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**FINANCE FOR EVERYONE:  
SMART TOOLS FOR DECISION MAKING**

**COURSE GOALS**

This course is an introduction to the fundamentals of finance to a beginner. The main goal of this course is to make finance accessible to anyone, anywhere.

Taking this course will enable you to make smart decisions for yourself, including personal saving and investment decisions, and decisions for any organization you work for. The beauty of finance is that it is both a way of thinking and a set of tools that enable you to act on your thinking. In my view, financial thinking and decision-making needs to be introduced to learners as early as possible in the education process, even high school. This course is an attempt to address this need, while simultaneously serving as an accessible and applied introduction to finance to anyone, of any age, keen on learning how the world works.

**WHY THIS COURSE?**

I have been fortunate to have numerous years of experience in programs ranging from undergraduate to PhD, and to audiences ranging from college students to senior executives. This course has been specifically motivated by the enriching experience of offering a Massive Open Online Course (MOOC) titled “An Introduction to Finance” to more than 850,000 students worldwide over the past three years.

The feedback from the learners has been very rewarding and uplifting to me and has motivated me to push myself harder and create more learning experiences. As you probably know, learners in MOOCs come from very different backgrounds and have different motivations for learning. One feedback that I have received consistently across all types of learners in the “Introduction to Finance” MOOC is that it was too long, 15 weeks, and it would help if the content was made more modular. The second type of feedback I have received was on the “level” of the content: the vast majority has felt that the course was very challenging especially for someone without a background in accounting, economics and/or statistics. But a significant proportion of learners have also requested to build on the course and offer more advanced content.

I have therefore decided to provide two new experiences to meet the needs of different learners: this course on the edX platform and a Specialization in Valuation and Investing on the Coursera platform. As the title of this course reflects, it is meant to serve as a real

introductory exposure to finance. It is more modular and shorter, as are all the courses in the specialization. The pedagogy remains the same however; I focus on frameworks but with applications that will help you learn. While introductory in nature, the course is very applied and therefore challenging.

## **COURSE DESCRIPTION**

The course has been developed with the express purpose of enabling the learner to use the foundational principle and framework of Time Value of Money (TVM) to understand and evaluate the simplest to the seemingly complicated choices we confront all the time. The course is not about money, but about value. We will spend six weeks to first get familiar with the concepts and tools of TVM and then apply them to a wide range of real world phenomena. You will develop a conceptual and practical understanding of how TVM can be used to evaluate different choices you confront, comprehend how the world works, and even understand the practical aspects of investing.

## **PEDAGOGY: THE IMPORTANCE OF PROBLEM SOLVING**

This is an introductory course meant for anyone with the curiosity to understand decision-making at its core. I deliberately focus on practical applications, even in the videos that I have created (which are all new and created for this specific course). Finance lends itself to this style because it is everywhere and it is easy to find examples that mean something to each one of us. I strongly believe however that you learn only if you want to and are willing to practice problem-solving. So attempt every problem in the videos before we do it together. You will also be required to submit several assignments containing multiple problem-solving exercises. Some of these problems are by design more complex than the examples we will do in “class” (the videos) because class time needs to be devoted to understand the issues and concepts. As explained below, each “module/week” will have two assignments, with the second more challenging than the first.

We have carefully coordinated both the content and the pace of the course. The examples and assignments in the course will be specific and focused to enable you to learn the basic tools and techniques, yet they will capture most of the key characteristics of typical real world situations we confront.

## **PREREQUISITES**

I do not believe in prerequisites, except for a sense of curiosity and an attitude. A comfort level with algebra and numbers and ease with “word problems” will help. To get a lot out of this course, you will need to devote a fair amount of time to problem solving.

## **COURSE MATERIALS**

### **VIDEOS**

The main resources provided by me for this digital course are the videos, organized into six modules. The length of each module depends on the topic, but will vary between 100 and 160 minutes, and will be broken up into bite size pieces. I have worked with professionals to edit the videos, but I encourage you to pace yourself according to your style and background. Most importantly, there are numerous examples/problems in all the videos, and I recommend that you try and take every opportunity to attempt an exercise before you see me analyze it. We have tried to create breaks wherever possible to facilitate this process, but I do not want the videos to become like TV advertisements: short and exciting, but with no real content. Learning to me is an investment in yourself rather than consumption/entertainment and therefore is fundamentally challenging.

