

SUMA PS5445: Impact Finance for the Sustainability Practitioner Thursdays, 6:10 pm - 8:00 pm EST; 1/18 -4/25 3 Credits

Instructor:	Bhakti Mirchandani
Office Hours:	By appointment Thursday 8:00-10pm
Email:	<u>bmirchandani@gmail.com</u>
Response Policy:	Email is my preferred mode of communication. Students can expect a response within 24
	hours, M-F. If you ask a question that the whole class may benefit from, I may respond
	through a message to the whole class, rather than bilaterally to you only.

Course Overview

This survey course examines a range of sustainable and impact investing fixed income and equity products before transitioning to the asset owner perspective on sustainable and impact investing. Each class session includes elements of financial analysis, financial structure, social or environmental impact, and policy and regulatory context. Brief guest lectures, podcasts, and three experiential exercises bring these topics to life.

At the end of the course, each student will be able to (i) construct a diversified portfolio of impact investments based on the range of products tackled in class, (ii) integrate ESG into debt and equity valuation, (iii) develop an impact investing product that an asset manager or investment bank could launch, (iv) develop an impact investing strategy for an asset owner, and (v) lead either side of the investor-corporate dialogue on sustainability. The lectures are designed to prepare students for both the impact investing product development exercise and the impact investing asset owner strategy exercise, and these two exercises are designed to prepare students for impact investing leadership over the course of their careers.

As an early innovator in social finance, dating back 24 years, the instructor provides students with a practical toolkit, honed by making mainstream financial institutions and products more beneficial to a broader range of stakeholders and making specialist impact investment firms more relevant to and integrated with mainstream markets.

The course has no prerequisites; however, an understanding of finance and completing the SUMA Foundations Module will be useful background. Homework assignment 0 is a mandatory review of introductory finance.

This course satisfies the M.S. in Sustainability Management program's Area 5: General and Financial Management requirement.

Learning Objectives

L1: Construct a diversified portfolio of impact investments based on the range of products tackled in class,



L2: Integrate ESG into debt and equity valuation through their understanding of common income statement ratios and impact finance frameworks

L3: Develop an impact investing product that an asset manager or investment bank could launch

- L4: Design an impact investing strategy for an asset owner
- L5: Lead either side of the investor-corporate dialogue on sustainability

Readings

Textbook:

Bodie, Kane, Marcus. Investments. 10th Edition. McGraw-Hill. 2013.

Focus on bold text and call-out boxes (skim):

- Chapters 2-3. Sections 2.1-2.3 and Section 3.1. Pages 28-45 and 59-63
- Chapter 14. Pages 445-478.
- Chapter 16. Section 16.1. Pages 516-524.
- Chapter 18. Sections 18.1 and 18.5. Pages 591-593 and 617-622
- Chapter 19. Pages 635-677.

Optional Textbook:

Robert Higgins. <u>Analysis for Financial Management</u>. The fifth edition or anything more recent than that should be fine.

• Chapters $\underline{2}$ and $\underline{3}$.

Articles:

Required

- The Core Characteristics of Impact Investing. Global Impact Investing Network (GIIN). 2 pages.
- <u>"Investing for Social Gain: Reflections on Two Decades of Program-Related Investments."</u> Ford Foundation. December 1991. Please skim 10-page except from this article, which can be found here: <u>history-of-pris-ford-foundation 20170212.pdf</u>.
- Fixed Income Investor Guide. Principles for Responsible Investment. 2014. Pages 13-32.
- "Materiality Across Asset Classes: A Look At Fixed Income ESG Integration," Forbes.com. Pages 1-7.

