



Financial Technology and digital innovation to modernise and develop curricula of Vietnamese and Philippines Universities

Project № 610256-EPP-1-2019-1-IT-EPPKA2-CBHE-JP

MASTER IN FINTECH AND DIGITAL INNOVATION - MODULE SYLLABUS -



Co-funded by the
Erasmus+ Programme
of the European Union

The European Commission support for the production of this publication does not constitute endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

DELIVERABLE DESCRIPTION	
Deliverable number and name	MASTER IN FINTECH AND DIGITAL INNOVATION - MODULE SYLLABUS -
Due date	/
Work Package	WP2
Author	Ho Chi Minh Open University (VN)
Reviewers	/
Language	English
Approved by	All partners
Version	N. 1

Document history

Issue date	Version	Comments

Disclaimer

This document contains the description of the TRUST project work and products. Certain parts of it might be under partners' Intellectual Property Right (IPR) rules therefore, prior to its use please contact the consortium leader for approval.

In case you believe that this document harms in any way IPR held by you as a person or as a representative of an entity, please do notify us immediately.

The authors of this document have taken any available measure in order for its content to be accurate, consistent and lawful. However, neither the project consortium as a whole nor the individual partners that implicitly or explicitly participated in the creation and publication of this document hold any sort of responsibility that might occur as a result of using its content.



Table of Contents

1. Module details	4
2. Module description	4
3. Learning Outcomes.....	4
4. Module knowledge, skills and competencies (EQF*)	5
5. Module lessons	5

1. Module details

Module Title	BLOCKCHAIN AND APPLICATIONS
Credits	3 Vietnamese Credit Unit (5 ECTS approximately)
Hours	150
N° of hours in presence	37.5
N° of hours in distance learning	At least 15
Name of the leading institution	Ho Chi Minh City Open University

2. Module description

As an emerging technology platform, blockchain is widely employed in events/transactions/data generated with the resistance and verifiability manners to the public. Through this module, you will gain an understanding of the core value proposition of blockchain technology and how its etymology drives the new zeitgeist.

You will also learn the canonical technology (Bitcoin & Ethereum), their challenges along with current thinking about how to overcome them, while also gaining insight on raising capital from and valuing the token-based economy.

3. Learning Outcomes

The course overall learning outcomes are:

Knowledge and Understanding:

- a. Demonstrates a critical understanding of technology-based banking concepts (e.g. digital banking, open banking, etc.);
- b. Demonstrates a critical understanding of the range of digital solutions in monetary systems (e.g. digital finance, InsurTech, etc.);
- c. Demonstrates understanding and awareness of emerging technological enablers in banking and finance;
- d. Demonstrates a critical awareness of current, emerging and future issues for FinTech.

Application and Problem-Solving Abilities:

- a. Applies a significant range of specialist database and software operating, programming and other FinTech relevant skills;
- b. Applies an integrated understanding of entrepreneurial dynamics, project and innovation management in the context of technology-based finance and banking (e.g.

4. Module knowledge, skills and competencies (EQF*)

development of innovative products/ solutions?) could be research projects);
Moreover, at the end of this course, the student will be able to

- *Understand the Blockchain technology and its applications.*
- *Present Blockchain concepts clearly and persuasively.*
- *Explain the crypto token in a professional manner and pursue it in their professional purpose.*

5. Module lessons

Lesson N.	1
Lesson title	Blockchain technology- an introduction
Duration	28 hours (7 contact hours approximately)
Specific objectives	+ Understand the ideas behind the blockchain. + Explain cryptographic concepts.
Topics	+ Decentralised ledger system + Blockchain: definition and a solution for a decentralized system. + Cryptographic concepts.
In presence activity	Instructor explains the historical ideas of blockchain technology. Students discuss the use of blockchain in the banking -finance sector. Students debate the barriers and opportunities of using blockchain.

