INSTRUCTOR LED WEBINAR - SYLLABUS

ENTERPRISE BLOCKCHAIN STRATEGY

Duration: 24 Hours

Delivery: Live Instructor Led Webinar - 24 Hours

Instructor(s): Jim Sullivan / TBD

Office Hours: 10:00 AM to 6:00 PM Eastern Standard Time

Email: studentsupport@blockchainhub360.com

Prerequisites: None (Blockchain Foundations is recommended)

Continuing Education Units: 2.4

Microcredential Exam: Blockchain Strategy
Certification Body: Blockchain Certification Association

Course Overview:
The Enterprise Blockchain Strategy course is designed for consultants, business managers, and decision making executives, where their business and operation models could be impacted by the introduction of blockchain technology. In addition to understanding the foundational aspect of this technology, participants will be able to see how blockchain technology is changing the operational deployment to their benefit. This course is designed to bring participants up-to-speed on blockchain technology, and to create an operational plan on how to implement blockchain technology into their business strategies.

Course Composition:
Instructor Led Webinar: Enterprise Blockchain Strategy Modules 1 - 14

Learning Objectives:
- Understand the fundamentals of blockchain, smart contracts, and consensus protocols
- Recognize the difference between public vs private chains, and evaluate which type is best suited for enterprise aims
- Recall and compare various blockchain use cases in different sectors
- Construct a strategy to make use of blockchainUnderstand the fundamentals of blockchain, smart contracts, and consensus protocols
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Demonstration of Learning Outcomes:
At the conclusion of the Enterprise Blockchain Strategy course students will be able to understand and articulate the core concepts of Blockchain technology and communicate with executive stakeholders, project managers, architects, and blockchain developers to help design, deploy, improve and maintain blockchain business solutions. Furthermore students will determine if a blockchain implementation is not viable given a cost benefit analysis.

Evaluation:
Evaluation is based on participation and a final exam.
Weighted:

50% participation
50% on the final grade

80% overall grade is required in order to receive a Certificate of Completion.

Grading Policy:
Pass or Fail. No Credit (NC).

Attendance Requirements:
Students are expected to attend at least 70% of Instructor Led Webinar Presentations. Should a student miss any portion of the live instruction instructor led webinars are recorded and attached to the learning management. A Certificate of Completion will not be issued if attendance requirements are not met.

Student conduct and etiquette:
Students will be expected to be courteous in their conduct and communications to the instructor and classmates at all times whether such conduct or communication is in person, by telephone or electronic communications.

Behavior that persistently or grossly interferes with instructor or other student activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. The instructor may require a student responsible for disruptive behavior to leave the learning environment pending discussion and resolution of the problem and may report a disruptive student to the Student Affairs Office

Note: Disruptions, or any other distraction in the learning environment may result in a failing grade.

Course Evaluations
Course evaluations and program surveys are important components of the educational process. Students are encouraged to complete the student course evaluation form issued at the conclusion of the course. The evaluation is anonymous.

Computer/Information Literacy Expectations for Students enrolled in this class
Students in this class are expected to:

1. Use a word processing program for writing assignments (e.g., Microsoft Word)
2. Be able to access assigned websites through the internet
3. Have access to PC or mobile device for participation in course content

Course Module Overview:

ENTERPRISE BLOCKCHAIN STRATEGY

Module 1: Basics of Blockchain Part 1

Origins of Blockchain – bitcoin and digital/crypto currencies
What is the Bitcoin blockchain?
Introduction to Blockchain

- Disintermediation
- Core Principles
    - Distributed
    - Immutable
    - Transparent
- Levels of Trust: Who? What?
- Proof of Work
- Private vs Public blockchains
    - Key differences
    - What is a consortium blockchain?
    - Hybrids
    - How to know which is right for you
    - Pros vs. Cons
- How bitcoin works (mining, rewards, Cybil attack)
    - Blockchain Taxonomy – DLT, Blockchain, etc.

Understanding cryptography

- Terms and definitions
- Hash Functions
- Symmetric and Asymmetric Encryption
- Digital Signatures

Blockchain Simulation

Module 2: Basics of Blockchain Part 2

Ethereum (and its derivatives) / Hyperledger/ EOS / Stellar
Consensus protocols

- Proof of Work (PoW)
- Proof of Stake (PoS)
- Directed Acyclic Graph (DAG)
- Delegated Proof of Stake (dPoS)
- Proof of Elapsed Time (PoET)
- Proof of Capacity
- Proof of Integrity
- Proof of Activity
- Byzantine Fault Tolerance (BFT)

Block structures

- Size
- Time
- capacity

Consensus Simulation
Ethereum (and its derivatives) / Hyperledger/ EOS / Stellar

Module 3: Understanding Smart Contracts
Paper to digital contracts
What is a smart contract?
How smart contracts are of value

- Data
- Permissions
- Workflow
- Speed and Accuracy
- Trust
- Security
- Savings

Smart contract platforms
Smart Contract Simulation

Module 4: Blockchain Security / Risk
Blockchain Security – a primer
Consensus engines on Blockchains
Decentralization of computing architectures
Peer-to-Peer clients

Module 5: Understanding ICO's and Cryptocurrencies
Define and describe Initial Coin Offering (ICO)

- Price and volatility issues
- What impacts the price of cryptocurrencies and tokens
- Crypto economics
- Regulatory impact

Forks

- Hard
- soft

Do you need cryptocurrencies for your business?

Module 6: DAO
What is the DAO
How does it work
How was it funded
What happened with the DAO attach?
What are the ramifications of the DAO attack?

Module 7: Use case examples of how blockchains are being used today

Agri
Automotive
Fashion
Healthcare
Insurance
Maritime
Pharma
Power and Energy / Oil and Gas

Module 8: Blockchain Use case Solution Workshop

An interactive workshop to develop a blockchain POC

- Blockchain Project initiation
- Blockchain Project Requirements
- Blockchain Project Design

Module 9: Blockchain Pros and Cons

Speed
Cost
Limitations
Latency
Throughput
Public vs Private Blockchains
Open source vs proprietary
Storage

Module 10: Barriers to Adoption

Existing solutions
Siloed systems
No established data standards and management
Wait and see mentality / the blockchain landscape is undergoing dramatic change
What will motivate change

Module 11: How to prepare you firm for blockchain

Evaluating Blockchain Technology
Public vs private Blockchains
Sidechains and interoperability
Use cases now and in future
Blockchain and permission less commerce
“Blockchain as a Service”; Consortia and other platforms
Decentralized Applications and Smart Contracts
Barriers to Blockchain Adoption

Industry Collaboration
Process

- Plan
- Source
- Make
- Deliver
- Return

Module 12: Regulatory Impact on Blockchain
Who regulates it?
Currently regulatory landscape

- UK government view
- US government view
- EU view
- Global view

Regulatory challenges and future frameworks
Blockchain as a tool for regulatory compliance
Future regulatory challenges
Government view of blockchain and uses currently
Regulators view

- Uses of blockchain in regulation – RegTech
- Regulation of the blockchain

Blockchain Standards

- Who sets the standards?
- Do we need standards?
- Business
- Legal
- Technical

Module 13: What does Blockchain Future Look Like?
The Future – A vision statement
Threat or opportunity?
Value to the enterprise
Greatest Opportunities
The future of Banking and Finance
Blockchain applications in Finance
Adoption of Blockchain by Central Banks
The Distributed Autonomous Organization

Module 14: Leading in a Technological Disruptive Market
Redefining the Roles
Disrupting Identities

- Being a consumer
- Being a catalyst
- Being an insane scientist

Going ahead

Final Exam