🖆 Columbia University

School of Professional Studies

Master of Science in Sustainable Management

- "<u>A Mother's Day Plea: How Investors Can End The Age Of Mass Shootings Part One</u>," Forbes.com. Pages 1-6
- "Sustainable Debt Market Summary 1H 2023," Climate Bonds Initiative. August 2023. Pages 1-9.
- "<u>Green Bond Principles: Voluntary Process Guidelines for Issuing Green Bonds</u>," ICMA. June 2021. Pages 2-9.
- Bhakti Mirchandani. "The Surprising Leader In The Impact Investing Boom: Debt," Forbes.com 6 pages.
- <u>Brad Swanson. "The Role of International Capital Markets in Microfinance."</u> Developing World Markets. 2007. Pages 1-17.
- Jeffrey Liebman and Alina Sellman. Social Impact Bonds: A Guide for State and Local Governments. Harvard Kennedy School Social Impact Bond Technical Assistance Lab. June 2013. Pages 6-30.
- Bhakti Mirchandani. "Voices from the Field: Social Impact Bonds and the Search for Ways to Finance Public Sector R&D," Nonprofit Quarterly. Pages 1-2.
- Donald Cohen and Jennifer Zelnick. "What We Learned from the Failure of the Rikers Island Social Impact Bond," Nonprofit Quarterly. August 7, 2015. 2 pages.
- Nathaniel Popper. "Success Metrics Questioned in School Program Funded by Goldman," NYTimes.com. Nov. 3, 2015. Pages 1-4.
- <u>A Practical Guide to ESG Integration for Equity Investing. Principles for Responsible Investment.</u> 2016. Pages 12-29.
- Bhakti Mirchandani. "<u>The Conventional Wisdom on ESG is Wrong. Now What</u>?" Forbes.com. July 5, 2023. Pages 2-7.
- <u>"Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures."</u> Task Force on Climate-Related Financial Disclosure. June 2017. Pages 4-5, 7-9, 11-12, 14-18, and 72-73.
- <u>"Money managers and charities are offering joint investment products,"</u> The Economist. September 15, 2018. Pages 1- 2.
- <u>"What is an Index?"</u> FTSE Russell. Pages 1-2.
- <u>"Activists and Socially Responsible Investing,"</u> Harvard Law School Forum on Corporate Governance and Financial Regulation. January 31, 2018. Pages 1-3.
- <u>"The Enterprise Funds in Europe and Eurasia: Successes and Lessons Learned."</u> USAID. September 12, 2013. 34 pages.
- <u>Tunisian American Enterprise Fund (TAEF) Evaluation Final Evaluation Report 2018</u>. Pages 23-26, and 34-45 (skim).
- <u>A Primer on the Structure of Private Equity Firms.</u> Pages 1-2.
- Blair Smith, Bhakti Mirchandani, and Troy Duffie. "<u>The Path to Inclusive Capitalism</u>," Milken Institute. December 2022.
- "<u>Memo Evaluating the Potential Implications for Charitable Foundations and Nonprofits of the Supreme</u> <u>Court's Upcoming Decisions on Consideration of Race in College Admissions</u>." Munger, Tolles, & Olson. Pages 1-5
- <u>"Tax Considerations In Structuring US-Based Private Equity Funds" By Patrick Fenn and David Goldstein</u>. Akin, Gump, Strauss, Hauer & Feld, L.L.P. As appeared in the Private Equity and Venture Capital 2002 edition of the International Financial Law Review. Pages 1-10.

Master of Science in Sustainable Management

- "ICCR's 2023 Proxy Resolutions and Voting Guide." ICCR. Only pages related to your specific engagement.
- Bhakti Mirchandani. "<u>How One Allocator Embraced Racial Equity in Asset Management and Beyond</u>," Institutional Investor. June 22, 2021. 5 pages.
- Bhakti Mirchandani. "<u>Casting a Shadow Over Impact Investing</u>." Journal of Political Risk. July 28, 2018. Pages 1-2.
- Team Clinton: "<u>Interpretive Bulletin Relating to Written Statements of Investment Proxy, Including Proxy</u> <u>Voting Policy or Guidelines</u>," Department of Labor. 1994. Pages 1-4.
- Team Bush: "Interpretive Bulletin Relating to Exercise of Shareholder Rights," Department of Labor. October 17, 2018. Pages 1-4.
- Team Obama: "Interpretative Bulletin Relating to the Exercise of Shareholder Rights and Written Statements of Investment Proxy, Including Proxy Voting or Guidelines." December 28, 2016. Pages 1-19.
- Team Trump: "Field Assistance Bulletin No. 2018-01: Interpretive Bulletins 2016-01 and 2015-01," Department of Labor. April 23, 2018 Pages 1-4.
- Team Trump: Teal N. Trujillo and Brian J. Tiemann. "<u>Financial Rule for Selecting Retirement Plan</u> <u>Investments Leaves ESG Behind</u>," McDermott, Will & Emery. December 8, 2020. Pages 1-3.
- Team Trump: "<u>Final ERISA Regulations Describe Fiduciary Duties Related to Plan Proxy Voting</u>," Mayer Brown. January 6, 2021. Pages 1-4.
- Team Biden: "Final Rule on Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights," Department of Labor. November 22, 2022. Pages 1-4.
- Team Biden: "Biden Issues First Veto of His Presidency," Axios. March 20, 2023. Pages 1-6.
- <u>Celia Roady and Matthew Elkin. "IRS Provides Guidance on Mission-Related Investments by Private</u> <u>Foundations,"</u> Morgan Lewis. September 29, 2015. Pages 1-2.
- <u>"Mission-Related Investing: Legal and Policy Issues to Consider Before Investing,"</u> MacArthur Foundation. March 1, 2013. Pages 3-22. Team A close reading of pages 12-15 and Team B close reading of pages 15-19.
- Darren Walker. "Five years of Mission Investments." Ford Foundation. August 1 2022. Pages 1-4.
- <u>"Investment Policy Statement." F.B. Heron Foundation</u>. December 2017. 13 pages.
- Josh MacIntosh. "How to Keep Troubled Charities from Failing," The Chronicle of Philanthropy. March 31, 2016. Pages 1-2.
- <u>Dana Yankowitz Elliot and Evan C. Hollander. "Navigating a Nonprofit Corporation through Bankruptcy,"</u> Nonprofit Quarterly. April 29, 2014. Pages 1-3.
- <u>Bhakti Mirchandani. "How to Save a Nonprofit: The Care Steps Required in Mergers and Acquisitions,"</u> Nonprofit Quarterly. June 20, 2017. Pages 1-2.
- "<u>A Guide to Classifying the Impact of an Investment</u>," The Impact Management Project. April 2018. Pages 3-13.
- Bhakti Mirchandani. "What You Need To Know About the IFC's Operating Principles for Impact <u>Management,</u>" Forbes.com. April 12, 2019. Pages 1-5.
- <u>Chris Addy, Maya Chorengel, Mariah Collins, and Michael Etzel. "Calculating the Value of Impact</u> <u>Investing,"</u> Harvard Business Review. January-February 2019. Note: HBR has a limited number of free articles per month, so please read it in its entirety when you click on it.

