Certified Blockchain Ethereum Developer

The GSDC Certified Blockchain Ethereum Developer (CBED) certification exam validates your expertise in Ethereum development and blockchain technology.

GSDC
Global Skill Development Council

CBED

CERTIFIED

Certified Blockchain Ethereum Developer

ABOUT CERTIFICATION

This industry-recognized certification demonstrates your proficiency as a certified Ethereum professional and signifies your mastery of the essential skills required to design, develop, and deploy secure and scalable Ethereum-based applications.

By being a Certified Blockchain Ethereum Developer, you showcase your in-depth knowledge of smart contracts, decentralized applications (DApps), and the underlying Ethereum blockchain architecture. This certification distinguishes you as a competent Blockchain Ethereum Developer, enabling you to contribute effectively to blockchain projects and gain a competitive edge in the rapidly evolving blockchain industry.

Take the next step in your career and validate your skills with the GSDC Certified Blockchain Ethereum Developer (CBED) certification exam.

OBJECTIVES

The main objective of this certification is empowering the participants in:

1. Certify proficiency in Ethereum development and blockchain.
2. Showcase expertise as a certified Ethereum professional.
3. Master secure and scalable Ethereum application development.
4. Harness the power of smart contracts and DApps.
5. Deep understanding of Ethereum's blockchain architecture.
6. Empower contributions to impactful blockchain projects.
7. Gain a distinct advantage in the evolving industry.

Our Accreditation:

The Global Skill Development Council (GSDC) is the leading third-party, Vendor neutral, international credentialing and certification organization. The Global Skill Development Council (GSDC) is proud to be ANSI Accredited Member.
The American National Standards Institute (ANSI) is a private, non-profit organization that administers and coordinates the U.S. voluntary standards and conformity assessment system.

The Global Skill Development Council (GSDC) is the leading third-party, vendor-neutral, Intern-ational credentialing and certification organization. The Global Skill Development Council (GSDC) is proud to be ABICB accredited member.Accreditation Board For Inter- national Certification Bodies's accrediation is globally recognized as the highest certificati- on for training institutes as it is an independent autonomous body

COURSE SYLLABUS

1.Introduction to Smart Contracts:
- Smart Contracts
- Blockchain Basics
- Ethereum Virtual Machine (EVM)

2.Solidity in Depth:
- Contracts
- Types
- Units and Globally Available Variables
- Expressions and Control Structures
- Contracts
- Libraries

3. Implementation:
- Implement web3.js
- Write and compile Solidity smart contracts
- Create secure smart contracts
- Deploy smart contracts in both the live and test Ethereum networks
- Calculate Ethereum gas costs
- Unit test smart contracts
- Run an Ethereum node on the development machine

4.Common Design Patterns:
- Restricting Access
- Factory Patterns
- Token Systems
- Registries
- Voting Systems

5.Blockchain And Smart Contracts:
- What is Blockchain and how does it work?
- Bitcoin vs Ethereum
- Smart Contract
- How you can use Smart Contracts?
- Advantages of Smart Contracts
- Solidity
- LAB TASK
- Types of Variables in Solidity
- Public and Private Code
- Public Variables and Functions
- Private Variables and Functions
- Internal Functions
- External Functions
- Smart Contract Constructors

- Constant Variables
- Setting Variables

6. Smart Contracts With Web3.js :
- Installing & Running the Ethereum Test RPC
- Installing Web3.js
- Changing the Environment in Remix
- Creating the UI
- Connecting to & Interacting with the Smart Contract Using Web3.js
- SOLUTION

7.Smart Contract Events With Web3.js:
- AIM
- The Current Contract
- Defining the Smart Contract Event
- Updating the UI

8. Functions, Mappings, And Structs:
- Functions
- Mappings
- Structs
- The Smart Contract
- Creating a Modifier
- Using the Modifier
- Web3 UI Modifier Handling
- LAB
- Creating a Struct
- Creating the Mapping
- Map Addition
- Get from the Mapping
- The Full Contract
- Count from Map

9. Inheritance And Deployment:
- Object-oriented programming
- Inheritance
- LAB
- Current Contract
- Creating a Base Contract
- Changing from Strings to bytes
- Continuing the Project
- Installing MetaMask
- Deploy Contract to the Ropsten Test Network
- Update the HTML Form
- Update the JavaScript
- Using the App
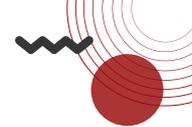
GSDC Technical Advisory Board :

The GSDC is the leading certification association which brings together innovative organizations and founding thought-leaders as Technical Advisors from over 40 countries to design curriculum on Blockchain, Devops, Six Sigma & Agile Certifications.

Our Future Information

Target Audience

- Programmers
- Developers
- Software Engineers
- Application Architects
- Cryptocurrency Enthusiasts
- Blockchain Engineers
- Anyone who uses Ethereum in their daily lives

Pre-requisites

This Certification or Object-oriented programming experience, i.e JS.

**Find out more online at
www.gsdcouncil.org**