

## Course Outline

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Accounting and Finance  
School of Business & Economics

FNCE 3170 - **3.00** - Academic

Fixed Income and Alternative Investments

### Rationale

Minor changes to the calendar description and learning outcomes.

### Calendar Description

Students learn to design and analyze fixed income securities and alternative investments. The importance of interest rates, credit risk and product features in the valuation of these assets is emphasized. Topics include an introduction to fixed income investments; fixed income markets; yield curves; bond pricing, valuation and volatility; credit analysis for firms and individuals; asset backed securities; real estate; hedge funds and private equity.

### Credits/Hours

**Course Has Variable Hours:** No

**Credits:** 3.00

**Lecture Hours:** 3.00

**Seminar Hours:** 0

**Lab Hours:** 0

**Other Hours:** 0

*Clarify:*

**Total Hours:** 3.00

**Delivery Methods:** (Face to Face)

**Impact on Courses/Programs/Departments:** No change

**Repeat Types:** A - Once for credit (default)

**Grading Methods:** (S - Academic, Career Tech, UPrep)

### Educational Objectives/Outcomes

1. Examine the various types of short and long-term debt instruments available.
2. Differentiate between different types of bond issuers.
3. Interpret quantitative measures including price, yield to maturity and duration for various fixed income securities.
4. Examine the risk-return characteristics of fixed income securities.
5. Apply the 4 Cs (capacity, collateral, covenants and character) of credit analysis.
6. Explain how asset-backed securities are created.
7. Contrast alternative investment asset classes versus traditional stock and bond investments and their roles in a portfolio.
8. Estimate the value of a real estate investment using various methods.
9. Contrast different private equity and hedge fund strategies, fees, structures and benchmarks.

### Prerequisites

FNCE 2120-Financial Management

with a minimum C+ or equivalent  
or  
FNCE 2121-Financial Management  
with a minimum C+ or equivalent  
ECON 2330-Economics and Business Statistics 2  
with a minimum C- or equivalent  
or  
ECON 2331-Economic and Business Statistics 2  
with a minimum C- or equivalent

## Co-Requisites

## Recommended Requisites

## Exclusion Requisites

FNCE 3171-Fixed Income and Alternative Investments

BBUS 4150

BBUS 4151

FNCE 3171-Fixed Income and Alternative Investments

## Texts/Materials

### Textbooks

1. **Required** Petitt, Barbara, Pinto, Jerald, Pirie, Wendy. *Fixed Income Analysis*, 3rd Edition ed. CFA Institute, 2015

## Student Evaluation

The Course grade is based on the following course evaluations.

**Tests/quizzes 30-40%**

**Case studies/research projects/assignments 30%**

**Final exam 30-40%**

**Students must pass the final exam to pass the course.**

## Course Topics

### 1. Introduction to Fixed Income

- Definition of fixed income investments
- Definition of alternative investments
- Features of bonds
- Coupon payment structures
- Inflation indexed bonds
- Bonds with embedded options
- Convertible bonds

### 2. Fixed Income Markets and Institutions

- Bond markets
- Bond quotations

- Sovereign bonds and notes
- Municipal bonds
- Corporate bonds
- Structure finance instruments
- Short-term debt instruments
  - Treasury bills
  - Commercial paper
  - Banker's acceptances
  - Repurchase agreements
  - Certificates of deposit and guaranteed investment certificates
  - Money market funds
  - Treasury inflation protection securities

### 3. Yield Curves

- Definition of yield curve
- Examples of yield curves over time and across countries
- Theories about yield curves
- Spot and forward rates, forward rate model
- Forecasting interest rates with the yield curve

### 4. Bond Pricing, Valuation and Volatility

- Calculating yield to maturity
- Yield to call and yield to put
- Benchmark spread and credit spread
- Floating rate notes
- Volatility and duration
  - Macaulay duration
  - Modified duration
  - Effective duration
  - Key rate duration
  - Convexity
- Arbitrage-free valuation of bonds
  - Law of one price
  - Stripping and reverse stripping
  - Comparison with traditional bond pricing formula
  - Monte Carlo simulation and bond pricing

### 5. Credit Analysis for Firms and Individuals

- Credit risk
  - Spread risk
  - Downgrade risk
  - Liquidity risk
- Recovery rates for distressed debt
- Bond ratings
- Credit scoring for firms and individuals
  - The 4 to 8 Cs of credit analysis
  - Ratio analysis for firms
  - Loan qualifications ratios for individuals
  - Benchmark spread and credit spread
  - Floating rate notes benchmark spread and credit spread

### 6. Asset Backed Securities

- Securitization process

- Construction of tranches for asset backed securities
  - Mortgage backed bonds
  - Collateralized mortgage obligations
  - Collateralized debt obligations
- Asset backed securities and the Global Financial Crisis
  - Causes of the crisis
  - Lessons from the crisis

## 7. Real Estate as an Alternative Asset Class

- Types of loans
- Fixed rate mortgages
  - Points
  - Prepayment penalties
  - Effective rates
- Floating rate or adjustable rate mortgages (ARMs)
- Graduated payment, balloons, interest only loans
- Shared appreciation mortgages

## 8. Evaluation of Real Estate Investments

- Real estate valuation techniques
  - Net operating income
  - Capitalization rates
  - Discounted cash flow evaluation
  - Cost approach
  - Comparable sales
- Real estate investment trusts (REITs)
  - Real estate valuation indexes
  - Types of REITS
- International real estate markets

## 9. Other Alternative Investments

- The optimal portfolio
- Commodities as an investment class
- Private equity and venture capital
- Hedge funds
- Infrastructure and other types of investments

# Methods for Prior Learning Assessment and Recognition

As per TRU Policy.

## Last Action Taken

Implement by Submission Preview Subcommittee Chair CurricUNET Administrator

Current Date: 28-Jan-22