

NEW YORK UNIVERSITY
Stern School of Business
Accounting and the Blockchain
Fall 2021

Professor: Amal Shehata, CPA
Gender pronouns: She, Her, Hers
E-mail: ashehata@stern.nyu.edu
Class Time: Mondays from 4:55-7:55pm (except for Week 5, class is on **Tues**, Oct 12)
My Office Hours: Wednesdays 1-2:30pm via Zoom <https://nyu.zoom.us/j/6338208015>
and by appointment

Teaching Fellow: Stephanie Dong
E-mail: sjd469@stern.nyu.edu
Office Hours: Thursday 5:30 - 6:30pm via Zoom: <https://nyu.zoom.us/j/93888712484>

Course Description

A few recent predictions in the news:

2016 Deloitte whitepaper: "The blockchain technology has the potential to shapeshift the nature of today's accounting. It may constitute a way to vastly automate accounting processes in compliance with the regulatory requirements...A cascade of new applications will likely follow that are built on top of each other, leading way for new, unprecedented services."

[Gartner.com](#) **Forecast: Blockchain Business Value, Worldwide, 2017-2030 estimates:**

"The business value-add of blockchain will grow to slightly more than \$176 billion by 2025, and then it will exceed \$3.1 trillion by 2030."

This course will explore the many dimensions of the accounting industry that will be impacted by blockchain technology. We will begin with the history of the existing financial reporting framework and an overview of how blockchain functions, exploring why and how Accounting processes are open to disruption and improvement from blockchain. We will then spend subsequent class periods examining specific areas, including financial reporting, auditing, tax services, the regulatory framework (or lack thereof to date), the criticisms and limitations of blockchain and more.

Learning Objectives

1. Examine the history of the double-ledger accounting system, identifying weaknesses and opportunities for improvement that blockchain could provide;

2. Analyse the obstacles involved with adopting blockchain and the weaknesses of the technology with a critical mindset;
3. Understand how blockchain will transform business and peer-to-peer activity and the related implications;
4. Research the status of the regulations across different dimensions, such as GAAP and IFRS, and determine how to apply existing rules to blockchain activity;
5. Deliberate on issues including trust, privacy concerns and threats to traditional accounting;
6. Reflect on the proliferation of tokenization of assets and the impact on our lives in the future;
7. Analyse real-world use cases of blockchain in business, with a particular focus on the accounting improvements, risks and implications;
8. Develop a library of student content to explore, predict and analyse blockchain impact on accounting in real-time as it evolves;
9. This course will not explore the technical coding of blockchain (I will recommend several FinTech courses at Stern for this type of curriculum).

Required Material

All of the assignments for the course will be posted as links and they will consist of my PDF slides, readings, podcast listenings or video viewings. Given that this is a short class, I am making every effort to make it affordable and use only free resources.

Assignments will be given regularly and will be posted on Brightspace. Most students will not find the topics overly difficult, but the workload is steady and condensed over a short period of time. Please consider this course as a career investment rather than just another step towards graduation or GPA goals. With this perspective, you will be able to put learning first and foremost.

Brightspace Learning Management System

Brightspace is the new learning management system that has replaced NYU Classes. I will use Brightspace extensively to lay out our class schedules with pre and post assignments, email you, post PDFs of our slides, relevant articles and other course material so please make sure you are correctly registered and checking our site on a regular basis. It is your responsibility to check the assignment schedule on Brightspace. Please note that due to the evolving nature of the subject matter, material may be updated as we go through the course.

Guest Speakers

We are very fortunate that this course will feature a number of guest speakers from the industry. I have worked closely with each speaker over the past few months to develop the custom curriculum for our class. Many of the speakers are prominent in the

blockchain space and have limited availability so we may have to deviate from the syllabus based upon their schedules.

Course Schedule

The course will meet in-person over 6 weeks for 3 hour sessions in KMC 5-140. We will start promptly at 4:55pm and we will have a 15-20 minute break during which everyone must exit the classroom (usually around 6:30pm) and we will reconvene after the break.

