

## Module Outline

### ECF on Fintech

#### Module 1 “Technology Essentials”

<b>Benchmarked HKQF Level:</b>	5
<b>No. of Credits:</b>	20
<b>Total Notional Learning Hours:</b>	200
<i>a) Class contact hours:</i>	<i>9 hours (3-hour per session x 3)</i>
<i>b) Self-study hours:</i>	<i>189 hours</i>
<i>c) Assessment hours:</i>	<i>2 hours</i>
<b>Pre-requisite:</b>	N/A

#### Module Objective

The module aims to introduce emerging financial and regulatory technologies, including artificial intelligence (AI), big data analytics, distributed ledger technology (DLT), cloud computing, open banking and API, Robotic Process Automation (RPA) and cybersecurity; to introduce Fintech trends, key disruption events in the banking industry and the impact of Fintech developments on banking industry operations; and to introduce local and overseas Fintech applications, use cases and the corresponding implications in the banking space.

#### Module Intended Outcomes (MIOs) & Units of Competencies (UoCs)

Upon completion of the Module 1, candidates should be able to:

MIOs	Intended Outcomes / Competence	*Unit of Competencies (UoCs)
MIO-1	Analyse, evaluate and apply the fundamental technical concepts and principles of emerging Fintech topics to assist in Fintech solution development.	109377L5 109381L5 / 107443L5 109580L5 / 107594L5
MIO-2	Identify the recent and emerging Fintech trends and developments and common Fintech applications in banks.	109609L4 / 107622L4 107437L5 109365L5 / 107438L5

*\*Note: For the details of the UoCs, please refer to the Specification of Competency Standards (SCS) of [Retail Banking](#) and [Corporate & Commercial Banking](#) which were developed by HKCAAVQ.*

## Assessment

<b>Examination duration:</b>	2 hours
<b>Examination format:</b>	Multiple Choice Questions (MCQ) with 60 questions
<b>Pass mark:</b>	60%

## Syllabus

<b>Chapter 1: Introduction to Financial Technology (Fintech) and Regtech</b>	
<b>1.1</b>	<b>Introduction of emerging financial and regulatory technologies</b>
<b>1.2</b>	<b>Key concepts and principles of artificial intelligence</b>
<b>1.3</b>	<b>Key concepts and principles of big data analytics</b>
<b>1.4</b>	<b>Key concepts and principles of distributed ledger technology (DLT)</b>
<b>1.5</b>	<b>Key concepts and principles of cloud computing</b>
<b>1.6</b>	<b>Key concepts and principles of open banking &amp; API</b>
<b>1.7</b>	<b>Key concepts and principles of Robotic Process Automation (RPA)</b>
<b>1.8</b>	<b>Key concepts and principles of cybersecurity</b>
<b>Chapter 2: Fintech Trends and Developments</b>	
<b>2.1</b>	<b>Recent Key Disruptive Events in Banking</b>
<b>2.2</b>	<b>Fintech Development to enhance the Banking Operations and Customer Experience</b>
2.2.1	- Customer Experience and Centricity
2.2.2	- Digital Product Services Development
2.2.3	- Operation Efficiency Enhancement
2.2.4	- Change Management
<b>Chapter 3: Common Fintech Applications in Banks</b>	
<b>3.1</b>	<b>Local and overseas Fintech applications</b>
<b>3.2</b>	<b>Use-cases of the following technologies, including</b>
3.2.1	- Virtual assistant
3.2.2	- Credit scoring
3.2.3	- Authentication and biometrics
3.2.4	- Remote onboarding

## Recommended Readings

### **Essential Readings:**

1. HKIB Study Guide of ECF-Fintech: Module 1 Technology Essentials. (2022)
2. Mills, Karen G. (2018). Fintech, Small Business & the American Dream: How Technology Is Transforming Lending and Shaping a New Era of Small Business Opportunity. Springer.
3. Mohan, D. (2020). The Financial Services Guide to Fintech: Driving Banking Innovation Through Effective Partnerships. Kogan Page. (Chapter 1, 2, 7 and 10).
4. Rubini, Agustin (2018). Fintech in a Flash: Financial Technology Made Easy. De G PRESS.

**Supplementary Readings:**

1. Tanda, Alessandra & Schena, Cristiana-Maria (2020). FinTech, BigTech and banks: digitalisation and its impact on banking business models. Palgrave Pivot.
2. Tanda, A., & Schena, C. M. (2019). FinTech, BigTech and Banks. Springer Publishing.
3. Loesch, Stefan (2018). A Guide to Financial Regulation for Fintech Entrepreneurs. Wiley.

**Further Readings:**

1. Anderson, Ross (2020). Security Engineering: A Guide to Building Dependable Distributed Systems. Wiley.
2. Benedict J. Drasch, André Schweizer and Nils Urbach. (2018) Integrating the 'Troublemakers': A taxonomy for cooperation between banks and fintechs. *Journal of Economics and Business*. Volume 100, November–December 2018, Pages 26-42. DOI: 10.1016/j.jeconbus.2018.04.002.
3. Brett King (2018). Bank 4.0: Banking Everywhere, Never at a Bank. Wiley.
4. The Hong Kong Monetary Authority (2019). Reshaping Banking with Artificial Intelligence.
5. Valverde, Dantiago Carbo & Fernandez, Francisco Rodriguez (2020). Financial digitalization: Banks, Fintech, Bigtech, and consumers. *Journal of Financial Management, Markets and Institutions*, 08(01), 2040001.