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| **Faculty Information** | **Name** | |  | | | | | | |
| **E-mail** | |  | | | | | | |
| **Home University** | |  | | | | | | |
| **Department** | |  | | | | | | |
| **Homepage** | |  | | | | | | |
| **Course Information** | **Class No.** | |  | **Course Code** |  | | **Credits** | | 3 |
| **Course Name** | | ***Applied Portfolio Management and Modeling*** | | | | | | |
| **Lecture Schedule** | | **Total Contact Hours** | | | 45 hours | | | |
| **Lecture Hour** | | | 8:30-11:30, Mon-Fri | | | |
| **Course Description** | | This course provides an in-depth exploration of investment analysis theories and portfolio management practices within the context of a globalizing economy. Key topics include capital markets and instruments, optimal portfolio selection, risk-return relationships, asset pricing models (e.g., CAPM), market efficiency, behavioral finance, technical analysis, bond portfolio management, and the role of derivative securities in investment strategies. Particular emphasis is placed on understanding and applying modern portfolio theory—the foundation of quantitative investing strategies—to maximize portfolio returns under specified risk constraints. Through mathematical model applications (e.g., regression analysis) and empirical testing, students will develop proficiency in quantitative and statistical analysis. Abundant case studies, projects, presentations, and seminars will enable students to demonstrate advanced expertise in financial asset allocation, portfolio construction, management, and evaluation from an investor’s perspective. | | | | | | |
| **Course Objective** | | Upon successful completion, students should be able to:  • Establish a robust conceptual and theoretical foundation in investment analysis and portfolio management;  • Calculate expected returns and risk metrics, and interpret risk-return relationships in asset valuation;  • Apply asset pricing models (e.g., CAPM) and the Dividend Discount Model (DDM) for equity securities valuation;  • Implement practical investment strategies and critically analyze contemporary issues in investment management;  • Construct and manage investment portfolios, including creating investment policy statements;  • Master modern portfolio theory and explain how rational investors optimize portfolios through diversification. | | | | | | |
| **Prerequisite** | | Foundational knowledge of corporate finance and mathematics. | | | | | | |
| **Materials/Textbooks** | | • Reilly, F. K., & Brown, K. C. (1997). *Investment analysis and portfolio management* (5th ed). Dryden Press. **ISBN:** **978-0538482103**  • Bodie, Z., Kane, A., & Marcus, A. J. (2005). *Investments* (6th ed). McGraw-Hill Irwin. **ISBN: 978-0077861674**  • Benninga, S. (2008). *Financial Modeling (3rd Edition)*. MIT Press. **ISBN: 978-0262026284** | | | | | | |
| **Daily**  **Lecture Plan** | **Week 1** | **Day** | **Topic** | | | | | **Assignment** | |
| Day 1 | Investment Analysis; The Investment Process; Financial Market Participants | | | | | Ongoing Assignment: Final Essay Proposal | |
| Day 2 | The Bond Market; Equity Securities; Derivative Markets | | | | | Group Discussion: Characteristics of Asset Classes | |
| Day 3 | Investment Companies; Types of Mutual Funds | | | | | Case Study: Portfolio Diversification in Emerging Markets | |
| Day 4 | Single-Asset Risk-Return Analysis; Portfolio Risk and Diversification | | | | | Group Discussion: Quantitative Risk Measurement | |
| Day 5 | Long-Term Return Forecasting; Asset-Liability Framework; Risk Correlation Models | | | | |  | |
| **Week 2** | Day 1 | CAPM Assumptions and Extensions; Dividend Discount Model (DDM) | | | | | Seminar: Global Asset Allocation Strategies | |
| Day 2 | The Single-Index Model; Optimal Portfolio Construction | | | | |  | |
| Day 3 | Arbitrage Pricing Theory (APT); Behavioral Finance and Technical Analysis | | | | | Group Discussion: APT vs. Behavioral Finance | |
| Day 4 | Bond Valuation; Duration and Convexity; Active/Passive Bond Strategies | | | | | Quantitative Exercise: Bond Yield Calculation | |
| Day 5 | Field Trip to a Fortune 500 Financial Institution | | | | | Field Trip Report (2,000 words) | |
| **Week 3** | Day 1 | Efficient Markets Hypothesis; Macroeconomic/Industry Analysis; Equity Valuation Models | | | | | Case Study: Valuation of Multinational Corporations | |
| Day 2 | Option Pricing; Futures/Swaps Markets; Hedging Strategies | | | | | Group Presentation: Derivatives in Portfolio Risk | |
| Day 3 | Performance Evaluation; International Diversification; Hedge Funds | | | | | Final Essay Submission (3,000–5,000 words) | |
| Day 4 | Comprehensive Review of Key Models and Case Studies | | | | | Final Exam Preparation | |
| Day 5 | Cumulative Assessment of Course Concepts and Applications | | | | | Closed-Book Examination | |
|  | **Note: Field trip schedules are subject to change; students will receive advance notice of adjustments.** | | | | | | | | |
| **Grading Policy** | **Assessment Component** | | Class Participation | | | | | 10% | |
| Case Studies & Seminars | | | | | 10% | |
| Group Presentations | | | | | 20% | |
| Final Essay | | | | | 20% | |
| Final Exam | | | | | 40% | |
| **Total** | | | | | **100%** | |
| **Participation Criteria** | | Active engagement in discussions, model applications, and peer feedback is required. Attendance and contribution to seminars will be evaluated. | | | | | | |
| **Assignments Overview** | | • **Case Studies & Seminars:**  Analyze real-world investment scenarios and present findings in seminar format.  • **Group Presentations:**  Develop and deliver analyses of portfolio strategies or risk management techniques.  • **Final Essay:**  Conduct an original research project on a topic related to investment analysis or portfolio management. | | | | | | |
| **Academic Integrity** | **Academic integrity is strictly enforced.** | | **Prohibited behaviors include, but are not limited to：**   1. **Plagiarism:**   Submitting unoriginal work without proper citations, including copied text, ideas, or data.   1. **Collusion:**   Presenting collaborative work as individual effort without explicit permission.   1. **Cheating:**   Falsifying data, using unauthorized materials, or misrepresenting contributions to group work.   1. **Examination Misconduct:**   Unauthorized communication, device use, or impersonation during exams.   1. **Other Violations:**   Altering records, bribery, or fabricating references. | | | | | | |
| **All violations will be addressed in accordance with university policies, up to and including disciplinary action.** | | | | | | | | |