UNIVERSITY OF
LEADING
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WESTMINSTER⌗

PROGRAMME SPECIFICATION

Course record information

Name and level of final award	**MSc FinTech with Business Analytics** This MSc is a level 7 degree that is Bologna FQ-EHEA second cycle degree or diploma
Name and level of intermediate awards	Postgraduate Diploma in **FinTech with Business Analytics** Postgraduate Certificate in **FinTech with Business Analytics**
Awarding body/institution	University of Westminster
Teaching Institution	School of Finance and Accounting
Status of awarding body/institution	Recognised Body
Location of delivery	Marylebone campus
Language of delivery and assessment	English
Mode, length of study and normal starting month	Full-time, One-year, September and January starts.
[QAA subject benchmarking group(s)](#)	Business and Management
Professional statutory or regulatory body	None
Date of course validation/Revalidation	2019
Date of programme specification approval	July 2020
Valid for cohorts	September 2020 and January 2021 Starts.
Course Leader	Ann Thapar
Course URL	westminster.ac.uk/courses/postgraduate
Westminster course code	PMFIT01F (FT)
HECoS code	100107/100078
UKPASS code	

Admissions requirements

There are standard minimum entry requirements for all postgraduate courses. Students are advised to check the standard requirements for the most up-to-date information.

For most courses a decision will be made on the basis of your application form alone. However, for some courses the selection process may include an interview to demonstrate your strengths in addition to any formal entry requirements.

More information can be found here: westminster.ac.uk/courses/postgraduate/how-to-apply

Recognition of Prior Learning

Applicants with prior certificated or experiential learning at the same level of the qualification for which they wish to apply are advised to visit the following page for further information: westminster.ac.uk/recognition-of-prior-certified-learning.

<u>Aims of the course</u>

As a subject area, FinTech and Business Analytics, has continued to grow in importance, with increasing international demand for "Full stack Finance Quants". They are talented graduates who are not only good at coding, but also have specialist finance, along with high level skills in statistics to develop artificial intelligence capabilities for the future. Demand for talent in this discipline is resulting from the disruptive forces of change that are led by technology. The financial services have always embraced such opportunities. It is rapidly transforming and seeking graduate talent amongst a new generation of financial analysts and specialists who can manage big data (both structured and unstructured). Increased use of cloud computing methods, big data and enhanced predictive analytics tools are being used to re-shape emerging businesses to create a new financial ecosystem in the Financial Services (FS) sector. Financial Institutions who are at the leading edge of this advancement seek to gain significant advantages in terms of the speed and quality of their decisions.

This course is carefully designed for learners who wish to specialise in one of the most exciting areas of finance. You may be interested in applying your knowledge and skills in any of the following areas: Retail and Corporate Banking, Capital Markets or Asset Management.

You will acquire deep understanding about the following finance applications that are transforming the Financial Services sector: Blockchain Technology, Digital Currencies, Big data, Predictive Analytics and Machine Learning techniques.

You will be able to develop programming skills and put them into practice to solve real-world problems encountered by practitioners in the sector.

The programme offers students an opportunity to select one core-option that will be a School Based Research Project or a Work Placement Project. Both of these will equally involve using the knowledge and learning on Research methods that will be delivered across all modules in the degree programme. Your School based Research Project will provide access to the digital and Bloomberg data resources in order to explore a research topic in much greater detail. This can be a theoretical or an applied research topic. It will enable you to build your skills and capabilities to undertake useful projects and to solve business problems that you and your organisations will face in a workplace.