Distance learning type of learning object /task	<ul style="list-style-type: none"> ● A short video on blockchain ● Virtual classroom/ web-streaming conference ● Lecture note ● Self-evaluation test
Other supporting material	<p>Mark Gates (2017). Blockchain: Ultimate guide to understanding blockchain, bitcoin, cryptocurrencies, smart contracts and the future of money. Wise Fox Publishing. Chapter 1, 2, 3, 4, and 5.</p> <p>Mohiuddin Ahmed (2020). Blockchain in data analytics. Cambridge Scholars Publishing. ISBN (13): 978-1-5275-4429-1. Chapter 1, 2, 3 and 4.</p> <p>Niaz Chowdhury (2020). Inside Blockchain, Bitcoin and Cryptocurrencies. Taylor & Francis Group ISBN: 978-1-138-61815-2; Chapter 1, 2 (2.1 and 2.2 page 27-40).</p>

○

Lesson N.	2
Lesson title	Blockchain platform
Duration	60 hours (15 contact hours approximately)
Specific objectives	<ul style="list-style-type: none"> + Understand the classification of blockchain. + Explain the cryptocurrency. + Distinguish the specifications of blockchain.
Topics	<ul style="list-style-type: none"> + Blockchain philosophy. + Blockchain platforms. + Cryptocurrency (Ethereum and bitcoin).
In presence activity	+ Instructor explains and supervises students to discuss the concepts/definitions of blockchain platforms and the cryptocurrency.

	<p>+ Students prepare a presentation to introduce bitcoin (history, distributed P2P network, immutable ledger, forks and the role of money).</p> <p>+ Students work in groups to discuss: Ethereum’s role in the Fintech ecosystem; and tokenizing share and Fund Raising.</p>
Distance learning type of learning object /task	<ul style="list-style-type: none"> ● Audio/Video Lesson ● Lecture note ● Group assignments
Other supporting material	<p>Tiana Laurence (2017) Blockchain for dummies. John Wiley & Son Inc. ISBN 978-1-119-36560-0. Chapter 2, 3, 4 and 5.</p> <p>Niaz Chowdhury (2020). Inside Blockchain, Bitcoin and Cryptocurrencies. Taylor & Francis Group ISBN: 978-1-138-61815-2; Chapter 2 (2.3, 2.4, 2.5 and 2.6 page36 -48), chapter 3, 4, 6, 12, 13, 14, 15, 16</p> <p>Mark Gates (2017). Blockchain: Ultimate guide to understanding blockchain, bitcoin, cryptocurrencies, smart contracts and the future of money. Wise Fox Publishing (Chapter 8).</p>

Lesson N.	3
Lesson title	Blockchain applications
Duration	62 hours (15,5 contact hours approximately)
Specific objectives	<p>+ Classify the criteria for Blockchain application</p> <p>+ Apply the blockchain for firm activities.</p> <p>+ Verify the limitation, challenges and opportunities of blockchain</p> <p>+ Understand the requirements for the regulation for blockchain.</p>

<p>Topics</p>	<p>+ Criteria for blockchain application. + Blockchain and firms. + Cases with Blockchain + Risk and limitation of blockchain. + Challenges and Opportunities of blockchain. + Legal issues and regulation for blockchain.</p>
<p>In presence activity</p>	<p>+ Instructor explains the criteria to blockchain application. Besides that instructor provides topics, cases and supervises students to discuss. + Students discuss cases and risks/issues of blockchain.</p>
<p>Distance learning type of learning object /task</p>	<ul style="list-style-type: none"> ● Audio/Video Lesson ● Virtual classroom/ web-streaming conference ● Lecture note ● Group assignments/presentations.
<p>Other supporting material</p>	<p>Mohiuddin Ahmed (2020). Blockchain in data analytics. Cambridge Scholars Publishing. ISBN (13): 978-1-5275-4429-1. Chapter 5, 6,7, 9</p> <p>Niaz Chowdhury (2020). Inside Blockchain, Bitcoin and Cryptocurrencies. Taylor & Francis Group ISBN: 978-1-138-61815-2; Chapter 8, 9, 10, 11</p> <p>Mark Gates (2017). Blockchain: Ultimate guide to understanding blockchain, bitcoin, cryptocurrencies, smart contracts and the future of money. Wise Fox Publishing. Chapter 6, 7, 8 and 10.</p>