

ECONOMICS AND TECHNOLOGY OF BLOCKCHAIN

 Niveau
d'étude
BAC +5

 Composante
Ecole
d'économie
de la
Sorbonne
(EES)

 Volume
horaire
18h

 Période de
l'année
Automne

En bref

- › **Langue(s) d'enseignement:** Anglais
- › **Méthodes d'enseignement:** En présence
- › **Forme d'enseignement :** Cours magistral
- › **Ouvert aux étudiants en échange:** Non

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Description

Summary: This course aims to build an understanding from the ground up of the technologies that allow blockchains and distributed ledgers to represent financial assets:

- * Fundamentals of the technology
 1. Notions of cryptography
 2. Peer to peer networks
 3. Bitcoin white-paper and implementation
- * Applied Techniques
 1. Smart Contracts and the representation of financial assets
 2. Enterprise blockchains and their consensus algorithms
 3. A glimpse to the future : scalability and confidentiality

Professor: Xavier Lavayssière (CEO - ECAN, Blockchain & Emerging Technologies ; Co-Founder & President - Les Bricodeurs)

Student assessment: Project in Python/Solidity + Exam

Pré-requis obligatoires

Summer reading:

- * Antonopoulos Andreas (2014) Mastering Bitcoin, chapter 1 and 2 ([🔗 buy](#), [🔗 source code](#))
- * Guerraoui, Rachid (2018) [FR] L'algorithmique répartie : à la recherche de l'universalité perdue ([🔗 document](#))
- * Guerraoui, Rachid, Kuznetsov, Petr (2018) Algorithms for concurrent systems
- * Internet Engineering Task Force (2014) RFC 7231 Hypertext Transfer Protocol ([🔗 document](#))
- * Raymond, Eric S.(1999) The Cathedral and the Bazaar: Musings on Linux and Open Source by an Accidental Revolutionary
- * Wong, David (2021) Real-World Cryptography ([🔗 livebook](#))
- * Antonopoulos Andreas, Wood Gavin (2019) Mastering Ethereum ([🔗 editor](#), [🔗 source code](#))
- * Corda Documentation ([🔗 link](#))
- * Hyperledger Fabric Documentation ([🔗 link](#))
- * Lavaysiere, Xavier (2019) Libra Compendium ([🔗 document](#))
- * Nakamoto, Satoshi (2008) Bitcoin Whitepaper ([🔗 document](#))
- * Song, Jimmy (2019) Programming Bitcoin
- * Wood, Gavin (2014) Ethereum Yellow paper