MÁSTER UNIVERSITARIO EN DIRECCIÓN FINANCIERA Y CONTABLE DE LA EMPRESA
(Official Master's Degree in Accounting and Financial Management)

SUBJECT

Name: New Trends in Finance
Type of subject: elective
Credits: 3 ECTS
Hours dedication: 18 hours (in classroom) 60 hours (out classroom)
Professor: Juan Pablo Mejía Caicedo
Contact: juanpablo_mejia@hotmail.com

COURSE DESCRIPTION

Introduction

After the creation of Bitcoin and blockchain technology, we are experiencing a revolution in the way we store and transfer value over the internet. This technology is opening a new array of opportunities that allows us to carry out transactions in a more transparent and efficient way, without the need for so many intermediaries.

In this course, we will study the main elements of Bitcoin and blockchain technology, focusing on how this technology works, the new services that are currently being offered in a decentralized way and the different cryptoassets recognized in different jurisdictions.

Objectives

General objective: Recognize the importance of Bitcoin, the cryptoassets and the blockchain technology in the financial industry and the capital markets.
CE1. Identifying the main elements of the blockchain technology and getting a grasp of its inner workings.
CE2. Comparing the different types of cryptoassets and their main features.
CE3. Understanding smarts contracts and their potential use cases.
CE4. Finding the main financial services that are currently being offered in a decentralized way thanks to the blockchain technology.

Methodology

There will be 4 sessions of four and a half hours each. The course will combine lectures with case discussions, and presentation of reports about cases made by

groups of students. During the discussion of some cases, the students will be divided in groups using the role-playing approach

Evaluation criteria

Grading will be done through:
- Class participation (20%)
- Report of Cases (40%): Some cases will be presented in class by a group of students and (when asked) in written format by all students.
- Final exam (40%)

Total course

Students need to obtain a minimum of 5 in the final exam to pass the course. This condition applies to both the regular exam and the retake exam. The final course grade of students that do not obtain **a minimum of 5 in the exam** will have a retake exam opportunity that will be programmed in accordance with the academic calendar. If a student has to retake the exam, his **maximal grade for the course will be a 5**.

Students are required to **attend 80% of classes**. Failing to do so without justified reason will imply a Zero grade in the participation/attendance evaluation item and may lead to suspension from the program.

Plagiarism is to use another's work and to present it as one's own without acknowledging the sources in the correct way. All essays, reports or projects handed in by a student must be original work completed by the student. By enrolling at any UPF BSM Master of Science and signing the "Honor Code," students acknowledge that they understand the schools' policy on plagiarism and certify that all course assignments will be their own work, except where indicated by correct referencing. Failing to do so may result in automatic expulsion from the program."

Contents

Session 1: Bitcoin and the blockchain technology
- The origin of Bitcoin and blockchain
- Main elements of the blockchain technology
- How Bitcoin and blockchain work

Session 2: From Cryptocurrencies to Cryptoassets
- Payment tokens – Cryptocurrencies
- Utility tokens
- Security tokens
- Other cryptoassets

Session 3. Smart Contracts

- Introduction to smart contracts
- Examples of smart contracts
- Decentralized applications (DApps)

Session 4. Decentralized Finance (DeFi)
- Introduction to DeFi
- Decentralized exchanges
- Decentralized loans
- Other DeFi protocols

Reading Materials/ Bibliography/Resources

Main resources:
- The Bitcoin Whitepaper: https://bitcoin.org/bitcoin.pdf
- Bitcoin's website: https://bitcoin.org/
- List of main Bitcoin resources, by Jameson Lopp: https://www.lopp.net/bitcoin-information.html

Books:
- Mastering Bitcoin, by Andreas Antonopoulos: https://github.com/bitcoinbook/bitcoinbook
- The Internet of Money, by Andreas Antonopoulos: https://www.amazon.com/Internet-Money-Andreas-M-Antonopoulos/dp/1537000454
- Cryptoassets, by Chris Burniske and Jack Tatar: https://www.amazon.com/Cryptoassets-Innovative-Investors-Bitcoin-Beyond/dp/1260026671
- How to DeFi, by CoinGecko: https://www.amazon.com/How-DeFi-CoinGecko-ebook/dp/B0868N5GJ8

Industry news:
- Cointelegraph: https://cointelegraph.com/
- Coindesk: https://www.coindesk.com/
- Bitcoin Magazine: https://bitcoinmagazine.com/

Industry statistics:
- Coinmetrics: https://coinmetrics.io/
- Dune Analytics: https://duneanalytics.com/
- CoinDance: https://coin.dance/

Industry research:
- Messari: https://messari.io/
- The Block: https://www.theblockcrypto.com/

- CryptoCompare: https://www.cryptocompare.com/

Cryptoassets prices:
- CoinGecko: https://www.coingecko.com/
- OnChainFX: https://onchainfx.com/
- Coinmarketcap: https://coinmarketcap.com/

Bio of Professor

Juan Pablo is an Industrial Engineer with an MBA from London Business School and more than 11 years of experience in investment banking, capital markets, entrepreneurship, and more recently blockchain/cryptoassets advisory.

Since 2017, Juan Pablo has been teaching about Bitcoin and the blockchain technology in universities, corporate workshops, events, and through his YouTube channel "Juan en Cripto" and the podcast "Tune into the Block".

He is the author of the course Fundamentos de la Tecnología Blockchain, produced with Universidad Javeriana and edX, with more than 4,600 registered students.

Juan Pablo is the Director of the Government Blockchain Association in Madrid and the presenter Bit2me Crypto News.