Cryptocurrencies Syllabus

This comprehensive course is aimed at beginners, but even seasoned crypto specialists will benefit. Our goal is for students to gain proficiency in the crypto markets, through practical examples. The course is broken up into 6 modules. The modules and content are listed below.

# Introduction to Cryptocurrencies

## Introduction

* Course overview
* History
* Currencies
* Value
* Centralization vs. Decentralization
* Brokers vs. Exchanges
* Getting started with Crypto
* Wallets
* Security

## The Blockchain

* What is a blockchain?
* Blockchain operations
* Cryptography
* Keys
* Mining
* Classes of Crypto currencies
* Smart Contracts
* Examples
* Security

## Smart Contracts

* Motivations
* Introduction
* Capabilities and Limitations
* Inside a Smart Contract
* Security
* Classifications of Smart Contracts
* ERC Contracts
* Applications
* Non Fungible Tokens
* Examples

## Non-Fungible Tokens

* Understanding NFT’s
* Real NFT sales
* Real Examples
* Minting
* Scarcity
* Networks
* Fees
* Bridging
* Setting up an Account
* Verification
* Tips for Aspiring NFT artists

## Decentralized Finance

* Centralization vs Decentralization
* What is a DAO?
* Dapps
* Staking Revisited
* Loans
* Risks
* Scams
* The Future of Defi
* Examples

## Regulation

* Notable Hacks/Breaches
* Case Studies
* Views on Regulation
* Regulatory Hurdles
* Regulatory Bodies in the United States
* Stances of Different Regulators
* References

# Trading Cryptocurrencies

## Introduction to Trading

* Your path as a trader
* Trading plan
* Tools
* Trading vs. Investing
* Asset Classes and Financial Products
* Trading Ecosystem
* How to enter a trade

## Charts and Candlesticks

* Charts
* Understanding Candles
* Support and Resistance
* Uptrends, Downtrends and Rangebound Markets

## Fibonacci Levels and Indicators

* Fibonacci levels
* Technical Indicators
  + Moving Averages
  + MACD
  + RSI
  + Kovach Indicators

## Chart Patterns and Trade Setups

* Time frame and distortions in charts
* General rules for trading
* Chart patterns
* Setting up trades with proper risk/reward
* Using patterns to help set up trades

## TradingView Basics

* Basic Navigation
* Charts
* Selecting assets, chart type, timeframe
* Adding indicators and saving templates
* Drawing tools

## Cypher Patterns and Elliott Wave

* Cypher patterns
  + Bat Pattern
  + Gartley Pattern
  + Butterfly Pattern
  + Crab Pattern
  + ABCD Pattern
  + Wolfe Wave
* Elliott Wave
  + Motivation
  + Notation
  + The 5-3 Elliott Wave

# Blockchain Development

## Introduction

* Setting up a development environment with Python
* Generating entropy
* Generating a mnemonic seed phrase
* Generating private keys
* Generating public keys
* Formulating wallet addresses
* Basic interaction with smart contracts

## Creating an ERC 20 and ERC 721 Contracts

* Setting up with NPM and Truffle
* Understanding smart contracts
* Connecting to the blockchain with infura
* Writing a smart contract for an ERC 20 token
* Writing a smart contract for an ERC 721 non-fungible token