

ON-DEMAND COURSE - SYLLABUS

BLOCKCHAIN FOR THE SUPPLY CHAIN

Duration: 15 Hours Introducing this technology. In addition to understanding the foundational aspects of blockchain, participants will see how this technology is changing the operational deployment to their benefit.

Learning Objectives:

- The fundamentals of blockchain
- An intensive introduction to smart contracts, consensus protocols, and public vs. private chains
- An introduction to various blockchains use cases in the Supply Chain.
- Real-life use cases for different industries and different supply chain models
- How to set up a strategy to make use of blockchain for your own supply chain needs

Demonstration of Learning Outcomes:

At the conclusion of the Blockchain for the Supply Chain course students will understand and articulate the core concepts of Blockchain technology related to the supply chain industry and begin to work with supply chain stakeholders to deploy solutions to improve tracking and efficiency.

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 complete all online self-paced modules and assessments. Certificate of Completion will not be issued until all online modules are complete, including the final exam.

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 the 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 essential 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:

BLOCKCHAIN FOR THE SUPPLY CHAIN – 8 MODULES:

Module 1: Basics of Blockchain

Introduction to Blockchain
What is the Bitcoin blockchain
Understanding crypto roles/purpose
Consensus protocols
Public and private blockchains
Ethereum (and its derivatives) / Hyperledger/ EOS / Stellar

Module 2: Understanding Smart Contracts

Paper to digital contracts
What is a smart contract?
Smart contract platforms
How smart contracts are of value to the Supply Chain

Module 3: Pain points for the Supply Chain

Inefficiencies
Sourcing and inventory controls
Product Traceability
Procurement / Long Cycle Times
Compliance
Logistics / Coordination
Operations / Inventory and warehouse management
Opacity
High costs

Shipment visibility
The supply chain is broken.

Module 4: How Can Blockchain Help Supply Chains

Verify Authenticity
Transparency and Security
Increased efficiency
Agreements and Contracts
Regulatory and Compliance
Cyber Security
Change management

Module 5: Use case examples of how blockchains are being used in supply chains today

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

Module 6: Compliance and Regulatory Environment

Blockchain Regulatory Environment
Overview of Blockchain Regulation
Compliance and Legal Issues
Discussion: Assess the advantages of blockchain for the Supply Chain Sector

Module 7: Barriers to Adoption

Existing Supply Chain 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 8: How to prepare your firm for blockchain

Evaluation and Challenges
Activity: Identify a use case that would be impactful to your situation
Acceptance and Action Plan
Source technical expertise
Develop blockchain solution
Solution Implementation
Return on Investment

FINAL EXAM