COLUMBIA UNIVERSITY

School of Professional Studies

Master of Science in Sustainable Management

• <u>Bhakti Mirchandani. "Sustainable Investing at Endowments and Foundations: What It Is and What It Takes,"</u> Forbes.com. September 4, 2019. 6 pages.

Optional Reading:

- Robert Higgins. <u>Analysis for Financial Management</u>. The fifth edition or anything more recent than that should be fine. Chapters <u>2</u> and <u>3</u>.
- IRS Notice 2015-62: Investments Made for Charitable Purposes. 4 pages.
- Willard L. Boyd III. "Mergers, Acquisitions, and Affiliations Involving Nonprofits: Not Typical M&A <u>Transactions,</u>" Business Law Today. American Bar Association. June 2014. 8 pages.

Video Resources:

• Video resources on time pricing, bond pricing, equity valuation, and ESG integration that the instructor wrote specifically for the course.

Resources

Columbia University Information Technology

<u>Columbia University Information Technology</u> (CUIT) provides Columbia University students, faculty, and staff with central computing and communications services. Students, faculty, and staff may access University-provided discounted software downloads (<u>https://columbiait.onthehub.com/</u>).

Columbia University Library

Columbia's extensive library system ranks in the top five academic libraries in the nation, with many of its services and resources available online: <u>https://library.columbia.edu/</u>.

SPS Academic Resources

The Office of Student Affairs provides students with academic counseling and support services such as online tutoring and career coaching: <u>http://sps.columbia.edu/student-life-and-alumni-relations/academic-resources</u>.

Course Requirements (Assignments)

L1: Construct a diversified portfolio of impact investments based on the range of products tackled in class,

L2: Integrate ESG into debt and equity valuation

L3: Develop an impact investing product that an asset manager or investment bank could launch

L4: Design an impact investing strategy for an asset owner

L5: Lead either side of the investor-corporate dialogue on sustainability



Asset Management/Investment Banking Product Development Individual Presentation (L1, L3) (10%)

Each student will, as an individual, present an impact investing financial product that does not yet exist to catalyze the development of impact investing. The product should be offered by an investment bank or asset manager and should not be a non-financial business or a donation. Each student will (i) describe the product's financial and social or environmental returns, (ii) describe the product's structure, (iii) identify the target investors and explain why the product would be a good fit for such investors, and (iv) discuss the competitive landscape for the product and explain the product's competitive differentiation. 25% of your grade will be based on your initial presentation (recorded on a <90-second video that you will upload by Tuesday at 6:10pm before class 11, providing your classmates with 48 hours to view each of your videos), 50% based on your final presentation that incorporates your classmates' feedback (recorded on a second <3-minute video that you will upload by Tuesday at 6:10pm before class 12), and 25% based on the quality of feedback that you provide to your classmates.

Students are encouraged to use concepts from readings and classroom discussions to frame the presentation. Students will be divided into four groups to provide feedback on different facets of the proposed product: financial structure, target financial returns, target impact, and target investors.

Two Days Before Each of Classes 10 and 11

Asset Management/Investment Banking Product Development Group Presentation (L1, L3) (10%)

Each student will, as a group, develop a written presentation about an impact investing financial product that does not yet exist to catalyze the development of the industry that was voted on by the class from the final presentations. Each group will (i) describe the product's financial and social or environmental returns, (ii) identify the target investors and explain why the product would be a good fit for such investors, and (iii) discuss the competitive landscape for the product and explain the product's competitive differentiation. Students are encouraged to use concepts from readings and classroom discussions to frame the paper.

The group presentations will be submitted to a panel of industry experts, and the groups will have the opportunity to present to these experts during class session 13. The panel of experts will provide feedback and select one winning group, which will receive 1% extra credit on the final course grade. If there is a tie, this extra credit will be split 50-50%.

Due: Beginning of Class 13



Fixed Income (10%) and Equity (10%) Exams (20% total) (L1, L2)

The fixed income and equity exams will be closed -book. Students are not permitted to use their phones as calculators and are expected to bring a standalone calculator should they wish to use one. Students should submit their scratch paper as soon as their exams are over. Exams will be assessed for knowledge of key terms, understanding of conceptual frameworks, and understanding of how and when to use the equations covered in class. The fixed income exam will be taken asynchronously between classes 5 and 6, and the equity exam will be taken during class 9.

Classes 6 and 9, respectively

Asset Owner Strategic Planning Exercise (20%) (L4)

The asset owner strategic planning exercise will be take-home. Students will work in pairs to suggest improvements to or develop from scratch (depending on the organization's current offering) the sustainable and/or impact investing strategy for either Ford Foundation or New York City Retirement Systems, or an unspecified large universal asset owner. Students should establish or refine programs and detail: their proposed strategy; any suggested changes to the investment policy statement; propose specific investments; and consider fiduciary obligations. They should explain why their proposed strategy meets stakeholder demands while ensuring the long-term financial success of the organization. Providing evidence for suggestions and/or giving examples of other organizations making similar strategic decisions will be part of the strongest final exams. Representatives from the 4 institutions will be in the final class to discuss the programs with you. 80% of your grade for your final exam will be based on the quality of your written work, and 20% will be based on your group presentation to the asset owners on the final day of class. Five pages or less, plus exhibits. Please find the potential questions below.

