

Module Outline

Professional Qualification:	Certified Fintech Professional (Management) (CPFinT(M)) (QF Level 6) Certified Fintech Professional (Specialist - AI and Big Data Stream) (CPFinT(S-AIBD)) (QF Level 6) Certified Fintech Professional (Specialist - Distributed Ledger Technology Stream) (CPFinT(S-DLT)) (QF Level 6) Certified Fintech Professional (Specialist - Open Banking and API Stream) (CPFinT(S-OBAPI)) (QF Level 6) Certified Fintech Professional (Specialist - Regtech Stream) (CPFinT(S-RT)) (QF Level 6)
Programme Title:	Postgraduate Certificate for ECF on Fintech (Management Track) - Completion of M5, M9 & M10 Postgraduate Certificate for ECF on Fintech (Specialist – AI and Big Data Stream) - Completion of M5 & M6 Postgraduate Certificate for ECF on Fintech (Specialist – Distributed Ledger Technology Stream) - Completion of M5 & M7 Postgraduate Certificate for ECF on Fintech (Specialist – Open Banking and API Stream) - Completion of M5 & M8 Postgraduate Certificate for ECF on Fintech (Specialist – Regtech Stream) - Completion of M5 & M11
Module Title:	Regulatory Trends and Data Ethics (M5)*
Credits:	30 (21 contact hours, 3 examination hours and about 276 self-study hours)
Teaching/Training Activities:	Training Class
Pre-requisite:	<ul style="list-style-type: none">• Professional Certificate for ECF on Fintech awarded by HKIB; OR• Grandfathered for ECF on Fintech (Core Level) by HKIB• Grandfathered for at least one stream or track under ECF on Fintech (Professional Level) by HKIB
Remarks:	* Pitched at QF Level 6

Professional Qualification Objective

The Professional Qualification of Management Track is developed to nurture a sustainable talent pool of middle or senior level Fintech practitioners for the banking industry. Learners will acquire a more in-depth understanding of the Fintech development trends, regulatory updates, and technology advancement to develop capabilities and formulate insights to drive and manage Fintech transformation within the organisation.

The Professional Qualification of Specialist Track is developed to nurture a sustainable talent pool of more experienced and specialised expert level Fintech practitioners for the banking industry. Learners will achieve mastery within a specific Fintech domain on technology principles and applications in the banking industry to advise on Fintech use cases, solution architecture, and implementation management.

Professional Qualification Intended Outcomes (PQIOs) for Management Track (M5, M9 and M10)

Upon completion of the Professional Qualification, candidates should be able to:

PQIO 1:	Keep abreast of the key aspects of Fintech application in banking and financial services.
PQIO 2:	Analyse the competitive landscape and the applications of the latest technology and formulate Fintech growth strategies.
PQIO 3:	Articulate banking product vision and business requirements clearly with business stakeholders and Fintech professionals.
PQIO 4:	Formulate strategies and policies for implementing Fintech projects with well managed scope, resources, and quality
PQIO 5:	Develop breakthrough solutions by leveraging technology adoption to cope with major constraints and challenges.
PQIO 6:	Formulate, monitor and review the control measures related to compliance of Fintech products with relevant banking and data privacy regulations.

Professional Qualification Intended Outcomes (PQIOs) for Specialist Track (M5, M6, M7, M8 and M11)

Upon completion of the Professional Qualification, candidates should be able to:

PQIO 1:	Drive practical Fintech adoption in a range of applicable business contexts.
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PQIO 2:	Acquire in-depth knowledge and design rationale of Fintech solutions and applications in banks.
PQIO 3:	Evaluate new technologies and vendors in the market and supervise the application of technology concepts of relevant Fintech disciplines in solution design for addressing specific business scenarios and user pain points.
PQIO 4:	Formulate policies for the design, development, and implementation of Fintech solutions.
PQIO 5:	Formulate the implementation approach and guidelines in Fintech projects after reviewing the solution architecture
PQIO 6:	Establish and enforce policies and standards on Fintech software engineering across different coding practices, design patterns, production processes, and system operations.

Module Objective

The module aims to introduce global regulatory trends, trans-border policies and collaborations, and latest developments in Fintech regulation, with emphasis on privacy management, and ethics.