It is important for you to know that I will provide only limited notes to accompany the videos because I want you to create your own notes as you watch and listen to the presentations. The best part about this digital course is that you can pause, rewind, and fast-forward the videos at will. You can play them at faster speeds whenever needed. But it is also very easy for you to become a passive participant. I want you to be active listeners and I encourage you to make your own notes as you go along. This will help you understand and learn the material really well, assuming of course that you find me engaging. If you do that, you will only need textbooks or other materials for additional, more in-depth information. I encourage you to go beyond the course content, depending of course on your comfort level, especially because of the introductory nature of the course.

### **ADDITIONAL RESOURCES**

We will provide you with several additional resources. First, we have prepared some brief **notes** that cover some basic content. Most importantly, we have constructed several assignments/assessments that will be critical to the learning process.

### **TEXTBOOK**

There is no textbook for this course because I want it to be a free course and textbooks are expensive. You are therefore not required to purchase any book. One of my colleagues has graciously made his book available to read for free on the web. You must follow the guidelines provided by the author for use of the online material.

*Corporate Finance, 3<sup>rd</sup> Edition, by Ivo Welch. This book can be purchased from Amazon or you can read it for free at <http://book.ivo-welch.info/ed3/toc.html>*

**Although reading the text is free on the website indicated above, the material is copyrighted. You are not permitted to distribute the content or post it elsewhere.**

I have referenced chapters of the book as suggested readings in the detailed class schedule. This book is referenced as **IV**. *If you cannot access the above URL, just search the web using the author's name.*

There are several other books on finance and I encourage you to browse some. There are of course other online finance courses offered on edX, Coursera, NovoEd and other platforms.

Finally, since many of you may have had limited exposure to finance, it is important to read business and financial news regularly. Cruise the web as often as possible not only to uncover the wealth of information at your disposal, but to also learn how things work. A good web site to begin your search is <http://finance.yahoo.com>. Read the *Economist* as often as you can; it has some thoughtful pieces. Recognize that the goal is to develop a habit of reading material critically; just because something is published in a reputable outlet does not mean that the author knows what he/she is talking about. I guarantee you that there is no one out there who really understands what our recent financial crisis and especially the crisis in the 1930s were all about.

## **SPREADSHEETS**

The purpose of this course is to introduce you to frameworks that are also very applicable. I will encourage you to first focus on setting up different types of problems, rather than the calculations. When you get to the calculations, you will find that technology just helps you do so much faster and more reliably. But, you will also realize that spreadsheets and calculators simply calculate stuff after you tell them what to do; they are a means and not an end! If you set up a problem incorrectly, you will get an incorrect answer.

I am assuming you have access to a computer and the Internet and, therefore, to spreadsheets. I will use Excel at various points in the videos and provide a note on spreadsheets. You are responsible for learning how to use them. The assignments are a great way to do so as virtually all questions will require you to do calculations using either a spreadsheet or an alternative method.

## ASSIGNMENTS

You will be evaluated on **ten assignments and a final exam**. There are two five-question assignments per week (or module), the first one easier than the second. The final has 10 questions. Each question within a specific assignment or the final has the same weight. To make matters simple, and given the limits imposed by the technology available, each question will be worth 2 points. Each of the ten assignments is crafted to help reinforce the learning of concepts and problems covered in class. I believe you will better understand the concepts by thinking through the issues involved in solving the assignment problems and also learn Excel in the process. Please use the edX web site to access *and* submit them.

## NATURE OF ASSIGNMENTS AND FINAL EXAM

Since all grading will be conducted using technology, all questions will take a True/False, fill in the blank, or multiple-choice form. The questions will almost always be word problems, like the ones covered in class, but there will be one specific answer to each question. We have set up the grading process so that you get feedback that is supposed to make you think in the right way about the issues. We are constantly working on enriching the grading process to provide you feedback, eventually directed at each learner.

Due to the nature of the class and the high enrollments, all assignments and the final exam will be graded electronically. No person will be involved in the evaluation process. The technology used is ideally suited for grading and assessing performance and you will get instant feedback. The best preparation for the final is to understand all the problems done in class and in the assignments.

