



Northeastern University

College of Engineering

Multidisciplinary Graduate Engineering Course Syllabus

Course Information

Course Title: Regulatory Aspects of Smart Contract Automation

Course Number: INFO7525

Term and Year: Spring, 2022, Jan 18, 2022 - May 07, 2022

Credit Hour: 2.0

Location: 5:50pm - 7:20pm Wednesday, Hayden Hall 321

Instructor Information

Full Name: Yizhen Zhao

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Technical/Course Materials Requirements

- SECURITIES ACT OF 1933
<https://www.govinfo.gov/content/pkg/COMPS-1884/pdf/COMPS-1884.pdf>
- SECURITIES EXCHANGE ACT OF 1934
<https://www.nyse.com/publicdocs/nyse/regulation/nyse/sea34.pdf>
- INVESTMENT COMPANY ACT OF 1940
<https://www.govinfo.gov/content/pkg/COMPS-1879/pdf/COMPS-1879.pdf>
- UNIFORM SECURITIES ACT
file:///C:/Users/yizhe/Downloads/Securities_final_05_2017jan19.pdf
- Uniform Investment Advisor Law Exam, Series 65, 10th Edition

Course Prerequisite/Description

Students will achieve **two goals** after taking the twin classes - INFO7525 and INFO7535:

- Students with software engineering background will be ready to serve the uprising fin-tech industry and capture the automation trend in top-notch firms of the legal industry.
- Students who aim to establish their own business will obtain the capability to ally the software engineering technique with in-depth knowledge in financial/corporate laws as well as with business entrepreneurship.

Prerequisite: The twin classes are designed to capture the prevailing industry trend that automates the financial advisory, tax planning, and legal documentation ingestion via software engineering, blockchain technologies and deep learning algorithms. INFO7525 Regulatory Aspects of Smart Contract Automation is a pre-requisite of INFO7535 Digital Smart Contracts Product Innovations. INFO7525 will focus on the field knowledge of financial laws, corporate laws, taxation, deep-learning algorithms and blockchain technologies. INFO7535 will focus on implementation - students will learn to use the knowledge they learn in INFO7525 to design a mini fin-tech product by choosing a field

they have developed interests. INFO7525 takes a conventional form that uses lectures, practice questions and paper-based exams to pave a solid foundation for students in financial regulations and blockchain technologies. INFO7535 adopts a more innovative approach by debate competition, business proposal competition and guest speaker events.

Description: As investors become more interested in cryptocurrencies, financial regulators are facing with new challenges to deal with sophistications brought by blockchain technologies; while financial advisors are feeling a new urgency to offer those investments. This class hence prepares our students for the future to welcome the ongoing changes in the fin-tech industry. The class systematically introduces laws, regulations and guidelines, including prohibitions on unethical business practices regarding cryptocurrencies investments. The class covers three key aspects: First, the class will introduce in-depth knowledge about Federal Securities Regulations, State Regulations under the Uniform Securities Act as well as Federal and State Regulation of Investment Advisors and Their Representatives. Second, the class will cover investment vehicle characteristics, tax considerations, retirement plans and educational funding programs that involve blockchain technologies. Third, as part of the Fin-Tech engineering training, the class will emphasize on deep learning algorithms used in legal documentation ingestion. By completing this course, students can obtain the same level of knowledge required by the Uniform Investment Adviser Law Exam, which is required by the North American Securities Administrators Association (NASAA) and administered by FINRA.

Student Learning/Course Outcomes (SLOs)

Specialized Knowledge	Broad and Integrative Knowledge	Applied and Collaborative Learning	Civic and Global Learning	Experiential Learning
<p><i>The class systematically introduces laws, regulations and guidelines, including prohibitions on unethical business practices regarding cryptocurrencies investments.</i></p>	<p><i>The class will introduce in-depth knowledge about Federal Securities Regulations, State Regulations under the Uniform Securities Act as well as Federal and State Regulation of Investment Advisors and Their Representatives.</i></p>	<p><i>The class will cover investment vehicle characteristics, tax considerations, retirement plans that involve blockchain technologies. As part of the Fin-Tech engineering training, the class will emphasize on deep learning algorithms used in legal documentation ingestion.</i></p>	<p><i>The methods can be extensively applied in community legal service, education and other civic learning areas.</i></p>	<p><i>By completing this course, students can obtain the same level of knowledge required by the Uniform Investment Adviser Law Exam, which is required by the North American Securities Administrators Association (NASAA) and administered by FINRA.</i></p>

Attendance Policy

Students are expected to complete course readings, participate in class discussions or other learning activities during the unit, and complete written assignments for each unit during the time of that unit. It is understood that there might be one week when active participation in ongoing class conversations and learning activities might be delayed.

