



**Blockstream**  
Institute



# Course description

## Bitcoin, from payment tool to strategic asset

### Description

In just over 16 years, Bitcoin has transformed in terms of **market perception**, evolving from a pure peer-to-peer **payment system** to an investment asset, to the point where it is now considered a **strategic asset** by companies and even **sovereign states**. The module aims to outline this **evolution**, exploring different points of view and the **potential developments** of the ecosystem that is emerging around **Bitcoin**, with all its contradictions and, in the background, the crucial issue of **protocol scalability**.

**Duration:** 54:06

**Methodology:** e-learning

### Contents

1. The emergence of a new asset class
2. Bitcoin as a payment system
3. The adoption and institutional custody of Bitcoin
4. Bitcoin in an investment portfolio
5. Bitcoin as a strategic reserve
6. Ways to gain exposure to Bitcoin
7. The evolution of the Bitcoin ecosystem

## Bitcoin and Environmental Impact

### Objectives

The environmental impact of **cryptocurrencies**, and **Bitcoin** in particular, has been the subject of much debate for years, sometimes with specious arguments, but undoubtedly in light of the impressive energy consumption data associated with **mining**. With the support of two important studies by **MIT** in **Boston** and **GAMA for Africa**, as well as a series of data updates by **Federico Rivi**, the module provides participants with an overview of the costs and benefits of **Bitcoin mining**, in light of a narrative that is gradually changing and increasingly interesting updated data.

**Duration:** 53:49

**Methodology:** e-learning

### Contents

1. MIT\_Climate Impact of Bitcoin Mining in the US
2. GAMA\_Bitcoin and energy in Africa
3. Cambridge Digital Mining Industry Report
4. Cryptocurrencies and environmental impact
5. In-depth analysis\_The direction of Bitcoin mining

## On-chain intelligence and anti-money laundering

### Description

This module explores the application of **on-chain business intelligence** as an advanced tool for **monitoring** and **analyzing transactions on the blockchain**. Participants will learn about the main **on-chain intelligence** techniques used to identify suspicious activity, track fund flows, and support **regulators** and **law enforcement agencies** in combating **financial crime**. As always, practical cases, analysis methodologies, and international collaborations will be discussed in a very concrete and structured manner.

**Duration:** 31:19

**Methodology:** e-learning

### Contents

1. On-chain intelligence, a new analysis tool
2. Collaboration with the authorities
3. Limitations of on-chain intelligence
4. Future Opportunities and Innovations
5. Case Study\_Professionalization of On-Chain Crime
6. Case Study\_On-chain analysis in the fight against crime
7. Curiosity\_The origins of On-Chain Intelligence

## Scalability and Security: an issue toward Adoption

### Description

The scalability of a **blockchain**, which in some ways is an indirect factor in its **security**, has always been one of the most discussed and debated topics. In light of **the progressive development** of the market in terms of **applications** and **use cases**, which suggest the beginning of a path towards more widespread adoption, it has grown significantly in terms of relevance and sense of urgency. The module aims to enable participants to understand the relevance of this aspect and its interconnection with the related concepts of **security** and **decentralization**, the so-called "**Blockchain trilemma**," by illustrating the **operating mechanisms** of the main **Blockchains** in terms of block management and fees definition,

**Duration: 16:30**

**Methodology: e-learning**

### Contents

1. The Blockchain trilemma
2. Block size and frequency
3. Transaction costs and the concept of gas fees
4. Scalability solutions on Bitcoin