

FIN/ES 624 – PRIVATE EQUITY FINANCE

SYLLABUS, WINTER 2023

Instructor:	Emmanuel Yimfor, Ph.D.	Email:	eyimfor@umich.edu
Grader:	Haoyan Shi	Email:	haoyans@umich.edu
Time:	Tuesday/Thursday 8:00 AM – 10:20 AM	Place:	B0570 BUS and over Zoom
Office Hours:	Monday 3:00 PM – 5:00 PM		

Booking Office Hours: Office hours are by appointment over Zoom due to COVID. Book an appointment slot using [Google Calendar](#). You are welcome to book multiple slots if you would like to meet for longer. If you cannot make this time, please email me to arrange a separate time.

Contact Information: To ensure a timely email response, please place “FIN/ES 624” in the subject heading. If you have feedback, concerns, or requests related to the syllabus or course organization, please email Hannah.

Audience: This course is a good fit for students pursuing a career in venture capital, private equity, or investment management. Students who also wish to apply finance concepts and techniques to analyze private equity markets would also benefit from taking this course. I assume that enrolled students have a sound understanding of fundamental financial concepts.

Course Description: We will study private equity from the perspective of private equity firms (GPs) who invest in and manage portfolio companies. We will cover various investment types, including venture capital, growth equity, distress investing, and leveraged buyouts. We will discuss techniques that private equity firms use to finance transactions, including valuation, due diligence, and deal structuring. We will also study how GPs exit their investments through IPO, M&A, reverse mergers, and SPACs. We will use cases to illustrate the concepts and techniques we learn in class. We will also study private equity from

the perspective of institutions that invest in private equity funds (limited partners or LPs). We will use PitchBook data to analyze various LP and GP investment trends and payoffs under various return scenarios. The course culminates in a team pitch competition, providing students an experiential opportunity to apply course concepts and connect with industry professionals. Students are encouraged throughout the course, particularly for the final pitch project, to incorporate business and investment trends, such as sustainable investing or long-term impacts of COVID on what we buy or how we pay for things.

Course Materials:

1. **Lecture Slides:** All lecture slides and supplementary materials will be posted to Canvas. Students are responsible for checking Canvas regularly for announcements, assignments, and supplementary material. I consider posting information on the Canvas website to be sufficient notice to you for you to be held responsible for it.

All materials generated for the course including slides, handouts, review materials and assignments, or any other materials prepared by you or the professor for this course are intended for use by current students in this class only, unless you have the permission of your instructor. You are not permitted to use materials related to the class that were generated by the professor or students in previous versions of this course. A violation of this policy may be a violation of the Ross Community Values Code and may result in disciplinary action.

2. **Textbook:** There are four optional textbooks for this course:
 - Private Equity Second Edition: History, Governance, and Operations by Cendrowski, H., Martin, J., Petro, L., and Wadecki, A.
 - Private Equity: A Casebook, by Paul Gompers, Victoria Ivashina, and Richard Ruback.
 - Investment Banks, Hedge Funds, and Private Equity, 2nd Edition, by David Stowell.
 - Investment Banking: Valuation, Leveraged Buyouts, and Mergers & Acquisitions, by Rosenbaum Joshua and Joshua Pearl.

I made these books optional because we will use small portions of each textbook throughout the course. You can purchase these books online or in the university bookstore.

3. **Attendance Policy:** Attendance impacts your participation grade. Attendance during all class sessions is 50% of your participation grade.

4. **Class Participation:** I expect you to read the suggested reading and case materials before each class.

Your class participation grade is based on your attendance and the quality of your contribution to class discussions. To evaluate quality, I will consider whether your comment was relevant, thoughtful, reasonable, civil, and respectful. Responding to the open questions I will pose in class also qualifies as quality participation. Students who frequently participate and show logical and thorough thought can expect to get the full participation grade.

