INSEAD

COURSE CERTIFICATE

Aug 20, 2021

# Srikanth Deti

has successfully completed

## Introduction to Blockchain Technologies

an online non-credit course authorized by INSEAD and offered through Coursera

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Don Tapscott
Adjunct Professor

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Verify at coursera.org/verify/Z8B72NU4J598

Coursera has confirmed the identity of this individual and their participation in the course.

# Introduction to Blockchain Technologies

by INSEAD

**About this Course**

In this first course of the specialization, we will discuss the limitations of the Internet for business and economic activity, and explain how blockchain technology represents the way forward. After completing this course, you will be able to explain what blockchain is, how it works, and why it is revolutionary. You will learn key concepts such as mining, hashing, proof-of-work, public key cryptography, and the double-spend problem. You'll be able to describe seven design principles for blockchain technology, and the challenges facing the people developing it. You'll also meet the players in the blockchain ecosystem, and consider your own role in stewarding the blockchain revolution.

**More**

**Taught by:**
**Don Tapscott**, Adjunct Professor

**Taught by:**
**Alex Tapscott**, Instructor

| | |
|---|---|
| **Basic Info** | Course 1 of 4 in the Blockchain Revolution Specialization |
| **Level** | Beginner |
| **Commitment** | 5 weeks of content, about 2 hours per week |
| **Language** | English, **Subtitles:** Arabic, French, Portuguese (European), Italian, Portuguese (Brazilian), Vietnamese, German, Russian, Spanish<br>**Volunteer to translate subtitles for this course** |
| **How To Pass** | Pass all graded assignments to complete the course. |

# Syllabus

## WEEK 1

### The Second Era of the Internet

The Internet connects billions of people around the world, and is great for communicating and collaborating online. However, because it was built for moving and storing information, and not value, it has done little to change the way we do business. Now, for the first time in human history, two or more parties anywhere in the world can transact and do business peer to peer using the blockchain. In this module we introduce blockchain as "the trust protocol," and explain how it represents the second era of the Internet. We describe how blockchain technology establishes trust—not through powerful intermediaries, but rather through collaboration, cryptography and clever code.

More

13 videos, 8 readings, 4 practice quizzes

1. **Video:** Specialization Overview
2. **Video:** Peter Zemsky Welcomes you to the Specialization
3. **Video:** Course Introduction
4. **Video:** Instructor Introduction
5. **Reading:** hypothes.is
6. **Discussion Prompt:** Your Goals for this Course
7. **Video:** Module 1 Overview
8. **Video:** The Internet of Information
9. **Reading:** The Internet of Information
10. **Discussion Prompt:** Limitations of the Internet
11. **Practice Quiz:** The Internet of Information
12. **Video:** In Search of the Trust Protocol
13. **Reading:** In Search of the Trust Protocol
14. **Video:** What is Blockchain?
15. **Reading:** What is Blockchain?
16. **Practice Quiz:** In Search of the Trust Protocol / What is Blockchain
17. **Video:** Practitioner Perspective: Andreas Wallendahl, Head of Strategic Initiatives at ConsenSys
18. **Video:** Practitioner Perspective: Rob Carter, CIO at FedEx
19. **Video:** Achieving Trust in the Digital Age

20. **Reading:** Achieving Trust in the Digital Age
21. **Practice Quiz:** Achieving Trust in the Digital Age
22. **Video:** How Blockchain Works
23. **Reading:** How Blockchain Works
24. **Reading:** Blockchain Demo
25. **Practice Quiz:** How Blockchain Works
26. **Video:** Recap of Module 1
27. **Reading:** Review of Module 1
28. **Discussion Prompt:** Explain Blockchain to a Friend or Family Member

**Show less**

**Graded:** The Second Era of the Internet

**Graded:** Steps of a Blockchain Transaction

## WEEK 2

### Blockchain Design Principles

We believe that the next era of the digital economy can be shaped around a set of blockchain design principles, which can be used for creating software, services, reinventing business models, markets, organizations, and even governments. This module frames the blockchain revolution around seven design principles. For each principle we describe a current problem to be solved, identify "blockchain breakthroughs" to these problems, and discuss the implications of these breakthroughs on the digital economy. We hope that these design principles will assist learners in contemplating their roles and their futures in the blockchain revolution.

