



Course Syllabus

Course Code	Course Title	ECTS Credits
BLOC-528DL	Token Economics	10
Prerequisites	Department	Semester
BLOC-511DL	Digital Innovation	Fall/Spring
Type of Course	Field	Language of Instruction
Elective	Token Economics	English
Level of Course	Lecturer(s)	Year of Study
2 nd Cycle	Dr. Christos A. Makridis	2nd
Mode of Delivery	Work Placement	Corequisites
Distance Learning	N/A	N/A

Course Objectives:

The primary objective of this course is to empower students with a comprehensive understanding of token economics—that is, how tokens facilitate the creation and exchange of value on distributed ledger technologies (DLTs).

We will start with the fundamentals, distinguishing between security and utility tokens, and explain how tokens can provide incentives for users on DLTs.

We will also explore how to think about how to set the initial supply of coins in an exchange, how general applications of DLTs can use coins to create incentives, and how to think about and forecast the price of coins over time.

Learning Outcomes:

After completion of the course students are expected to be able to:

1. Understand the key building blocks of DLT and blockchain technology, and how they relate to and allow for token ecosystems.
2. Understand the value of and difficulties associated with decentralization and when and why it is important for token ecosystems.
3. Understand the design of tokens in web3 ecosystems and how to evaluate and monitor their effects to achieve value creation (e.g., optimal supply).
4. Understand how tokens are influenced by both project-specific and external factors and how to navigate the idiosyncratic shocks that take place in the lifecycle of a project.
5. Understand how to classify tokens and token ecosystems according to various criteria,

- and which classifications are important for which purpose.
6. Understand how tokens interact with other web3 objects, like NFTs, and how platforms can use them to encourage engagement and value creation (and how some platforms and exchanges have executed poorly or been pure scams) and which classifications are important for which purpose
 7. Understand whether a token is suitable for a specific use case, and if yes, how to design the optimal token for that particular case

Course Content:

1. Defining (digital) tokens and discussing how they form the basis of web3 projects.
2. Examine how to effectively use coins to achieve value creation and sustain a functional
3. web3 ecosystem, coupled with regulatory compliance and other external factors.
4. Address practical questions about the design and evaluation of token strategies.

Learning Activities and Teaching Methods:

Teaching material including PowerPoint presentations with extended descriptions and explanations, asynchronous video presentations (live session recordings), additional readings (mostly relevant textbooks, some of them freely available), access to additional videos related to the course, synchronous meetings (Engageli), forums, chats, wikis, case studies and other formative and summative assessments

Assessment Methods:

Formative Self-Assessments (not graded), Summative Assignment (graded), Interactive Summative Activities (graded), Final Exam

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
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Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction	Arvind Narayanan, Joseph Bonneau, Edward Felten, Andrew Miller, Steven Goldfeder			
Token Economy	Shermin Voshmgir			
Valuation	Tim Koller, Marc Goedhart, David Wessels, McKinsey&Co			

Recommended Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN