Corporate Finance

Department: Fudan International Winter Session 2026

<table>
<tr><td>Course Code</td><td colspan="7">GEIS10019</td></tr>
<tr><td>Course Title</td><td colspan="7">Corporate Finance</td></tr>
<tr><td>Credit</td><td>2</td><td>Experiment (including Computer) Credit</td><td></td><td>Practice Credit</td><td></td><td>Aesthetic Education Credit</td><td></td></tr>
<tr><td>Credit Hours</td><td>36 credit hours in total + 3 office tutorial hours (one credit hour is 45 minutes)</td><td>Education on The Hard-Working Spirit Credit Hours</td><td></td><td>Language of Instruction</td><td>English</td><td>Honors Course</td><td>□Yes
☑No</td></tr>
<tr><td rowspan="2">Course Type</td><td colspan="3" rowspan="2">□Core General Education Course ☐Specific General Education Course □Basic Course in General Discipline
☑Others</td><td colspan="4">2+X Major ：
□Professional Core Course
□Professional Advanced Course</td></tr>
<tr><td colspan="4">Non 2+X Major ：
□Professional Compulsory Course
□Professional Elective Course</td></tr>
<tr><td>Course Objectives</td><td colspan="7">Mastery of Core Valuation Principles: Students will master the two foundations of corporate finance — the Law of One Price and the Net Present Value rule — and will apply the time value of money to value cash-flow streams, bonds, and common stocks.
Investment and Risk Analysis: Students will build a project free-cash-flow model and apply the investment decision rules (NPV, IRR, payback, profitability index), recognising where each fails; and will distinguish systematic from idiosyncratic risk, using the CAPM to estimate a cost of capital appropriate to a specific firm or project.
Financing Decisions: Students will reason from the Modigliani–Miller benchmark outward, identifying which perfect-market assumption a given firm violates and therefore whether taxes, distress costs, agency conflicts or asymmetric information should drive its capital structure, payout policy, and choice among venture funding, public offerings and corporate debt.
Comparative and Frontier Applications: Students will test theory against institutional</td></tr>
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	reality by comparing the financing behaviour of Chinese and US listed firms, and will examine where Artificial Intelligence and Large Language Models genuinely change corporate financial practice — and where they do not.
Course Description	This course is an intensive introduction to corporate finance, built on a single spine: the Law of One Price and the NPV rule, treated throughout as the “first law” from which every valuation result is derived. The content falls into four parts. Part I (Sessions 1–2) establishes the foundations: the corporate form, financial statement analysis, the Law of One Price, and the time value of money. Part II (Sessions 3–5) values securities and real projects: bonds, investment decision rules, capital budgeting, and stocks. Part III (Sessions 6–7) explains where the discount rate comes from: risk and return, portfolio choice, the CAPM, and market efficiency. Part IV (Sessions 8–11), the largest block, covers financing: the Modigliani–Miller propositions, then each friction that breaks them in turn — taxes, distress, agency costs, asymmetric information — followed by payout policy and the raising of capital.

Course Requirements:
Prerequisites: Introductory Microeconomics and Introductory Accounting recommended, not required. Spreadsheet familiarity assumed.
Students are expected to attend every session, read the assigned chapter beforehand, complete both individual assignments, take part in the CFO Case Workshop, and sit the final examination.

Teaching Methods:
Tutorial + Case discussions

Course Director's Academic Background:
Dr. Jiajun Jiang is an Associate Professor of Finance at the School of Economics, Fudan University. He obtained his Ph.D. in Economics from Peking University in 2018. From 2016 to 2017, Dr. Jiang is a visiting scholar at Stern Business School, New York University. His research interests are in the areas of behavioral finance, household finance, and fintech. He teaches Corporate Finance, Financial Institutions and Markets, Investments, and Financial Risk Management to both undergraduates and graduate students.

Instructor’s Academic Background:

Members of Teaching Team

Name	Gender	Professional Title	Department	Responsibility
Jiajun Jiang	Male	Associate Professor	School of Economics	Main Instructor

Course Schedule:

Session 1: Introduction, Financial Statements, and the Law of One Price (Berk & DeMarzo, Ch. 1–3)

- **Content**: The corporate form and corporate governance; the four financial statements, ratio analysis and the DuPont identity; arbitrage, the Law of One Price, and the NPV rule.
- **Design/Discussion**: AI demonstration — using a Large Language Model to interrogate the MD&A section of an annual report, checked against the students' own ratio analysis. Exercise: pricing a security by replication, then adding a bid-ask spread to see where the Law of One Price fails. Small groups are formed for the Session 10 CFO Case Workshop.

Session 2: The Time Value of Money and Interest Rates (Berk & DeMarzo, Ch. 4–5)

- **Content**: Cash-flow timelines and the rules of time travel; perpetuities, annuities and growing annuities; solving for the rate, the payment and the number of periods; effective annual rate and annual percentage rate; the determinants of interest rates and the term structure.
- **Design/Discussion**: Loan amortisation and saving problems worked live at the board. Comparison of the Chinese and US yield curves, and a discussion of whether machine-learning models genuinely forecast curve shifts better than linear term-structure models.

Session 3: Valuing Bonds and Investment Decision Rules (Berk & DeMarzo, Ch. 6–7)

- **Content**: Periods 1–2 — zero-coupon and coupon bond pricing; yield to maturity; how bond prices move with interest rates, time and credit quality; credit spreads and default risk. Period 3 — the NPV profile; the IRR and its failure modes; payback; the profitability index under capital rationing; mutually exclusive projects.
- **Design/Discussion**: Exercise on a project pair for which NPV and IRR give opposite rankings; students diagnose the conflict and defend the correct decision. Individual Assignment 1 released.

Session 4: Fundamentals of Capital Budgeting (Berk & DeMarzo, Ch. 8)

- **Content**: Incremental earnings and why we discount free cash flow rather than accounting earnings; depreciation tax shield, net working capital, capital expenditure and terminal value; sunk costs, opportunity costs and cannibalisation; sensitivity, scenario and break-even analysis.
- **Design/Discussion**: Excel modelling — students build a project free-cash-flow model with a two-way sensitivity table. AI context: predictive analytics and alternative data in revenue forecasting.

Session 5: Valuing Stocks (Berk & DeMarzo, Ch. 9)

- **Content**: The dividend-discount model, constant growth and multi-stage growth; the trade-off between dividends and growth; the total payout and discounted free-cash-flow models; valuation by comparable multiples (P/E, EV/EBITDA); information, competition and stock prices.
- **Design/Discussion**: Group exercise — one listed Chinese firm valued three ways, followed by a discussion of why the answers differ and which assumption drives each. Individual Assignment 1 due.

Session 6: Risk and Return — The Pricing of Risk and Portfolio Choice (Berk & DeMarzo, Ch. 10–11)

- **Content**: Historical returns on stocks, bonds and bills; variance and volatility; the risk-return trade-off and why it holds for portfolios but not individual stocks; diversification, systematic and idiosyncratic risk; portfolio expected return, volatility and correlation; the efficient frontier, the tangent portfolio and the Capital Market Line.
- **Design/Discussion**: Data exercise — how portfolio volatility falls with the number of holdings, using A-share and US stocks, and why diversification delivers less in a highly correlated market.

Session 7: The CAPM, the Cost of Capital, and Market Efficiency (Berk & DeMarzo, Ch. 12–13)

- **Content**: Periods 1–2 — the CAPM and the Security Market Line; beta and its estimation from historical returns; the equity and debt costs of capital and the WACC; project-based discount rates, and the error of one company-wide rate for every division. Period 3 — the efficient market hypothesis; investor biases (overconfidence, the disposition effect, herding); the limits of arbitrage.
- **Design/Discussion**: Live beta estimation for a Chinese and a US firm in the same industry. AI context: alternative data and time-varying beta. Debate — does AI-driven trading make markets more efficient, or merely relocate the inefficiency? Individual Assignment 2 released.

Session 8: Capital Structure in a Perfect Market — the Modigliani–Miller Propositions (Berk & DeMarzo, Ch. 14)

- **Content**: Equity versus debt financing; Modigliani–Miller Proposition I and the homemade-leverage argument; Proposition II and the cost of equity under leverage; levered and unlevered beta; the leverage-and-EPS fallacy; and what the perfect-market assumptions rule out — the remaining sessions each take up one assumption that fails in reality.
- **Design/Discussion**: Students derive Proposition I by replicating a levered firm from an unlevered firm plus personal borrowing, then identify the frictions that block the replication in practice (margin rules, short-sale constraints, personal borrowing rates).

Session 9: Debt and Taxes; Financial Distress and Agency Costs (Berk & DeMarzo, Ch. 15–16)

- **Content**: Periods 1–2 — the interest tax shield and the levered WACC; the recapitalisation decision; personal taxes and the limits of the tax shield. Period 3 — default and the direct and indirect costs of financial distress; asset substitution, debt overhang and the free-cash-flow discipline benefit of debt; the trade-off theory and the pecking order.
- **Design/Discussion**: Workshop preparation. Teams receive the four-friction framework (tax shield, distress cost, agency cost, asymmetric information) and the financial data for their assigned firm.

