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

**Instructor:**  Donna Redel, J.D. (Fordham) MBA (Columbia)

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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%
* Final Paper: 60% (topics to be selected with instructors)
  + Minimum 12 pages, maximum 20 pages. double-spaced, 12 font, 1 inch page margins.

**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 - (September 5th, 2018)***

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 - (September 12th, 2018)***

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

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

Introduction to Ethereum (including “Who is Vitalik?”); Ethereum’s governance structure; The DAO hack, and the post-DAO hack fork.

An overview of the SEC and CFTC.

***Readings for Week 2:***

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

<https://github.com/ethereum/wiki/wiki/White-Paper>

* Ethereum Yellow Paper (Optional Technical Paper) <https://ethereum.github.io/yellowpaper/paper.pdf>

***Week 3: Building the foundational knowledge - (September 26th, 2018 – Classes Cancelled on September 19th)***

***Guest speaker: Patrick Berarducci, The Brooklyn Project***

An assessment of the DAO, 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:***

* 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>
* FinCen on Digital Currencies:

<https://www.fincen.gov/news/speeches/prepared-remarks-fincen-director-kenneth-blanco-delivered-2018-chicago-kent-block>

***Week 4: Review three ICO white papers (Part 1 of 2) - (October 3rd, 2018)***

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

|  |  |  |
| --- | --- | --- |
| 1.0 | 2.0 | 3.0 |
| Ethereum | Civic | EOS |
| The DAO | Basic Attention Token | Tezos |
| Augur | Storj | Binance |

For three specific offerings (from each of the three groups) 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/coin? For the founders, equity investors, early token/coin investors and early token/coin users.
* What is the business case for the project?
* Is it a currency, commodity or asset? What regulations are applicable?

***Readings Week 4:***

* 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) - (October 10th, 2018)***

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>
* Ripple White Paper:   
  <https://ripple.com/files/ripple_solutions_guide.pdf>

***Week 6: A closer look at the legal issues (present and historical) - (October 17th, 2018)***

***Guest speakers: SEC and CFTC***

* 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? Does 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:* Current legal landscape and recap the important events in 2017-2018 - *(October 24th, 2018)***

***Guest speakers: Sullivan & Cromwell***

***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 - (October 31st, 2018)***

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 (may 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 - (November 7th, 2018)***

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: Capital raising analysis with a panel of experts - (November 14th, 2018)***

Students will engage with panelists (in formation) on capital raise-legal analysis

* Dan Viola, Sadis & Goldberg

***Week 11: Jurisdictions - (Tuesday, November 20th, 2018 – Class rescheduled due to Thanksgiving)***

***Guest speakers: Thomas Nicholas, Alloy***

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 - (November 28th, 2018)***

Part 1 of class: invited panel guests from (i.e.) IBM, JP Morgan and 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 - (December 5th, 2018)***

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 panelists in discussion, Q&A.

***Week 14: The winners and losers so far in 2018 - (December 12th, 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 - (December 19th, 2018)***

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.