I will regularly cold-call on individual students to discuss specifics of a case or assigned reading. Cold-calling will ensure that each student is prepared for every case and class discussion. I will advertise opportunities to attend external private equity practitioner lectures. Attending those lectures qualifies for extra credit towards your participation grade. If you attend one of these lectures out of class, please let Hannah know.

5. **Format:** This course will be in person. There will be a non-interactive remote option, meaning that students attending remotely cannot ask questions or participate in class discussions. Students need a valid reason to use the non-interactive remote option instead of attending in person. I will modify the participation grade of students attending remotely. For those attending class in person:

- Observe all safety precautions and protocols, including wearing of face coverings.
- Sit only at locations indicated by the blue dots and corresponding seat. Please do not move your seating away from the blue-dot location as this would decrease social distancing and safety.
- Use your laptop to connect to the Zoom for the class. Keep your camera on for the duration of the class. Please contact your professor if you have any questions or concerns.

For those attending class remotely, you are expected to:

- Attend the class in its entirety via the dedicated Zoom platform provided for the course.
- Attend the class with your camera on and fully focus on the class just as if you were physically present in class. Keeping your camera on is required. Please contact your professor if you have any questions or concerns.
- Make eye contact with the camera - you are essentially looking into the eyes of each and every classmate, and the professor!
- Be present in appropriate attire that you would have worn to class.
- “Arrive” early to get everything prepared so you do not feel rushed and are able to be ready when class begins.

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- Please rename yourself on Zoom to include your first and last names, along with preferred pronouns.
 - Remember to mute your audio when not speaking in order to minimize any unnecessary external noise. This will become second nature to you as you become familiar with muting and unmuting your audio.
 - Perhaps most importantly, remember that you are not invisible, and your professor and classmates are depending on your visual cues, such as smiling and nodding, for encouragement. Imagine how dull a conversation would be with someone who was expressionless and motionless.

I will do at least one break-out session during each class meeting to encourage conversations amongst your classmates. If there isn't enough participation, I will cold-call people to answer questions during class. I will take attendance every class session, as attendance with your video on is half of your participation grade.

6. **Cases:** Students are expected to have read cases before class. In the course summary table on the last page of the syllabus, cases are hyperlinked for you to access.
7. **Software:** I will use python to show various historical trends in private equity investing, private equity fund payoffs, and various LOI contract terms. I will also use excel to demonstrate LBO valuation techniques in class. Prior knowledge of python is **not** a pre-requisite for this course and data analysis in python is **not** part of your grade. I recommend you install python using Anaconda so that you can follow along as I manipulate data related to our class discussion, typically during the last 20 minutes of every class. To install Anaconda go to <https://docs.anaconda.com/anaconda/install/> and choose your operating system. You can start using Jupyter Notebook by typing `jupyter notebook` in a terminal window. This will open a tab in your web browser. In the web browser, start a new notebook by clicking 'New – Python 3.' Click 'File - Rename' to save the file with a new name.

Note: Anaconda will automatically save your files in the default directory where anaconda is installed on your C drive. To save your files to a specific directory, type the following command when starting a new notebook: `jupyter notebook --notebook-dir "C:\Users\Emmanuel"`, replacing "C:\Users\Emmanuel" in that command with the directory in which you want to save your files.

8. **Laptop/Electronic Device Use and Zoom Connectivity in Class:** Laptop and electronic device use will be necessary for those attending courses remotely. Naturally, for those attending courses remotely you will need an electronic device (e.g. desktop, laptop, or tablet) with a video camera

(built-in or external), an audio device, and a microphone to engage fully in the course. A stable and sufficient bandwidth connection will also be necessary.

