

# BUSFIN 4221: Investments

## Fall 2025

Instructor: Andrei S. Gonçalves (goncalves.11@osu.edu)

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**Instructor Office:** 846 Fisher Hall

Instructor Website: http://andreigoncalves.com

Course Website: https://osu.instructure.com/login/canvas

**Lectures:** Mo/We 3:55-5:15pm (Schoenbaum Hall 215)

**Instructor Office Hours:** by Appointment

**TA Office Hours:** TBD

This syllabus is tentative and subject to changes (at the discretion of the instructor). Please, use the Canvas website to keep track of the (updated) course syllabus.

# 1 Course Description and Prerequisites

This course is designed to teach the principles of investment and is divided into two main parts.

In the first part of the course (Modules 1 to 3), we outline the investment environment and detail the general principles underlying the valuation of financial assets, with a focus on how to extract risk and reward information from asset prices in two major asset classes: debt and equity. As will become clear from this first part of the course, the valuation of any financial asset is based on the present value of its future cash flows, which requires a discount rate that is linked to the reward investors receive from buying the given financial asset. As such, in the second part of the course (Modules 4 to 6), we detail how different theories for the trade-off between risk and reward in well-functioning markets lead to an equilibrium in which financial assets that have higher risk deliver higher reward to investors. In this process, we will also learn how the risk vs reward paradigm provides optimal rules for capital allocation among asset classes and securities.

The prerequisites for this course are: (i) Introduction to Accounting I and II (ACCTMIS 2200

and 2300); (ii) Decision Science and Business Analytics (BUSMGT 2320 and 2321) and (iii) Business Finance (BUSFIN 3220). In a nutshell, you need a basic understanding of statistics and accounting and a good understanding of financial principles.

## 2 Readings & Other Material

#### **Textbook and Class Material**

All material necessary for this course will be posted on the course webpage, including lecture slides and practice quizzes.

As such, <u>no textbook is required for this course</u>. That said, "Investments, 12th edition, by Bodie, Kane, and Marcus" (henceforth BKM) can be used as a complementary reading (prior editions would work as well). The tentative course schedule (see Section 5) details the book chapters (most closely) associated with each topic discussed in class. However, you should not expect the lectures to follow the exact approach in BKM since the class material is not based on any particular textbook (the way I present the content differs a lot from textbooks).

#### An Investments Book

If you want to read a book about investments that is not a textbook, but still has good academic rigor, I recommend "Expected Returns: An Investor's Guide to Harvesting Market Rewards", by Antti Ilmanen.

#### **Additional Sources of Periodic Information**

It is good business practice to read the financial press. There is a wide range of alternative choices, but *The Wall Street Journal* (www.wsj.com/studentoffer), *The Financial Times*, and *The Economist* are popular complementary choices.

Finally, podcasts can be great to listen to when you are doing something that makes it hard to read (e.g., exercising). The podcast *Rational Reminder* covers a lot of interesting investment issues. The podcast *EconTalk* covers a lot of broad financial and economic issues.

Needless to say, these suggestions do not represent an endorsement of any political or social view that may be expressed by these media outlets.

## 3 Class Format & Grading

**6 Problem Sets** = 25% of grade (5% each with lowest score dropped)

**6 Quizzes** = 30% of grade (6% each with lowest score dropped)

Submitting All Quizzes/Problem Sets = 10\% of grade (they need to have relevant answers)

Cumulative Final Exam = 35% of grade

Total = 100%

### **Class Format**

The course has a total of six modules and each module is subdivided into specific topics. Each lecture covers one topic and the lecture slides are all you need to follow the lectures. The lecture slides will be available on the course webpage. I post two versions of the slides (labeled "short version" and "long version"). They have the same content except that the long version (which I use as lecture slides) shows the progress of each page "by click" to facilitate the content presentation.

A tentative class schedule is available in Section 5. The tentative class schedule is for illustration purpose and subject to changes based on how the class progresses. The continuously updated class schedule can be found on Canvas.

#### Attendance

Per university policy, any student who fails to attend without giving prior notification to the instructor will be disenrolled 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.

Beyond that, regular (in-person) class attendance and participation is expected from all students. Consistent with the business school's position on in-person classes, I will not provide a regular Zoom attendance option or class recordings. This approach is intended to maximize in-class participation, which is beneficial to the learning environment.