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

Upon completion of the Module 5, candidates should be able to:

MIOs	Intended Outcome / Competence	Unit of Competencies (UoCs)
MIO 1:	Identify the regional Fintech regulatory trends and developments, including cross-border policies and collaborations.	109317L6 109357L6 109359L6 109366L6
MIO 2:	Recognise and respond to implications of data ethics, integrity, and risks associated with Fintech application opportunities.	109395L6 / 107428L6 109397L5 / 107430L5

Assessment Activity

Type of Assessment Activity	PQIO/MIO	Weighting (%)
Examination	MIO 1 - 2	100%

Examination Format and Duration

Time allowed: 3 hours

Format:

Section A (30%) – Essay Type Questions (open-book; choose 2 out of 3 - each 15 marks);

Section B (70%) – Compulsory Essay Type Questions (open-book; 2 questions with 1 question @25 marks and 1 question @45 marks)

Examination pass mark: 50%

CPFinT(M) Certification Requirement

- Completion of Module 5, Module 9 and Module 10 of the ECF on Fintech (Professional Level) training; and
- Pass examination of respective Modules; and
- Having at least 3 year of relevant work experience in Fintech projects and / or any of the Professional Level functions in Fintech Solution Development, Fintech Product Design, Fintech Strategy and Management or Regtech; and
- Currently as a Relevant Practitioner

CPFinT(S-AIBD) / CPFinT(S-DLT) / CPFinT(S-OBAPI) / CPFinT(S-RT) Certification Requirement

- Completion of ECF on Fintech (Professional Level) Training and Pass examination of respective Modules
 - Module 5 and Module 6 (CPFinT(S-AIBD))
 - Module 5 and Module 7 (CPFinT(S-DLT))
 - Module 5 and Module 8 (CPFinT(S-OBAPI))
 - Module 5 and Module 11 (CPFinT(S-RT))
- Having at least 3 year of relevant work experience in Fintech projects and / or any of the Professional Level functions in Fintech Solution Development, Fintech Product Design, Fintech Strategy and Management or Regtech; and
- Currently as a Relevant Practitioner

Syllabus

Chapter 1: Introduction to Fintech Compliance	
1	- What is Fintech <ul style="list-style-type: none">• Functional dimension• Technology dimension
2	- Business / Financial regulations on Fintech <ul style="list-style-type: none">• Business as usual / Technology neutral approach• Monetary stability• Financial stability• AML/CFT• Consumer protection• (Competition)
3	- Views / common concerns and efforts by local regulators <ul style="list-style-type: none">• Hong Kong Monetary Authority (HKMA)• Office of the Privacy Commissioner for Personal Data (PCPD)• Office of the Communications Authority (OFCA)
4	- Unlearning and relearning personal data regulations
Chapter 2: Personal data regulatory regimes and core requirements	
1	- OCED Privacy Guidelines
2	- Hong Kong's Personal Data (Privacy) Ordinance (PDPO) <ul style="list-style-type: none">• The six data protection principles (DPPs)
3	- EU General Data Protection Regulation (GDPR)
4	- Mainland China's Personal Information Protection Law (PIPL)
Chapter 3: Personal Data Regulatory Requirements and Management Tools	
1	- Specific regulatory requirements related to data <ul style="list-style-type: none">• Direct Marketing• eDM – Unsolicited Electronic Messages Ordinance• Cross-border data transfer restrictions• Unsolicited Electronic Messages Ordinance

2	<ul style="list-style-type: none"> • Data breach management • Data localisation and retention <ul style="list-style-type: none"> - Management tools <ul style="list-style-type: none"> • Privacy by Design
Chapter 4: Management tools and regulatory requirements on ‘traditional’ technologies	
1	<ul style="list-style-type: none"> - Management tools <ul style="list-style-type: none"> • Data protection impact assessment • Privacy compliance assessment • Privacy management programme
2	<ul style="list-style-type: none"> - Cloud computing
3	<ul style="list-style-type: none"> - Mobile application development
4	<ul style="list-style-type: none"> - Use of public information
Chapter 5: Regulatory requirements on ‘traditional’ technologies and trends	
1	<ul style="list-style-type: none"> - Physical tracking
2	<ul style="list-style-type: none"> - Biometric data
3	<ul style="list-style-type: none"> - Encryption, Hashing and Pseudonymisation
4	<ul style="list-style-type: none"> - Anonymisation
5	<ul style="list-style-type: none"> - AdTech and surveillance marketing (ePrivacy)
6	<ul style="list-style-type: none"> - Privacy Enhancing Technologies
Chapter 6: Regulatory requirements on Fintech	
1	<ul style="list-style-type: none"> - Open API
2	<ul style="list-style-type: none"> - Blockchain
3	<ul style="list-style-type: none"> - Data analytics and Artificial Intelligence <ul style="list-style-type: none"> • Prediction that does not deliver • Creepiness • Re-identification • Discrimination

4	<ul style="list-style-type: none"> • Erosion of freewill - Internet of Things (IoT)
Chapter 7: Data Ethics and AI Regulation	
1	<ul style="list-style-type: none"> - Data ethics <ul style="list-style-type: none"> • Worldwide calls for ethical use of data • PCPD's Guidance on the Ethical Development and Use of Artificial Intelligence • HKMA's Guiding principle on consumer protection on the use of big data / AI • HKMA's high level principles on AI • EU's Ethics guidelines for Trustworthy AI • EU's Assessment List for Trustworthy AI • The challenges of ethics
2	<ul style="list-style-type: none"> - AI regulation <ul style="list-style-type: none"> • EU's proposed AI regulation • The US approach
3	<ul style="list-style-type: none"> - The next big things <ul style="list-style-type: none"> • AdTech / cookies replacement / regulation • Dark pattern regulation