For career changers and learners who seek experiential skills we offer an in-course Work-Placement Project module. Those who prefer a standard master's learning may wish to progress to higher learning (e.g. Research) and will have an opportunity to take a Research Project in this programme. Whatever route is taken, this is a challenging one-year degree programme offering potential for a rewarding career in finance. Students who can secure employer assistance and meet the pre-requisites, will find the Work-Placement project an ideal option for them to develop their careers in companies that support them. Both the Research and Work Placement Project modules have equal value and students will select either one based on their longer-term career plans.
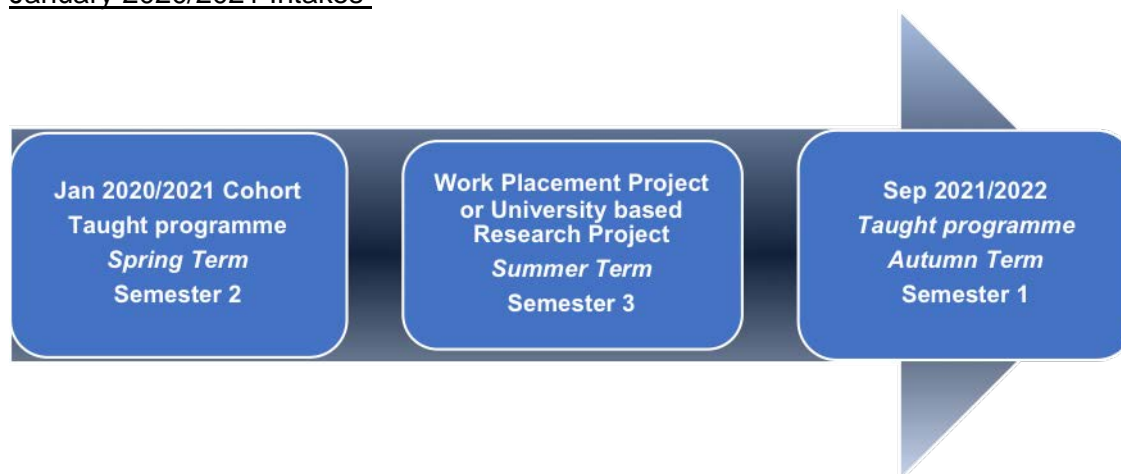
Please see <u>Process Diagrams on the next page for clarification.</u>

Process Diagrams

Work Placement Project and University based Research Project core option modules.
September 2020/2021 Intakes

January 2020/2021 Intakes

Employment and further study opportunities

The University is committed to providing an employability focused curriculum. The course level reference point is the UoW Employability Strategy. We offer a distinctive, challenging and inspiring curriculum designed to develop the capabilities you need to be highly employable, effective practitioners with a global perspective, in a constantly changing professional workplace. Thus, today's organisations need graduates with both good degrees and skills relevant to the workplace. The University of Westminster is committed to developing employable graduates by ensuring that:

- Career development skills are embedded at the module level in this course. This course has a strong practical orientation, where theory taught in the class is tested and applied for effectiveness in practice.
- Along with predictive analytics tools, the Bloomberg system in our purpose-built Financial Markets Suite (FMS) enables students to use live market data to explore and apply knowledge and skills gained in the classroom.
- Opportunities for part-time work, placements and work-related learning activities are widely available to students. This is either through an innovative work placement-based module that is designed into this degree, or opportunities to develop skills in our purpose-built Financial Markets Suite (FMS). Students gain financial markets skills either within the programme or through independent learning in the FMS.
- The new Work-Placement Project module is a notable and innovative feature in this degree. It will enable students to proactively find employment that will enhance their career opportunities, for employers to provide opportunities for their staff to gain higher qualifications or for them to assess our students for work-related capabilities before taking them on full-time posts after completion of this academic degree.

- Students who cannot secure a Work Placement opportunity will still be able to build on their skills and progress through the traditional research project route by undertaking an independent university-based research project in their subject area. Employment skills will be enhanced by using the resources in our Financial Markets Suite that utilises the Bloomberg platform.
- Staff continue to widen and strengthen the University's links with employers in all sectors, involving them in curriculum design and encouraging their participation in other aspects of the University's career education and guidance provision.
- Staff are provided with up-to-date data on labour market trends and employers' requirements, which will inform the service delivered to students.

University of Westminster's **MSc FinTech with Business Analytics** aims to develop its content with a focus on student perspectives beyond completion of the programme by equipping them with the skills and abilities to adapt to the needs of employers in global financial services and society.

The skills provided on this course will also enable students to be fully prepared to further study opportunities such as MPhil, PhD or other modalities of research that could also lead to future paths within the academic world.

Graduate Level attributes typical holders of this qualification will be able to:

- Achieve the academic and work-related skills and credentials they seek to develop their careers in the dynamic and vibrant financial services sector. *They will be entrepreneurial, global in outlook and community engaged*.

- Typical holders of this qualification will be able to pursue advanced study to gain higher level awards. As such they will be *literate and effective communicators and critical and creative thinkers*.

- Deal with complex problems and issues in their professional roles both systematically and creatively, making sound judgements in the absence of complete data and communicate their conclusions clearly to specialist and non-specialist audiences.

- Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level.

- Continue to advance their knowledge and understanding and to develop new skills to a high level. *As such they are expected to be socially, environmentally and ethically aware*.

