:

Students will form three to five member groups using Carmen. IC Project Groups will need to be formed by Friday, January 30, 2026 and one member needs to serve as the Lead. Leads need to be selected no later than Friday, February 6, 2026 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 last three classes of term. The IC Memo will be due by 11:59 p.m. Tuesday, April 14, 2026. Each project group will be assigned sequentially an IC date on, April 15 -16th, April 20– 21st and April 22 – 23rd. The OM for

the acquisition to be analyzed will be posted to Carmen by January 12, 2026. When presenting to the IC, each team member must be professional dressed and present a portion of the IC Memo.

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

Credit hours and work expectations:

This is a 3 credit-hour course. According to [Ohio State bylaws on instruction](http://go.osu.edu/credithours) (go.osu.edu/credithours), students should expect around 3 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) to receive a grade of C average.

Grading Scale

Letter	A	A-	B+	B	B-	C+	C	C-	D+	D	E
(Points)	(4.0)	(3.7)	(3.3)	(3.0)	(2.7)	(2.3)	(2.0)	(1.7)	(1.3)	(1.0)	(0.0)
Range:	100% - 93%	93% - 90%	90% - 87%	87% - 83%	83% - 80%	80% - 77%	77% - 73%	73% - 70%	70% - 67%	67% - 60%	60% - 0%



Note: Above percentages are % of overall points earned [or are % rankings of students, e.g. if scaled to curve]



In keeping with Fisher College policy, I strive to have the average GPA for the course in the following range: [choose the appropriate range for the program in which you are teaching]




UG Non-Core Specialization Required Classes 2.9 – 3.3


Course Schedule:






Date	Topic	Readings	Grade Component	Type	Present Format	Assess. Format
<u>Overview</u>						
WEEK 1.1	January 12-13, 2026	Welcome/Careers in Real Estate	Linneman Supplemental III	Class Participation	<u>in-class</u>	Submit via Carmen prior to class
WEEK 1.2	January 14-15, 2026	Real Estate as an Asset Class/Risk and Opportunities	Linneman Chapter 1, Supplemental I	Class Participation	<u>in-class</u>	Submit via Carmen prior to class
WEEK 2.1	January 19-20, 2026	Major Property Types + Hotels (No Monday Class - MLK Day)	Linneman Chapter 2	Class Participation	<u>Tuesday in-class</u>	Submit via Carmen prior to class
<u>SECTION 1 - CAPM and the RE Financial Foundation</u>						
WEEK 2.2	January 21-22, 2026	Modern Portfolio Theory (MPT) and Capital Asset Pricing Model (CAPM)		Class Participation	<u>in-class</u>	Submit via Carmen prior to class

WEEK 3.1	January 26-27, 2026	Annuities, Present Value and Amortization	Linnaman Prerequisite 2, 3; pages 378-396	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
WEEK 3.2	January 28-29, 2026	Perpetuities, Gordon Model and Capitalization Rate (Cap Rate)	Linneman Chapter 9, Supplement A, B, C and D	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
		Worksheet Assignment - Amortization		Worksheets		<u>in-class</u>	Submitted via Carmen prior to class.
WEEK 4.1	February 2-3, 2026	Discounted Cash Flow Analysis (DCF)	Linnaman Prerequisite 1, pages 364-377	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
		Worksheet Assignment - Capitalization Rate		Worksheets			Submit via Carmen prior to class
WEEK 4.2	February 4-5, 2026	Evan Rinehart - CoStar				<u>in-class</u>	

		Worksheet Assignment - DCF		Worksheets	O 		Submit via Carmen prior to class
WEEK 5.1	February 9-10, 2026	Review Exam 1		Exam 1	N 	<u>in-class</u>	
WEEK 5.2	February 11-12, 2026	Exam 1				<u>in-class</u>	
WEEK 6.1	February 16-17, 2026	Real Estate Capital Stack (Equity versus Debt)	Linneman Chapter 14	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
WEEK 6.2	February 18-19, 2026	Real Estate Equity	Linneman Chapter 19, 21	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
WEEK 7.1	February 23-24, 2026	Waterfall Distribution		Class Participation			Submit via Carmen prior to class
WEEK 7.2	February 25-26, 2026	Use of Debt and Mortgages - Underwriting Metrics	Linneman Chapter 15	Class Participation		<u>in-class</u>	Submit via Carmen prior to class

