

THE CYPRUS INTERNATIONAL INSTITUTE OF MANAGEMENT

COURSE UNIT DESCRIPTION

Course Unit Title	Blockchain Technologies Workshop	
Course Unit Code	BI435	
Type of Unit	Elective	
Level of Course Unit	First cycle	
Year of Study	First	
Number of ECTS Credits	1.5 ECTS	
Class Contact Hours	7	
Minimum Learning Effort (In Hours)	28	
Course Unit Objectives	The objective of this course is to introduce the students to the Blockchain technology, associated platforms and different applications in several domains such as supply-chain and smart-contracts.	
Learning Outcomes	The students completing the course should be able to	
	CILO 1	Demonstrate understanding of the underlying architecture and major components behind Blockchain.
	CILO 2	Acquire high-level knowledge regarding several platforms that are used in Blockchain projects, as well as their key performance criteria.
	CILO 3	Demonstrate understanding of the applicability of Blockchain technology across several domains.
Name of Lecturer(s)	Dr Theodosios Mourouzis	
Mode of delivery	Face to Face	
Prerequisites or corequisites	BI405 Database Management and Cloud Computing BI425 Information Security Management for Business	
Course Content	<p>1. Blockchain's Architecture:</p> <ul style="list-style-type: none"> - Distributed public ledger - Block chaining via hash functions - Ownership via digital signatures - Consensus algorithms (proof of work, proof of stake) 	CILO 1
	<p>2. Blockchain Platforms Overview, Benefits and Drawbacks:</p> <ul style="list-style-type: none"> - Ethereum - Hyperledger - R3 Corda - Bitcoin's Blockchain 	CILO 2
	<p>3. Case studies:</p> <ul style="list-style-type: none"> - Supply chain - Economics and Cryptocurrencies - Smart-Contracts 	CILO 3
Recommended or required reading	No text book is used for this course. Students need to study the following research articles from journals and online	

	<p>repositories.</p> <p>Recommended Reading</p> <p>Textbooks</p> <ol style="list-style-type: none"> 1. Melanie Swan. <i>Blockchain: Blueprint for a New Economy</i>. O'Reilly, 1st Edition, 2015. <p>Research Articles</p> <ol style="list-style-type: none"> 1. Satoshi Nakatomo. <i>Bitcoin: A peer-to-peer electronic cash system</i>. Online Paper available at: https://bitcoin.org/bitcoin.pdf, 2008. 2. Sarah Underwood. <i>Blockchain Beyond Bitcoin</i>. Communications of the ACM, Vol. 59 (11), 2016. 3. Don Tapscott and Alex Tapscott. <i>The Impact of the Blockchain Goes Beyond Financial Services</i>. Harvard Business Review Digital Articles, 2016. 4. Marco Iansiti and Karim Lakhani. <i>The truth about Blockchain</i>. Harvard Business Review, Vol. 95(1), 2017. 5. Tien Tuan Anh Dih, Ji Wang, Gang Chen, Rui Liu, Beng Chin Ooi and Kian-Lee Tan. <i>BLOCKBENCH: A Framework for Analyzing Private Blockchains</i>. Report Available at: https://arxiv.org/pdf/1703.04057.pdf , 2017. 	
Planned learning activities and teaching methods	lectures, group work, lab work, role playing, project-based learning, homework	
Assessment methods and criteria	100% Presentation of a Case Study in Blockchain	
Language of Instruction	English	
Work Placement(s)	Not applicable	