

Subject Description Form

Subject Code	COMP4531
Subject Title	Emerging Topics in FinTech
Credit Value	3
Level	4
Pre-requisite / Co-requisite / Exclusion	
Objectives	<p>The objective of this subject is to:</p> <ul style="list-style-type: none"> • introduce the emerging developments or selected topics in FinTech and their implications. It will cover the current state of the major thematic areas in FinTech, including its ecosystem, trends and opportunities; and • fulfill PolyU's lifelong learning objective, this subject also seeks to develop students' independent learning and critical thinking capabilities using MOOC, flipped classroom and other innovative teaching/learning methods.
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <p><u>Professional/academic knowledge and skills</u></p> <p>(a) understand how the current states impact the major thematic areas in FinTech;</p> <p>(b) understand and discuss the recent research advances of emerging technologies for financial services;</p> <p>(c) evaluate recent financial technologies and their impact on the future of financial services; and</p> <p>(d) learn how to learn and to analyze a FinTech-related topic with independent learning and critical thinking capabilities.</p>
Subject Synopsis/ Indicative Syllabus	<p>Topics will be selected according to the recent developments in FinTech and may be varied in different offerings of the subject. Some potential topics are illustrated below.</p> <ul style="list-style-type: none"> • Current state of the major thematic areas in the FinTech ecosystem such as infrastructure (e.g., identity, privacy, security), crowdfunding (e.g., types, platforms, applications), e-trading (e.g., algorithmic trading), and peer-to-peer (P2P) lending. • Trends and opportunities for shaping the FinTech ecosystem. • Trends in FinTech innovation, including e-payment, digital banking, cybersecurity, virtual currency, disruptive financial services, crowdfunding, P2P lending and regulatory challenges can influence the short-term and long-term developments of various industries.

	<ul style="list-style-type: none"> • Trends in the field of FinTech that will have the most significant impact on the future. • Latest development and popular topics in FinTech. <p>The following provides MOOC examples for selected topics:</p> <ul style="list-style-type: none"> • Machines Learning for Trading – by George Tech through UDACITY • Bitcoin and Cryptocurrency Technologies – by Princeton University through Coursera • Big Data Analysis with Apache Spark – by UC Berkeley through edX 																																	
Teaching/ Learning Methodology	<p>As this subject focuses more on developing students’ independent learning and critical thinking capabilities, students will be required to carry out more preparation before each class and a flipped classroom approach will be used. For example, students will be required to study selected topics through MOOC (e.g., selected FinTech-related topics on edX, Coursera and UDACITY by the instructor) and papers/articles on FinTech. Student groups will present their study during classes (i.e., using a flipped classroom approach). Each class will focus more on discussion and problem solving. The teaching/learning will also be complemented by lectures and seminars.</p>																																	
Assessment Methods in Alignment with Intended Learning Outcomes	<table border="1" data-bbox="384 994 1463 1527"> <thead> <tr> <th rowspan="2">Specific assessment methods/tasks</th> <th rowspan="2">% weighting</th> <th colspan="4">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> </tr> </thead> <tbody> <tr> <td>Continuous Assessment</td> <td rowspan="2">55%</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1. Assignments, Project and Quiz</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Examination</td> <td>45%</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>Total</td> <td>100 %</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>Continuous assessments (assignments, project and quiz) are designed to facilitate students to achieve the intended learning outcomes. The project is designed to enhance students’ ability to a deeper understanding of a problem of a larger-scope and solving it systematically. Quizzes are given to ensure the students’ understanding of the basic concept and application.</p> <p>Examination will provide a summative evaluation of the overall ability and understanding of the students in the topics.</p>	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)				a	b	c	d	Continuous Assessment	55%					1. Assignments, Project and Quiz	✓	✓	✓	✓	Examination	45%	✓	✓	✓		Total	100 %				
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Total	100 %																																	

Student Study Effort Expected	Class contact:	
	▪ Lecture / Flipped Classroom	26 Hrs.
	Other student study effort:	
	▪ MOOC, self-study and class preparation	26 Hrs.
	▪ Assignment, Project, Quiz and Examination	52 Hrs.
Total student study effort		104 Hrs.
Reading List and References	Reference Books: <ol style="list-style-type: none"> 1. Chishti, Susanne and Barberis, Janos, <i>The FINTECH Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries</i>, Wiley, 2016. 2. Schulte, Paul, <i>The Next Revolution in our Credit-Driven Economy: The Advent of Financial Technology</i>, Kindle Edition, Wiley, 2015. 3. Tavlas, Tolga, <i>Digital Banking Tips: Practical Ideas for Disruptors</i>, Kindle Edition, Amazon Digital Services, Inc., 2015. 4. Odame, Paul and Jubi, Gloria, <i>IT Financial Management: Corporate Financing, IT Value Realization Budgeting & Planning, ITIL Capacity Management</i>, Kindle Edition, FRENIQ BOOKS, 2015. 5. Taylor, Kevin C., <i>FinTech Law: A Guide to Technology Law in the Financial Services Industry</i>, Bloomberg BNA, 2014. 6. Khanna, Ayesha, <i>Straight Through Processing for Financial Services: The Complete Guide</i> (Complete Technology Guides for Financial Services), 1st Edition, Academic Press, 2007. 7. Freedman, David M. and Nutting, Matthew R., <i>A Brief History of Crowdfunding</i>, Retrieved Nov. 2015. 8. Lawton, Kelvin and Marom, Dan, <i>The Crowdfunding Revolution: How to Raise Venture Capital Using Social Media</i>, McGraw-Hill, 2013. 9. Allen, Franklin, McAndrews, James and Strahan, Philip, <i>E-Finance: An Introduction</i>, The Wharton School, University of Pennsylvania, 2001. 10. Dresner, Steven, <i>Crowdfunding: A Guide to Raising Capital on the Internet</i>, New Jersey-Wiley, 2014. 	