New York City Retirement Systems

- 1. Please identify 2-3 sectors, subsectors, industries or subindustries that you believe present particularly high levels of financially material ESG risk and recommend 3-5 standardized questions in those sectors/industries to ask during due diligence of asset managers that invest in those areas specifically in private equity. Provide your rationale for identifying those sectors/industries as high ESG risk and recommend a few best practices in response to the standardized questions. Do not include upstream fossil fuels (exploration and production) as one of the industries. If you refer to SASB standards, please cite where you do that.
- 2. Please identify 2-3 approaches to value creation using ESG (which can include climate, diversity or other ESG factors) that portfolio companies can undertake and provide rationale and evidence for how and why these steps create material financial value. You may decide to focus on specific sectors/industries. Do not address upstream fossil fuels, renewable energy or electric vehicles.

Ford Foundation

1. Where there are the best opportunities to advance a social justice lens into climate investing?



2. Where do you see opportunity to advance diversity, equity and inclusion goals alongside ESG goals in the public markets?

Unspecified asset owner

1. As a large universal asset owner, it is difficult to completely remove child labor from your portfolio. For example, child labor was found in the supply chains of General Mills, General Motors, Ford, Amazon, and Walmart, and imagine that it is even in your privates portfolio. Please describe which thematic investments or impact-first investments you would consider as the head of impact investing a large universal asset owner to drive positive impact for children who are most at risk of working under hazardous conditions. You are encouraged to do your own research and be creative ,but if you hit writer's block, UNICEF's <u>Child-Lens Investing Framework</u> is one place to start.

Final: Class 14

Homework Assignments (L1-L5) (12.5%)

Homework assignments will take the form of online exercises via the Canvas platform, and memo assignments. Online assignments will be assessed based on completeness and accuracy. Memos will generally be assessed based on clarity, demonstrated understanding of concepts from class, and viability and practicality of argument or suggestion, naturally with some variation in weighting of each by topic.

Foundations:

Online Exercise: Financial statements and ratios for students to lay the foundation for the class

Class 1:

Personal bio - \sim 400 words. The bio should include a brief summary of your academic and professional background, career aspirations, and a brief statement about why you decided to enroll in this course.

Assignment 1 - Online Exercise: Definitions of financial instruments and of mechanisms of how securities are traded

Class 2:

Assignment 2 - Online Exercise: bond pricing, bond duration, and interest rate sensitivity

Class 3:

Assignment 3 - Online Exercise: ESG integration into bond pricing

Class 4:

Assignment 4 - Describe in 250-400 words how you might build a fixed income subportfolio within an endowment or foundation's broader investment portfolio.

Class 5:

COLUMBIA UNIVERSITY

School of Professional Studies

Master of Science in Sustainable Management

Assignment 5 - Online Exercise: Microfinance CDOs

Please finalization your selection of your asset owner strategy question with your TAs

Class 6:

Assignment 6 - Online Exercise: DCF valuation and financial ratios

Class 7:

Assignment 7 - Private equity fund lifecycle and economics

Class 8:

Assignment 8 - Memo: 250-400-word draft response to asset owner strategy question

Class 10:

Asset management or investment banking product presentations part 1 due at 6:10 two days before class

Class 11:

Asset management or investment banking product presentations part 2 due at 6:10 two days before class

Class 12:

Group asset management/investment banking product presentation due before class. Group presentation in front of industry experts

Class 13:

Asset owner strategy papers due before class. Group presentation of asset owner strategy in front of asset owner representatives

Class 14 + 7:

Peer reviews due 1 week after the final class at 6:10pm

For example, on the first day of class, both the bio and assignment 1 are due at 6 pm. Homework assignments are often due before we have the opportunity to discuss a topic in class. Therefore, homework assignments have been designed to help students prepare for robust class discussions.

Strategic Engagement Exercise (7.5%) (L5)

The strategic engagement exercise will be judged on a scale of 0-100 based on group presentations. Factors influencing grades include effectiveness of arguments; demonstrated understanding of ESG integration, strategic engagement, facets of investment stewardship, drivers of successful strategic engagement, and

Master of Science in Sustainable Management

strategic engagement tactics; and ability to advance arguments beyond what current shareholder efforts have accomplished.

The engagements will take place between (i) Dollar General, Domini Impact Investments, and State Street and (ii) Amazon, AFL-CIO, and Strive Asset Management

Peer Evaluation (10%)

The peer evaluation will be judged on a scale of 0-100 based on the aggregate scores of the 5 evaluating peers. Students will select 5 peers to rate them on a scale of 1 (lowest) - 5 (highest) on each of the below qualities. Students are encouraged to be rational and objective in their ratings, rather than swayed by personal affinity.