#### **Problem Sets**

After each of the six modules a problem set is released. Each problem set has (approximately) a one week deadline and is meant to be submitted on the course webpage individually (you cannot discuss the problem sets with your classmates before the deadline). These problem sets are composed of

short essay questions meant to test whether you understand the big picture underlying each topic we cover. Each of your six problem sets is worth 5 points with your lowest score among the problem sets dropped (so, problem sets are worth 25 points on total).

See the tentative class schedule in Section 5 for the dates in which problem sets will be released and their respective deadlines.

#### Quizzes

In the last lecture of each module, you will take an in-person quiz covering the content of the respective module. During each quiz, you are allowed to use slides from this course (printed, not on an electronic device) as well as any notes you write on them (they can be written by hand or by an analogous electronic device). You are also allowed to use the "Summary of Notation and Equations" document from this course (printed). You are not allowed to consult any other material or your classmates during quizzes. Each of your six quizzes is worth 6 points with your lowest score among the quizzes is dropped (so, quizzes are worth 30 points on total). One class before you take each quiz I release a practice quiz (with solutions) that is similar to your actual quiz in terms of content and format. The practice quiz will not be graded but it will be solved in (the regular) class right before you take your actual quiz.

See the tentative class schedule in Section 5 for the dates when the practice quizzes will be released and the dates when you will take the respective quizzes in class.

### Submitting Quizzes & Problem Sets

You have a total of 6 quizzes and 6 problem sets (so, 12 quizzes+problem sets). If you submit all your quizzes and problem sets, then you will receive 10 points. If you submit X (out of 12) quizzes+problem sets, then you will receive 10 \* (X / 12) points. For instance, submitting 9 out of 12 quizzes+problem sets will give you 7.5 points. For a quiz or a problem set to count as being "submitted" you must deliver it on time and with answers to all questions asked regardless of whether the answers are correct or not (but they have to be about the topic — unrelated answers such as "I like apples" will not count).

#### Final Exam

There is a cumulative Final Exam (worth 35 points). During the final exam, you are allowed to use slides from this course (printed, not on an electronic device) as well as any notes you write on them (they can be written by hand or by an analogous electronic device). You are also allowed to use the "Summary of Notation and Equations" document from this course (printed). You are not allowed to consult any other material or your classmates during the final exam. A Practice Final Exam will be made available in a timely manner to help you prepare for the exam. The Practice Final Exam will not be graded, but I will solve it in the final review session.

See the tentative class schedule in Section 5 for the dates of the final review session and final exam.

#### Letter of Recommendation

If you intend to ask me for a letter of recommendation, then introduce yourself in the first week of classes and let me know about your intention. You must be present and active in class throughout the semester so that I can evaluate your thought process. At the end of the course, you can reach out to request a letter of recommendation if you earned an "A" in my course (and I will explain the necessary steps then). I do not provide letters of recommendation for students with a letter grade below "A" in my course. This is for your own benefit as in this case my letter would not be as positive as it needs to be to help you in your subsequent endeavors.

#### Letter Grade

Your letter grade will be based on your total score (total points received during the class) and the overall class performance. The letter grade assigned is an informed and final evaluation and not the beginning offer in a bargaining process. If an error occurs in the calculation of your grade, please notify me during the beginning of the following semester and actions will be taken to correct any errors. Please do NOT contact me to "lobby" for a higher grade. Any lobbying efforts (i.e. asking for a higher grade simply because you want one or need one) will not be tolerated.

Make-up or extra work to improve your grade on an individual basis is not possible. Your general academic situation (for example, "I need a 'C' in this course to graduate.") and/or personal problems (beyond documented health-related issues) cannot be considered. The final grade in the

course, once assigned, will not be changed except in the event of a recording error.

You should view my grading policy as a clear indication that I strive to give all students in the class the exact same opportunities.

In keeping with Fisher College policy, I strive to have the average GPA for the course in the [2.9-3.3] range, and I use the standard Fisher grading scale:

## 4 Other Important Topics

#### **Communication with Instructor**

The quickest way to contact me is by email. I will usually respond within one business day. If you want to discuss anything related to the class, send me an e-mail to schedule an appointment. In the e-mail, provide details regarding the topic you want to discuss so that I can prepare myself to be of most help to you.

