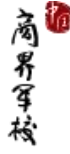




PHBS

北京大学汇丰商学院



Introduction Fintech Industry

Module 1, 2024

Course Information

Instructor: Xiaoyu (Joanna) Wang

Office: PHBS Building, Room 733

Phone: 86-755-2603- 3385

Email: joannawang@phbs.pku.edu.cn

Office Hour: Wednesday 15:30 – 17:30 pm, or by appointment.

Teaching Assistants:

TBD

Course Website:

Course Management System (CMS)

Course code: TBA

Classes:

Lectures: Monday/Thursday

15:30 AM - 17:20 PM (F2)

Venue: PHBS Building, Room 319

1. Course Description

1.1 Context

Course overview

Financial technology (FinTech) is revolutionary and rapidly changing the financial services industries. This graduate course provides an introduction to FinTech such as blockchain, cryptocurrencies (e.g., Bitcoin and Ethereum), alternative lending, machine learning, and robo-advising. Students are expected to develop a broad understanding of the recent FinTech development and its impact in the financial industries. Students will also have hands-on and problem-solving experiences that can be useful in FinTech applications and innovation. Topics may include but are not limited to: blockchain and cryptocurrencies, Bitcoin, Ethereum, Altcoins, smart contracts, decentralized applications, markets for smart



contracts, applications of blockchain technologies in various finance areas, alternative and P2P lending and crowdfunding, machine learning and its applications in FinTech.

1.2 Recommended Textbooks

(Note: We will depend heavily on class slides, notes, and reading materials, but the following textbooks are recommended.)

- Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction. by Arvind Narayanan, Joseph Bonneau, Edward Felten, Andrew Miller, Steven Goldfeder, Princeton University Press, ISBN-13: 978-0691171692.
- Ethereum: Blockchains, Digital Assets, Smart Contracts, Decentralized Autonomous Organizations. by Henning Diedrich, CreateSpace Independent Publishing Platform, ISBN-13: 978-1523930470.
- Blockchain Applications: A Hands-on Approach. by Arshdeep Bahga and Vijay Madisetti, Vpt, ISBN-13: 978-0996025560.
- An Introduction to Statistical Learning: with Applications in R (Springer Texts in Statistics) by Gareth James, Daniela Witten, Trevor Hastie, Robert Tibshirani, Springer, ISBN-13: 978-1461471370.

2. Learning Outcomes

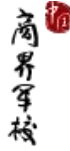
Intended Learning Outcomes

Learning Goals	Objectives	Assessment
1. Our graduates will be effective communicators.	1.1. Our students will produce quality business and research-oriented documents.	Yes
	1.2. Students are able to professionally present their ideas and also logically explain and defend their argument.	Yes
2. Our graduates will be skilled in teamwork and leadership.	2.1. Students will be able to lead and participate in group for projects, discussion, and presentation.	Yes
	2.2. Students will be able to apply leadership theories and related skills.	Yes
3. Our graduates will be trained in ethics.	3.1. In a case setting, students will use appropriate techniques to analyze business problems and identify the ethical aspects, provide a solution and defend it.	Yes
	3.2. Our students will practice ethics in the duration of the program.	Yes
4. Our graduates will have a	4.1. Students will have an international	Yes



PHBS

北京大学汇丰商学院



global perspective.	exposure.	
5. Our graduates will be skilled in problem-solving and critical thinking.	5.1. Our students will have a good understanding of fundamental theories in their fields.	Yes
	5.2. Our students will be prepared to face problems in various business settings and find solutions.	Yes
	5.3. Our students will demonstrate competency in critical thinking.	Yes

3. Assessment/Grading

Attendance and Participation	10%
Reading Assignment	20%
Business Proposal	20%
Data analysis project (*2)	40%
Project Presentation	10%
Total	100%

Final grades will be curved for marginal cases based on the class performance. It is normally expected that 30 percent of the students in a given class will receive a grade of A, 60 percent of the students a grade of B. If students fail to participate in the group project and total final numerical score ranks at the bottom quintile will receive a grade of failure (F). There will be no opportunities for extra credit. Deviations from the above guidelines may occur based on the assessment of overall class performance.

Class attendance & participation (10 points):

Students are expected to attend the class regularly, arrive on time and stay in the class for the entire duration of the class. If you miss a class, it is your responsibility to find out what happened during the class. Attendance sheet will be signed for each class. The signed names will be randomly called during the class. Each time of missing the call will be regarded as absence. The participation will be count if students actively interact with the instructor during the class. Personal reasons will not be considered as excuses for missing class. For illness, please provide doctor’s prescription.

*Other details for assignments and projects will be uploaded as documentations on CMS.

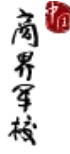
4. Academic Honesty and Plagiarism

It is important for a student’s effort and credit to be recognized through class assessment. Credits earned for a student work due to efforts done by others are clearly unfair. Deliberate



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北京大学汇丰商学院



dishonesty is considered academic misconducts, which include plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; or altering, forging, or misusing a University academic record; or fabricating or falsifying of data, research procedures, or data analysis.

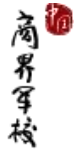
All assessments are subject to academic misconduct check. Misconduct check may include reproducing the assessment, providing a copy to another member of faculty, and/or communicate a copy of this assignment to the PHBS Discipline Committee. A suspected plagiarized document/assignment submitted to a plagiarism checking service may be kept in its database for future reference purpose. Where violation is suspected, penalties will be implemented. The penalties for academic misconduct may include deduction of honor points, a mark of zero on the assessment, a failure grade for the whole course, and reference of the matter to the Peking University Registrar.

For more information of plagiarism, please refer to *PHBS Student Handbook*.



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3. Topics, Teaching and Assessment Schedule

Topics:

- Overview of Financial Technologies
- Fintech Disruption in Financial Industry
- Bitcoin transaction and Blockchain Techniques
- Business Applications of Blockchain
- Big Data, Machine Learning, and AI in Finance
- Technical Analysis and Programming
- Cryptocurrencies and ICOs
- Other special topics

Schedule:

Week 1-2 Reading assignment 1 due

Week 3-4 Reading assignment 2 due

Week 5-6 Reading assignment 3 due & Business proposal due and presentation

Week 7-8 Reading assignment 4 due

Week 9: Class project due and presentation

Note: both the class design and the time of the presentation of class project is attentive; Schedule might be changed and notified to the class.

Meeting dates:

Sept.2,5,9,12,14,19,23,26, Oct.9,10,14,17,21,
24,28,31, Nov.4,7

Classes on Sept.16 will be
moved to Sept.14 & classes on
Oct 7 will be moved to Oct 9