- Preparation for class and thoroughness of any classroom comments
- Clarity of classroom explanations and the degree to which they contribute to the aggregate learning of the class
- Level of respect, empathy, compassion, enthusiasm shown in class and in informal discussions to prepare for class
- Willingness to share resources and information

Active Course Participation (10%)

Participation will be graded on a scale of 0-100. Participation includes class attendance, arriving to class on time and staying for the duration of class, and active discussions in class. The students are expected to show critical thinking, respectful interactions with classmates and a positive attitude towards learning, and to freely discuss the topics proposed. Students are encouraged to share the critical questions from their assignments with their peers. Students who consistently advance the classroom discussion and with it collective learning will received the highest participation grades.

Evaluation/Grading

The final grade will be calculated as described below:

FINAL GRADING SCALE

Grade	Percentage	
A+	98–100 %	
Α	93–97.9 %	
А-	90–92.9 %	

Master of Science in Sustainable Management

83-86.9 %	
80 82 0 %	
00-02.7 /0	F
77–79.9 %	E
73–76.9 %	Α
70–72.9 %	A
60–69.9 %	D
59.9% and below	Α
	D
	S
	73–76.9 % 70–72.9 % 60–69.9 %

ASSIGNMENT	% Weight
Fixed Income Exam	10%
Equity Exam	10%
Asset Owner Strategic Planning Exercise	20%
Asset Management/Investment Banking Product Development Individual Presentation	10%
Asset Management/Investment Banking Product Development Group Presentation	10%
Strategic Engagement Exercise	7.5%
Weekly Homework Assignments	12.5%
Peer Evaluation	10%
Active Course Participation	10%

Course Policies

Participation and Attendance

You are expected to complete all assigned readings, attend all class sessions, and engage with others in online discussions. Your participation will require that you answer questions, defend your point of view, and challenge the point of view of others. If you need to miss a class for any reason, please discuss the absence with me in advance.

Late work

There will be no credit granted to any written assignment that is not submitted on the due date noted in the course syllabus without advance notice and permission from the instructor.

Citation & Submission

All written assignments must use MLA, cite sources, and be submitted to the course website (not via email).

School Policies

Copyright Policy

Please note—Due to copyright restrictions, online access to this material is limited to instructors and students currently registered for this course. Please be advised that by clicking the link to the electronic materials in this course, you have read and accept the following:

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials. Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.

Academic Integrity



Columbia University expects its students to act with honesty and propriety at all times and to respect the rights of others. It is fundamental University policy that academic dishonesty in any guise or personal conduct of any sort that disrupts the life of the University or denigrates or endangers members of the University community is unacceptable and will be dealt with severely. It is essential to the academic integrity and vitality of this community that individuals do their own work and properly acknowledge the circumstances, ideas, sources, and assistance upon which that work is based. Academic honesty in class assignments and exams is expected of all students at all times.

SPS holds each member of its community responsible for understanding and abiding by the SPS Academic Integrity and Community Standards posted at <u>http://sps.columbia.edu/student-life-and-alumni-relations/academic-integrity-and-community-standards</u>. You are required to read these standards within the first few days of class. Ignorance of the School's policy concerning academic dishonesty shall not be a defense in any disciplinary proceedings.

Accessibility Statement – I want you to succeed in this course. Contact disability@columbia.edu for learning accommodations.

Names/Pronouns – You deserve to be addressed in a manner that reflects your identity. You are welcome to tell me your pronoun(s)and/or name (if different from University records) at any time, either in person or via email.

Discrimination – We embrace the diversity of gender, gender identity & expression, sex, sexual orientation, race, ethnicity, national origin, age, religion, disability status, family status, socioeconomic background, and other visible and non-visible identities. Columbia University does not tolerate unlawful discrimination, discriminatory harassment, sexual assault, domestic violence, dating violence, stalking, or sexual exploitation and all such conduct is forbidden by Columbia University Policy.

Duty to Report – You deserve a University community free from discrimination, harassment, and gender-based misconduct including sexual harassment, sexual assault, domestic and dating violence, stalking, and sexual exploitation. It is therefore University policy to require Columbia faculty and staff to report to EOAA any instance or allegation of prohibited conduct involving any undergraduate or any graduate student that is disclosed to, observed by, or otherwise known to that employee. This requirement to report is in place to help ensure that students are provided appropriate resources and to allow the University to mitigate harm to our community.

Confidential Resources - There are confidential resources on campus who do not have a Duty to Report, including:

- Sexual Violence Response & Rape Crisis/Anti-Violence Support Center (SVR)
- Ombuds Office
- Medical Services
- University Counseling and Psychological Services
- University Pastoral Counseling
- Columbia Office of Disability Services

University employees working in a confidential capacity will not report information shared with them.

Inclusion - In the M.S. in Sustainability Management program, faculty and staff are committed to the creation and maintenance of "inclusive learning" spaces – classrooms and other places of learning where you will be treated with respect and dignity, and where all individuals are provided equitable opportunity to participate, contribute, and succeed.

In our Sustainability Management K4100 classroom, all students are welcome regardless of race/ethnicity, gender identities, gender expressions, sexual orientation, socio-economic status, age, disabilities, religion, regional background, Veteran status, citizenship status, nationality and other diverse identities that we each bring to class.



Accessibility

Columbia is committed to providing equal access to qualified students with documented disabilities. A student's disability status and reasonable accommodations are individually determined based upon disability documentation and related information gathered through the intake process. For more information regarding this service, please visit the University's Health Services website: https://health.columbia.edu/services/ods/support.

