



# BUSFIN 8200: Asset Pricing Foundations

Fall 2025

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**Instructor Office:** 846 Fisher Hall

**Instructor Website:** <http://andreigoncalves.com>

**Lectures:** Mo/We 2:00-3:30pm (800 Fisher Hall)

**Instructor Office Hours:** By Appointment (846 Fisher Hall)

## 1 Course Description and Prerequisites

This course is designed to teach PhD students the rigorous foundations necessary for asset pricing research. The tentative course schedule provides details on the content covered (see Section 5).

## 2 Readings & Other Material

The course draws on materials from multiple sources, including textbooks, book chapters, and academic papers. A separate document with a detailed description of all readings for each lecture will be provide in a timely manner.

## 3 Class Format & Grading

**4 Problem Sets** = 60% of grade (15% each)

**Cumulative Final Exam** = 40% of grade

**Total** = 100%

### Class Format

The course has a total of eight 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 sent to you over email together with information on any required reading for each lecture. I create two versions of the slides (labeled “print version” and “slide version”). They have the same content except that the slide version (which I use as lecture slides) shows the progress of each page “by click” to facilitate the content presentation.

A tentative course schedule is available in Section 5. The tentative class schedule is for illustration purpose and subject to changes based on how the course progresses. The instructor will inform students about significant changes to the course schedule in a timely manner.

### **Attendance**

Regular (in-person) class attendance and participation is expected from all students (and essential for the course given its size). If you cannot come to class, please communicate in advance so that I can plan accordingly (depending on everyone’s schedule, we can coordinate a change of the time or date for that particular class).

### **Problem Sets**

We have a total of four problem sets. Each problem set is worth 15 points (so, problem sets are worth 60 points on total). Students can rely on any course material or alternative resources while working on problem sets (except for problem set solutions from previous students). Moreover, students are allowed (and encouraged) to work together on problem sets. However, students cannot copy solutions from each other and each student must submit his/her own problem set solution. The solution must be typed (not handwritten) and delivered in a pdf. Given that the problem sets require you to type equations, I recommend using a LaTeX editor or a document processor like LyX (which has a WYSIWYG interface but generates LaTeX code in the background).

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

### **Final Exam**

There is a cumulative Final Exam (worth 40 points). While working on their final exam, students can rely on the “Summary of Notation” document I create for this course (details will be provided in a timely manner). However, they cannot communicate with each other during the exam.

See the tentative class schedule in Section 5 for the tentative date for the Final Exam.

## **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 ASAP. However, please do NOT contact me to “lobby” for a higher grade. You should view my grading policy as a clear indication that I strive to give all students in the class the exact same opportunities.

# **4 Other Important Topics**

## **Communication with Instructor**

The quickest way to contact me is by email. I will usually respond within one business day. Alternatively, always feel free to stop by my office unannounced or to schedule an appointment if you prefer.

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 schedule an appointment.

## **Updated Class Information**

Class-related information will be communicated to students through email (and supersedes this Syllabus).

## **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](https://go.osu.edu/coam))
- Ten Suggestions for Preserving Academic Integrity ([go.osu.edu/ten-suggestions](https://go.osu.edu/ten-suggestions))
- Eight Cardinal Rules of Academic Integrity ([go.osu.edu/cardinal-rules](https://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](https://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](https://suicidepreventionlifeline.org)) or by calling 1-800-273-8255(TALK). The Ohio State Wellness app ([go.osu.edu/wellnessapp](https://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](mailto:slds@osu.edu); 614-292-3307; or [slds.osu.edu](http://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](mailto: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.

Date	Module	Lecture	Problem Sets
Aug-27 (We)	<u>Module 1</u>	Variation in Equity Prices	PS1 Available
Sept-01 (Mo)	Variation in Asset Prices & Expected Returns	No Class (Labor Day)	
Sept-03 (We)		Equity $\mathbb{E}[R]$ (Time Series)	
Sept-08 (Mo)		Equity $\mathbb{E}[R]$ (Cross Section)	
Sept-10 (We)		Bond Prices and $\mathbb{E}[R]$	
Sept-15 (Mo)	<u>Module 2</u>	The SDF	PS2 Available
Sept-17 (We)	The Stochastic Discount Factor	General SDF Estimation	
Sept-22 (Mo)		Linear & Log-Linear SDF Estimation	
Sept-24 (We)	<u>Module 3</u>	Mean-Variance Portfolio Theory	PS1 Deadline
Sept-29 (Mo)	The CAPM & Factor Models	The Capital Asset Pricing Model (CAPM)	
Oct-01 (We)		Reduced Form Factor Models	
Oct-06 (Mo)		The APT & Latent Factor Models	
Oct-08 (We)	<u>Module 4</u>	Intertemporal Portfolio Theory	PS3 Available
Oct-13 (Mo)	The Intertemporal CAPM	The Intertemporal CAPM (ICAPM)	
Oct-15 (We)	<u>Module 5</u>	The Consumption CAPM (CCAPM)	PS2 Deadline
Oct-20 (Mo)	The Consumption CAPM	CCAPM with Epstein-Zin Utility	
Oct-22 (We)		CCAPM with Disaster Risks	
Oct-27 (Mo)		CCAPM with Habit Formation	
Oct-29 (We)	<u>Module 6</u>	Bond Term Structure Models	
Nov-03 (Mo)	Asset Pricing Term Structure Models	Equity Term Structure Models	
Nov-05 (We)	<u>Module 7</u>	Preference & Belief Heterogeneity	PS4 Available
Nov-10 (Mo)	Asset Pricing with Heterogeneous Investors	Market Participation & Uninsurable Risks	
Nov-12 (We)		Intermediary-Based Asset Pricing	
Nov-17 (Mo)		No Classes (Veterans Day)	PS3 Deadline
Nov-19 (We)		Asset Pricing Demand Systems	
Nov-24 (Mo)		No Class	
Nov-26 (We)		No Classes (Thanksgiving)	
Dec-01 (Mo)	<u>Module 8</u>	Models of Belief Formation	
Dec-03 (We)	Asset Pricing with Subjective Beliefs	Beliefs Extracted from Option Prices	
Dec-08 (Mo)		Beliefs Extracted from Surveys & Report (I)	
Dec-10 (We)		Beliefs Extracted from Surveys & Report (II)	PS4 Deadline
TBD	FINAL EXAM (Room and Time TBD)		