THE EDUCATION UNIVERSITY OF HONG KONG

Course Outline

Part I

Programme Title	**: Bachelor of Arts in Personal Finance; all undergraduate programmes**
Programme QF Level	**: 5**
Course Title	**: Financial Technology**
Course Code	**: BUS3053**
Department/Unit	**: Department of Social Sciences and Policy Studies**
Credit Points	**: 3**
Contact Hours	**: 39**
Pre-requisite(s)	**: Nil**
Medium of Instruction	**: English**
Course Level	**: 3**

Part II

The University's Graduate Attributes and seven Generic Intended Learning Outcomes (GILOs) represent the attributes of ideal EdUHK graduates and their expected qualities respectively. Learning outcomes work coherently at the University (GILOs), programme (Programme Intended Learning Outcomes) and course (Course Intended Learning Outcomes) levels to achieve the goal of nurturing students with important graduate attributes.

In gist, the Graduate Attributes for Sub-degree, Undergraduate, Taught Postgraduate, Professional Doctorate and Research Postgraduate students consist of the following three domains (i.e. in short "PEER & I"):

- **P**rofessional **E**xcellence;
- **E**thical **R**esponsibility; **&**
- **I**nnovation.

The descriptors under these three domains are different for the three groups of students in order to reflect the respective level of Graduate Attributes.

The seven GILOs are:

1. Problem Solving Skills
2. Critical Thinking Skills
3. Creative Thinking Skills

4a. Oral Communication Skills

4b. Written Communication Skills

5. Social Interaction Skills
6. Ethical Decision Making
7. Global Perspectives

1. Course Synopsis

This course provides students with an understanding of financial technology, i.e., FinTech, and its application in financial services, banking, and investment industries. FinTech refers to the application of technology to improve financial activities. FinTech comprises the new applications, processes, products, or business models in the financial services industry, composed of one or more complementary financial services and provided as an end-to-end process via the Internet. The course will also introduce the application of software Python as a valuable tool for various fintech applications, such as big data analysis and modeling, data integration, and web development. After completing the course, students will have a basic understanding of FinTech and its role in the finance service industry. The students should understand the basic components of FinTech, the application of Python in finance, and the impact of FinTech (especially AI) on existing regulatory framework. Students should also be able to identify the opportunities led by FinTech and apply FinTech solutions in the Finance Industry.

2. Course Intended Learning Outcomes ($CILO_s$)

Upon completion of this course, students will be able to:

- $CILO_1$ critically review essential FinTech in the areas of banking, insurance and wealth management;
- $CILO_2$ in-depth discussion on the innovations in the financial sector enabled by technological advance in data and analytics;
- $CILO_3$ explore and generalize the influence of BlockChain on the development and transformation of the financial services sector.
- $CILO_4$ evaluate security and privacy concerns, operational risks as well as social challenges on FinTech transformation;
- $CILO_5$ analyse and project the trends in Fintech developments and their impacts on the financial services sector.

3. Content, CILOs and Teaching & Learning Activities

Course Content	CILOs	Suggested Teaching & Learning Activities
Introduction to FinTech: – What is FinTech? – What are the market conditions for FinTech to develop? – Who are the FinTech players? – What are the potential impacts of FinTech on society?	$CILO_{1,2,4,5}$	Lecture, group discussion, case studies, online search for current information
Essential FinTech in the areas of banking, insurance and wealth management (e.g. mobile banking, virtual banking, digital banking, non-cash payment, automate insurance, cryptocurrency, electronic trading platform, etc.)	$CILO_{1,2,3}$	Lecture, group discussion, case studies, hands-on practice, online search for current information, guest lecture
Financial sector innovation and its relationship with the technological advance in data and analytics (e.g.	$CILO_{2,3,4}$	Lecture, group discussion, case studies, online search for current information, guest

social trading networks, robo-advisers, algorithmic machine learning for prediction of stock price, etc.)		lecture
BlockChain on the development and transformation of financial services sector (e.g. the technology, legal contracts on smart securities and derivatives, digital currencies and decentralized payment system, etc.)	$CILO_{2,3,4}$	Lecture, group discussion, case studies, online search for current information, guest lecture
Security and privacy concerns, operational risks as well as social challenges on FinTech transformation (e.g. hacking, scam, passwords, the need to protect sensitive consumer financial data, cloud technology, financial regulations, and multi-layers of defense to isolate and secure financial data, etc.)	$CILO_{1,2,3,4}$	Lecture, group discussion, case studies, hands-on practice, online search for current information, guest lecture
Threats or Opportunities: The recent and trend of Fintech developments and their impacts on the financial services sector (e.g. new business model in high frequency trading, innovative risks management, financial technology lab and hub, creation of financial bubbles, etc.)	$CILO_{1,2,3,4,5}$	Lecture, group discussion, reflection, case studies, online search for current information, guest lecture

4. Assessment

Assessment Tasks	Weighting (%)	CILO
(a) Group Assignment Student teams will choose a financial technology (FinTech) company or the application of Python to research and analyze how such FinTech changes the financial service (2000 -2500 words).	40%	$CILO_{1,2,3,4,5}$
(b) Individual Assignment Students will select a financial service influenced by FinTech for in-depth research. (1000 – 1500 words).	60%	$CILO_{1,2,3,4,5}$

5. Use of Generative AI in Course Assessments

☐ ***Not Permitted***: In this course, the use of generative AI tools is not allowed for any assessment tasks.

