**Title:** “Blockchain, Virtual Currencies, and Tokens: An Examination of Business & Legal Issues”

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College

**Learning Goals**

* The course is designed to give the students an understanding that will provide them with the ability to analyze the business projects and associated legal issues relating to the blockchain industry.
* The course will explore the development of blockchain as a vehicle for innovation, the legal issues surrounding blockchain projects, and the business cases for both public and private blockchains through the examination of concrete case studies.
* The course will address the basics of virtual or crypto currencies and tokens(digital assets). Students will analyze several early token issuances (i.e., Bitcoin and Ethereum) and more recent Initial Coin Offerings (ICOs) from both a business and legal perspective.
* The course will introduce students to the primary legal framework in the USA—i.e., CFTC, SEC, FINCEN, IRS, and state regulators. Having an understanding of the functions and roles of each of these regulatory bodies is important for product offerings and for how blockchain entrepreneurs have and will continue to navigate the space. Through the analysis of ICOs, students will gain a perspective of how the regulatory uncertainty creates risks, opportunities and exposure.
* The course will explore geographic arbitrage from both legal and business viewpoints.

**Pedagogy**

* Weekly readings (articles, cases, regulatory filings or ICOs) and discussions
* Instructor lectures
* Guest speakers, panels from different sectors of the industry. The speakers will provide students with a range of perspectives and discuss real-world and real time examples in which they have involvement. Student participation in Q&A to follow.

**Course Evaluation Criteria**

* Weekly Response to Article Assignments: 20%
* Class Participation: 20%
* Assignment for Week 10 (Capital Raising Analysis): 10%
* Final Paper: 50% (topics to be selected with instructors)

**Note to Law Students:** Law students are not required to attend class 14 or 15.

**Note:** Due to the fast-changing nature of the subject matter students are encouraged to stay current with developments. For daily breaking news an excellent source is: http://www.coindesk.com/

**Course Outline:**

***Week 1: Building the foundational knowledge***

The introduction of blockchain, overview of the technology, including the discussion of hashing, distributed ledgers, private and public keys, and digital signatures.

***Readings for Week 1:***

* Beyond the Bitcoin Bubble (NY Times):  
  <https://www.nytimes.com/2018/01/16/magazine/beyond-the-bitcoin-bubble.html>
* Cryptocurrencies (Last Week Tonight with John Oliver): <https://www.youtube.com/watch?v=g6iDZspbRMg>
* How Does Blockchain Work (Simply Explained): <https://www.youtube.com/watch?v=SSo_EIwHSd4>
* Bitcoin (Khan Academy):  
  <https://www.khanacademy.org/economics-finance-domain/core-finance/money-and-banking#bitcoin>
* Money is Software (David Abelson):  
  <https://vimeo.com/260347834>

***Week 2: Building the foundational knowledge***

Continuation of the introduction to blockchain and cryptocurrencies. Develop an understanding of bitcoin and other UTXO-based blockchains.

Introduce bitcoin (its beginnings, “who is Satoshi?”, its governance structure”, and the bitcoin cash fork).

***Readings for Week 2:***

“Bitcoin: Peer-to-Peer Electronic Cash System” (Satoshi Nakamoto): <https://www.bitcoin.com/bitcoin.pdf>

***Week 3: Building the foundational knowledge***

Introduction to Ethereum (including “Who is Vitalik?”); Ethereum’s governance structure; an assessment of the DAO, the DAO hack, and the post-DAO hack fork; plus, a review of CryptoKitties – i.e*.*, Ethereum works!

Regulation:

* What is the difference between currencies, commodities and tokens in the cryptosphere?
* An introduction to the regulatory landscape—SEC, CFTC, FINCEN, IRS, and state regulators.