Grading: Grades will be distributed according to the following weights:

Public to private pitches	40%
LBO Target Lookup	10%
Case I	10%
Case II	10%
Case III	10%
Class Participation	20%

Each student's letter grade at the end of the course is calculated based on the MBA elective course grading guidelines, with the following distribution: $\leq 35\%$ Excellent (EX); $\leq 75\%$ Excellent (EX) + Good (GD) Grades combined. The cases and the public-to-private pitches are group projects. Students will be asked to complete a survey at the conclusion of the course to evaluate the other members of their team. These ratings will be used to adjust individual grades on group assignments to ensure students are contributing fairly to their teams.

Final Project: David Brophy and Alan Gelband Private Equity Competition

Each student team will select a public company to make an LBO "public-to-private" pitch. Your equity contribution to the deal must be between \$25 and \$100 million, and the target company should have revenues in the \$5 - \$150 million range with EBITDA of at most \$20 million. Strong pitches will incorporate real-world business and investing trends, such as impacts from COVID and remote work, emerging technology, social and environmental sustainability, and more. The written portion of the public-to-private pitch should be no more than 15 pages, excluding appendices, and include the following sections:

- **Target company profile:** Background on the target company and the rationale for your selection, including the company's business challenges and deficiencies.
- **Financial engineering:** Valuation of the target, capital structure, lending partners, and funding.
- **Operational engineering:** Operational changes you plan to make and a discussion of why you think these changes will add value.
- **Exit Strategy:** When and how you plan to exit the investment and the regulatory and market risks that might affect your exit strategy.

By January 18, teams should submit a one-page proposal of two potential candidates for the private-to-public LBO pitch with a rationale and ranking of your choices. I will either validate your favorite or request that you change your selection to make the final project a meaningful exercise. Please refer to the course summary table on pages 8 to 9 for a detailed timeline of the pitch presentation milestones. Final written pitches will be due February 15 at 11:59 pm, and I will grade these before the final presentations on February 17, so that we can announce the winners of the competition at the end of the presentations.

A panel of private equity professionals will judge the final presentations to determine the winners. Teams will vie for the David Brophy and Alan Gelband Private Equity Award. Teams will be randomly assigned to one of two pitch rooms, and the winner from each room will win \$5,000. The judges' grades on the presentations will count as 50 percent of the grade. The judges will use the rubric on page 10 of the syllabus. My grade on your written pitches will be the other 50 percent. The judges for the pitch competition may include (subject to changes):

1. **Nick Adamy**: Managing Director and Partner, Adamy Valuation
2. **Eli Slack**: Director of Corporate Development, Masco Corporation
3. **Kurt Haras**: Managing Director, Cowen and Company
4. **Sean Roberts**: Founder and Managing Partner, HighGrove Companies
5. **Clayton Miller**: Founder and Managing Partner, Stone Arch Capital
6. **Chirag Shah**: Operating Partner, The Riverside Company
7. **Naimish Patel**: Founder and Chief Executive Officer, Vidya Capital LLC
8. **Bryan Berent**: Managing Partner, Blue River
9. **Brian Rassel**: Principal, Huron Capital

Team Assignments: I will divide the class into ten groups. To ensure that students with similar backgrounds do not end up in the same group, I will create groups based on a survey you will complete. Each student will prepare the case discussion and discuss the case with her team, and the team will submit one copy for all the group members. Each team member will be required to submit a peer review form to us so that no team member free-rides on the work of others without consequences.

Case Analysis: The case analysis should not exceed 2-3 double spaced typed pages plus any exhibits you choose to submit. Each group will be required to provide a written analysis of the case, but you are not required to prepare a class presentation. You should, however, be prepared to discuss all aspects of your analysis in class. Group members will decide how to divide the work on each case or group assignment.

Guest Speaker: We will have three guest speakers. Chirag Shah, January 13, Paul Vragel, January 25, and Clayton Miller, February 1st. The guest speaker will give you a practitioner's synopsis of buyout deal structuring and operational improvements, which will be valuable as you work on your semester-long project.