		Worksheet Assignment - Real Estate Capital Stack		Worksheets	O 		Submit via Carmen prior to class
WEEK 8.1	March 2-3, 2026	Construction, Transitional and Permanent Debt Financing	Linneman Chapter 16 and Supplemental II	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
		Worksheet Assignment - Equity Waterfall		Worksheets	O 		Submit via Carmen prior to class
WEEK 8.2	March 4-5, 2026	Sale Leasebacks, Participating Debt and Ground Leases	Linneman Chapter 17	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
WEEK 9.1	March 9-10, 2026	Review Exam 2				<u>in-class</u>	
WEEK 9.2	March 11-12, 2026	Exam 2		Exam 2	N 		
WEEK 10.1	March 16-17, 2026	Spring Break - No Class					
WEEK 10.2	March 18-19, 2026	Spring Break - No Class					
SECTION 2: Due Diligence, Financial Modeling and Real Estate Value							

WEEK 11.1	March 23-24, 2026	Real Estate Cycles and Analyzing Metropolitan Long-term Growth Patterns	Linneman Chapters 8 and 25	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
WEEK 11.2	March 25-26, 2025	Real Estate Due Diligence	Linneman Chapter 7	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
WEEK 12.1	March 30-31, 2026	Commercial Lease Analysis	Linneman Chapter 4	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
WEEK 12.2	April 1-2, 2026	Entitlement Process and Development Feasibility	Chapter 11	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
WEEK 13.1	April 6-7, 2026	Real Estate Owner Exit Strategies and Real Estate Return Profiles	Linneman Chapters 18 and 20	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
		Worksheet Assignment - Development Feasibility		Worksheets		<u>in-class</u>	Submit via Carmen prior to class

WEEK 13.2	April 8-9, 2026	Real Estate Financial Modeling	Linneman Chapters 6 and 10	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
		Worksheet Assignment - Impact of Sponsor Promote		Worksheets	O 	<u>in-class</u>	Submit via Carmen prior to class
WEEK 14.1	April 13-14, 2026	The Forces that changed the Real Estate Market Forever	Linneman Chapter 22	Class Participation		<u>in-class</u>	Submit via Carmen prior to class
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<u>SECTION 3: Investment Committees</u>							
	April 14, 2026	IC Memorandum Due 11:59 p.m.		IC Memo	C 	-	
WEEK 14.2	April 15-16, 2026	Investment Committee 1		IC Memo	C 	<u>in-class</u>	Submit via Carmen prior to class
WEEK 15.1	April 20-21, 2026	Investment Committee 2		IC Memo	C 	<u>in-class</u>	Submit via Carmen prior to class
WEEK 15.2	April 22-23, 2026	Investment Committee 3		IC Memo	C 	<u>in-class</u>	Submit via Carmen prior to class

WEEK 16.1	April 27, 2026	Exam 3 Review				<u>In-class</u>	
Finals Week		Exam 3		Exam 3	N ↑	<u>in-class</u>	
	N ↑	Independent Work: Strictly non-collaborative, original individual work. Discussions with instructor only.					
	O ↗	Optional-Collaboration: Original individual work/submissions; Students are permitted to discuss among themselves.					
	C ↗	Collaboration-Required: An explicit expectation for collaboration among students.					

Additional Course Policies

Use of AI:

There has been a significant increase in the popularity and availability of a variety of generative artificial intelligence (AI) tools, including ChatGPT, Sudowrite and others. These tools will help shape the future of work, research and technology but when used in the wrong way, they can stand in conflict with academic integrity at Ohio State.

All students have important obligations under the Code of Student Conduct to complete all academic and scholarly activities with fairness and honesty. Specifically, students are not to use unauthorized assistance in the laboratory, on field work, in scholarship or on a course assignment unless such assistance has been authorized specifically by the course instructor. In addition, students are not to submit their work without acknowledging any word-for-word use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students undergraduate, graduate, and professional.