***Readings Week 3:***

* Ethereum Yellow Paper: <https://ethereum.github.io/yellowpaper/paper.pdf>
* The Regulation of Commodity Options - Robert C. Lower, Duke Law Journal:   
  <https://scholarship.law.duke.edu/dlj/vol27/iss5/1/>
* SEC v Howey, Supreme Court 1946: <https://supreme.justia.com/cases/federal/us/328/293/case.html>
* The Token Classification Framework: A multi-dimensional tool for understanding and classifying crypto tokens:   
  <http://www.untitled-inc.com/the-token-classification-framework-a-multi-dimensional-tool-for-understanding-and-classifying-crypto-tokens/>
* SEC report on DAO (July 2017): <https://www.sec.gov/litigation/investreport/34-81207.pdf>
* CryptoKitties: [www.cryptokitties.co](http://www.cryptokitties.co); <https://www.nytimes.com/2017/12/28/style/cryptokitties-want-a-blockchain-snuggle.html>

***Week 4: Review three ICO white papers (Part 1 of 2)***

Intro discussion – review (at a high level) key terms and news articles related to a few prominent offerings:

|  |  |  |
| --- | --- | --- |
| **One** | **Two** | **Three** |
| Mastercoin | WeTrust | EOS |
| Ethereum | Gnosis | Tezos |
| Maidsafe | Civic | Filecoin |
| DigixDao | OmiseGo | 0X |
| The DAO | Basic Attention Token | Tron |
| Plutus | Brave | Kin |
| FirstBlood | Bancor | Ton |
| Golem | Storj | Polymath |
| Augur | Iconomi | Binance |

For three specific offerings (one from each group) examine the business and begin to answer the questions:

* Does this project need a blockchain or does a centralized database work?
  + What advantages would a blockchain give?
  + What advantages would a centralized database give?
  + Distributed database?
  + Private blockchain?
* Why does this project require a token? For the founders, equity investors, early token investors and early token users.
* What is the business case for the project?
* Is it a currency, commodity or asset? What regulations are applicable?

***Readings Week 4:***

* Ripple White Paper:   
  <https://ripple.com/files/ripple_solutions_guide.pdf>
* Munchee ICO White Paper:   
  <https://www.theventurealley.com/wp-content/uploads/sites/5/2017/12/Munchee-White-Paper.pdf>
* SEC cease and desist against Munchee Inc. (December 2017): <https://www.sec.gov/litigation/admin/2017/33-10445.pdf>

***Week 5: Review three ICO white papers (Part 2 of 2)***

We will examine the business and begin to answer the same questions as last class with the addition of:

* What is the governance structure? Is there any legal binding on the part of the founders? Cryptographically secure governance? Governance by consensus? How does it deal with the rights and restrictions of early equity investors?
* Does the value of this coin rely on mass adoption? Does the coin use price appreciation to achieve mass adoption?
* How was the token marketed?
* Are there any investor lockups - for the coins raised and for the newly issued coins? Is there any legal binding for the issuer to do anything? Does it matter if it is a security? A private offering?
* When will the product be released?
* What are the legal issues and cases that are relevant to the ICO?

***Readings Week 5:***

* SEC Reg D: <https://en.wikipedia.org/wiki/Regulation_D_(SEC>)
* Rule 504: <https://www.sec.gov/fast-answers/answers-rule504.html>
* Rule 506: <https://www.sec.gov/fast-answers/answers-rule506htm.html>

***Week 6: A closer look at the legal issues (present and historical)***

* An examination of the Howey test: SEC and CFTC statements and actions related to ICOs: who has jurisdiction and why?
* What is the all the commotion about NYS BitLicense and does the legislation passed on Wyoming matter?
* A deeper look at exchanges:
  + How are exchanges regulated in the crypto world? It depends on what products the exchange trades.
  + What is the best for the investor and to facilitate innovation?

***Readings Week 6:***

* SEC cease and desist against Genesis Mining: <http://2hsvz0l74ah31vgcm16peuy12tz.wpengine.netdna-cdn.com/wp-content/uploads/2018/03/01621904.pdf>
* SEC Obtains Emergency Asset Freeze to Stop Purportedly Fraudulent Initial Coin Offering: <https://www.sec.gov/litigation/complaints/2017/comp-pr2017-219.pdf>

Optional Readings:

* NY State BitLicense:

<https://www.dfs.ny.gov/legal/regulations/adoptions/dfsp200t.pdf>

* SEC reg relating to ATS: 17 CFR §242.301 regarding specific requirements for alternative trading systems: <https://www.law.cornell.edu/cfr/text/17/242.301>
* Zaslavaskiy complaint:   
  <https://www.justice.gov/usao-edny/press-release/file/1007956/download>
* CFTC Orders Bitcoin Exchange Bitfinex to Pay $75,000 for Offering Illegal Off Exchange Financed Retail Commodity Transactions and Failing to Register as a Futures Commission Merchant, 17:

<http://www.cftc.gov/PressRoom/PressReleases/pr7380-16>

***Week 7:  Guest speakers: Sullivan & Cromwell***

Presentation on the current legal landscape and recap the important events in 2017-2018.

