



Business

## **Financial Decision-Making Implications for the Consumer and the Professional**

### **INSTRUCTOR**

Professor Annamaria Lusardi  
Denit Trust Endowed Chair of Economics and Accountancy  
Academic Director, Global Financial Literacy Excellence Center (GFLEC)

E-mail: [alusardi@gwu.edu](mailto:alusardi@gwu.edu)  
Phone: 202-994-8410  
Office: Duques, 450E  
Office hours: By appointment

**TEACHING ASSISTANT:** [frankdeltoro@gwu.edu](mailto:frankdeltoro@gwu.edu)

### **COURSE DESCRIPTION**

This course provides the tools necessary to evaluate the wide range of financial decisions individuals make throughout their lifetime. It will be built upon a rigorous foundation. Concepts such as interest compounding and the time value of money, the relationship between risk and return, and the benefits of risk diversification will be introduced to provide the context in which individuals make financial decisions. Applications will include, but will not be limited to, computing the monetary value of additional education, valuing prospective business projects, investing in and valuing stocks and bonds, and planning for the future. The course is also intended for those interested in becoming financial advisors and/or CPAs.

We will have several guest speakers and the class is meant to be interactive with a lot of discussion and also a few case studies.

### **EVALUATION AND GRADING**

Because each lecture builds upon or applies concepts learned in the previous lecture, it's critical that each student come to class having learned the material from the previous lecture. For that reason, each lecture will begin with a short quiz on the previous lecture (and, in exchange, there will be no midterm exam). There will be a final exam. Moreover, a project will be required and students will present their project in class. There will also be a lot of discussion in class and small assignments. Final grades will be totaled as follows:

Weekly quizzes	30%
Final exam	30%
Group Project (due the day of the final exam)	20%
In-class assignments	10%
Class participation	10%

There will be a total of 10 quizzes. The quizzes will occur during the first 10 minutes of each class and will be based on the previous lecture. No makeup quiz will be allowed. Instead, only eight of the ten quizzes will count toward the final course grade. That is, if you miss or do poorly in two quizzes, your score on those quizzes is dropped without affecting your overall grade. If you do all quizzes, the lowest two quiz grades will be dropped. The resulting eight quiz grades will have equal weight.

Final exam: The final exam covers the material contained in the lecture notes, class presentations, and other readings distributed in class. Students cannot consult the lecture notes but can bring two sheets (single sided, standard size) to the final exam with anything written on it. Exams must be taken at the scheduled time.

Group Project: Students are required to do a group project (max 3 students, it can be one student only). Specific requirements and evaluations will be discussed when the course is in session.

In-class assignments: Students will be expected to apply the knowledge they learn in class to real-world applications and scenarios. These assignments will be given randomly throughout the semester and will be completed in class. Students are expected to come to class, as no make-ups will be given.

### **REQUIREMENTS AND READING**

While no textbook will be required for this course, a **financial calculator** *is* required. Your financial calculator should be able to perform time value of money calculations (i.e., given all but one of the interest rates ( $i$ ), the payment amounts ( $pmt$ ), the number of payments ( $n$ ), the present value ( $pv$ ), the final value ( $fv$ ), the calculator should be able to calculate the remaining variable) and cash flow analysis (input a series of possibly distinct cash flows and calculate the present value or IRR of those cash flows). Qualifying calculators include: Texas Instruments BA II Plus Financial Calculator (\$30), Texas Instruments BA II Plus Professional Financial Calculator (\$40), and the HP 10bII+ Financial Calculator (\$30) (approximate prices from Amazon.com). We will be using the Texas Instruments BA II Plus Financial Calculator for the examples demonstrated in class.

Other materials: Selected articles from academic and business journals and other publications will be added to the readings as the course is in session.

Over the course of a 14-week semester, it is expected that students will spend about 35 hours of in-class instruction and 78 hours outside of class-- preparing for class, doing assignments and taking the final exam.

### **USE OF CELL PHONES AND COMPUTERS**

Cell phones must be turned off during class. Laptops, iPads, or tablets **cannot be used** during the lecture. If students want to take notes on the lecture notes, they should bring a printed copy of the lectures. A short break will be planned during each lecture, given the length of the session.

### **STUDENT DISABILITIES**

Any student who feels s/he may need an accommodation based on the impact of a disability should contact the instructor privately to discuss specific needs. Please contact the Disability Support Services to establish eligibility.

### **COURSE GRIEVANCE PROCEDURES**

If you feel that a grade you received in the quiz is unfair, you are required to voice your opinion to me within 3 days after the graded work is returned via email. The appeal should include a description of the question(s) that need to be reexamined as well as an explanation of why the original grade was incorrect. The entire quiz will be checked for grading errors, and correcting these could either raise or lower the overall score.

## **LECTURE SCHEDULE**

### **L 1.0 – Introduction to the Course: You Are Your Own CFO**

#### **L 1.1 – Interest Rates**

**Description:** This lecture introduces interest rates and interest compounding and how they apply to everyday financial decisions.

