

## ON-DEMAND COURSE - SYLLABUS

### KEY MANAGEMENT COURSE

<b>Duration:</b>	1.5 Hours
<b>Delivery:</b>	Online On-Demand
<b>Instructor(s):</b>	Howard Poston
<b>Office Hours:</b>	10:00 AM to 6:00 PM Eastern Standard Time
<b>Email:</b>	studentsupport@blockchainhub360.com
<b>Prerequisites:</b>	None

#### **Course Overview:**

The Key Management Course provides an introduction to private key security on the blockchain. Course attendees will learn about the lifecycle of an account private key and common security risks associated with private key management.

#### **Course Composition:**

Online On-Demand:                      Key Management                                      Modules 1 - 4

#### **Learning Objectives:**

- Understand the underlying theory behind public key cryptography
- Explore applications of asymmetric cryptography in blockchain
- Compare the various methods of private key generation
- Contrast various private key storage methodologies
- Articulate common cryptographic key management mistakes

#### **Demonstration of Learning Outcomes:**

After the Key Management Course, students understand private key management and security.

#### **Evaluation:**

Evaluation is based on participation and a final exam.

Weighted:

50% participation

50% on the final grade

80% overall grade is required 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 important 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:**

### KEY MANAGEMENT COURSE – 4 MODULES

#### **Module 1: Introduction to Key Management**

Introduction to Asymmetric Cryptography  
Mathematically “Hard” Problems  
“Hard” Problems and Asymmetric Cryptography  
Benefits of Asymmetric Cryptography  
Public Key Cryptography and the Blockchain

#### **Module 2: Key Generation**

How Asymmetric Keys Are Created  
Blockchain Wallets and Key Generation  
Key Generation Best Practices

#### **Module 3: Key Management and Storage**

Introduction to Key Management  
“Cold” and “Hot” Wallets  
Mnemonic Seed Phrases  
Types of Blockchain Wallets  
Key Management and Storage Best Practices

#### **Module 4: Risks of Poor Private Key Security**

Why Private Key Security is Important  
How Private Key Security Fails