Class Recordings

All or portions of the class may be recorded at the discretion of the Instructor to support your learning. At any point, the Instructor has the right to discontinue the recording if it is deemed to be obstructive to the learning process.

If the recording is posted, it is considered confidential and it is not acceptable to share the recording outside the purview of the faculty member and registered class.

Module Week	Tonic	Readings	Activities / Assignments for this Module
0	Pre-Reading on Financial Statements and Analysis	Optional Financial Statements and Ratios Module in Foundations Robert Higgins. <u>Analysis for</u> <u>Financial Management.</u> Chapters 2 and 3.	Exercise on financial statements and analysis.
	Impact Investing Begins with an I	Required	
	Topics Course overview	Bodie, Kane, Marcus. <u>Investments</u> . Chapter 2	Homework assignment 1
1	Introduction to financial markets and financial instruments Introduction to impact investing Program-related	Sections 2.1-2.3 and Chapter 3 Section 3.1. 28-45 and 59-63. 23 pages. Skim. Core Characteristics of Impact Investing. GIIN. 2 pages. Excerpts from "Investing for Social Gain: Reflections on Two Decades of Program-Related Investments " Ford	Attend the session Participate in classroom discussions
	investments	Program-Related Investments." Ford Foundation. 10-pages.	

Master of Science in Sustainable Management

Introduction to	Required	Homework assignment 2
	Kequiled	Homework assignment 2
Income	Bodie, Kane,	Attend session
Topics	Marcus. <u>Investments</u> . Chapter 14 and Section 16.1 of Chapter 16. 41 pages. Skim.	Participate in classroom discussion
Bond pricing Types of sustainable investing	Fixed Income Investor Guide. 19 pages.	
UN-supported PRI	Time Value of Money Video	
The fixed income markets	Cash is King Video	
ESG integration of fixed income		
Sustainable Fixed Income	Materiality Across Asset Classes: A Look At Fixed Income ESG	Homework assignment 3
	Integration. Pages 1-7.	Attend session
Topics	A Mother's Day Plea: How Investors	Participate in classroom discussion
Public equities bias in ESG investing	Can End The Age Of Mass Shootings Part One. 6 pages	Save the Children Global
ESG integration and bond	ESG Integration Video	Ventures Chief Investment Officer Preeth Gowdar guest
pricing	Optional	lecture
Exclusions and screens	Bodie, Kane, Marcus. Investments.	
Corporate impact investing	Previously assigned—you may wish to	
Contextualizing green bonds	assignment.	
Fixed Income Impact Investing: Impact Loan Agreements and Green Bonds	Required Sustainable Debt Market Summary 1H 2023. 9 Pages.	Homework assignment 4 Attend and participate in discussion
	TopicsBond pricing Types of sustainable investingUN-supported PRIThe fixed income marketsESG integration of fixed incomeSustainable Fixed IncomeTopicsPublic equities bias in ESG investingESG integration and bond pricingExclusions and screensCorporate impact investingFixed Income Impact Investing: Impact Loan Agreements and Green	Sustainable Fixed IncomeBodie, Kane, Marcus. Investments. Chapter 14 and Section 16.1 of Chapter 16.41 pages. Skim.Bond pricing Types of sustainable investingFixed Income Investor Guide. 19 pages.UN-supported PRITime Value of Money VideoThe fixed income marketsCash is King VideoSustainable Fixed incomeMateriality Across Asset Classes: A Look At Fixed Income ESG Integration. Pages 1-7.TopicsA Mother's Day Plea: How Investors Part One. 6 pagesESG integration and bond pricingESG Integration VideoESG integration and bond pricingESG Integration VideoEscl integration and screens bondsBodie, Kane, Marcus. Investments. Chapter 14. Pages 445-486. Previously assigned—you may wish to skim again to facilitate completing the assignment. bondsFixed Income Impact Investing: Impact Loan Agreements and GreenRequired

Topics

 $\text{Page} \mid 14$

Adapted from: The Course Syllabus: A Learning-Centered Approach, 2nd Edition, Judith Grunert O'Brien, Barbara J. Millis, Margaret W. Cohen. ISBN: 978-0-470-60549-3. Available as an E-Book from Wiley at: https://www.wiley.com/en-us/The+Course+Syllabus%3A+A+Learning+Centered+Approach%2C+2nd+Edition-p-9780470605493