**Select examples:** The power of interest compounding – Who wants to be a millionaire – Returns on different investments

#### **L 2.0 – Quiz**

#### **L 2.1 – The Time Value of Money**

**Description:** This lecture develops the concept of the time value of money. The related concepts of present value (PV), net present value (NPV), and the internal rate of return (IRR) are introduced and applied to solve various problems.

**Select examples:** Valuing a business project – The financial value of an education – Returns to Social Security – Calculating a mortgage payment

#### **L 3.0 – Quiz**

#### **L 3.1 – Consumer Borrowing**

**Description:** This lecture applies the concepts introduced in the first lecture to analyze common consumer borrowing products. It introduces concepts such as loan amortization and APR for loans with monthly payments.

**Select examples:** High cost borrowing: fees, payday loans, and rent-to-own – Amortizing a credit card balance – Auto loans and negative equity – Subsidized student loans

#### **L 4.0 – Quiz**

#### **L 4.1 – Savings and Investment Products**

**Description:** The lecture introduces common investment products (such as stocks, bonds, and mutual funds) and uses the concepts learned earlier in the course to evaluate these products.

**Select examples:** Bond valuation – Common stock valuation – Mutual funds and fees

#### **L 4.2 – Short- and Medium-term Saving**

**Description:** This lecture shows how to save for short- and medium-term financial goals.

**Select examples:** Saving for a child's education – Saving for a mortgage down payment

#### **L 5.0 – Quiz**

#### **L 5.1 – Saving for Retirement Part I: Planning**

**Description:** This lecture focuses on saving for retirement.

**Select examples:** Employer matching – Retirement planning – Social Security and early retirement – Retirement age and the savings ratio

#### **L 6.0 – Quiz**

#### **L 6.1 – Fintech and its implications for financial decision making**

**Description:** This lecture introduces fintech and how fintech is influencing the landscape of investing, saving, lending, and other traditional financial services.

**Select examples:** Digital payments – Automated Investing – Peer-to-peer lending and crowdfunding – Cryptocurrencies

## **L 7.0 – Quiz**

### **L 7.1 – Inflation and the Erosion of Purchasing Power**

**Description:** This lecture covers inflation and how it affects an individual's income, wealth, debt, and savings.

**Select examples:** Inflation and purchasing power – Measuring inflation: the Consumer Price Index – Inflation and income – Inflation and wealth: the decay of savings – Inflation and debt – Inflation and retirement planning

## **L 8.0 – Quiz**

### **L 8.1 – Residential Mortgages**

**Description:** This lecture focuses on mortgage borrowing. Various mortgage terms – such as mortgage length, fixed or floating rate, and mortgage points – will be analyzed.

**Select examples:** Calculating your affordable house price – Mortgage points – Fixed versus adjustable rate mortgages

## **L 9.0 – Quiz**

### **L 9.1 – Personal Taxes**

**Description:** This segment discusses and analyzes tax issues related to individuals, including marginal taxation, deductions, and capital gains.

**Select examples:** Calculating your effective tax rate in a marginal tax system – The mortgage interest deduction – Inflation and capital gains – IRA vs. Roth IRA: tax deferral and exemption

## **L 10.0 – Quiz**

### **L 10.1 – Basic Probability**

**Description:** This lecture introduces the foundational concepts in probability theory necessary for understanding risk and how to insure against risk.

**Select examples:** Lotteries – black swans

### **L 10.2 – Risk vs. Return**

**Description:** This segment examines the theoretical basis of and empirical evidence for the trade-off between risk and returns in investing.

**Select examples:** Credit spreads and bond default risk – Stocks vs. bonds in the short and long term – Investment horizon and financial crises

### **L 10.3 – Risk Diversification**

**Description:** This lecture develops the concept of risk diversification and discusses how it relates to common financial situations.

**Select examples:** Risk diversification in business – Stock diversification – Mutual funds and risk diversification – Employee stock plans and diversification.

## **L 11.0 – Quiz**

### **L 11.1 – Saving for Retirement Part II: Risk and Retirement Planning**

**Description:** This lecture applies the concepts used in the previous two lectures to discuss and analyze risks faced by individuals saving for retirement.

**Select examples:** Life-cycle retirement investing – Interest rate risk and retirement – Annuities and mortality risk – Social Security as an inflation-adjusted annuity

**L 12.0 – Mistakes People Make: Behavioral and Other Biases in Consumer Finance**

**Description:** This lecture provides a discussion of cognitive, emotional, and other biases that commonly affect consumer's financial decision-making.

**Select examples:** Automatic enrollment into pensions and SMT (Save More Tomorrow)  
- life-cycle funds – the power of peers.

**L 13.0 – Final Project Presentations**

**Description:** A group of students (chosen at random) will present their project in class.

**L 14.0 – Review of the Course with Applications and Final Project Presentations**

**Description:** This lecture provides an overview of some of the most important concepts covered in the class and applications of those concepts. A group of students (chosen at random) will present their project in class.