

Introduction to Cryptocurrencies - Course Justification

The Internet is designed and implemented as a tool of communication with the purpose of transferring information between smart devices. In the second era of the Internet, humans need cryptocurrency and blockchain to trade values online and place secure online transactions to do business electronically.

A cryptocurrency (or crypto currency) is a digital asset designed to work as a medium of exchange that uses strong cryptography to secure financial transactions, control the creation of additional units, and verify the transfer of assets. Cryptocurrencies use decentralized control as opposed to centralized digital currency and central banking systems.

Considering the growing importance of cryptocurrencies, there is a critical need to a course that introduce the concept of cryptocurrencies, addresses the ethical and social issues emerging in the era of cryptocurrencies, identifies the unique and new security and privacy challenges that cryptocurrency traders must deal with, and explains how they can fundamentally change e-commerce and online transactions. This undergraduate-level course will thoroughly equip students with ideas required to understand basic concepts of cryptocurrency technology and overviews a variety of security, privacy, ethical and social challenges emerging as the next-generation of computing and information systems is developed.

This new course will give our students the knowledge they need to adapt to a world and a workplace that is rapidly changing under the influence of crypto-currencies and blockchain technologies and provide them with critical understanding that is in demand in the marketplace.