Master of Science in Sustainable Management

	Impact-Focused Modifications of Common Contractual Provisions Green Bonds Other financial structures	Green Bond Principles, 2021: Voluntary Process Guidelines for Issuing Green Bonds. 8 pages. "The Surprising Leader In The Impact Investing Boom: Debt." 8 pages.	Cambyse Parsi guest lecture
5	 Fixed Income Impact Investing: Microfinance Securitization and Social Impact Bonds Topics Microfinance capital markets Microfinance securitization Microfinance collateralized debt obligations Social impact bonds 	 "The Role of International Capital Markets in Microfinance." Developing World Markets. 17 pages. Social Impact Bonds: A Guide for State and Local Governments. 24 pages. "Rikers Island: The First Social Impact Bond in the United States." 4 pages. "What We Learned from the Failure of the Rikers Island Social Impact Bond," 2 pages. "Voices from the Field: Social Impact Bonds and the Search for Ways to Finance Public Sector R&D," 2 pages. "Success Metrics Questioned in School Program Funded by Goldman," NYTimes.com. 4 pages. 	Homework assignments 5 Please finalize your asset owner strategy question and share with your TAs Attend class and participate in discussion
6	Introduction to Equity Investing	DCF Fundamentals Bodie, Kane, Marcus. <u>Investments</u> .	Homework assignment 6 Fixed income exam due
	Topics Financial ratios Equity valuation	Sections 18.1 and 18.5 in chapter 18. All of chapter 19. 41 pages. Skim. A Practical Guide to ESG Integration for Equity Investing. 17 pages.	before the start of class 6 Attend class and participate in discussion In small groups, make the case for and/or

Page | 15

Adapted from: The Course Syllabus: A Learning-Centered Approach, 2nd Edition, Judith Grunert O'Brien, Barbara J. Millis, Margaret W. Cohen. ISBN: 978-0-470-60549-3. Available as an E-Book from Wiley at:

https://www.wiley.com/en-us/The+Course+Syllabus%3A+A+Learning+Centered+Approach%2C+2nd+Edition-p-9780470605493

7

8

Topics

Master of Science in Sustainable Management

ESG integration and equity valuation TCFD and equity valuation Microfinance IPOs ESG indices	 "The Conventional Wisdom on ESG is Wrong. Now What?" 6 pages. "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures." 14 pages. "Money managers and charities are offering joint investment products," 2 pages. "What is an Index?" 2 pages. 	against the inclusion of green bonds, social impact bonds, microfinance CDOs or microfinance securitizations in the NYCERS portfolio State Street Global Head of Asset Stewardship Benjamin Colton guest lecture
Public & Private Equity	Required	Homework assignment 7
Topics	"The Enterprise Funds in Europe and Eurasia: Successes and Lessons	Attend session
Investment stewardship	Learned." 34 pages.	Strategic engagement exercise part I
Proxy voting	Tunisian American Enterprise Fund (TAEF) Final Evaluation Report 2018.	
Shareholder activism	15 pages. Skim.	
Lifecycle of a private equity fund	Axial Primer on Private Equity Structure. 2 pages	
Private equity economics	"Activists and Socially Responsible Investing," 3 pages.	
American Enterprise Funds		
The Tunisian-American Enterprise Fund		
Private Equity	Required	Assignment 8 due before

Private equity fund

domicile debate

class

Adapted from: The Course Syllabus: A Learning-Centered Approach, 2nd Edition, Judith Grunert O'Brien, Barbara J. Millis, Margaret W. Cohen. ISBN: 978-0-470-60549-3. Available as an E-Book from Wiley at:

https://www.wiley.com/en-us/The+Course+Syllabus%3A+A+Learning+Centered+Approach%2C+2nd+Edition-p-9780470605493

 $[\]mathsf{Page} \mid 16$

9

Master of Science in Sustainable Management

Private Equity Fund	"The Path to Inclusive Capitalism."	
Domicile	Pages 3-5 (3 pages).	Strategic engagement exercise part II
The Tunisian American Enterprise Fund	"Memo Evaluating the Potential Implications for Charitable	Breakout groups to discuss assignment 8
The case for and against incorporating DEI into investing	Foundations and Nonprofits of the Supreme Court's Upcoming Decisions on Consideration of Race in College Admissions. 5 pages.	Diversity, equity, and inclusion
	"Tax Considerations In Structuring US-Based Private Equity Funds" 10 pages. You only need to understand the paper well enough to make the case for your domicile	
	ICCR's 2023 Proxy Resolutions and Voting Guide. Only pages related to your specific engagement	
DEI and Equity	Required for All Students	Equity exam
Investing	Blair Smith, Bhakti Mirchandani, and	Department of Labor small group discussio
Topics	Troy Duffie. "The Path to Inclusive Capitalism," Milken Institute.	sinun group discussio
Asset owner DEI experiential exercise	December 2022. Pages 6-20 (15 pages). Only the pillar assigned to you is required, and the rest is optional	
Asset owner overview	One more additional DEI reading	
Department of Labor guidance over time	based on which group you are assigned to that will be posted on Canvas	
	"How One Allocator Embraced Racial Equity in Asset Management and Beyond." 5 pages	

 $\text{Page} \mid 17$



Journal of Political Risk. July 28, 2018. Pages 1-2.

Required for your team and optional for other teams

Team Clinton: "Interpretive Bulletin Relating to Written Statements of Investment Proxy, Including Proxy Voting Policy or Guidelines," Department of Labor. 1994. Pages 1-4.

Team Bush: "Interpretive Bulletin Relating to Exercise of Shareholder Rights," Department of Labor. October 17, 2018. Pages 1-4.

Team Obama: "Interpretative Bulletin Relating to the Exercise of Shareholder Rights and Written Statements of Investment Proxy, Including Proxy Voting or Guidelines." December 28, 2016. Pages 1-19.

Team Trump: "Field Assistance Bulletin No. 2018-01: Interpretive Bulletins 2016-01 and 2015-01," Department of Labor. April 23, 2018 Pages 1-4.

