# Department of Finance

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Finance is at the center of well-managed businesses, from high technology companies to mutual fund companies. Development of knowledge and managerial skills in the corporate and investment settings are the major goals of the finance program. Graduates with a degree in finance pursue careers as corporate financial officers, traders, investment managers, financial analysts, financial planners, investment bankers, stockbrokers, regulators, and other specialties. Corporate finance officers manage the assets and value of corporations. They examine which new products and investments will be profitable, analyze the most cost-effective ways to produce them, and determine where to get the money needed to fund new ventures. Personal financial planners and stockbrokers help people make wise investments by selecting good stocks and assembling efficient portfolios. Students in finance also learn how to understand and analyze information from capital markets, engage in mergers and acquisitions, and undertake investments in new ventures, real estate, and international markets.

## Requirements for the Major

In addition to fulfilling undergraduate Core Curriculum and Leavey School of Business requirements for the bachelor of science in commerce degree, students majoring in finance must complete the following departmental requirements:

* FNCE 124 and 125
* Four upper-division finance electives\*

\*Note: FNCE 118, FNCE 127, and FNCE 129 will NOT meet upper-division elective requirements for finance majors.

## Requirements for the Real Estate Minor

All Santa Clara University students may pursue the real estate minor by fulfilling the following requirements:

* FNCE 118\*
* Four courses from the following list:
  + FNCE 127\*, FNCE 128, FNCE 129\*, FNCE 143, ECON 156, and ENVS 128
* Nonbusiness students also need to take at least three additional courses (prerequisites for finance real estate electives): FNCE 121, ACTG 11, and BUSN 70 or BUSN 170.

\*Note: FNCE 118, FNCE 127, and FNCE 129 will NOT meet upper-division elective requirements for finance majors, and will not be included in the finance major GPA.

## Upper-Division Courses

### 115. Quantitative Methods for Finance

The goal of this course is to teach finance majors the most important quantitative tools they will need for the finance curriculum. Students will learn to (1) comprehend important concepts, techniques, and tools used in mathematics and statistics that are relevant for modern finance; (2) understand where these tools are applied in practice; and (3) learn widely-used software to implement these techniques. The course goal is to make sure that all finance majors reach a baseline level of competence in various quantitative methods, and is especially intended for those students who fear math, yet have a desire to come to grips with it. A previous math course (e.g., MATH 31 or the MATH 11 and 12 sequence) is strongly recommended. Prerequisites: FNCE 121. (5 units)

### 116. Mathematical Finance

Introduction to Ito calculus and stochastic differential equations; discrete lattice models; models for the movement of stock and bond prices using Brownian motion and Poisson processes; pricing models for equity and bond options via Black-Scholes and its variants; optimal portfolio allocation. Solution techniques will include Monte Carlo and finite difference methods. Prerequisites: Either FNCE 115 or MATH 122 or AMTH 108. MATH 53 or permission of the instructor is required if FNCE 115 has not been taken. Cross-listed with MATH 125 and AMTH 367. (5 units)

### 118. Real Estate Principles

A foundational course that provides students with a general overview of real estate and practical applications of the material. The course covers a broad range of topics including the historical and legal basis of regulations and customs that govern real estate today, real estate service industries, real estate market analysis, the principles in real estate transactions, and the unique characteristics of real estate as an investment asset class. The course will lay a solid foundation for students to pursue specific areas in greater depth through more focused courses in the future. This course does not satisfy an upper-division elective for finance majors and is not included when calculating the finance major GPA. Prerequisites: 88+ units (junior/senior standing) or ACTG 11. (5 units)

### 121. Financial Management

Introduction to the basic concepts of financial risk and return, the valuation of uncertain future cash flows, working capital and fixed asset management, and cost of capital. Topics include time value of money, financial analysis and forecasting, valuing corporate securities (stocks and bonds), capital budgeting, short- and long-term financing, and cash management. Prerequisites: OMIS 40, ACTG 11 and proficiency with spreadsheets. (5 units)

### 121S. Financial Management

Introduction to the basic concepts of financial risk and return, the valuation of uncertain future cash flows, working capital and fixed asset management, and cost of capital. Topics include time value of money, financial analysis and forecasting, valuing corporate securities (stocks and bonds), capital budgeting, short- and long-term financing, and cash management. Prerequisites: Restricted to students in the Leavey Scholars Program. OMIS 40, ACTG 11, and proficiency with spreadsheets. (5 units)

### 124. Investments

Introduction to the nature and functions of securities markets and financial instruments. The formulation of investment goals and policies, trading strategies, and portfolio management. Coverage of security analysis and valuation, evaluating portfolio performance, diversification, alternative investments. Prerequisite: FNCE 121 or 121S. (5 units)

### 125. Corporate Financial Policy

In-depth examination of the interrelationships between corporate investment and financing decisions and their impact on a firm’s pattern of cash flows, return, and risk. Special emphasis on the development of analytical techniques and skills for analyzing performance reflected in financial statements. Case studies are used. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 126. Money and Capital Markets