**More**

12 videos, 8 readings, 5 practice quizzes

1. **Video:** Module 2 Overview
2. **Video:** Intro to Blockchain Design Principles
3. **Video:** Principle 1: Networked Integrity
4. **Reading:** Principle 1: Networked Integrity
5. **Practice Quiz:** Principle 1: Networked Integrity
6. **Video:** Principle 2: Distributed Power
7. **Video:** Practitioner Perspective: Rob Carter, CIO at FedEx
8. **Reading:** Principle 2: Distributed Power
9. **Practice Quiz:** Principle 2: Distributed Power
10. **Video:** Principle 3: Value as Incentive

11. **Reading:** Principle 3: Value as Incentive
12. **Practice Quiz:** Principle 3: Value as Incentive
13. **Video:** Principle 4: Security
14. **Reading:** Principle 4: Security
15. **Practice Quiz:** Principle 4: Security
16. **Video:** Principle 5: Privacy
17. **Reading:** Principle 5: Privacy
18. **Video:** Principle 6: Rights Preserved
19. **Reading:** Principle 6: Rights Preserved
20. **Video:** Principle 7: Inclusion
21. **Video:** Practitioner Perspective: Julie Maupin, Director of Social Impact & Regulatory Affairs at IOTA Foundation
22. **Reading:** Principle 7: Inclusion
23. **Practice Quiz:** Privacy, Rights, and Inclusion
24. **Video:** Recap of Module 2
25. **Reading:** Review of Module 2

**Show less**

**Graded:** Blockchain Design Principles

## WEEK 3

### Public and Private Ledgers

The advent of blockchain technology forces us to reconsider the upside and downside of public revelation of transactions and contracts. The implementation, application, and possible regulation of distributed ledgers involve choices that will critically affect information disclosure and economic interactions. Whether the ledger is public and permissionless, such as the Bitcoin or Ethereum blockchains, or private and permissioned, such as the Ripple or Hyperledger implementations, in principle transactions on a blockchain have a high native level of transparency. In this module, you will learn how privacy can can be protected in both public and private ledgers using both procedural and technological methods.

**More**

13 videos, 4 readings, 4 practice quizzes

1. **Video:** Module 3 Overview
2. **Video:** The Benefits of Shared Knowledge
3. **Video:** How Much is Too Much Transparency
4. **Reading:** Intro to Transparency
5. **Practice Quiz:** Intro to Transparency

6. **Video:** Centralized Registries vs. Distributed Ledgers
7. **Video:** Public vs. Private Ledgers
8. **Reading:** Public vs. Private Ledgers
9. **Video:** Practitioner Perspective: Rolf Hoefer, Keyless Technologies
10. **Video:** Practitioner Perspective: Andreas Wallendahl, Head of Strategic Initiatives at ConsenSys
11. **Practice Quiz:** Public vs. Private Ledgers
12. **Video:** Transparency as a Strategic Risk
13. **Video:** Transparency as a Strategic Asset
14. **Discussion Prompt:** Transparency as a Risk and an Asset
15. **Practice Quiz:** Transparency as a Risk and Asset
16. **Video:** Usage of Multiple IDs
17. **Video:** Zero Knowledge Proofs
18. **Video:** Implementation in Public vs. Private Blockchains
19. **Reading:** Approaches to Privacy in Blockchains
20. **Practice Quiz:** Approaches to Privacy in Blockchains
21. **Video:** Recap of Module 3
22. **Reading:** Review of Module 3

**Show less**

**Graded:** Public and Private Ledgers

## WEEK 4

### The Blockchain Ecosystem

Although blockchain technology emerged from the open source community, it quickly attracted many stakeholders, each with different backgrounds, interests, and motives. In this module, you will explore the roles and perspectives of nine categories of stakeholders within the blockchain ecosystem, including industry pioneers, venture capitalists, developers, governments, regulators, leaders, and end users.

8 videos, 2 readings, 3 practice quizzes

1. **Video:** Module 4 Overview
2. **Video:** Intro to the Blockchain Ecosystem

3. **Video:** Blockchain Stakeholders Part 1
4. **Video:** Practitioner Perspective: Rob Carter, CIO at FedEx
5. **Practice Quiz:** Blockchain Stakeholders Part 1
6. **Video:** Blockchain Stakeholders Part 2
7. **Practice Quiz:** Blockchain Stakeholders Part 2
8. **Video:** Blockchain Stakeholders Part 3
9. **Practice Quiz:** Blockchain Stakeholders Part 3
10. **Reading:** Blockchain Stakeholders
11. **Video:** Practitioner Perspective: Oleg Fomenko, Co-founder of Sweatcoin
12. **Discussion Prompt:** Blockchain Stakeholders
13. **Video:** Stewarding the Blockchain Revolution
14. **Reading:** Stewarding the Blockchain Revolution

**Show less**

**Graded:** The Blockchain Ecosystem

## WEEK 5

### Blockchain Implementation Challenges

Like every revolutionary technology, the blockchain has its upside and its downside. In this module we discuss ten implementation challenges which must be overcome as we transition to the second era of the Internet. For each challenge, you will also learn about potential solutions and what we can do to ensure the fulfillment of the blockchain's promise.

