

ON-DEMAND COURSE - SYLLABUS

BLOCKCHAIN DEVELOPMENT DECISION

Duration:	10 Hours
Delivery:	Online On-Demand / Self-Paced Mentor Supported - 10 Hours
Instructor(s):	Bryant Nielson
Office Hours:	10:00 AM to 6:00 PM Eastern Standard Time
Email:	studentsupport@blockchainhub360.com
Prerequisites:	Students must have a firm grasp of blockchain fundamentals.
Continuing Education Units:	1.0
Microcredential Exam:	Blockchain Development Decision
Certification Body:	Blockchain Certification Association

Course Overview:

This course introduces you to the decisions related to blockchain deployment. In the determination to deploy a solution leveraging this technology, it is essential to understand the available platforms, hosting, associated technologies, languages, and security paramount to the success of any POC or enterprise deployment. Corporate Executives, decision-makers, stakeholders, and blockchain developers seeking to align their efforts with the technology need to be aware of the various aspects of this technology and its development. The pros and cons of each development decision will be illustrated and weighted. Non-technical students will benefit from a clear summary of the implementation.

Course Composition:

Online On-Demand: Blockchain Development Decision Modules 1 - 8

Learning Objectives:

- Identifying the decisions and participants in a successful blockchain implementation
- Learn about various blockchain platforms – Open Source and Commercial
- Understand the hosting and mining options
- Awareness of associated technologies
- Understand the primary programming languages
- Determining the decisions surrounding the security of blockchains

Demonstration of Learning Outcomes:

After the Blockchain Development Decision course, students are equipped with the concepts, varying technology pros, cons, industry jargon, and blockchain project strategy to communicate with a team of stakeholders on the execution or abandonment of deploying a blockchain solution.

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 after the course. The review 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 DEVELOPMENT DECISION– 8 MODULES

Module 1: Blockchain Development Essentials

Is blockchain technology the right solution
Who are the participants in a blockchain project?
What type of blockchain should be used
What is the environment that will host the blockchain?
What additional technologies are essential to success
What programming languages are available to various solutions
What security considerations are there?

Module 2: Blockchain Platforms

Open Source Platforms
Commercial Platforms

Module 3: Hosting/Mining Decisions

Hostings Advantages and Weakness.
Private / Public
Permissioned / Permissionless
Cloud – BAAS (Blockchain As A Service)
Distributed Networks
Developing your own network of nodes – what is required
Transaction Costs
Interoperability

Module 4: Associated Technologies

On-Chain vs. Off-Chain
Lightning Network
Smart Contracts
Coco Framework

Module 5: Development Languages

C++, C: Bitcoin, Ethereum, Bitcoin, Dash, Ripple, Litecoin
JavaScript: Ethereum, Bitcoin Cash, Ripple, IOTA, Litecoin, NEM, Dash
Java: Bitcoin Cash, IOTA, Litecoin, NEM
Python: Bitcoin, Ethereum, Ripple, Litecoin
Go: Hyperledger, Ethereum, IOTA

Module 6: Security and Implementation Goals

Government Regulations

Legal Issues

Security Loopholes

Defining project goals

Metrics to determine success/failure

Hurdles to Blockchain Adoption

Ten secrets about blockchain

Module 7: Risk Management

Enterprise Risk

Operational Risk

Geopolitical Risk

Market Risk

Reputational Risk

Systematic Risk

Compliance

Third Party Risk Management

Module 8: Digital Transformation Traps & Summary

A summary of the Mechanics of Blockchain Technology

Principles for Sustainability

Network Extensibility and Governance