Examines the role and function of financial institutions, financial flows, and interest rate structures in the money and capital markets. Viewed primarily from the perspective of a corporate issuer, explores the mechanisms by which value is created by financial markets, the roles of players in the system, the securities in each market, the flows of information, and the design and incentive features that manage risk in a practical manner. Common themes and concepts will be developed by the exploration of a new market in each class, examining a corporate issuer’s funding alternatives, and incorporating current news events. Prerequisites: FNCE 121 or 121S, FNCE 124. (5 units)

### 127. Introduction to Real Estate Transactions

This course uses real-life investments as a comprehensive means of exploring all phases of the real estate investment life cycle, from identifying potential transactions, examining various valuation methods, conducting due diligence, determining financing alternatives, implementing property management strategies, and analyzing disposition timing. Students will explore various types of real estate investments: multi-family, office, hotel, and ground-up development. This course does not satisfy an upper-division elective for finance majors and is not included when calculating the finance major GPA. Prerequisite: FNCE 121 or 121S, and FNCE 118. (5 unit)

### 128. Real Estate Finance

Exploration of the real estate market, including investments in residential and commercial real estate by individuals, partnerships, and trusts. Emphasis is on the valuation and cash flow analysis of these projects and an understanding of financing alternatives. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 129. Real Estate Development

Examines the complex and interdisciplinary process of real estate development, including conceptual planning, feasibility studies, financing, legal documentation, and project management. Explores ways that developers mitigate risks throughout the development process. Describes different types of commercial real estate products and the roles of key players in today’s real estate profession. Students will also gain exposure to the ethical issues frequently encountered in real estate development. This course does not satisfy an upper-division elective for finance majors and is not included when calculating the finance major GPA. Prerequisites: FNCE 121 or 121S, and FNCE 118. (5 units)

### 130. Ethics and Finance

Exploration of the ethical dimension of financial markets. Each week focuses on a different job function (investment manager, research analyst, trader, fund manager, corporate controller, bank officer, etc.) and explores the intersection between legal responsibility and ethical action. Topics include fiduciary responsibility, insider trading, moral hazard, agency, predatory lending, and financial market regulations concerning disclosure, price manipulation, suitability, etc. Current news items and regulatory activity will be incorporated in weekly discussions. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 132. Financial Derivatives

Provides an introduction to financial derivative securities, the markets in which they trade, their applications, and valuation frameworks. Securities such as equity calls/puts, forwards/futures, structured products, and fixed income derivatives will be covered. An underlying theme of the course will be valuation using dynamic replication. Applications will cover the use of derivatives in global corporate settings as well as in financial institutions and services. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 134. Fixed Income Securities

Provides an introduction to fixed income by covering the valuation and application of a range of fixed-income securities and credit derivatives. The main objective is to provide a foundation in the basic concepts and mathematics of these securities and their applications, holistically as it pertains to a means to (1) formulate investment strategies, (2) immunize investment portfolios, and (3) hedge attendant risks. Students will be able to describe basic features, pricing, and mathematics (duration and convexity) of fixed-income securities, model risk and return in fixed-income securities, describe basic similarities and differences in the deaures and bond mathematics for plain-vanilla versus more complex fixed-income securities, and describe and price basic credit derivatives and structured credit products. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 135. Applied Portfolio Management

Designed to provide a highly rigorous and analytic framework for applied work in investments and portfolio management. Students who master the course material will acquire the analytical tools and financial theory necessary to make rational investment decisions and understand the paradigms by which investment portfolios are managed. The coursework involves an analysis of contemporary theories and techniques in portfolio management available to professional portfolio managers. Significant literature that emphasizes the role of the modern portfolio manager in achieving diversification and client investment goals is reviewed and evaluated. Prerequisites: FNCE 121 or 121S, FNCE 124, and OMIS 41. (5 units)

### 141. New Venture Finance

Describes the financing environment for young companies and studies how the private equity market functions. Students will learn how investment funds are structured, investment contracts are written, and understand the economics of different private equity models work. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 143. Entrepreneurial Finance

Covers topics that are directly relevant to entrepreneurs, defined broadly to include all early employees in addition to founders, who are evaluating, communicating, and implementing new business opportunities. This course focuses on the start-up phase with an emphasis on venture-backed companies. The three main sections of the course are: Types of Businesses (primarily lecture and project-based), Financial Models (primarily project-based), and Investment Terms (primarily lecture-based). Types of Businesses covers the three types of entrepreneurs: lifestyle entrepreneurs, wealth-building entrepreneurs, and innovating entrepreneurs, along economic foundations that distinguish the three types of entrepreneurship. Financial Models covers the creation and uses of financial projection: revenue, costs, and profits/losses. Investment Terms covers the way investments in startup companies are generally structured. In all three sections, we will discuss the human biases that often distort entrepreneurial efforts, along with strategies to recognize and avoid the more costly. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 146. Introduction to Risk Management