In addition, Holders will have the qualities and transferable skills necessary for employment requiring:

- The exercise of initiative and personal responsibility

- Decision-making in complex and unpredictable situations

- The independent learning required for continuing professional development

Course learning outcomes

Our Education strategy is informed by references to: Academic Regulations, UoW Learning and Teaching Strategy, Technology Enhancement Strategy and on UoW guidance on Inclusive Curriculum design.

As such, this course is also underpinned by the Westminster Pedagogy that is based on three components:

- Transformative learning and teaching
- Diversity and inclusion
- Inspirational professional practice.

Knowledge and understanding (KU) required for MSc FinTech with Business Analytics

By the end of this course students will be expected to:

1. Operate in complex, unpredictable and specialised contexts within the financial services sector (e.g. Banking, International finance or in Asset Management), requiring the selection and application from a wide range of advanced techniques and information sources.
2. Have a deep and systematic understanding within this specialised field of study and its interrelationship with other relevant disciplines.
3. Demonstrate an understanding of current theoretical and methodological approaches in the areas of Finance, FinTech and Business Analytics and demonstrate how these affect the way the knowledge base is interpreted.

Specific skills (SS)

1. Use ideas at a high level of abstraction in areas of finance, Big data management, business analytics and in FinTech.
2. Develop critical responses to existing theoretical discourses, methodologies and practices and suggest new concepts or approaches.
3. Design and undertake substantial investigations in this subject area to address significant areas of theory and/or practice. In this way, the learner will be able to select appropriate advanced methodological approaches and critically evaluate their effectiveness.
4. Flexibly and creatively apply knowledge in unfamiliar contexts, synthesise ideas or information in innovative ways, and generate transformative solutions.
5. Undertake analysis of complex, incomplete or contradictory evidence/data and judge the appropriateness of the methodologies used. In this process of analysis and evaluation, the learner will be able to recognise and argue for alternative approaches.

Key transferable skills (KTS)

Upon completion of the course students will have developed a number of general rather than discipline specific skills that are essential as a practitioner. The KTS developed and assessed at PG level are:

1. Act with initiative in decision-making and access support within professional or given guidelines, accepting fully accountability for outcomes
2. Autonomously implement and evaluate improvements to performance, drawing on innovative or sector best practice.
3. Work effectively with multiple teams as a team leader or team member. As such they will be able to clarify tasks and make appropriate use of the capacities of team members, resolving likely conflict situations before they arise.

4. Incorporate a critical ethical dimension to their practice, managing the implications of ethical dilemmas in this discipline. They will also be able to work proactively with others to formulate solutions.
5. Use personal reflection to analyse themselves and their own actions. As such they will make connections between known and unknown areas, to allow for adaptation and change.
6. Identify, evaluate and maintain capabilities and qualities to support effective communication in a range of complex and specialised context within this subject area.

All option modules contribute in the same way to the acquisition of these transferable skills.

Course Level outcomes are mapped to the module LOs in the Table 1.

Table 1 Module Level outcomes mapped to Course Level Outcomes.

Name of Module	Financial Markets and Institutions	Banking Technology	Business Analytics	Computational Methods for Finance	Blockchain Technologies and Cryptocurrencies	AI and ML in Financial Services	Predictive Analysis for Decision-Making	Project	Work Placement Project	Big Data Theory and Practice
Code	7FNCE011W	7FNCE031W	7FNCE040W	7FNCE041W	7FNCE031W	7FNCE043W	7FNCE044W	7FNCE045W	7FNCE046W	7BDIN006W
Knowledge and Understanding										
KU1	Y	Y	Y	Y		Y	Y	Y	Y	Y
KU2	Y	Y	Y		Y		Y	Y	Y	Y
KU3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Specific Skills										
SS1		Y		Y	Y	Y	Y	Y	Y	Y
SS2	Y		Y		Y	Y	Y	Y	Y	Y
SS3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SS4				Y		Y	Y	Y	Y	Y
SS5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Key Transferable Skills										
KTS1	Y	Y		Y		Y	Y	Y	Y	Y
KTS2				Y	Y	Y	Y	Y	Y	Y
KTS3			Y						Y	
KTS4					Y	Y		Y	Y	Y
KTS5	Y	Y	Y		Y		Y	Y	Y	Y
KTS6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Course Level Learning Outcomes mapped to Core Module LOs.

Learning, teaching and assessment methods

Teaching and learning on the course is defined to be appropriate to the needs of each module. The course is of an interdisciplinary nature and therefore features a variety of assessment methods. Assessment criteria vary according to the module discipline. The teaching and learning methods on the course include the following:

*Lectures***:** These are designed to give you a general overview of the topic and are usually concise, topical and interactive. If you do not understand a point, or disagree with it, feel free to ask questions or argue your case.

