



1. Exercises, Quizzes, Flashcards & Glossary

Number of Questions

2. Expert Instructor-Led Training

3. ADA Compliant & JAWS Compatible Platform

4. State of the Art Educator Tools

5. Award Winning Learning Platform (LMS)

6. Chapter & Lessons

Syllabus

Chapter 1: Preface

Chapter 2: Blockchain: A New Era of Technology

Chapter 3: Blockchain: A Path To The Future

Chapter 4: Blockchain In 5G

Chapter 5: Blockchain In Social Networking

Chapter 6: Integrating Blockchain With CACC For Trust And Platoon Management

Chapter 7: Impact Of Blockchain For Internet OF Things Security

Chapter 8: Chaos Control Dynamics Of Cryptovirology In Blockchain

Chapter 9: Blockchain And Bitcoin Security

Chapter 10: Applications With Blockchain Technique

Chapter 11: Impact Of Application Of Big Data On Cryptocurrency

Chapter 12: A Smart and Sustainable Farming System Using Blockchain and AI

Chapter 13: Theories and Environmental Impact of Blockchain and Cryptocurrency

Chapter 14: Blockchain Technology: A Paradigm Shift In Investment Banking

Chapter 15: Trading Energy As A Digital Asset: A Blockchain-Based Energy Market

Chapter 16: Application View Towards Blockchain: Demystifying The Myths

Videos and How To

7. Performance Based labs

Lab Tasks

Here's what you get

## 1. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.

**79**  
EXERCISES

## 2. Quiz

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.

**97**  
QUIZ

## 3. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.

**85**  
FLASHCARDS

## 4. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



## 5. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

## 6. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

## 7. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

## 8. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
  1. Best Postsecondary Learning Solution
  
- **2015**
  1. Best Education Solution
  2. Best Virtual Learning Solution
  3. Best Student Assessment Solution
  4. Best Postsecondary Learning Solution
  5. Best Career and Workforce Readiness Solution
  6. Best Instructional Solution in Other Curriculum Areas
  7. Best Corporate Learning/Workforce Development Solution
  
- **2016**
  1. Best Virtual Learning Solution
  2. Best Education Cloud-based Solution
  3. Best College and Career Readiness Solution
  4. Best Corporate / Workforce Learning Solution
  5. Best Postsecondary Learning Content Solution

6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform
2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

## 9. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

# Syllabus

## Chapter 1: Preface

## Chapter 2: Blockchain: A New Era of Technology

- Introduction to Web 3.0
- Blockchain
- Bitcoin
- Ethereum
- InterPlanetary File System (IPFS)
- Decentralized Applications (DApps)
- Case Study: FIR
- Conclusion

## Chapter 3: Blockchain: A Path To The Future

- Introduction
- Blockchain Architecture
- Types of Blockchain Systems
- Consensus Algorithms

- Blockchain Applications That Are Transforming Society
- Future Scope

## Chapter 4: Blockchain In 5G

- Introduction
- Data Economy of Blockchain and 5G
- Combination of Blockchain Technology and 5G Mobile Connection
- How to Use 5G and Blockchain Together
- Applications of Blockchain and 5G
- Conclusion

## Chapter 5: Blockchain In Social Networking

- Overview of Blockchain and Social Networking Platform
- Decentralized Online Social Network
- Trusted Social Network with Blockchain Technology
- Privacy-Preserving Services for Social Network
- Issues and Challenges of Blockchain in Social Network
- Conclusion

## Chapter 6: Integrating Blockchain With CACC For Trust And Platoon Management

- Introduction
- Literature Review
- Background
- Consensus in Blockchain
- Proposed Framework
- Experiments
- Results and Discussion
- Conclusion

## Chapter 7: Impact Of Blockchain For Internet OF Things Security

- Introduction
- Challenges and Issues in IoT
- Blockchain
- IoT Blockchain Approaches
- Research Challenges
- Conclusion

## Chapter 8: Chaos Control Dynamics Of Cryptovirology In Blockchain

- Introduction
- Mathematical Modeling and Stability Analysis
- Lyapunov Exponent and Chaos
- Controlling of Chaos
- Conclusion

## Chapter 9: Blockchain And Bitcoin Security

- Introduction
- Security Threats to Bitcoin
- Working Idea of Bitcoin
- Case Study for Analyzing the Reason for Fall in Bitcoin Value
- Analyzed Report
- Rise of Bitcoin Value
- Conclusion

## Chapter 10: Applications With Blockchain Technique

- Introduction
- Applications of Blockchain Technology

- Conclusion

## Chapter 11: Impact Of Application Of Big Data On Cryptocurrency

- Introduction
- Related Studies
- Cryptocurrency
- Blockchain
- Big Data
- Coexistence of Big Data and Blockchain
- Future Aspects of Cryptocurrency with Big Data
- Conclusion

## Chapter 12: A Smart and Sustainable Farming System Using Blockchain and AI

- Introduction
- Artificial Intelligence Technology and Its Impact on Agriculture
- Blockchain Technology (BCT) and Its Impact on Agriculture
- A Farming System Using Blockchain and AI
- Conclusion and Future Work

## Chapter 13: Theories and Environmental Impact of Blockchain and Cryptocurrency

- Introduction
- Literature Review
- Theories of Cryptocurrency, Blockchain and Distributed Systems
- Environmental Implications of the Cryptocurrency Market
- Conclusion

## Chapter 14: Blockchain Technology: A Paradigm Shift In Investment Banking

- Introduction
- Literature Review
- Statement of the Problem
- Results
- Discussion of Findings
- Conclusion

## Chapter 15: Trading Energy As A Digital Asset: A Blockchain-Based Energy Market

- Introduction
- Blockchain-Based P2P Energy Market

- Distributed Ledger for Energy Tracking
- Self-Enforcing Smart Contracts for Energy Market Management
- Conclusion

## Chapter 16: Application View Towards Blockchain: Demystifying The Myths

- Introduction
- What Blockchain Does Not Replace
- Mining Mechanism
- Various Participants of Blockchain System
- Organized Use Cases
- Hyperledger
- Steps to Creating Your Own App
- Advertising Industry
- Present Day Implementation
- Versatile Use Cases
- Myths
- Conclusion

## Videos and How To

uCertify course includes videos to help understand concepts. It also includes How Tos that help learners in accomplishing certain tasks.

**4**

**VIDEOS**

**05**

**MINUTES**

## 10. Performance Based Labs

uCertify's performance-based labs are simulators that provides virtual environment. Labs deliver hands on experience with minimal risk and thus replace expensive physical labs. uCertify Labs are cloud-based, device-enabled and can be easily integrated with an LMS. Features of uCertify labs:

- Provide hands-on experience in a safe, online environment
- Labs simulate real world, hardware, software & CLI environment
- Flexible and inexpensive alternative to physical Labs
- Comes with well-organized component library for every task
- Highly interactive - learn by doing
- Explanations and remediation available
- Videos on how to perform

### Lab Tasks

- Integrating IoT and Blockchain
- Analyzing the Impact of Applications of Big Data on Cryptocurrency
- Evolving the Role of AI in Agriculture
- Analyzing the Environmental Impact of Blockchain
- Integrating Blockchain into Modern Banking
- Exploring Smart Energy Trading with Blockchain

- Exploring the Applications of Blockchain

## Here's what you get



You can't stay away! Get

 3187 Independence Drive  
Livermore, CA 94551,  
United States



+1-415-763-6300



support@ucertify.com



www.ucertify.com