

Course Syllabus - Blockchain and FinTech: Basics, Application and Limitations

Module 1 Blockchain technology: Why, What, How	
1.1.1	Why Do We Need a Decentralised Ledger System? Part 1
1.1.2	Why Do We Need a Decentralised Ledger System? Part 2
1.2	Having a Centralised Trusted Party - Advantages and Disadvantages
1.3	Security, Integrity and Privacy Issues of a Decentralized System
1.4	Blockchain - A Technology that Makes Sense with Trust and Coordination (An Interview with Charles d'Haussy from ConsenSys)
1.5	What Are the Main Barriers to Blockchain Adoption? (Charles d'Haussy from ConsenSys)
1.6	Why Use Blockchain Technology? (Henri Arslanian from PwC)
Ref	Reference Videos from Introduction to FinTech
	Introduction to FinTech Module 2.9A What is Blockchain? (Part 1)
	Introduction to FinTech Module 2.9B What is Blockchain? (Part 2)

Module 2 Technological and Cryptographic Elements in Blockchain	
2.1.1	Cryptographic Elements: Public Key & Private Key
2.1.2	Cryptographic Elements: Digital Signature & Hash Value
2.1.3	Cryptographic Elements: Real-life Scenario Challenges
2.2.1	Cryptographic Technology: Key Questions for Blockchain
2.2.2	Cryptographic Technology: Who can Modify Transactions?
2.2.3	Cryptographic Technology: Who will Maintain Transactions?
2.2.4	Cryptographic Technology: How to Protect Our Privacy?
2.2.5	Public-key Cryptography (Prasanna Mathiannal from MaGEHold)

Module 3 Blockchain Platforms	
3.1.1	Classification of Blockchain Platforms (Part 1) – An Overview of the 5 Key Perspectives
3.1.2	Classification of Blockchain Platforms (Part 2) - Perspectives No. 1 and 2
3.1.3	Classification of Blockchain Platforms (Part 3) - Perspective No. 3
3.1.4	Classification of Blockchain Platforms (Part 4) - Perspectives No. 4 and 5
3.1.5	Highlights of Major Blockchain Platforms
3.2.1	What is Ethereum? (Charles d'Haussy from ConsenSys)
3.2.2	What is Ethereum's Place in Today's FinTech Ecosystem?

	(Charles d'Haussy from ConsenSys)
3.4.1	Trustlessness and Immutability of Blockchain Technology (Charles d'Haussy from ConsenSys)
3.4.2	Proof of Work and Proof of Stake (Charles d'Haussy from ConsenSys)
3.5.1	Tokenizing (Charles d'Haussy from ConsenSys)
3.5.2	What is a Token? (Charles d'Haussy from ConsenSys)
3.5.3	Tokenizing Shares and Fund Raising (Charles d'Haussy from ConsenSys)
3.6	What is Hyperledger?

Module 4 Blockchain Applications

4.1.1	6 Selection Criteria for Blockchain Applications (Part 1) Key Factors 1, 2, 3
4.1.2	6 Selection Criteria for Blockchain Applications (Part 2) Key Factors 4, 5, 6
4.1.3	6 Selection Criteria for Blockchain Applications (Part 3) Best Fit Applications
4.1.4	6 Selection Criteria for Blockchain Applications (Part 4) Decision Making
4.2.0	Blockchain and Enterprise – A Technology of Coordination (Charles d'Haussy from ConsenSys)
4.3.1	Why Permissioned Blockchains Are Used in Enterprise Network? (Dr. Paul Sin, Consulting Partner from Deloitte, China)
4.3.2	Use Case: Blockchains for Trade Finance (Dr. Paul Sin, Consulting Partner from Deloitte, China)
4.3.3	Use Case: Blockchains for Supply Chain Financing (Dr. Paul Sin, Consulting Partner from Deloitte, China)
4.3.4	Use Case: Cross Border Connectivity - Trusted Data Transfer (Dr. Paul Sin, Consulting Partner from Deloitte, China)
4.4.1	How to Deploy an Application on the Ethereum Blockchain? (Charles d'Haussy from ConsenSys)
4.4.2	Use Case: Bounties Award Ethereum for Cleaning Beaches (Charles d'Haussy from ConsenSys)
4.4.3	ConsenSys and the Ethereum Platform (Charles d'Haussy from ConsenSys)
4.4.4	ConsenSys Use Case: Project i2i (Charles d'Haussy from ConsenSys)
4.5.1	Blockchain Use Case: More on Trade Finance and Supply Chain (Anil Kudalkar from MaGESpire Partners)
4.5.2	Blockchain Use Case: Capital Markets (Anil Kudalkar from MaGESpire Partners)
4.5.3	Blockchain Use Cases on General Government Services & Sustainable Livelihood (Anil Kudalkar from MaGESpire Partners)

