

Financial Technology: Investing, Machine Learning, and Innovation in Value Creation





Overview

Financial technology, also known as fintech, is rapidly transforming financial services across both B2C and B2B channels. A market overview from IndustryArc estimates a compound annual growth rate of 10% to 12% through 2025. Understanding market drivers, challenges, trends, and key players is essential for all aspects of operational strategy.

This eight-week, online programme from Imperial College Business School is designed to give you a foundation in fintech and its components, including:

- Digital finance tools
- Personal banking
- Blockchain and cryptocurrency
- Machine learning (ML) and artificial intelligence (AI)

Drawing on insights from Imperial College Business School faculty, industry leaders, and your peers, you will develop a robust understanding of the technologies changing banking and finance along with fintech opportunities and challenges. You will also gain the skills necessary to adopt fintech functionality and technologies in a way that builds efficiency and promotes the success of your strategic initiatives.

Upon successful completion of this programme, you will have the skills to understand and involve in the fintech revolution.

This programme is for..

This programme is designed to equip you with insights and practical skills to harness fintech technology strategies. The diverse programme will deepen your understanding of global fintech challenges and opportunities.

- Looking to gain insights on technologies that are changing banking and finance, and on disruptions taking place in financial services
- Critically assessing the future of the financial services industry through exploration of real-world problems
- Understanding fintech services and acquiring updates on trends to create cutting-edge solutions based on disruptions in the space
- Seeking to improve the professional knowledge of fintech and its regulatory frameworks

64%

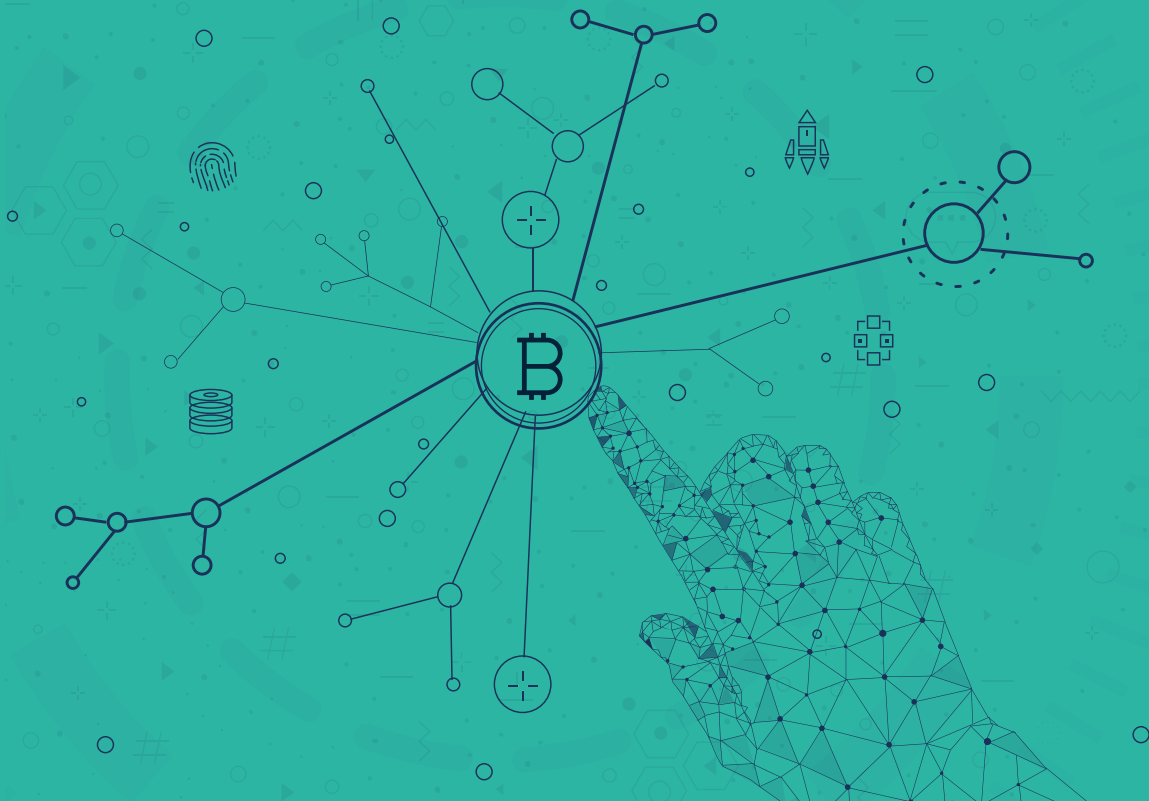
In 2019, 64% of consumers used two or more fintech services or platforms, and that number is expected to keep growing.

Source: EY
Global FinTech Adoption Index 2019

20% ROI

A large majority of global banks, insurers, and investment managers are planning to partner with financial technology companies over the next three to five years, and expect a 20% average return on investment on their innovation projects.