***Readings Week 7:***

* The US Treasury Department released a letter sent to Sen. Ron Wyden (February 13, 2018):   
  <https://coincenter.org/files/2018-03/fincen-ico-letter-march-2018-coin-center.pdf>
* CFTC v Cabbagetech Corp: <https://www.cftc.gov/PressRoom/PressReleases/pr7675-18>
* Accredited Investor Standards:

<https://www.sec.gov/fast-answers/answers-accredhtm.html>

* KYC/AML:

<https://www.sec.gov/about/offices/ocie/amlsourcetool.htm>

<https://www.sec.gov/about/offices/ocie/amlmfsourcetool.htm>

***Week 8: Back to Fundamentals***

Technically, what are soft/hard forks? How can they be used to change the blockchain? (scalability, anonymity, security, governance, etc.). What are the impacts of a fork from a:

* Tax prospective - basis of new coins
* Legal perspective - is the new coin a security if the old one was? Can a coin change from a security to a commodity?
* Business perspective - using forks as a way to innovate through natural selection? Enrich those that already hold the forked coin?
* What is a curated token registry? Why is it important?

***Readings Week 8:***

* *The SAFT Project:*<https://saftproject.com/>
* *Basecoin White Paper:*

http://www.getbasecoin.com/basecoin\_whitepaper\_0\_99.pdf

* *Tether White Paper:*

https://tether.to/wp-content/uploads/2016/06/TetherWhitePaper.pdf

* Stable Coins:
* *The Kowala Protocol: A Family of Distributed, Self-Regulating Asset-Tracking Cryptocurrencies:* <https://cdn2.hubspot.net/hubfs/3919777/pdf/kowala-protocol-whitepaper-v1.0.pdf?t=1522055289869>
* *Price-Stable Cryptocurrencies:* <https://bitshares.org/technology/price-stable-cryptocurrencies/>
* *Stablecoins are doomed to fail, Part I:* <https://prestonbyrne.com/2017/12/10/stablecoins-are-doomed-to-fail/>
* *Stablecoins are doomed to fail, Part II:* <https://prestonbyrne.com/2018/01/11/epicaricacy/>
* Commodity Tokens
* *Digix’s White Paper:* <https://dgx.io/whitepaper.pdf>
* *CFTC Aligns With SEC: ICO Tokens Can Be Commodities:* <https://www.coindesk.com/cftc-no-inconsistency-sec-cryptocurrency-regulation/>
* Utility Tokens (could still be securities)
* *Sia: Simple Decentralized Storage:*   
  <https://sia.tech/sia.pdf>
* *Golem Project White Paper:*  
  <http://golemproject.net/doc/DraftGolemProjectWhitepaper.pdf>
* *Filecoin: A Decentralized Storage Network:*<https://filecoin.io/filecoin.pdf>
* *Here is the leaked white paper for the massive Telegram ICO:*<https://thenextweb.com/hardfork/2018/01/09/telegram-ico-white-paper-leak/>

***Week 9: Capital Raising***

What is the impact on traditional capital raising? How do ICOs impact Angel/VC investing?

* Are blockchain projects offering a combination of equity and tokens?
* What are the implications for M&A?
* For an IPO?
* What happens if the project fails?
* Coins don’t go bankrupt, only companies and people do, how does that play into valuing a company centered on a coin?

DEEP DIVE

* What is the SEC’s Reg D, what was it designed for, and how does it work?
* Who is an accredited investor?
* What is a “restriction on secondary market transfer?”

BONUS CONTENT – What is the SEC’s Reg S?