Grading

Participation & Attendance	15%
Individual Blockchain Use-Case Contribution	10%
Weekly Class Assignments	35%
Research Assignment based on Sept 17, 2021 Stern Conference: "What should the rules be for CryptoAssets? Accounting, Regulatory and Legislative Perspectives"	20%
Blockchain Team Interview Assignment Team Presentation	15% 5%

Instructions for each component of the grade is below:

Attendance and Participation

Attendance is expected for this class and it will help us achieve our learning objectives as we will have small group discussions, guest speakers and the chance to discuss and analyse topics as a group. Given that we only have 6 classes, students are expected to attend every class and stay for the duration.

I hope you will be an active participant in class. I will be prepared for class and make every effort to create a hospitable and inclusive environment where you feel comfortable expressing your ideas. By participating in this course, I expect you to make the same effort in return. If ever you feel this is not an inclusive environment, please reach out to me and I am happy to discuss this together. I reserve the right to adjust your final grade based on your level of participation and professionalism in class.

After-class Reflection Memo:

After each class session, I will provide a memo for you to reflect on your key take-aways and share any areas of confusion. The research on adult learning indicates that students who immediately reflect on curriculum have a higher rate of retention. In addition to this benefit, the memos provide me with insight into any topics that need further clarification. Completing these memos within 24 hours of our class session will count towards a portion of your participation grade.

Individual Blockchain Use-Case Contribution

Please see full details [here](#)

Weekly Class Assignments

We will have weekly assignments related to the topic of the week due after our class. These assignments will provide the opportunity for deeper reading and reflection. Full instructions are available on Brightspace.

Individual Research Assignment

Please see full details [here](#)

Blockchain Team Interview Assignment

Please see full details [here](#)

Course Schedule

Please note that the schedule is subject to change.

Date	Topic	Deliverables
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<p>Class 1: Sept 13, 2021</p>	<p>Blockchain Technology and the History of Accounting & Challenges and Criticisms of Blockchain Technology</p> <ul style="list-style-type: none"> • The origin of the double-entry ledger system with a focus on why this became the basis for our capital markets system and why it is ripe for the change that blockchain represents. • Introduction of blockchain technology, the difference between bitcoin and blockchain, what benefits and challenges are inherent in the technology. • How do we separate the benefits of blockchain from benefits from other (related) tools (ie, smart contracts)? • Contrast 2 prominent supply chain use cases, considering the accounting implications and the tensions in creating a collaborative blockchain. 	<p>Assignment 1: Your Individual Use-Case Contribution</p> <p>Due Date: Sept 19</p>
<p>OPTIONAL: SEPT 17, 2021</p>	<p>The Stern School of Business is hosting a conference on the financial reporting of Crypto-Assets</p> <p>Please join us on Friday, Sept 17, 2021, from 11 AM – 3 PM EDT for our virtual conference:</p> <p>What should the rules be for CryptoAssets? Accounting, Regulatory and Legislative Perspectives</p> <p>Over the last two years, cryptoassets have received significant attention from the media, regulators, governments, investors, and banking institutions.</p> <ul style="list-style-type: none"> • How should we account for them? • Should they be regulated? If so, how and by whom? • Is legislation needed? • What cross-border governance is needed? • Click Here to RSVP 	

<p>Class 2: Sept 20, 2021</p>	<p>Tokenization of Assets:</p> <ul style="list-style-type: none"> • The definition, types of, challenges and benefits of tokenization • NFTs, Stablecoins, CBDCs, Security Tokens, Utility Tokens • Analysis of use-cases and the accounting implications 	<p>Weekly Assignment</p> <p>Due Date: Sept 26</p>
<p>Class 3: Sept 27, 2021</p>	<p>Interpreting and applying the accounting rules to crypto-assets & how do investors react to public company crypto activity & financial reporting?</p> <ul style="list-style-type: none"> • How to interpret and apply existing GAAP and IFRS rules to blockchain. • How do investors react to public company investments in cryptocurrency? • Contrast of financial reporting for crypto exchanges versus traditional brokers • Introduce Auditing today: A brief overview and history of the audit function, the existing regulatory environment and the fee structure. 	<p>Accounting Research Assignment</p> <p>Due Date: Sept 30</p>
<p>Class 4: October 4, 2021</p>	<p>Auditing Today (pre-record) & Blockchain Implications for the Future Audit</p> <ul style="list-style-type: none"> • How will blockchain technology change the audit and how are the auditors preparing? • Will it change how quickly they provide the audit? Will it improve the quality of the audit? • How do you audit cryptoassets? • We will welcome the Friedman LLP auditors of Greyscale to demonstrate the audit of cryptoassets. 	<p>Weekly Assignment</p> <p>Due Date: Oct 3</p> <p>And</p> <p>Team Interview Assignment Due Date: Oct 12</p>

