BSc (Hons) FinTech with Data Analytics

INFORMATICS INSTITUTE OF TECHNOLOGY

IIT BUSINESS SCHOOL

Why Follow This Programme

The BSc (Hons) FinTech with Data Analytics course at the University of Westminster Business School, is designed for students keen to work at the intersection of finance, digital technology and data analytics to disrupt and re-imagine the financial ecosystem.

This programme provides a strong understanding of how AI and digital technologies are transforming the financial sector. You will be introduced to blockchain technology, cryptography, cloud computing and machine learning, and also gain hands-on experience in financial analysis using the state-of-the-art LSEG Workspace Financial Markets Suite, enhancing your professional and enterprise skills through learning with real-world experiences and simulations.

The curriculum explores emerging trends in financial innovation, and data-driven decision-making, future-proofing graduates for a wide range of career opportunities in finance, technology, and data science.

Aims of the programme

- Build strong theoretical foundations in FinTech and data analytics
- Deliver specialised technical skills (data analytics, programming, machine learning, risk management, investment analysis)
- Prepare graduates for finance/business careers or further postgraduate study
- Develop transferable skills like communication, teamwork, and problem-solving
- Provide real-world, practical learning experiences
- Foster awareness of sustainability, ethics, and social responsibility
- Cultivate research and analytical skills tailored to individual learning paths
- Ensure graduates are career-ready for the evolving financial services industry
- Encourage critical thinking and creative problem-solving

Course Structure - Core and Optional Modules (Semester Wise) - Full Time

Year	Semester	Module	Core/ Elective	Credits
Year 1 - (Level 4 - Certificate of Higher Education)				
1	1	**Business Computing Fundamentals** This module will teach you to design data-driven applications using Python, SQL, and Excel to support business operations like planning and decision-making	Core	20
	1	**Financial Skills Development** The module builds financial and digital literacy, covering money management, international securities markets (equities, bonds, FX), and providing hands-on training on the Financial Market Suite	Core	20
	1	**Introduction to Finance** The module explores fundamental concepts like the time value of money, investment appraisal methodologies, and the basic principles of risk and return	Core	20
	2	**Mathematics for Finance** This module provides the essential numeracy skills required for the degree, including algebra, matrices, differentiation, and optimisation applied to financial problems	Core	20
	2	**Principles of Fintech, Blockchain and Cloud Computing** The module introduces the “macrostructure” of FinTech, focusing on the historical developments and the core roles of Artificial Intelligence, Blockchain, and Big Data	Core	20
	2	**Entrepreneurship in FinTech** The module will teach you to generate business ideas, develop a business model canvas, and participate in solving client problems	Core	20

Year 2 (Level 5 - Diploma of Higher Education)				
2	1	**Computational Finance and Business Analysis** This module will develop a deep knowledge of well-established financial, computational and statistical theories and methods for risk analysis.	Core	20
	1	**Financial Market Microstructure** The module will teach how markets are organised, including asset exchanges and price discovery processes, to design efficient trading strategies.	Core	20
	1	**Financial Modelling and Statistics** This module teaches econometrics and statistical techniques, such as probability distributions and time series analysis, to solve investment and risk management problems.	Core	20
	2	**Principles of Cryptocurrencies and Blockchain Technology** The module will provide you with an understanding of cryptocurrency fundamentals while learning to manage data.	Core	20
	2	**Digital Business for Finance and Accounting** This module explores how to effectively manage the range of operations functions drawing from the traditional and digital perspectives.	Core	20
	2	**Principles of Big Data Management for Finance** This module will teach you to manage the "6 Vs" of Big Data (Volume, Velocity, etc.) using trending technologies for data mining and business intelligence.	Core	20
Year 3 (Industrial Placement)				
3		**Professional Placement Project Part 1**	Optional	60
		Professional Placement Project Part 2	Optional	60
Year 4 (Level 6)				
4	1	**Advanced Data Analysis and Management Science** This module provides you with advanced econometric and financial modelling techniques essential for rigorous data analysis in FinTech environments.	Core	20
	1	**Business Forecasting and Predictive Analytics** The module expects you to solve a business problem commonly found in the FinTech workplace and general business management practices in the form of a dissertation.	Core	20
	1	**Investments and Portfolio Management** The module will apply modern portfolio theory and asset pricing models to design investment solutions and evaluate portfolio performance against professional codes of conduct.	Core	20