***Readings for Week 9:***

* “A New Age of Investing” (YCombinator): <https://blog.ycombinator.com/the-decentralized-future-series-a-new-age-of-investing/>
* SEC Reg D, Reg S:   
  <https://www.sec.gov/rules/final/33-7505.htm>
* Definition of Accredited investor:   
  <https://www.sec.gov/fast-answers/answers-accredhtm.html>
* Crypto Kitties - Series A offering

<https://coinjournal.net/cryptokitties-raises-us12m-series-a-from-top-investors-as-it-spins-out-into-separate-company/>

***Week 10: Presentation of capital raising analysis followed by panel of experts.***

Students will present capital raise -legal analysis and have the opportunity to engage in discussion with a panel of experts (founder of an ICO, entrepreneur and social impact entrepreneur).

**❖ Assignment for Week 10 ❖   
Select an ICO or startup from the provided list above, prepare a 2-page discussion on the why the method of capital raise was appropriate or inappropriate for the company/project. Would you invest? Discuss the legal implications.**

***Week 11: Jurisdictions***

The class will focus on geographical arbitrage from a legal perspective, from a business formation perspective and also from that of trading opportunities. Issues to address:

* USA update.
* Investment manager laws; qualified custodians for registered investment advisers and registered investment companies.
* Banking laws (including KYC/AML).

Review of global regulation trends – a few examples -pulling headlines from South Korea, China, the UK, Switzerland, Malta, Seychelles and Gibraltar

***Readings Week 11:***

* ICO: Celsius, Celsius legal opinion (to be distributed) - <https://celsius.network>
* Gibraltar Suggests Many ICO-Issued Digital Tokens Are Commercial Products, Not Securities:   
  <http://gibraltarfinance.gi/20180309-token-regulation---policy-document-v2.1-final.pdf>

***Week 12: Private-Public Blockchains***

Part 1 of class: invited panel guests from (i.e.) IBM and JP Morgan, NASDAQ will discuss how their companies are using blockchain, the value of it for the enterprise, and forecasts for the next 12 months for both public and private blockchains

Part 2 of class: students will reflect on and discuss the use cases for private and public blockchains presented by the panel as well as other examples from weekly articles provided.

***Readings for Week 12:***

* Materials to be determined by invited panelists

***Week 13: Investing in the blockchain or crypto***

What are the reasons to invest in blockchain and crypto? What are the risks, the opportunities? Part 1 of class is a panel discussion with:

* + David Namdar, CPA, Partner Galaxy Digital Assets
  + James Robinson, RRE Ventures
  + Nisa Amolis, VC investor

Part 2 of class: students will ask prepared questions and engage with the panels in discussion, Q&A.

**❖ Assignment for Week 13 ❖**

**ASSIGNMENT (5% of class participation grade)**: Students will each prepare two questions for the class on investing in blockchain or crypto

***Week 14: The winners and losers so far in 2018***

Where are we now?

* What happened to the hot ICOs (FileCoin, Telegram, Tezos, EOS, SALT, Kodak, Hashgraph, etc.)?
* Did Hashgraph/Dags/Parallel Blockchains render blockchain obsolete?
* Which country is “winning” the crypto war?
* What does it mean to be a bitcoin “maximalist”?
* What are the best and worst of the regulatory environments?

***Readings Week 14:***

* “So Long ICOs, Hello Airdrops: The Free Token Giveaway Craze Is Here” <https://www.coindesk.com/long-icos-hello-airdrops-free-token-giveaway-craze/>
* Hashgraph White Paper:

<https://www.swirlds.com/downloads/SWIRLDS-TR-2016-01.pdf>

* [SEC Enforcement] Statement on Potentially Unlawful Online Platforms for Trading Digital Assets:   
  <https://www.sec.gov/news/public-statement/enforcement-tm-statement-potentially-unlawful-online-platforms-trading>
* Cryptocurrency Firms Targeted in SEC Probe (Wall Street Journal): <https://www.wsj.com/articles/sec-launches-cryptocurrency-probe-1519856266>

***Week 15: Future trends***

What do the professionals expect for 2019? Guest lecturers form a panel to predict the trends and key expectations for the 2019. Students will engage with the panel using the assignment.