Introduction to financial risk management through its major components: credit, market, operational, legal, and reputational. Also addresses technology tools to manage risk and the role data governance and environmental policy play in risk management. Students who master the material will acquire an understanding of the major areas of risk exposure that all organizations, both public and private, face in operating in today’s complex global marketplace. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 148. Risk Management and Insurance

Survey of general principles of risk management. Risk management uses many tools to avoid, reduce, or offset the financial penalty of risks. The course will cover types of insurance, financial instruments used to “insure” a portfolio, credit default swaps, etc. The course will address the risk management function across the firm. The role of the chief financial officer (CFO) or vice president of finance as the risk management officer will be examined. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 149. Financial Institutions and Services

Analyzes the management of financial institutions and the role of financial services and institutions in the financing/restructuring of industry and government, and facilitating saving and investment. Topics such as asset/liability management, regulatory constraints, liquidity and credit risk considerations, financing and securitization, and off-balance sheet activities are discussed. Macro issues such as financial system stability, information flows, and regulatory capital are also covered. Ethical issues faced by financial industry professionals are considered. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 151. International Finance

Examination of the functioning of the international monetary system, foreign exchange markets, and the financial problems of business firms operating internationally. Topics covered include hedging exchange rates and interest rates, international investment and financing, financial markets, banking, and financial management. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 163. Investment Practice

The practice of portfolio management using a portion of the University’s endowment fund to acquire real-life investment experience. Various investment objectives will be explored, including derivatives to protect current positions, fixed income, and equity investments. The course meets over three quarters. Students must earn 6 units in order for the course to count toward the major. Prerequisites: FNCE 121 or 121S, FNCE 124, and instructor approval. (2 units)

### 170. Business Valuation

Practical valuation tools for valuing a company and its securities. Valuation techniques covered include discounted cash-flow analysis, estimated cost of capital (cost of equity, cost of debt, and weighted average cost of capital), market multiples, free-cash flow, and pro-forma models. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 172. Corporate Treasury Management

Provides a comprehensive review of the corporate treasury function, including payment systems, cash forecasting, working capital metrics and management, capital structure decisions and capital markets, long-term and capital investments, risk management (primarily foreign exchange and interest rate risk), clearing and settlements, and treasury systems, and the regulatory and legal environment for corporate treasurers and CFOs. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 174. Mergers and Acquisitions

A study of corporate governance and corporate restructurings. Emphasis on how corporate ownership, control, and organizational structures affect firm value. Other topics may include valuing merger candidates, agency theory, and takeover regulation. This course generally places a heavy emphasis on case projects and/or class presentations. Prerequisites: FNCE 121 or 121S, and FNCE 124. (5 units)

### 180. Financial Planning & Analysis

Open book management is a system that places finance and accounting at the center of management processes for decision making and monitoring. The course uses simulation techniques to teach students how to create a corporate culture around the principles of open book management, particularly the treatment of agency conflicts and the use of effective business processes. Prerequisites: FNCE 121 or 121S, FNCE 124, and FNCE 125. (5 units)

### 186. Applying Financial Models to Financial Data

This course introduces students to various financial databases, accessing data from these databases, and analyzing data using quantitative techniques. Students will explore Bloomberg, Compustat, CRSP, Mergent/Investext, EDGAR, and other online sources such as Yahoo Finance. Downloaded data will be managed in Excel and analyzed using a variety of features that Excel offers, especially its Data Analysis Toolpak, as well as other analytical software. Course assignments focus on current financial events, as students access and analyze data to answer questions related to these events. Prerequisites: FNCE 121 or 121S, FNCE 124, and FNCE 125 (or permission of instructor). (5 units)

### 191. Peer Educators in Finance

Peer educators in Finance work closely with a faculty member to help students in a course understand course material, think more deeply about course material, benefit from collaborative learning, feel less anxious about testing situations, and/or to help students enjoy learning. Enrollment is by permission of the instructor. (1 or 2 units)

### 197. Investment Banking Fundamentals

Provides an overview of the Investment Banking industry, reviews the various transaction types and the capital markets, and teaches students the fundamental technical skills and analyses used by Investment Bankers in practice. Uses case studies, lectures, and discussions to teach the key technical and non-technical concepts necessary to succeed in the Investment Banking industry or any career involving corporate, valuation, and transaction analysis. Must be taken after or concurrently with ACTG 11. (5 units)

### 198. Internship

Opportunity for selected upper-division students to work in companies and nonprofit organizations. Prerequisites: Finance major, junior or senior standing, successful completion of FNCE 121 or FNCE 121S, and permission of instructor and chair required one week prior to registration. Anything less than 5 units will not count toward major requirements. (1–5 units)

### 199. Directed Reading/Directed Research

Independent projects undertaken by upper-division students with a faculty sponsor. Independent studies are normally permitted only under special circumstances. Prerequisites: Declared finance major, junior or senior standing and a written proposal must be approved by instructor and chair one week prior to registration. (1–5 units)