TENTATIVE COURSE OUTLINE

Date	Topic	Required Reading	Case/ Other Reading	Deliverable
January 10	Discuss syllabus The Private Equity Process	Canvas Module: Lecture 1	Note on LBO Capital Structure Technical Note on LBO Valuation (A&B) [1, 2] Cendrowski/Harry: Ch 1:3	Respond to survey used to create teams
January 12	Guest Speaker: Chirag Shah Deal Flow	Canvas Module: Lecture 2	LBO Target Lookup Case I: Iris Running Crane: December 2009 [3, 4]	Submit Case I
January 17	Deal Screening and Execution	Canvas Module: Lecture 3	Note on Valuation in Private Equity Settings [5]	Name your LBO company name and stock symbol
January 19	Private Equity Fundraising	Canvas Module: Lecture 4	Case II: Yale University Investments Office Cendrowski/Harry: Ch 9	Submit Case II
January 24	Guest Speaker: Paul Vragel Introduction to LBO Modeling	Canvas Module: Lecture 5	Valuing Late-Stage Companies and Leveraged Buyouts Technical Note on LBO Valuation and Modeling	
January 26	LBO Model Example	Canvas Module: Lecture 8	Case III: The Toys R Us LBO	Submit Case III
January 31	Guest Speaker: Clayton Miller		[6]	
February 2	Private Equity Governance	Canvas Module: Lecture 9	Cendrowski/Harry: Ch 9 [7, 8]	Submit Target Company Rationale and Financing Strategy

Date	Topic	Required Reading	Case/ Other Reading	Deliverable
February 7	Private Equity Term Sheets	Canvas Module: Lecture 10		
February 9	Exits	Canvas Module: Lecture 11	<p>Note on the Initial Public Offering Process</p> <p>Company Sale Process</p> <p>Cendrowski/Harry: Ch 4-7</p>	<p>Submit Operating Strategy and work on exit strategy</p>
February 14	Exits Continued	Canvas Module: Lecture 12	<p>SPAC Space</p> <p>Cendrowski/Harry: Ch 4-7 [9, 10]</p>	<p>Submit your written public- to-private pitch and appendices for judges' review by 11:59 pm</p>
February 16	Public to private pitches			

FIN/ES 624 – PRIVATE EQUITY PITCH GRADING RUBRIC
WINTER 2022

Grading Criteria					
		Below Average (0-59)	Average (60-79)	Above Average (80-100)	Score
1	Overall Presentation	Disorganized or hard to understand	Easy to understand but transition and flow could be improved	Easy to understand and smooth transition between sections	
2	Target company Profile	Does not appear to have done in depth research on target	Researched target, but appears to poorly understand the industry	Researched target and knows the key challenges facing the industry	
3	Financing Strategy	Financing strategy makes little sense	Financing strategy is unrealistic but well developed	Financing strategy is realistic and well developed	
4	Operating Strategy	Operating strategy is vague	Operating strategy is somewhat concrete	Operating strategy is concrete and actionable	
5	Exit Strategy	Proposed an exit strategy and multiple but did not discuss why exit strategy is reasonable given target's size and industry	Some discussion of why exit strategy is reasonable given target's size and industry but no solid rationale	A clear consideration of the tradeoff's behind various exit strategies and a clear rationale for the predicted exit strategy and multiple	

Recordings: I will record all sessions and make these recordings available to you through Canvas. Students may not record or distribute any class activity without written permission from me, except as necessary as part of approved accommodations for students with disabilities. This applies to both live recording of an actual class, as well as the duplication of any recordings that I share with you via Canvas. Any recordings posted on Canvas may only be used for the student's own private use.

