

Introduction to Blockchain

Credit Distribution, Eligibility and Pre-Requisites of the Course

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Introduction to Blockchain	2	0	0	2	Class XII	NIL

Learning Objectives

The Learning Objectives of this course are as follows:

- To introduce the students to the basic concept of blockchain.
- To make the students learn and implement blockchain technology.
- To learn about distributed organizations and distributed ledger.

Learning Outcomes

The Learning Outcomes of this course are as follows:

- After studying this course, students will be able to understand how Ethereum transactions are validated by miners.
- After studying this course, students will be able to understand Ethereum Blockchain.
- After studying this course, students will be able to learn Solidity programming language to develop Smart Contracts.
- After studying this course, students will be able to understand the key concepts like cryptography and public , private blockchain.
- After studying this course, students will be able to gain a deep insight into Ethereum, Hyperledger and its network.

Syllabus:

Practical

Unit-1

(16 hours)

Blockchain: Basics And Applications: Node Fundamentals, Blockchain Basics, Blockchain Features, Ethereum Fundamentals, Smart Contract Development In Ethereum, Dapp Development In Ethereum.

Building A Distributed Application On Hyperledger Fabric:

Hyperledger Fundamentals,

Unit-2

(16 hours)

Fabric Network Setup, Chaincode Development,DAPP Development.

CAPSTONE PROJECT

(28 hours)

- Assignment/Project

Suggested Web links

<https://ethereum.org>

<https://www.hyperledger.org/>

Examination scheme and mode:

Evaluation scheme and mode will be as per the guidelines notified by the University of Delhi.