

PHYS114W : Bitcoin, Blockchains, and Energy

Bitcoin, Blockchains and Energy provides a foundation in blockchain technology and its complex interactions with the energy grid. It is designed for those with little to no experience in the field and starts at the very beginning exploring why and how the first blockchain currency (Bitcoin) was created. It follows with an analysis of the various interweaving technologies, in addition to the blockchain that make it viable: decentralization, open-source software, encryption, and proof-of-work. It includes a discussion of energy production and consumption and the environmental impacts that various forms of energy production have on both the planet and our energy grid. Students also explore how “mining” impacts innovation and energy grid stability. The course finishes with a practical overview of how all this technology works today and what impacts it might have on the future.

Lecture Hours 3

Lab Hours 0

Credits 3