

LAW 247.6S - Blockchain for Lawyers

Summer 2018 Syllabus v1

Instructor: Max Fang

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Office hours: 7:30-8:00pm on 7/30-8/2

Description: Blockchains are like digital analogues of real world legal systems - domains where agreements are written in a programming language instead of English. This course will introduce blockchain technology and its implications from the lens of how smart contracts, like legal contracts, allow mutually distrusting parties to transact and even cooperate with one another across a wide variety of trust models. Blockchain for Lawyers is precise, anti-hype, and pragmatic. The course will develop a clear, analytically-oriented mental model of blockchain technology, delineate the tradeoffs between centralized / decentralized systems to characterize when a blockchain is necessary, and present techniques for use case analysis, critique, and formulation.

Time / Location: 4:00pm-7:30pm on 7/30-8/2, in Boalt Room 132

Enrollment: Standard Berkeley Law LL.M. procedures. Auditors are welcome, space permitting.

Prerequisites: No formal prerequisites.

Credit Hours: 1

Required Texts: None. Readings will be posted on bCourses well in advance of the first lecture.

bCourses: <https://bcourses.berkeley.edu/courses/1471482>

Schedule				
	7/30	7/31	8/1	8/2
Theme	Foundations	Use Cases I	Use Cases II	Application
4:00-5:40	Introductions, Intro to Bitcoin	Intro to Lightning Network and Payments Use Cases	Use Case Theory and Analysis	Challenges to Adoption and Conclusions
5:40-5:50	Break			
5:50-7:30	Intro to Blockchain Discuss Legal vs "Smart" Contracts	Use Case Examples and Generalizations	Guided Workshop: Ad Broker Analysis	Workshop: Use Case Formulation
7:30-8:00	Office Hours			

Learning Outcomes

The ABA requires that the law school as a whole, as well as individual instructors, adopt learning outcomes for our students. Learning outcomes are not only required, but they are also an important step in creating an effective course.

Berkeley Law Learning Outcomes are the competencies that students will develop by the conclusion of their legal education. Students in the course will be expected to achieve the following two out of the five Berkeley Law Learning Outcomes:

- Other professional skills needed for competent and ethical participation as a member of the legal profession; and
- Using the law to solve real-world problems and to create a more just society.

Course-Specific Learning Outcomes

Notation:

- Course Outcome
 - Relevant modules

Knowledge-Related Learning Outcomes:

- Think according to a clear, analytically-oriented mental model of blockchain technology
 - Intro to Bitcoin and Blockchain
- Be able to draw upon a suite of analytically-oriented use cases as good examples of effective blockchain usage
 - Intro to Lightning Network and Payments Use Cases
 - Use Case Examples
- Understand the core value-add of blockchains over traditional technology systems and legal frameworks, particularly from the lens of how smart contracts (like legal contracts) allow mutually distrusting parties to transact and even cooperate with one another
 - Use Case Generalizations
 - Legal vs Smart Contracts Discussion
- Understand the caveats and challenges blockchain technology faces and its tradeoffs with traditional centralized systems
 - Challenges to Adoption and Conclusions
- Have a clear enough foundational understanding of the nature of blockchain technology to be able to make effective judgments on how blockchains can (or shouldn't?) be regulated
 - Intro to Bitcoin and Blockchain
 - Legal vs Smart Contracts Discussion

Skill-Related Learning Outcomes:

- Proficiency analyzing proposed blockchain use cases and determining if a blockchain is actually needed
 - Use Case Generalizations
 - Use Case Theory and Analysis
 - Guided Workshop: Ad Broker Analysis
- Proficiency formulating new blockchain use cases that are better than traditional systems
 - Use Case Theory and Analysis
 - Workshop: Use Case Formulation

Grading / Evaluation

Students will receive Credit/No Credit based on completing the Blockchain Use Case Formulation in time with 60% rubric points or higher

Blockchain Use Case Formulation

After all classes in this course are complete, please formulate a blockchain use case according to the theory and intuition we have developed throughout the course. A full point submission is a clearly described problem, solution, and analysis of an original blockchain use case that is better than a central database, with important assumptions stated and justified.

Format:

- Submissions are to be uploaded onto bCourses as a link to a Google Doc with comments enabled (preferred) or as a Microsoft Word document
- Use Case Formulations can be submitted anytime before 11:59pm Sunday August 12th
- Maximum length is 750 words (about 3 pages in double spaced, 12 point font)
- The exam is open book. For your use case, you may draw upon ideas within the slides and course readings, as well as on the Internet, but your use case cannot be anything discussed in class or that can be found online. You are encouraged to consult the Internet or other professionals to find **problems** in traditional industries that may have a blockchain solution. Please cite any sources you use, whether it be written, online, or oral.

Rubric:

Submissions will be graded according to the "Six Requirements of a Complete Blockchain Use Case" discussed in class. The requirements have been listed below, but please use the prompt in the Blockchain Use Case Formulation bCourses assignment as the final reference, as they may change slightly as the course continues to improve.

1. The proposed **problem** to solve (16 pts)
2. **Existing approaches** to solving it via centralized solutions (16 pts)

- a. If one existed in the real world, what were its weakness, or how did it fail?
 - b. If it didn't exist, what would the weaknesses of the central solution be?
3. **Full specification** of the blockchain solution and mechanics (20 pts)
 - a. What is the setup process?
 - b. What does the smart contract validate?
 - c. How does the real world connect to the blockchain solution?
 - d. How does this satisfy the chain of trust?
4. The **blockchain-specific benefits** that the centralized solution was not able to provide (16 pts)
5. **Assumptions** in the proposed blockchain solution (16 pts)
 - a. Are these assumptions justified? It's okay to have assumptions, but justifying them strengthens your argument.
6. How it fits (or not) into the **use case themes and analytical perspectives** we've described (16 pts)
 - a. What is the fundamental innovation of blockchain your use case is relying on?
 - b. Does this generalize into any of the existing use case themes?
 - c. Does this solution generalize into something entirely new?

School-wide Policies: Student Services schedules all exams, including accommodated exams, as the law school is committed to anonymous grading. PROFESSORS DO NOT HAVE THE AUTHORITY TO RESCHEDULE EXAMS. Any student who seeks an accommodated or rescheduled exam for documented medical reasons or for religious observance should contact Student Services in 280 Simon Hall, 510-643-2744, imayer@law.berkeley.edu.

Course Policies

Attendance to all classes session for this course is mandatory (by department policy). You may use a laptop or other device to refer to slides and reading assignments during class. Slides will be uploaded to bCourses before each lecture.