Team Trump: Teal N. Trujillo and Brian J. Tiemann. "Financial Rule for Selecting Retirement Plan Investments Leaves ESG Behind," McDermott, Will & Emery. December 8, 2020. Pages 1-3.

Team Trump: "Final ERISA Regulations Describe Fiduciary Duties

Master of Science in Sustainable Management

		 Related to Plan Proxy Voting," Mayer Brown. January 6, 2021. Pages 1-4. Team Biden: "Final Rule on Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights," Department of Labor. November 22, 2022. Pages 1- 4. Team Biden: "Biden Issues First Veto of His Presidency," Axios. March 20, 2023. Pages 1-6. Team Trump: "Field Assistance Bulletin No. 2018-01: Interpretive Bulletins 2016-01 and 2015-01." 3 pages. Team Trump: "US Department of Labor Issues Final Rule on Proxy Voting and Shareholder Rights By Employee Benefit Plans," Inside The Big Threat to Sustainable Investing." 2 pages. 	
1 0	Impact Investing From the Perspective of Asset Owners Asset Owner Types Track Record Mission investing frameworks and strategies	Required "IRS Provides Guidance on Mission- Related Investments by Private Foundations," 2 pages. "Mission-Related Investing: Legal and Policy Issues to Consider Before Investing." Team A close reading of pages 12-15 and Team B close reading of pages 15-19. Skim the rest. 19 pages. "Five years of Mission Investments." 4 pages.	<90-second video of final product ideas due Tuesday at 6:10pm with comments due Friday at 6:10pm Group discussion of the MacArthur Framework Group discussion of applying the MacArthur Framework to the Heron IPS Jimmy Yan Guest Lecture

Adapted from: The Course Syllabus: A Learning-Centered Approach, 2nd Edition, Judith Grunert O'Brien, Barbara J. Millis, Margaret W. Cohen. ISBN: 978-0-470-60549-3. Available as an E-Book from Wiley at:

https://www.wiley.com/en-us/The+Course+Syllabus%3A+A+Learning+Centered+Approach%2C+2nd+Edition-p-9780470605493

Master of Science in Sustainable Management

"Investment Policy Statement." 13 pages. Skim.

Optional

IRS Notice 2015-62: Investments Made for Charitable Purposes. 4 pages.

1	Nonprofits Driving Impact Topics Asset allocation The endowment & foundation model Impact investing across asset classes Nonprofit M&A	 Required "How to Keep Troubled Charities from Failing," 2 pages. "Navigating a Nonprofit Corporation through Bankruptcy," 3 pages. "How to Save a Nonprofit: The Care Steps Required in Mergers and Acquisitions," 2 pages. Optional "Mergers, Acquisitions, and Affiliations Involving Nonprofits: Not Typical M&A Transactions," 8 pages. 	<3-minute video of final product ideas due Tuesday at 6:10pm with voting on the top 3 product ideas due by 6:10pm on Thursday Ford Foundation Deputy Director of Mission Investments Christine Looney guest lecture on mission investing
1 2	Impact Measurement and Impact Models Topics The four major impact measurement frameworks The role of specialist vs. mainstream firms in impact investing	Read your team's assignment closely and optional to read those of other teams Team A: A Guide to Mapping the Impact of an Investment. 11 pages. Team B: "What You Need To Know About The IFC's Operating Principles For Impact Management," 5 pages Team C: "Calculating the Value of Impact Investing," 9 pages.	Attend session Unitus COO Ann Short guest lecture Oxford debate on the merits of Goldman Sachs versus Unitus

Adapted from: The Course Syllabus: A Learning-Centered Approach, 2nd Edition, Judith Grunert O'Brien, Barbara J. Millis, Margaret W. Cohen. ISBN: 978-0-470-60549-3. Available as an E-Book from Wiley at: https://www.wiley.com/en-us/The+Course+Syllabus%3A+A+Learning+Centered+Approach%2C+2nd+Edition-p-9780470605493

Master of Science in Sustainable Management

lasici	of Science in Sustamable Mar	nagement	
	Sustainable and impact investing product	Team Goldman: Self-directed reading	
	development	Team Unitus: Self-directed reading about Unitus Group and Unitus Capital	
1	Asset Management or	Group presentations of asset	Attend session
3	Investment Banking	management or investment banking	
	Product Presentations and Climate Overview	products to a panel of experts	Presentation of product ideas to experts who will
		Overview of climate frameworks	provide feedback and select winning teams
		Large universal asset owner exercise	
		to tackle the 37% year-over-year and	Work in one of three
		140% 10-year increase in child labor	teams (ESG integration,
		violations in the US.	exclusions/divestment, and strategic
		Course wrap-up	engagement) to tackle US child labor in your investment portfolio.
1 4	Asset Owner Impact and Sustainable Investing	Required	Attend session
	Strategies	"Sustainable Investing at Endowments	Asset owner papers due
		and Foundations: What it Is and What	
	Topics	it Takes." 6 pages	Work in small teams to develop and deliver asset
	Course wrap-up		owner strategy presentations to
	Asset owner impact and		investment team
	sustainable investing		members from Ford
	strategy presentations		Foundation, NYCERS
1	No class	No class	Peer Review Due

5