Academic Integrity and Community Values: Personal integrity and professionalism are fundamental values of the Ross School community. You have a duty to be familiar with and understand the Ross School's Statement of Community Values, the Ross School Academic Honor Code, and the Ross School Code of Student Conduct including all campus public health policies. **In light of COVID our community has enhanced the Code of Student Conduct to include our commitment to each other and adherence to campus and School public health policies.** Each of these, including a Statement of Student Rights and Responsibilities, may be found in the Ross School Impact on [Ross Community Values](#). In addition every student at the University of Michigan accepts the rights and responsibilities of membership in the University's academic and social community. These rights and responsibilities are clearly laid out in [The Statement](#) as well as the [Addendum to the Statement](#). By enrolling in this course you confirm that you have read and understood these statements and policies, and further that you agree to abide by them. The Ross Community Values site contains valuable information and links on writing and how to check to make sure you have not plagiarized the work of others. Claimed ignorance of these codes and policies will be viewed as invalid should a violation take place. In all cases if you have questions please address them with the professor as far **in advance** as possible.

Any violation of the Ross School Academic Honor Code such as plagiarism, otherwise passing off anyone else's work as your own, unauthorized collaboration, use of materials generated for use during past offerings of this course, or any form of cheating will be referred to the Community Values Committee. Possible penalties include course failure with a permanent notation of an honor policy violation on your transcript and even expulsion. As a community we are all still adapting and learning how this applies to hybrid and remote learning environments, but the same principles of academic integrity apply.

Health and Safety- COVID-19: For the safety of all students, faculty, and staff on campus, it is important for each of us to be mindful of safety measures that have been put in place for our protection. By returning to campus, you have acknowledged your responsibility for protecting the collective health of our community. Your participation in courses on an in-person basis is conditional upon your adherence to all safety measures

mandated by the State of Michigan and the University, including maintaining physical distancing of six feet from others, and properly wearing a face covering in class. Other applicable safety measures may be described in the [University's Maize and BluePrint](#) site and in the [University's Face Covering Policy for COVID-19](#). Your ability to participate in this course in-person as well as your grade may be impacted by failure to comply with campus safety measures. Individuals seeking to request an accommodation related to the face covering requirement under the Americans with Disabilities Act should contact the [Office for Institutional Equity](#). If you are unable or unwilling to adhere to these safety measures while in a face-to-face class setting, you will be required to participate on a remote basis (if available) or to disenroll from the class. I also encourage you to review the Statement of [Students Rights and Responsibilities](#), which includes a [COVID-related Statement Addendum](#).

Wellness and Mental Health: Students may experience stressors that can impact both their academic experience and their personal well-being. These may include academic pressure and challenges associated with relationships, mental health, alcohol or other drugs, identities, finances, etc.

If you are experiencing concerns, seeking help is a courageous thing to do for yourself and those who care about you. If the source of your stressors is academic, please contact me so that we can find solutions together. For personal concerns, U-M and Ross offers the following resources:

- [Counseling and Psychological Services \(CAPS\)](#) – confidential; 734-764-8312; for after-hours urgent support, call and press 0; counseling, workshops, groups and more, counselors are embedded in some schools. The Ross School of Business has a CAPS Embedded Counselor available to its students. Embedded Counselors are located in school/college buildings (COVID conditions and policies permitting) and services are tailored to the school's climate. For more information, please visit the [CAPS Embedded Model](#) site. To schedule, please email [Julie Kaplan](#), LMSW. Also, the services offered by CAPS have been adapted to the unique needs of our community during COVID. You can schedule a tele-health appointment remotely from their home page. You may also find helpful their resources directly addressing mental health and wellness during COVID [here](#).
- [Dean of Students Office](#) - 734-764-7420; provides support services to students and manages critical incidents impacting students and the campus community.
- [Ginsberg Center for Community Service Learning](#) - 734-763-3548; opportunities to engage as learners and leaders to create a better community and world
- [Multi-ethnic Student Affairs \(MESA\)](#) - 734-763-9044; diversity and social justice through the lens of