Source: Mordor Intelligence
Global Fintech Market: Growth, Trends, and Forecast (2020-2025)





The Imperial advantage

1

Reuters 'Most Innovative Universities - 2019'
[UK Global Online MBA QS](#)

2

World University Rankings 2020
[World](#)

10

Times Higher Education Rankings - 2020
[World](#)

14

Nobel Prize winners

As part of Imperial College London, a global leader in science and technology, Imperial College Business School drives global business and social transformation through the fusion of business, technology, and an entrepreneurial mindset. We combine innovative thinking and insight with new technology to develop solutions to real-world issues, benefiting business and improving society.

Our world-leading researchers pioneer practical solutions, and their research excellence and long-established capabilities inform our online programmes. We create and deliver remarkable learning experiences with a lasting positive impact.

Our thought leadership is sought by governments, policymakers, and global business leaders, who often partner with us on research projects. We consistently rank among the top business schools in Europe and worldwide. Furthermore, we attract brilliant minds and provide the environment to foster innovative and entrepreneurial thinking, resulting in groundbreaking ideas that unlock business opportunities.

Award-winning online learning

Imperial College Business School has its own award-winning centre of educational technology. The Edtech Lab is a team of specialists in online learning design and pedagogy.

We have developed our own learning platform, leveraging our expertise and innovation in online teaching to create an interactive, varied, personalised, and supportive learning experience.

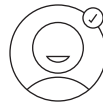
How we deliver our programmes



Our programmes are crafted via rigorous planning and interrogation by our academics and pedagogy experts.



The Learning Team is always available to assist and support participants throughout the learning experience.



Our bespoke learning framework encourages group learning through community engagement and high-touch social interactions.



Our transformational learning experience is a result of engaging, stimulating, and diverse learning media that fosters real time feedback and interaction.

The participant experience



The Certificates earned through our online programmes are exactly equal to the hard work and dedication it takes to earn the campus equivalent.



Our participants never feel alone in their learning experience. The platform is built around a deeply interactive, peer-connected environment.



Whilst structured, the learning experience is flexible enough for participants to fit their studies around their busy lives.



Our learning design is multi-dimensional and highly interactive. There is a continuous focus on pedagogical variety and live content.



Human

We create people-centric learning experiences. From conception through delivery, we are guided by the principle that learning is a creative, personal, and, above all, human process. Our high-quality, crafted learning environments are highly interactive, community-orientated, and actively tutored. Our programmes provide an engaging experience designed to facilitate natural learning behaviours.

Real

No compromise. Our virtual programmes are delivered via our renowned faculty, offer a comparable high-touch approach to our campus-based programmes, and meet the same rigorous academic standards.

2

in online MBA ranking
QS Online MBA
Rankings, 2020
[World](#)

Gold

award for Virtual Reality/
Augmented Reality at the
2019 QS Reimagine
Education Conference,
London, UK

2

fully online degree
programmes at Imperial
College Business School

Silver

award for Business Education
at the 2018 QS Reimagine
Education Conference,
San Francisco, U.S.

180

online programmes from
Imperial College Business
School

Bronze

award for Best Distributed/
Online Program for Nurturing
21st Century Skills at the 2019
QS Reimagine Education
Conference, London, UK

The Imperial impact

We have a culture of working across disciplines to bring a diverse and multifaceted point of view to business challenges. Through our institutes and research centres, we transcend boundaries, uniting world-leading experts from a variety of research areas. We also engage with international organisations, SMEs, and policymakers around the world, address key challenges for modern business, and create practical solutions with significant real-world impact.

Examples of our Institutes and Research Centres:

Centre for Global Finance and Technology

The Center is Imperial College Business School's hub for the interdisciplinary research needed to innovate, reveal insights, and answer questions. It brings together the activities of academics, startups, established industry, and governmental organisations to understand the impact of technology on finance, business, and society.

The Dyson School of Design Engineering

The Dyson School opened in 2014 to fuse together design thinking, engineering knowledge, and practice; foster a culture of innovation and enterprise; and help solve global problems with an emphasis on sustainability, entrepreneurship, and societal impact.

The Brevan Howard Centre for Financial Analysis

The Centre serves as a bridge between Imperial College Business School, disciplines including engineering and computational finance, and the world of business to develop a greater understanding and more efficient management of risk and to promote investment and productivity.

The Data Science Institute (DSI)

The cross-faculty DSI acts as a focal point for coordinating data science research at Imperial College London by engaging with global partners, stimulating collaboration across a broad spectrum of disciplines, and translating research into social and education programmes to train a new generation of data scientists.

Institute of Global Health Innovation

The Institute co-creates and diffuses healthcare innovations to tackle some of the most pressing global challenges facing people today. A powerful engine, it collaborates with a rich network of internal and external partners from academia, industry, government, and the charitable sector.

The Energy Futures Lab

Founded in 2005, the Lab fosters multidisciplinary collaborations to tackle a broad range of global energy challenges across policy and innovation, energy infrastructure, sustainable power, low-carbon cities, and transport and clean fossil fuels.



Programme highlights

As a participant, you will learn about the fintech landscape, including its opportunities and shortcomings. This will allow you to identify the inefficiencies fintech is targeting, and how you can develop a plan for fintech integration within your organisation. You will walk away with actionable insights and a solid strategy to move your organisation forward.