17 videos, 11 readings, 10 practice quizzes

1. **Video:** Module 5 Overview
2. **Video:** Overcoming Showstoppers
3. **Video:** Challenge 1: The Technology is Not Ready for Prime Time
4. **Reading:** The Technology is Not Ready For Prime Time
5. **Practice Quiz:** The Technology is Not Ready For Prime Time
6. **Video:** Challenge 2: The Energy Consumed is Unsustainable
7. **Reading:** The Energy Consumed is Unsustainable
8. **Practice Quiz:** The Energy Consumed is Unsustainable
9. **Video:** Challenge 3: Governments Will Stifle or Twist It

10. **Reading:** Governments Will Stifle or Twist It
11. **Practice Quiz:** Governments Will Stifle or Twist It
12. **Video:** Practitioner Perspective: Oleg Fomenko, Co-Founder at Sweatcoin
13. **Video:** Practitioner Perspective: Will Harborne, Director of Operations at Ethfinex
14. **Video:** Challenge 4: Powerful Incumbents of the Old Paradigm Will Usurp It
15. **Reading:** Powerful Incumbents of the Old Paradigm Will Usurp It
16. **Practice Quiz:** Powerful Incumbents of the Old Paradigm Will Usurp It
17. **Video:** Challenge 5: The Incentives are Inadequate
18. **Reading:** The Incentives are Inadequate
19. **Practice Quiz:** The Incentives are Inadequate
20. **Video:** Challenge 6: Blockchain is a Job Killer
21. **Reading:** Blockchain is a Job Killer
22. **Practice Quiz:** Blockchain is a Job Killer
23. **Video:** Challenge 7: Governing the Protocols
24. **Reading:** Governing the Protocols
25. **Practice Quiz:** Governing the Protocols
26. **Video:** Practitioner Perspective: Rob Carter, CIO at FedEx
27. **Video:** Challenge 8: Distributed Autonomous Agents
28. **Reading:** Distributed Autonomous Agents
29. **Practice Quiz:** Distributed Autonomous Agents
30. **Video:** Challenge 9: Privacy
31. **Reading:** Privacy
32. **Practice Quiz:** Privacy
33. **Video:** Challenge 10: Criminals Will Use It
34. **Reading:** Criminals Will Use It
35. **Practice Quiz:** Criminals Will Use It
36. **Video:** Reasons Blockchain Will Fail or Implementation Challenges?
37. **Reading:** Blockchain Implementation Challenges
38. **Discussion Prompt:** Blockchain Implementation Challenges
39. **Video:** Course Wrap-up

**Show less**

**Graded:** Blockchain Implementation Challenges

View Less

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## How It Works

**General**

### How do I pass the course?

To earn your Course Certificate, you'll need to earn a passing grade on each of the required assignments—these can be quizzes, peer-graded assignments, or programming assignments. Videos, readings, and practice exercises are there to help you prepare for the graded assignments.

More

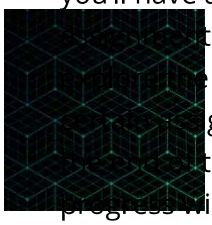
## Course 1 of Specialization

### What do start dates and end dates mean?

**Learn the fundamentals of blockchain technology**

Featuring Don Tapscott, world-renowned expert on business innovation and technology.

Once you enroll, you'll have access to all videos, readings, quizzes, and programming assignments (if applicable). If you choose to explore the course without purchasing, you may not be able to access certain assignments. If you don't finish all graded assignments before the course ends, you can reset your deadlines. Your progress will be saved and you'll be able to pick up where you left off.



Blockchain Revolution

INSEAD

### View the course in catalog

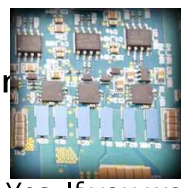
### What are due dates? Is there a penalty for submitting my work after a due date?

## Related Courses

Within a course, there are suggested due dates to help you schedule and keep coursework from piling up. Quizzes and assignments can be submitted late without consequence. It's possible that you won't receive a grade if you submit a graded assignment too late because classmates usually review assignment within three days of the assignment deadline.

Build Inclusive User Personas in Miro

Coursera Project Network



Techniques of Design-Oriented Analysis

University of Colorado Boulder

### Can I resubmit an assignment?

Yes. If you want to improve your grade, you can always try again. If you're re-attempting a peer-graded assignment, re-submit your work as soon as you can to make sure there's enough time for your classmates


## How to design Facebook/IG Stories using Canva

Coursera Project Network



## Making the Case for Robotic Process Automation

Association of International Certified Professional Accountants


## How to create Social Media graphics using Canva

Coursera Project Network