race and ethnicity

- [Office of Student Conflict Resolution](#) - 734-936-6308; offers multiple pathways for resolving conflict
- [Office of the Ombuds](#) - 734-763-3545; students can raise questions and concerns about the functioning of the university
- [Services for Students with Disabilities \(SSD\)](#) - 734-763-3000; accommodations and access to students with disabilities
- [Sexual Assault Prevention and Awareness Center \(SAPAC\)](#) - confidential; 734-764-7771 or 24-hour crisis line 734-936-3333; addresses sexual assault, intimate partner violence, sexual harassment, and stalking
- [Spectrum Center](#) - 734-763-4186; support services for LGBTQ+ students
- [Trotter Multicultural Center](#) - 734-763-3670; intercultural engagement and inclusive leadership education initiatives
- [University Health Service \(UHS\)](#) - 734-764-8320; clinical services include nurse advice by phone, day or night
- [Well-being for U-M Students website](#) - searchable list of many more campus resources
- [Wolverine Wellness](#) - confidential; 734-763-1320; provides Wellness Coaching and much more

Accommodations: The University of Michigan is committed to providing equal opportunity for participation in all programs, services and activities. Students wishing to receive testing accommodations must register with the University of Michigan [Services for Students with Disabilities \(SSD\)](#) office as soon as possible. Students must then submit their Verified Individualized Services and Accommodations (VISA) form online as early as possible, **but no later than two weeks prior to the first test or quiz for which accommodations are requested.** Accommodations arrangements are not guaranteed for students who submit their VISA form with less than two weeks' notice.

Requests must be sent using the [Ross Accommodations Request Form](#) and must include a scanned or photographed copy of the VISA form. This form only needs to be submitted once during your academic career with Ross unless your accommodations eligibility expires.

In rare cases, the need for an accommodation arises after the two week deadline has passed (example: a broken wrist). In these cases, students should still contact SSD and the Ross Accommodations Coordinator.

However, due to logistical constraints, we cannot guarantee that an accommodation can be made after the two week deadline has passed. Questions can be directed to the Ross Accommodations Coordinator at RossAccommodationsCoordinator@umich.edu.

References

- [1] Andrew Metrick and Ayako Yasuda. The economics of private equity funds. *The Review of Financial Studies*, 23(6):2303–2341, 2010. [8](#)
- [2] Paul Gompers, Steven N Kaplan, and Vladimir Mukharlyamov. What do private equity firms say they do? *Journal of Financial Economics*, 121(3):449–476, 2016. [8](#)
- [3] Paul Gompers and Josh Lerner. The use of covenants: An empirical analysis of venture partnership agreements. *The Journal of Law and Economics*, 39(2):463–498, 1996. [8](#)
- [4] Karin Thorburn, Carsten Bienz, and Uwe Walz. Ownership, wealth, and risk taking: Evidence on private equity fund managers. 2019. [8](#)
- [5] Francis A Longstaff. How much can marketability affect security values? *The Journal of Finance*, 50(5):1767–1774, 1995. [8](#)
- [6] Tim Jenkinson, Hyeik Kim, and Michael S Weisbach. Buyouts: A primer. Technical report, National Bureau of Economic Research, 2021. [8](#)
- [7] Francesca Cornelli and Oğuzhan Karakaş. Corporate governance of lbos: The role of boards. *Available at SSRN 1875649*, 2012. [8](#)
- [8] Taylor D Nadauld, Berk A Sensoy, Keith Vorkink, and Michael S Weisbach. The liquidity cost of private equity investments: Evidence from secondary market transactions. *Journal of Financial Economics*, 132(3):158–181, 2019. [8](#)
- [9] Sridhar Arcot, Zsuzsanna Fluck, José-Miguel Gaspar, and Ulrich Hege. Fund managers under pressure: Rationale and determinants of secondary buyouts. *Journal of Financial Economics*, 115(1):102–135, 2015. [9](#)
- [10] Francois Degeorge, Jens Martin, and Ludovic Phalippou. On secondary buyouts. *Journal of financial economics*, 120(1):124–145, 2016. [9](#)