Beyond one week time, if there is an absence or lateness in participation (1) faculty must be notified in advance; (2) grades will be adjusted accordingly.

Late Work Policy

Students must submit assignments by the deadline in the time zone noted in the syllabus.

Students must communicate with the faculty prior to the deadline if they anticipate work will be submitted late.

Work submitted late without prior communication with faculty will not be graded.

Grading/Evaluation Standards

Grade Scale

95-100%	A	87-89.9%	B+	77-79.9%	C+	69.9% or below	F
		84-86.9%	B	74-76.9%	C		
90-94.9%	A-	80-83.9%	B-	70-73.9%	C-		

Grade Breakdown:

Category # 1 - 10%

Category # 2 - 80%

Category # 3 – 10%

Course Schedule

Week/Lectures	Topic	Reading/Project
Unit 1	Laws, Regulations, and Guidelines, Including Prohibition on Unethical Business Practices	Three lectures on Federal Securities Regulations, State Regulations under the Uniform Securities Act as well as Federal and State Regulation of Investment Advisors
Unit 2	Cryptocurrency Investment Vehicle Characteristics	Three lectures on cryptocurrency trading, cryptocurrency derivatives and investment vehicle characteristics
Unit 3	NLP and Deep Learning Algorithms	Three lectures on frontier research and development in natural language processing and deep learning algorithms
Unit 4	Corporate Laws, Taxation, Investment Strategies and Blockchain technologies	Three lectures to cover corporate laws, tax considerations, retirement

		plans and educational funding programs that involve blockchain technologies.
	Final Exam	
	Project Presentation	

Academic Integrity

A commitment to the principles of academic integrity is essential to the mission of Northeastern University. The promotion of independent and original scholarship ensures that students derive the most from their educational experience and their pursuit of knowledge. Academic dishonesty violates the most fundamental values of an intellectual community and undermines the achievements of the entire University.

As members of the academic community, students must become familiar with their rights and responsibilities. In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, examinations of whatever kind, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Students are responsible for learning the conventions of documentation and acknowledgment of sources in their fields. Northeastern University expects students to complete all examinations, tests, papers, creative projects, and assignments of any kind according to the highest ethical standards, as set forth either explicitly or implicitly in this Code or by the direction of instructors.

Go to <http://www.northeastern.edu/osccr/academic-integrity-policy/> to access the full academic integrity policy.

Student Accommodations

Northeastern University and the Disability Resource Center (DRC) are committed to providing disability services that enable students who qualify under Section 504 of the Rehabilitation Act and the Americans with Disabilities Act Amendments Act (ADAAA) to participate fully in the activities of the university. To receive accommodations through the DRC, students must provide appropriate documentation that demonstrates a current substantially limiting disability.

For more information, visit <http://www.northeastern.edu/drc/getting-started-with-the-drc/>.

Library Services

The Northeastern University Library is at the hub of campus intellectual life. Resources include over 900,000 print volumes, 206,500 e-books, and 70,225 electronic journals.

For more information and for Education specific resources, visit <http://subjectguides.lib.neu.edu/edresearch>.

Diversity and Inclusion

Northeastern University is committed to equal opportunity, affirmative action, diversity and social justice while building a climate of inclusion on and beyond campus. In the classroom, member of the University community work to cultivate an inclusive environment that denounces discrimination through innovation, collaboration and an awareness of global perspectives on social justice.

Please visit <http://www.northeastern.edu/oidi/> for complete information on Diversity and Inclusion

TITLE IX

Title IX of the Education Amendments of 1972 protects individuals from sex or gender-based discrimination, including discrimination based on gender-identity, in educational programs and activities that receive federal financial assistance.

Northeastern's Title IX Policy prohibits Prohibited Offenses, which are defined as sexual harassment, sexual assault, relationship or domestic violence, and stalking. The Title IX Policy applies to the entire community, including male, female, transgender students, faculty and staff.

In case of an emergency, please call 911.

Please visit www.northeastern.edu/titleix for a complete list of reporting options and resources both on- and off-campus.