Recommended Readings

Essential Readings:

1. OECD Privacy Guidelines 2013 – read Annex Part 1 - 4, pp. 5 – 7.
<https://legalinstruments.oecd.org/api/print?ids=114&lang=en>
2. About the Office of the Privacy Commissioner for Personal Data, Hong Kong – read the whole booklet.
https://www.pcpd.org.hk/english/resources_centre/publications/files/PCPDbooklet_about_the_PCPD_201509.pdf
3. Three-minute video on the Six Data Protection Principles:
<https://youtu.be/j6fO6JVGGHq>
4. Schedule 1 (Data Protection Principles) to the Personal Data (Privacy) Ordinance (PDPO).
<https://www.elegislation.gov.hk/hk/cap486>
5. Appendix B on PDPO's PDDs, Guidance on the Ethical Development and Use of AI.
https://www.pcpd.org.hk/english/resources_centre/publications/files/guidance_ethical_e.pdf
6. HKMA Circular on Sound practices for customer data protection.

<https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2022/20220404e1.pdf>

<https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2022/20220404e1a1.pdf>

7. Part 6A (Direct Marketing) to the PDPO.
<https://www.elegislation.gov.hk/hk/cap486>
8. Office of the Communications Authority's The Unsolicited Electronic Messages Ordinance - An Industry Guide.
https://www.ofca.gov.hk/filemanager/ofca/common/uemo/uemo_industry_guide_e.pdf
9. Section 33 (Cross-border data transfer) in the PDPO.
<https://www.elegislation.gov.hk/hk/cap486>
10. Singapore Personal Data Protection Commission's Guide on Managing and Notifying Data Breaches under the Personal Data Protection Act.
<https://www.pdpc.gov.sg/-/media/Files/PDPC/PDF-Files/Other-Guides/Guide-on-Managing-and-Notifying-Data-Breaches-under-the-PDPA-15-Mar-2021.pdf?la=en>
11. Privacy by Design and its Seven Principles.
<https://www.ipc.on.ca/wp-content/uploads/2013/09/pbd-primer.pdf>
12. Guide to Data Protection Impact Assessment, Personal Data Protection Commission, Singapore.
<https://www.pdpc.gov.sg/Help-and-Resources/2017/11/Guide-to-Data-Protection-Impact-Assessments>
13. Privacy Management Programme: A Best Practice Guide.
https://www.pcpd.org.hk/english/publications/files/PMP_guide_e.pdf
14. PCPD's Cloud Computing information leaflet.
https://www.pcpd.org.hk/english/resources_centre/publications/files/IL_cloud_e.pdf
15. PCPD's Best Practice Guide for Mobile App Development.
https://www.pcpd.org.hk/english/resources_centre/publications/files/Best_Practice_Guide_for_Mobile_App_Development_20151103.pdf
16. PCPD's Guidance on Use of Personal Data Obtained from the Public Domain.
https://www.pcpd.org.hk/english/resources_centre/publications/files/GN_public_domain_e.pdf
17. PCPD's Physical Tracking and Monitoring Through Electronic Devices.
https://www.pcpd.org.hk/english/resources_centre/publications/files/physical_tracking_e.pdf
18. PCPD's Online Behavioural Tracking.
https://www.pcpd.org.hk/english/resources_centre/publications/files/online_tracking_e.pdf
19. PCPD's Guidance on Collection and Use of Biometric Data.
https://www.pcpd.org.hk/english/resources_centre/publications/files/GN_biometric_e.pdf

20. Information Commissioner's Opinion: Data protection and privacy expectations for online advertising proposals – read Chapters 1, 5 and 6.
<https://ico.org.uk/media/about-the-ico/documents/4019050/opinion-on-data-protection-and-privacy-expectations-for-online-advertising-proposals.pdf>
21. Chang, Henry, Is Distributed Ledger Technology Built for Personal Data? (February 1, 2018). Journal of Data Protection & Privacy, Volume 1, Number 4, 2018, University of Hong Kong Faculty of Law Research Paper No. 2018/016
SSRN:
<https://ssrn.com/abstract=3137606>
22. The Norwegian Data Protection Authority's Report on Artificial intelligence and privacy.
https://iapp.org/media/pdf/resource_center/ai-and-privacy.pdf
23. HKMA's Guiding principles on consumer protection aspects in respect of the use of big data analytics and artificial intelligence.
<https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2019/20191105e1.pdf>
24. HKMA's High-level Principles on Artificial Intelligence.
<https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2019/20191101e1.pdf>