☑***Permitted***: In this course, generative AI tools may be used in some or all assessment tasks. Instructors will provide specific instructions, including any restrictions or additional requirements (e.g., proper acknowledgement, reflective reports), during the first lesson and in relevant assessment briefs.

6. Required Text(s)

Nil

7. Recommended Readings

Aldridge, I. & Krawciw, S. (2017). *Real-time risk: What investors should know about FinTech, high-frequency trading, and flash crashes*. Hoboken, NJ: Wiley.

Axelson, U., Jenkinson, T. Stromberg, P. & Weisbach, M.S. (2012). *Borrow cheap, buy high?: The determinants of leverage and pricing in buyouts*. London: LSE.

Dixon, M.F., Halperin, I. & Bilokon, P. (2020). *Machine Learning in Finance: From Theory to Practice* (1st ed.). Cham: Springer Nature Switzerland.

Drescher, D. (2017). *Blockchain basics: A non-technical introduction in 25 steps*. Berkeley, CA: Apress.

Hong Kong Financial Services Development Council (2017). *FSDC paper no. 29: The future of FinTech in Hong Kong*. Hong Kong: Hong Kong Financial Services Development Council. Retrieved from https://www.fsdc.org.hk/sites/default/files/FSDC%20Paper_FinTech_E.pdf

Lee, D. (2015). *Handbook of digital currency: Bitcoin, innovation, financial instruments, and big data*. London, UK: Academic Press.

Mahmood, Z. (2021). *Industry Use Cases on Blockchain Technology Applications in IoT and the Financial Sector*. IGI Global.

Medes-Da-Silva, W. (2019). *Individual behaviours and technologies for financial innovations*. Charm: Springer International Publishing.

Niforos, M. (2017). *Beyond Fintech: Leveraging blockchain for more sustainable and inclusive supply chains*. Washington, DC.: International Finance Corporation.

Pedersen, N. (2021). *Financial Technology: Case Studies in Fintech Innovation* (1st ed.). London, United Kingdom; New York, N.Y.: Kogan Page.

Rejda, G.E. & McNamara, M.J. (2014). *Principles of risk management and insurance* (12th ed.). Boston: Pearson.

Retsinas, N.P. (2011). *Moving forward: The future of consumer credit and mortgage finance*. Washington, DC: Brookings Institution Press.

Schumann, S., Selfried, J. & Wuttke, E. (2016). *Economic competence and financial literacy of young adults*. Verlag Barbara Budrich.

Sironi, P. (2016). *Financial innovation: from robo-advisors to goals based investing and gamification*. Chichester, England: Wiley.

Tan, C.H. (2011). *Financial services and wealth management in Singapore*. Singapore: Ridge Books.

Wilson, J.D. (2017). *Creating strategic value through financial technology*. Hoboken, NJ: Wiley.

8. Related Web Resources

InvestHK	http://www.investhk.gov.hk
Mandatory Provident Fund Authority	http://www.mpfahk.org
Hong Kong Monetary Authority	https://www.hkma.gov.hk
Consumer Council	http://www.consumer.org.hk
Facts and Figures Generation	http://www.ffgen.org
Institute of Financial Planners of Hong Kong	http://www.ifphk.org
Registered Financial Planners	http://www.rfp-hk.org
Hong Kong Financial Services Development Council	https://www.fsdc.org.hk
Hong Kong Society of Financial Analysts	http://www.hksfa.org
Hong Kong Securities Institute	http://www.hksi.org
Investor and Financial Education Council	https://www.ifec.org.hk

9. Related Journals

Hong Kong Economic Journal
Financial Times
Journal of Finance
Journal of Financial Economics
The Wall Street Journal
Forbes

10. Academic Honesty

The University upholds the principles of honesty in all areas of academic work. We expect our students to carry out all academic activities honestly and in good faith. Please refer to the *Policy on Academic Honesty, Responsibility and Integrity* (https://www.eduhk.hk/re/uploads/docs/00000000001633679892454 8BbN5). Students should familiarize themselves with the Policy.

10. Others

Nil

Last updated on 22 July 2025