Module 5 The Limitations, Opportunities and Challenges of Blockchain

5.1.1	5 modules in Blockchain system
5.1.2	Limitations of Blockchains (Part 1)
5.1.3	Limitations of Blockchains (Part 2)
5.2.1	Risks and Limitations of Blockchain: Privacy (Malcolm Wright from Diginex)

5.2.2	Risks and Limitations of Blockchain: Security (Malcolm Wright from Diginex)
5.2.3	The Five Security Risks of Blockchain (Alan Cheung from Hong Kong Applied Science and Technology Research Institute (Astri))
5.3.1	Applied Smart Contracts: Opportunities, Risks, and Applications for Enterprise (Jon Rout from Digital Asset)
5.3.2	Applied Smart Contracts (DAML): Step-by-Step Example (Jon Rout from Digital Asset)
5.4.1	Use Case: Blockchain for Health Insurance (Alan Cheung from Hong Kong Applied Science and Technology Research Institute (Astri))
5.4.2	Use Case: Blockchain & PropTech (Alan Cheung from Hong Kong Applied Science and Technology Research Institute (Astri))
5.4.3	What Are the Benefits of Blockchain in Banking? (Johnny Cheung from B.C. Holdings)
5.4.4	How Can Blockchain Technology Benefit the Healthcare Industry? (Johnny Cheung from B.C. Holdings)
5.4.5	Institutional Investment Opportunities in the Digital Asset Space (Henri Arslanian from PwC)
5.5.1	Facebook's Libra – Development in Blockchain, DLT and Cryptocurrency (Part 1) (Brian Tang from Asia Capital Markets Institute (ACMI))
5.5.2	Facebook's Libra – Development in Blockchain, DLT and Cryptocurrency (Part 2) (Brian Tang from Asia Capital Markets Institute (ACMI))
5.5.3	Facebook's Libra – Development in Blockchain, DLT and Cryptocurrency (Part 3) (Brian Tang from Asia Capital Markets Institute (ACMI))
5.5.4	Facebook's Libra – Development in Blockchain, DLT and Cryptocurrency (Part 4) (Brian Tang from Asia Capital Markets Institute (ACMI))

Module 6 The “Evil Sides” of Blockchain and Legal Regulations for Blockchain

6.1.1	The Evil Sides of Blockchains Part 1 Ransomware
6.1.2	The Evil Sides of Blockchains Part 2: Money Laundering
6.1.3	The Evil Sides of Blockchains Part 3: Cyber Currencies
6.1.4	The Evil Sides of Blockchains Part 4 Cyber Security Exchanges
6.2	The “Dark” Side of Blockchain (Bowie Lau from MaGESpire)
6.3	Criminal Use of Payment Blockchains (Malcolm Wright from Diginex)
6.4	The Role of Financial Regulations for Blockchain (Professor Douglas Arner, Faculty of Law at the University of Hong Kong)
6.5	Does Blockchain Need Legal Regulations? (An Interview with Charles d’Haussy)
6.6	Global Digital Assets Regulatory Trends (Henri Arslanian from PwC)