Seminars: These are designed to encourage students to discuss a topic, based on the lecture and their reading. Sometimes individual students will be asked to introduce a specific topic in a seminar.

*Individual Reading***:** A written list of recommended reading for each topic will be given out at the

beginning of each module. This reading list represents a basis for exploration of the subject and students are expected to go beyond the reading list and seek out other material.

Computer Lab Use: Students will engage in practical use of software and code using University computers and software through the guidance of an instructor. The School also utilises the Bloomberg system to enhance learning through the use of market-based technology and database. *Presentations***:** The intention of asking students to give individual presentations is to give them experience in presenting ideas and arguments concisely, to familiarise them with the preparation and use of visual aids, and to teach them how to interact with an audience. In some modules individual presentations will be formally assessed for clarity of argument, evidence of reading and presentational style. Even where the individual presentation is not formally assessed, students will normally be given feedback on their performance. Group presentations are designed to give experience of working on a particular topic as a member of a team, so that students learn how to divide up topics, work to a schedule and co-ordinate presentation.

*Independent Research***:** Student led project work that may be quantitative, or a qualitative piece of work involving interviews and other external contact and research activity, leading to the assessed dissertation.

Work-Placement Project (WPP): The shift towards competence-oriented curricula is one of the most profound changes at universities. This innovative 3-month WPP offers students with opportunities to develop their competencies and apply their academic knowledge to different real-work life problems. It enables the School to form effective bridges for knowledge exchange and cooperation. Students will gain valuable insights into the links between theoretical knowledge and practice in the field.

Additionally, the experience of work with an employer will develop soft skills that many employers are eager to see. Students who have suitably impressed the employers will also be in a good position to secure long-term career opportunities with the same employer after graduation.

This Core Option is only available to students who can get early employer assistance with a placement **and secure a contract by teaching week 8.** This innovative addition to the programme will offer opportunities to gain applied research and work-related skills in an employer's work-place. Both September and January cohorts will need to independently secure a work-placement with an employer in the Financial services sector. WPP activity is then undertaken over the period June to August. Your project submitted at the end of August will be assessed as a 20-credit module. Further details are provided in the Module outline.

Assessment:

This course focuses on imparting knowledge and skills and delivering an excellent education experience in Finance. The assessment strategy is designed to facilitate and test this process. Your progress will be assessed by a variety of methods which we have carefully developed in order to equip you with the course skills identified above as well as the transferable critical-thinking and problem-solving skills that you would expect to learn on any postgraduate course.

The assessment criteria for oral presentations and written assignments are clearly set out in each module handbook. In addition, you will be provided with a full brief for each assessment in the relevant module handbook, and the brief will be discussed in class with an opportunity to ask questions. Throughout the different modules, a variety of assessment methods are used. These range from research projects, to presentations, written assignments (coursework) and unseen examinations.

Inclusive Curriculum Design where all assessments are designed to ensure that:

1. They cater for the needs of students in need of further support, such as those with dyslexia, dyscalculia or dyspraxia.
2. They test 'real world' problems that are socially, culturally and globally relevant and that these consider students' different identities.
3. Clear and contextualised marking descriptors are available to both students and staff before any assessments

Course structure

This section shows the core and option modules available as part of the course and their credit value. Full-time Postgraduate students' study for and need to pass 180 credits per year.

The Study will involve students taking a set of core modules with one option offered from a list of electives.

There are two main characteristic elements incorporated in this degree:

    a) Research Methods (RM) offered on other traditional Finance courses in the School are not offered as a standalone module in this degree. Instead, RM elements of learning are embedded in each taught core module. A specific Learning Outcome for RM is incorporated into each core module and will be assessed to develop course level learning and skills outcomes for research.

    b) An innovative element for **Employability** enhancement is incorporated in the learning of this degree. We will offer a separate 20-Credit module on work placement to students who have the initiative and networking capabilities to gain employment using their own efforts. This Work Placement Project is focused on an area of Financial Services (or similar) where students will gain enhanced employability skills and experiential learning to meet their career goals. The University Career service and the School Employability team will aim to assist with placements as far as possible, but the ultimate responsibility to gain a placement opportunity will lie with the student.

    c) Students who cannot gain a Work Placement or do not wish to choose this Course level option will have to take the Research Project module instead.

Module Table for MSc FinTech with Business Analytics.