- Learn existing functions within banks to uncover potential inefficiencies
- Compare and contrast how standard versus digital banks perform given functions in your country
- Determine the best tactics to attract new customers for loans, and identify the holes in the way customers are currently found
- Consider which functions would be better utilised with machine learning or artificial intelligence
- Understand the limitations of ML and AI, and how to use them to analyse results and determine risk factors
- Apply the concepts and applications of ML and AI to real-world scenarios.
- Determine situations that should utilise cryptocurrency versus digital fiat currency
- Sort risks according to whether they apply to fintech or regular financial institutions
- Predict which functionalities will remain in banks or switch to an outside entity
- Develop a plan for integration of fintech within a financial organisation



What will you learn

As a participant in this programme, you will learn to understand the technologies that are transforming banking and finance and develop your own strategy to put fintech solutions to work in your organisation.

Week 1: Orientation

Week 2: Digital Transformation and Financial Services

Learn about the strengths and inefficiencies of the current banking landscape as well as the evolution of financial technologies within financial services.

- Identify existing functions within banks
 - Uncover potential inefficiencies and liabilities of fintech
 - Propose a tech solution for an existing bank function to improve inefficiencies
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Week 3: Personal Banking

Explore the switch from digital banking to smart banking, and how banks are offering products and services based on individual customer needs.

- Understand benefits and disadvantages of fintech according to functions of each bank type
 - Rate comfort level with robo-advisors providing digital financial advice and management
 - Suggest factors of banking that should be tailored to customers
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Week 4: Lending Markets

Examine the requirements, processes, challenges, and opportunities within lending markets, particularly the growing increase for credit among individuals and institutions. Plus, discover how fintech can be used to make lending more digital.

- Determine the best tactics to attract new customers for loans
- Rate the difficulty level of the steps involved in the lending process along with the extent of automation possible for each step
- Suggest alternative factors to evaluate default risk for an unbanked customer

Week 5: Applications of Machine Learning in Fintech; Risk Management and Credit Scoring

Focus on how machine learning and artificial intelligence can be integrated within the current financial landscape and used to improve various functions, such as the prediction of default and risk. Also, identify the limitations and opportunities for ML and AI integration in the realms of health insurance, credit cards, and auto insurance.

- Determine which functions would be better utilised with machine learning
- Apply the concepts and applications of ML and AI to real-world scenarios
- Utilise ML tools to analyse results and determine risk factors

Week 6: Digital Distributed Ledger: Blockchain and Cryptocurrencies

Delving into the function and application of blockchain technology in the financial landscape, assess which situations would benefit from private vs. public blockchain, cryptocurrency vs. digital fiat currency, and blockchain vs. distributed ledger technology.

- Identify situations in which a blockchain or distributed ledger technology (DLT) would be useful
- Assess scenarios related to public blockchain, private blockchain, cryptocurrency, and digital fiat currency
- Apply DLT and blockchain to personal financial setting

Week 7: Regulations

Focus on what laws already exist within fintech and how they differ across countries. Plus, examine the risks of adopting fintech and explore data governance and privacy concerns.

- Sort risks according to whether they apply to fintech or regular financial institutions
- Determine likelihood and necessity for regulations within fintech
- Predict which functionalities will remain in banks and which will shift to an outside entity

Week 8: Fintech Capstone Project

Develop a plan for integrating fintech within your organisation.

Fintech Capstone Project

During this programme, you will develop and refine a business case and plan for a project or initiative at your own organisation. The purpose of this plan is to help your own organisation along the fintech path, regardless of where it currently is in this journey.

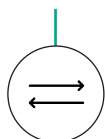
You will receive personalised feedback on your submission with the goal of building a preliminary plan that you can put into action.

If your organisation is not appropriate for this project or you are not currently affiliated with an organisation, you may select any company with which you have some familiarity. Please note that completion of the Capstone Project is required to earn the Certificate of Participation for this programme.

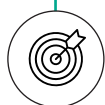


A remarkable learning experience

The programme is spread over eight weeks and includes live webinars, video lectures, practice activities, discussions, and assignments.



Orientation



Goal setting

Learning goals set for each week, including watching the video lectures and completing the assignments. All assignments have weekly deadlines.



Video lectures

The recorded video lectures are conducted by programme faculty. These dynamic lectures are designed to be high-impact and reinforce learning.



Live webinars

Throughout the programme, there are live webinars conducted by programme faculty.



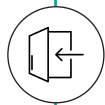
Interactive activities

Activities like discussions and polls make the programme highly interactive and allow you to share your perspectives.



Follow-up

To support and check on your progress throughout the programme, including if you are unable to submit assignments on time.



Completion of the Final Project and Certificate Awarded



Certificate



Upon successful completion of the programme, you will receive a verified Certificate from Imperial College Business School.

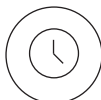
Programme details



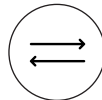
8 weeks, online



£1,390 per participant



4 hours per week



STARTS on April 2022

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Imperial means
Intelligent Business