4	2	**Machine Learning** The module will explore Artificial Neural Networks and Deep Learning, to develop algorithms that predict financial outcomes for risk management.	Core	20
	2	**Digital Analytics** This module focuses on social media and web analytics, teaching you how to analyse consumer behaviour and use data dashboards to drive competitive advantage.	Core	20
	2	**International Banking** In this module you will develop a deep understanding of wholesale and investment banking, exploring systemic risks, global regulations, and emerging market debt crises.	Core	20

Delivery Modes:

- Full-time - Weekdays and Weekends
- Part Time - Weekends

Delivery method - Physical

Duration

- Full time - 3 Years (Without Internship)
- Full time - 4 Years (With Internship)
- Part Time - 5 years

Exam styles

- Individual and group assessments
- Presentations and practical simulations
- In-class test
- Hackathons

Employability & Workplace Opportunities

- FinTech Engineer
- FinTech Consultant
- Financial Data Analyst
- Corporate Analyst
- Corporate Investment Strategist
- Machine Learning Specialist
- Blockchain & Crypto Consultant
- Fintech Entrepreneur
- Data Scientist
- FinTech Venture Specialist
- RegTech Specialist

Admission Requirements

Students are required to meet the following O/L requirements:

- G.C.E. Ordinary Level Examination: Minimum of 6 passes, including at least 3 credits with Mathematics and English.
- Cambridge/Edexcel O/L: Minimum of 5 passes, including 3 credits with Mathematics and English.

Local/ London Result	A	B	C	D/S	E
Awarded Points	10	8	6	4	2

Local/ London Result	Special	Entry Level
Physical Science		12
Biological Science		12
Technology	With Mathematics	12
Technology		14
Commerce		12
Art	If IT/Business Statistics/ Mathematics/Accounting/ Economics is a main Subject	14

Or Foundation Certificate in Higher Education from IIT with Computing Foundation pathway, including the Artificial Intelligence & Data Engineering (AIDE) and Business Data Analytics (BDA) modules

Or Recognised foundation programme (Subject to approval by the academic committee)

Pending Local or London A/L Results

Students will receive a conditional offer subject to the following:
Students must submit their archived A/L results documentation to the IIT registry department within 5 working days of the official release of the A/L results.

Students who do not meet the entry requirements for the undergraduate programme will be transferred to the IIT Foundation Certificate in Higher Education Immediately.

Foundation Certificate in Higher Education

Obtain a minimum of 6 passes in the Local GCE Ordinary Level examination, including at at least three credit passes (with credit passes in English and Mathematics).

Or

Obtain a minimum of 5 passes in the London GCE Ordinary Level examination, including at least three credit passes (with credit passes in English and Mathematics).

Intakes & Admission Process

The BSc (Hons) Fintech with Data Analytics degree offers intakes in January, and September, providing students with flexibility to begin their studies at a convenient time.

Local students (Sri Lankan nationals) interested in IIT's programmes can contact the marketing department at the hotline +94 766 760 760. Please note that an interview with prospective students is mandatory as part of the admission process.

International students (including resident foreign nationals) currently residing or visiting Sri Lanka should contact the IIT marketing department at +94 766 760 760. If applying from their home country, please email info@iit.ac.lk for assistance during the registration process. After submitting the application with the required documents (listed below), candidates will be interviewed via Skype.

Upon acceptance, a Conditional Offer Letter will be issued for visa processing.

Please note, that the visa letter will only be provided after receiving the Registration Fee and the Year 1 Course Fee.

Documents Required

1. Completed application form
2. Relevant educational certificates (O/L and A/L) – Originals or certified copies
3. Birth certificate – Original or certified copy
4. NIC/Passport – Original and copy (International students must provide a valid passport for the duration of the programme)
5. Parent/Guardian NIC/Passport – Original and copy
6. One reference letter with a signature (Referee's letter must be on letterhead or have a seal)

Degree Awarding University

UNIVERSITY OF WESTMINSTER

20 Years of PARTNERSHIP 2005 - 2025