<p>Class 5: Oct 12, 2021 (class is on TUESDAY this week)</p>	<p>Tax Today & Blockchain Implications for the Future of Tax</p> <ul style="list-style-type: none"> • A brief history and review of the current income tax process • Analysis of how blockchain technology could improve the existing tax process • Trust, governments and the potential for blockchain; use-case examples of governments that are using blockchain for tax purposes. • A detailed look at the concept of Country of Origin and how blockchain technology could impact this complex, global tax structure • Team Presentations 	<p>Weekly Assignment</p> <p>Due Date: Oct 17</p>
<p>Class 6: Oct 18, 2021</p>	<p>Debrief Tax Grid & Team Presentations</p> <p>Debrief Tax Grid</p> <p>Interview Team Presentations</p>	

After this class: Recommended Stern FinTech courses related to blockchain:

- [Digital Currency, Blockchains and the Future of Financial Services](#) (offered each semester by Professor David Yermack)
- Foundations of FinTech (offered each semester by several faculty),
- Applications in Entrepreneurial Finance: Fintech (offered Spring 2022 by Professor Sabrina Howell)
- Blockchain and Cryptocurrencies: Technical and Strategy Perspective (offered Spring 2022 by Professor Hanna Halaburda)
- Topics in Blockchain & Cryptocurrency Investing by Professor Ian D'Souza.
- More technical courses are also available at Courant and Tandon.

ACADEMIC INTEGRITY

Our [Academics Pillar](#) states that *we take pride in our well-rounded education and approach our academics with honesty and integrity.* Indeed, integrity is critical to all that

we do here at NYU Stern. As members of our community, all students agree to abide by the NYU Stern Student Code of Conduct, which includes a commitment to:

Exercise integrity in all aspects of one's academic work including, but not limited to, the preparation and completion of exams, papers and all other course requirements by not engaging in any method or means that provides an unfair advantage.

Clearly acknowledge the work and efforts of others when submitting written work as one's own. Ideas, data, direct quotations (which should be designated with quotation marks), paraphrasing, creative expression, or any other incorporation of the work of others should be fully referenced.

Refrain from behaving in ways that knowingly support, assist, or in any way attempt to enable another person to engage in any violation of the Code of Conduct. Our support also includes reporting any observed violations of this Code of Conduct or other School and University policies that are deemed to adversely affect the NYU Stern community.

The entire Stern Student Code of Conduct applies to all students enrolled in Stern courses and can be found here: www.stern.nyu.edu/uc/codeofconduct

To help ensure the integrity of our learning community, prose assignments submitted to Brightspace will be submitted to Turnitin. Turnitin will compare your submission to a database of prior submissions to Turnitin, current and archived Web pages, periodicals, journals, and publications. Additionally, your document will become part of the Turnitin database.

General Conduct & Behavior

Students are also expected to maintain and abide by the highest standards of professional conduct and behavior. Please familiarize yourself with Stern's Policy in Regard to In-Class Behavior & Expectations

(<http://www.stern.nyu.edu/portal-partners/current-students/undergraduate/resources-policies/academic-policies/index.htm>) and the NYU Student Conduct Policy (<https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-student-conduct-policy.html>).

STUDENT ACCESSIBILITY

If you will require academic accommodation of any kind during this course, you must notify me at the beginning of the course and provide a letter from the Moses Center for Student Accessibility (212-998-4980, mosescsa@nyu.edu) verifying your registration and outlining the accommodations they recommend. If you will need to take an exam at the Moses Center for Student Accessibility, you must submit a completed Exam

Accommodations Form to them at least one week prior to the scheduled exam time to be guaranteed accommodation. For more information, visit the CSA website:

<https://www.nyu.edu/students/communities-and-groups/student-accessibility.html>