I do not answer content related questions over e-mail since this is a very inefficient way to deal with questions you might have. As such, if you send me an e-mail asking a content related question I will simply ask you to for your schedule so that we can set up an appointment.

## **Updated Class Information**

Class-related information will be posted on Canvas (and supersedes this Syllabus). Moreover, I will post announcements to the course webpage so that you always know what to expect over the subsequent classes.

#### 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.

#### Use of Artificial Intelligence (AI)

There has been a significant increase in the popularity and availability of a variety of generative 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 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.

#### Academic Integrity

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 (go.osu.edu/coam)
- Ten Suggestions for Preserving Academic Integrity (go.osu.edu/ten-suggestions)
- Eight Cardinal Rules of Academic Integrity (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 (go.osu.edu/ccsondemand) are available. You can reach an on-call counselor when CCS is closed at 614- 292-5766. 24-hour emergency help is available through the National Suicide Prevention Lifeline website (suicidepreventionlifeline.org) or by calling 1-800-273-8255(TALK). The Ohio State Wellness app (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.

### **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 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 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.

# 5 Tentative Course Schedule

The following schedule (including deadlines) is tentative and subject to changes based on how the class progresses. This document is NOT updated after the beginning of the course, so please use the Canvas website to keep track of the (updated) course schedule.

Date	Module	Lecture	BKM Chapter	Extra Info
Aug-27 (We)	Module 1	Introduction to Investments	Ch 1	
Sept-01 (Mo)	The Investment Environment	No Classes (Labor Day)	-	
Sept-03 (We)		Financial Assets	Ch 2	
Sept-08 (Mo)		Investors & Trading	Ch 3, 4	PS1 & Practice Quiz 1 Available
Sept-10 (We)		Quiz 1	-	
Sept-15 (Mo)	Module 2	Zero-Coupon Bonds	Ch 14, 15	Deadline to Submit PS1
Sept-17 (We)	Debt Securities	Debt with no Default Risk	Ch 14, 15	
Sept-22 (Mo)		Debt with Default Risk	Ch 14, 15	PS2 & Practice Quiz 2 Available
Sept-24 (We)		Quiz 2	-	
Sept-29 (Mo)	Module 3	Equity Prices & Dividends	Ch 18	Deadline to Submit PS2
Oct-01 (We)	Equity Securities	Equity Prices & Earnings	Ch 18	
Oct-06 (Mo)		Equity Risk & Leverage	Ch 19	PS3 & Practice Quiz 3 Available
Oct-08 (We)		Quiz 3	-	
Oct-13 (Mo)		Derivative Securities	Ch 20, 21, 22, 23	Deadline to Submit PS3
Oct-15 (We)	Module 4	Understanding Risk and Reward	Ch 5	
Oct-20 (Mo)	Portfolio Theory	The Efficient Frontier	Ch 6, 7	
Oct-22 (We)		Your Wealth Portfolio	Ch 6, 7	
Oct-27 (Mo)		Applying Portfolio Theory	-	PS4 & Practice Quiz 4 Available
Oct-29 (We)		Quiz 4	-	
Nov-03 (Mo)	Module 5	The CAPM	Ch 9	Deadline to Submit PS4
Nov-05 (We)	Factor Models	Anomalies	Ch 13	
Nov-10 (Mo)		The APT	Ch 8, 10	
Nov-12 (We)		The ICAPM	Ch 8, 10	PS5 & Practice Quiz 5 Available
Nov-17 (Mo)		Quiz 5	-	
Nov-19 (We)	Module 6	Efficient Market Hypothesis (EMH)	Ch 11	Deadline to Submit PS5
Nov-24 (Mo)	Market Efficiency	TBD	-	Practice Final Exam Available
Nov-26 (We)		No Classes (Thanksgiving)	-	
Dec-01 (Mo)		EMH Tests	Ch 11, 13	
Dec-03 (We)		Behavioral Finance	Ch 12	PS6 & Practice Quiz 6 Available
Dec-08 (Mo)		Quiz 6	-	
Dec-10 (We)		FINAL EXAM REVIEW		Deadline to Submit PS6
TBD	FINAL EXAM (Time and Location TBD)			