BLKN 400 The History of Blockchain Technology

MICROCREDENTIAL AWARDED TO

Muhadjir NGOMNA

Specific Learning Objectives:
Students will first explore the cryptographic foundations that laid the groundwork for blockchain, focusing on key innovations from 1977-2007, such as public-key cryptography, RSA, and the Diffie-Hellman key exchange, and their critical role in secure digital transactions. They will then delve into the genesis of blockchain by analyzing Satoshi Nakamoto's white paper, the launch of Bitcoin in 2009, and the importance of decentralization in building trust and security in digital currencies. The course will also cover the emergence of cryptocurrencies like Ethereum, highlighting the development of smart contracts and decentralized applications (dApps), and examining how these technologies have expanded the applications of blockchain beyond simple digital currencies. Students will further assess blockchain's global impact, studying real-world implementations in industries like supply chain management, decentralized finance (DeFi), and healthcare, where blockchain has improved transparency, efficiency, and security. Finally, the course will address the challenges facing blockchain technology, such as scalability issues, security vulnerabilities, and regulatory uncertainties, while exploring potential solutions like interoperability frameworks to overcome these obstacles and ensure the technology's long-term viability.

In partial fulfillment of the requirements for the nanodegree of

Blockchain Studies (CSC - BSTUD)

(6.0 Clock Hours) (80% Passing Score)

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