Supplementary Readings:

1. Gavison, Ruth E., Privacy and the Limits of Law (May 16, 2012). The Yale Law Journal, Vol. 89, No. 3 (Jan., 1980) – read 2 and 2a, pp. 428 – 440.
<https://ssrn.com/abstract=2060957>
2. OECD Privacy Guidelines 2013 – read the rest.
<https://legalinstruments.oecd.org/api/print?ids=114&lang=en>
3. Count of Appeal Judgement, Eastweek Publisher Ltd. and Privacy Commissioner for Personal Data (28 March 2000).
https://www.pcpd.org.hk/english/enforcement/judgments/files/CACV000331_1999.pdf
4. Recitals of the General Data Protection Regulation – paragraphs 1 – 173 (page L119/1 – L119/31).
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=EN>
5. PCPD's Ethical Accountability Framework for Hong Kong.
https://www.pcpd.org.hk/misc/files/Ethical_Accountability_Framework.pdf

Supplementary Readings:

1. Financial Stability Board's Financial Stability Implications from FinTech.
<https://www.fsb.org/wp-content/uploads/R270617.pdf>
2. PDPO exemptions under Part 8 of the PDPO.

- <https://www.elegislation.gov.hk/hk/cap486>
3. PCPD's booklet on "An Update on European Union General Data Protection Regulation 2016".
https://www.pcpd.org.hk/english/data_privacy_law/eu/files/eugdpr_e.pdf
 4. Requirements of the General Data Protection Regulation – Articles 1 – 99 (page L119/32 – L119/88).
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=EN>
 5. PCPD's Highlights of the Mainland's Personal Information Protection Law.
https://www.pcpd.org.hk/english/data_privacy_law/mainland_law/mainland_law.html
 6. PCPD's New Guidance on Direct Marketing.
https://www.pcpd.org.hk/english/publications/files/GN_DM_e.pdf
 7. The Unsolicited Electronic Messages Ordinance.
<https://www.elegislation.gov.hk/hk/cap593!en>
 8. The Unsolicited Electronic Messages Regulation.
<https://www.elegislation.gov.hk/hk/cap593A!en>
 9. Office of the Communications Authority's Code of Practice on Sending Commercial Electronic Messages.
<https://www.coms-auth.hk/filemanager/statement/en/upload/238/cop20131129.pdf>
 10. Guidance on Data Breach Handling and the Giving of Breach Notification, PCPD.
https://www.pcpd.org.hk/english/resources_centre/publications/files/DataBreachHandling2015_e.pdf
 11. TrustArc - Nymity Privacy and Data Governance Framework.
https://info.trustarc.com/Web-Resource-2020-01-20-Privacy-Data-Governance-Framework_TYP.html
 12. Chang, H. Privacy Regulatory Model for the Cloud: A Case Study.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2627474
 13. HKCERT's "Transaction Security of Mobile Apps in Hong Kong" Study Report.
<https://www.hkcert.org/blog/transaction-security-of-mobile-apps-in-hong-kong-study-report>
 14. HKCERT's Best Practice Guide (SSL Implementation) for Mobile App Development, HKCERT.
<https://www.hkcert.org/security-guideline/best-practice-guide-ssl-implementation-for-mobile-app-development>
 15. Privacy Guidelines: Monitoring and Personal Data Privacy at Work, PCPD.
https://www.pcpd.org.hk/english/publications/files/monguide_e.pdf
 16. UK Information Commissioner's Office Update report into AdTech and real time bidding.
<https://ico.org.uk/media/about-the-ico/documents/2615156/adtech-real-time-bidding-report-201906-dl191220.pdf>
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17. Information Commissioner's Opinion: Data protection and privacy expectations for online advertising proposals – read the rest.
<https://ico.org.uk/media/about-the-ico/documents/4019050/opinion-on-data-protection-and-privacy-expectations-for-online-advertising-proposals.pdf>
18. Open API Phase II Standards, The Hong Kong Association of Banks.
https://www.hkab.org.hk/download.jsp?isTemp=N§ion_id=5&file_name=Phase+III+Banking+Open+API+Standards.pdf
19. Chang, Henry, Responding to ethics being a data protection building block for AI (September 23, 2021). Journal of AI, Robotics and Workplace Automation, Volume 1, Number 1, 2021.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3952753
20. Chang, Henry, Ethics in Artificial Intelligence – A Disjoint Between Knowing and Acting (April 30, 2020). Journal of Data Protection & Privacy, Volume 3, Number 3, 2020, University of Hong Kong Faculty of Law Research Paper No. 2020/039.
<https://ssrn.com/abstract=3664778>
21. EU's EU Ethics Guidelines for Trustworthy AI.
https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=60651
22. EU's Assessment List for Trustworthy Artificial Intelligence (ALTAI).
https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=68342