To maintain a culture of integrity and respect, these generative AI tools should not be used in the completion of course assignments unless an instructor for a given course specifically authorizes their use. Some instructors may approve of using generative AI tools in the academic setting for specific goals. However, these tools should be used only with the explicit and clear permission of each individual instructor, and then only in the ways allowed by the instructor.

Use of artificial intelligence (AI)-powered programs, including but not limited to ChatGPT, for course assignments is permitted. When AI-powered programs are permitted, and used by students, the scope of use and content must be specified and referenced by students accordingly. Students are expected to be aware of the shortcomings of use of AI-powered programs, including risk of academic misconduct (e.g., plagiarism; etc.). Students are required to confirm the sources used to assure accuracy. The grading of IC Memo and PP presentation will be severely affected if information used is not factual.

Testing Policy:

*There are no make-ups for exams. Missed exams will be recorded as a "0". Missed exams can only be made-up in extreme cases (e.g., death of family member, personal hospitalization, etc.) with proper documentation (e.g., a physician's note, ER paperwork, obituary, etc.). Each decision of potentially allowing a make-up exam is made by the instructor on a case-by-case basis. Additionally, you **MUST** contact the instructor at stuckwisch.1@osu.edu as soon as you know of a potential problem or conflict with an exam date. If you are experiencing an extreme situation or emergency, please attempt to notify the instructor at stuckwisch.1@osu.edu ASAP.*

Attendance / Participation Expectations:

Any student who fails to attend without giving prior notification to the instructor will be dis-enrolled after the third instructional day of the term, the first Friday of the term, or the second scheduled class meeting of the course, whichever occurs first. [note: this is university policy].

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 the material in class. 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), 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://usq.osu.edu/resources/initiatives/new-york-times-subscription>

Late Assignments:

Please refer to Carmen for due dates. Due dates are set to help you stay on pace and to allow timely feedback that will help you complete subsequent assignments. Late assignments will be docked points.

Course-specific Copyright Policy:

Material provided by the instructor may not be re-posted anywhere without the explicit permission of instructors. See University Copyright Policy.

Additional University Policies and Resources

Academic Misconduct

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's [Code of Student Conduct](#), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's Code of Student Conduct and this syllabus may constitute Academic Misconduct.

The Ohio State University's Code of Student Conduct (Section 3335-23-04) defines academic misconduct as: Any activity that tends to compromise the academic integrity of the University or subvert the educational process. Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's Code of Student Conduct is never considered an excuse for academic misconduct, so I recommend that you review the Code of Student Conduct and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's Code of Student Conduct (i.e., committed academic misconduct), the sanctions

for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me. You can also review these resources:

- [Committee on Academic Misconduct](https://go.osu.edu/coam) (go.osu.edu/coam)
- [Ten Suggestions for Preserving Academic Integrity](https://go.osu.edu/ten-suggestions) (go.osu.edu/ten-suggestions)
- [Eight Cardinal Rules of Academic Integrity](https://go.osu.edu/cardinal-rules) (go.osu.edu/cardinal-rules)

Your Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University's Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, [on-demand mental health resources](https://go.osu.edu/ccsondemand) (go.osu.edu/ccsondemand) are available. You can reach an on-call counselor when CCS is closed at [614- 292-5766](tel:6142925766). **24-hour emergency help** is available through the [National Suicide Prevention Lifeline website](https://suicidepreventionlifeline.org) (suicidepreventionlifeline.org) or by calling [1-800-273-8255\(TALK\)](tel:18002738255). [The Ohio State Wellness app](https://go.osu.edu/wellnessapp) (go.osu.edu/wellnessapp) is also a great resource.

Religious Accommodations

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement **and** the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the [Civil Rights Compliance Office](#).

Policy: [Religious Holidays, Holy Days and Observances](#)

Disability Statement

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 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. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu. or in person at 98 Baker Hall, 113 W. 12th Ave.

Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Civil Rights Compliance Office:

Online reporting form at <http://civilrights.osu.edu/>,

Call 614-247-5838 or TTY 614-688-8605,

Or Email equity@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Civil Rights Compliance Office to ensure the university can take appropriate action:

- *All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.*
- *The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.*