Session 10: Payout Policy and the CFO Case Workshop (Berk & DeMarzo, Ch. 17)

- **Content**: Period 1 — dividends versus share repurchases; the Modigliani–Miller payout irrelevance result; taxes, clienteles and the payout puzzle; signalling and dividend smoothing; payout behaviour of Chinese listed firms.
- **Design/Discussion**: Periods 2–3 — CFO Case Workshop, in class, 70 minutes. A lottery forms co-CFO teams and draws one firm for each from matched China–US industry pairs. Every team recommends and defends a target debt-to-value ratio, naming the friction that dominates for its firm: 15 minutes preparation, 10 minutes team strategy, 45 minutes of CFO roadshow with cross-examination. Closes with an anonymous peer vote and an instructor debrief. Individual Assignment 2 due.

Session 11: Raising Capital — Venture Capital, IPOs, and Debt Financing (Berk & DeMarzo, Ch. 23–24)

- **Content**: Periods 1–2 — venture capital, pre- and post-money valuation and dilution; the IPO process, and the three IPO puzzles (underpricing, cyclical issuance, long-run underperformance); the registration-based reform and first-day returns on the STAR Market and ChiNext; seasoned offerings, rights issues and the announcement effect; corporate debt, covenants and callable bonds. Period 3 — course synthesis: how the Law of One Price and the NPV rule connect every result in the course, and where AI genuinely changes corporate financial practice.
- **Design/Discussion**: Discussion — why do issuers tolerate systematic IPO underpricing, and who pays for it? Comparison of the institutional roots of US and Chinese first-day returns, connecting back to Sessions 7 and 9.

Session 12: Final Examination

- **Content**: Final Examination. Closed-book and individual, 120 minutes, one A4 sheet of notes permitted. Cumulative over Sessions 1 to 11, weighted towards the quantitative core.

The design of class discussion or exercise, practice, experience and so on:

Because the winter session is compressed, applied work is embedded in the sessions rather than assigned as separate project time. The design includes:

- **CFO Case Workshop (Session 10, 70 minutes, the flagship exercise):** A lottery forms co-CFO teams and draws one listed firm for each from matched China–US industry pairs (premium brands, electric vehicles, regulated telecom, and so on). Working from real financial data, each team recommends a target debt-to-value ratio and defends it under cross-examination, discovering that firms in the same industry on opposite sides of the Pacific run opposite balance sheets for institutional rather than theoretical reasons.
- **Financial Modelling:** In Session 4 students build a project free-cash-flow model with a sensitivity table; in Session 5 they value one listed firm three ways and reconcile the differences. Both are done in class alongside the instructor.
- **AI-Integrated Demonstrations:** A Large Language Model is used live on real financial disclosures (Sessions 1 and 4), with its output deliberately checked against the students' own hand-built analysis so that its failure modes become visible.

If you need a TA, please indicate the assignment of assistant:

Grading & Evaluation:

1. Attendance & Participation (10%)

2. Individual Assignments (20% — two assignments, 10% each) Two individual take-home problem sets testing the quantitative core of the course.

- **Assignment 1:** released end of Session 3, due start of Session 5. Covers the Law of One Price, the time value of money, interest rates, bonds, and the investment decision rules (Ch. 3–7).
- **Assignment 2:** released end of Session 7, due start of Session 10. Covers capital budgeting, stock

valuation, risk and return, and the cost of capital (Ch. 8–12). Marking rewards a correctly reasoned method over a correct final number.

3. CFO Case Workshop (20%) Assessed group work, performed in class during Session 10.

4. Final Examination (50%) Held in class during Session 12. Closed-book and individual, 120 minutes, one A4 sheet of notes permitted. Cumulative over Sessions 1 to 11, weighted towards the quantitative core.

Usage of Textbook: ☑Yes(complete textbook information form below) □No

Textbook Information (No more than two textbooks) **:**

Title	Author	ISBN	Publishing Time	Publisher	Type Ⅰ	Type Ⅱ
Corporate Finance, 6th edition	Jonathan Berk, Peter DeMarzo	978-1-292-44631-8	2024	Pearson	□Self-compiled Textbook (Published) √Non-mainland Textbook □Other Textbook (Published)	□National Planning Textbook □Provincial and Ministerial Planning Textbook □School Level Planning Textbook √Others
					□Self-compiled Textbook (Published) □Non-mainland Textbook □Other Textbook (Published)	□National Planning Textbook □Provincial and Ministerial Planning Textbook □School Level Planning Textbook □Others

Teaching Materials & References:
Slides and other reading materials will be provided in elearning.