**Please read instructions for the questions/problems very carefully before you attempt to answer them. Given that we use to technology to assess all your submissions it is important to follow all conventions.**

## COURSE GRADING AND CERTIFICATE

Your performance will be evaluated using a pass/fail grade. The philosophy behind our grading is to make sure you demonstrate adequate competency to be granted a certificate. **You will therefore get three attempts on each of the assignments and the final but, again due to technical constraints, your latest attempt will be used to determine your grade.** To accommodate the fact that we have several assessments, we will also choose the 8 best scores out of the ten assignments to determine whether you pass the course. This will give you even more flexibility in demonstrating competence.

**To get a grade of pass, you will need to obtain a score of at least 70% in the course, where:**

**Each of your eight best assignments will have a weight of 10% and the final will get a weight of 20%. This works out well given that each assignment has five questions, the final has 10 questions, and each question is worth 2 points.**

You may of course attend the whole course and choose to submit assignments and/or the final. But a passing grade is necessary to receive a certificate. While the assignments can be finished at any time and you can take as long as you want to complete them, the final exams are timed.

## **TEACHING ASSISTANCE**

Students from University of Michigan and past students from my MOOC have graciously helped me with my past MOOC offerings. Jayashree Sundar has graciously agreed to serve as the course liaison and will monitor the forums. She has taken my MOOC and performed exceptionally well, and we have known each other for the past two years. And Lauren Atkins Budde helps us manage the delivery of all the courses. All the individuals managing the course are very dedicated and knowledgeable people and I am grateful for their help. Their task is challenging because they are expected to navigate the forums but intervene or help out only when really needed. The Syllabus contains a lot of information about the class; when in doubt about something, refer to it. And, again, use each other as resources to clarify issues ranging from how to use a browser to what is life really all about.

## **IMPORTANT ISSUES TO CONSIDER**

### **Assignments**

The assignments are meant to be challenging, though we have tried hard to increase the difficulty level gradually by explicitly having two assignments in each module and with increasing level of difficulty. More importantly, the assignments reflect my belief about learning. No one can really make you learn; you have to be willing to work hard and struggle. The teacher's role is to expose us to the fundamental building blocks, and we need to learn by applying them to problems. The reason I love finance is its applicability to all types of real world situations.

## **Solutions to Assignments**

This is a seemingly reasonable request but very difficult to accommodate. Creating questions for the videos and the assignments has been, and continues to be, the most challenging part of high quality digital education. It has taken us several months, with the help of advanced graduate students, to create assessments, test them, and then modify them to fit the grading structure imposed by technology. We believe our assignments are well thought out and reflect a good balance of conceptual and applied stuff. Due to copyright issues, we cannot simply give you questions from existing books, and I would not want to do that anyway. It will be very difficult for us to offer online classes multiple times if we have to keep preparing new sets of questions with multiple versions to allow you to attempt each one more than once. Handing out answers will force us to do that. We have instead chosen to provide hints about the main issue in each question and you can always revisit the videos, visit the forums to learn the content. Over time, we hope to create richer ways of grading and providing feedback depending on the type of errors you may make.

## **Honor Code**

While learning from each other is very important, we all recognize the difference between collaboration and simply copying and pasting work done by others. I strongly encourage you to work collaboratively using good judgment. Similarly, please respect all copyright rules of all materials, including books, articles, etc. While we ultimately cannot monitor everything, edX and my team will monitor the forums for any activity that violates such codes of conduct and basic civility to each other.

## **Contact with TA and Instructors**

Given the large number of students in this course, the teaching assistants or instructor(s) should not be contacted directly with any questions. While we love all of you, responding to questions is virtually impossible. But teaching assistants will monitor the forums and keep me informed on a regular basis. This has worked quite well for the past three years and I am sure we will do fine in this course as well.

CLASS SCHEDULE: TOPICS AND READINGS				
MODULE	TOPIC	VIDEO	BOOK CHAPTERS	NOTES
<b>Module 1</b>	Time Value of Money - Basics	1	IV(1, 2)	<b><i>Background Note: Spreadsheets</i></b>
<b>Module 2</b>	Time Value of Money: Advanced Applications	2	IV(2,3)	<b><i>Background Note: Formulae</i></b>
<b>Module 3</b>	Bonds	3	IV(3,5)	
<b>Module 4</b>	Decision Criteria	4	IV(4)	
<b>Module 5</b>	Stocks & the Firm	5	IV(3)	
<b>Module 6</b>	Wrap Up, Takeaways, What Next	6	IV(3)	