Credit Level 7					
Module code	**Module title**	**Status**	**Semester**	**UK Credit**	**ECTS**
7FNCE011W	**Financial Markets and Institutions**	**Core**	**S1**	**20**	**10**
7FNCE040W	**Business Analytics**	**Core**	**S1**	**20**	**10**
7FNCE041W	**Computational Methods for Finance**	**Core**	**S1**	**20**	**10**
7FNCE031W	**Banking Technology**	**Core**	**S1**	**20**	**10**
7FNCE042W	**Blockchain Technologies and Cryptocurrencies**	**Core**	**S2**	**20**	**10**
7FNCE043W	**Artificial Intelligence and Machine Learning in Finance Services**	**Core**	**S2**	**20**	**10**
7FNCE044W	**Predictive Analysis for Decision- Making**	**Core**	**S2**	**20**	**10**
7FNCE045W	**Project (FinTech with Business Analytics)**	**Core Option***	**S2**	**20**	**10**
7FNCE046W	**Work Placement Project**	**Core Option***	**S2**	**20**	**10**
7BDIN006W	**Big Data Theory and Practice**	**Option**	**S2**	**20**	**10**
7FNCE025W	**High Frequency Trading**	**Option**	**S2**	**20**	**10**
7FNCEXXW	**Any other Module****	**Option**	**S2**	**20**	**10**

Please note: Select One Core Option and one Option module.

Not all option modules will necessarily be offered in any one year. In addition, timetabling and limited spaces may mean you may not get your first choice of modules. Students have to take either the Research Project or the Work Placement Project as their Core Option.

** Option module choice in consultation with the Course Leader.

Professional Body Accreditation or other external references

None.

Academic regulations

The current Handbook of Academic Regulations is available at
westminster.ac.uk/academic- regulations. In some cases course specific regulations may
be applicable.

How will you be supported in your studies.

The college has an extensive range of support services available to students. Your main
point of contact with be your Course leader and the course team, along with WBS
College Support services.

Course contact details:

You can communicate with your Course Leader and team members by email, telephone or
face-to-face. Apart from set office hours you can arrange appointments to see members of
staff. The Course has its own Blackboard virtual learning environment site where we will post
any course information, news or events, as well as use it to send all important emails.
Blackboard will be available as a link on the intranet homepage as you log in with your user ID
and password.

The course team is:

Course Leader:	Ann Thapar
Course Team members:	David Coker Dr Hui Gong Dr Issam Malki Dr Mesut Tastan Dr Tasco Ptohos Professor Harry Thapar

Personal Tutor arrangements:

Personal tutoring is a crucial aspect of how the University supports you. It will help you to fulfil
your academic and personal potential. You will be allocated a personal tutor.

You will be able to get advice from your Course Leader and personal tutor on choosing option
modules, gaining further study skills, planning which modules to take, or any other matter
affecting your studies. You can also talk to your personal tutor about anything that may be
affecting your studies.

More information is available in the Personal Tutoring Policy which can be found here,
westminster.ac.uk/personal-tutoring.

Your respective Course Leader will also be your Personal Tutor and first point of contact
for any enquiry or problem. Your Course Leader will offer guidance over academic matters
and other features of the course. For any course related, teaching and learning or any other
problems and issues you should get in touch with your Course Leader. Your Course Leader
can then advise and direct you to any other personnel within the University who will then be
able to handle your enquiry or problem in a more efficient manner.

Course information, news and events

Important information relating to the course will be posted on the Blackboard site and may be emailed or sent to you from time to time by the University.

Academic Support

Upon arrival, an Orientation programme will introduce you to the staff responsible for the course, the campus on which you will be studying, the Library and IT facilities, additional support available and to your Campus Registry.

You will be provided with the Course Handbook, which has detailed information about the course. Each course has a Course Leader. All students enrolled on a full-time course and part time students registered for more than 60 credits a year have a Personal Tutor assigned to them. He/she will provide advice and guidance on academic matters. The University uses a Virtual Learning Environment (VLE) called Blackboard where students access their course materials and can communicate and collaborate with staff and other students. Further information on Blackboard can be found at westminster.ac.uk/blackboard.

Learning Support

The Academic Learning Development Centre supports students in developing the skills required for higher education. As well as online resources in Blackboard, students have the opportunity to attend Study Skills workshops and one to one appointment. Further information on the Academic Learning Development Centre can be found at westminster.ac.uk/academic-learning-development.

Learning support includes four libraries, each holding a collection of resources related to the subjects taught at that site. Students1 can search the entire library collection online through the Library Search service to find and reserve printed books, and access electronic resources (databases, e-journals, e- books). Students can choose to study in the libraries, which have areas for silent and group study, desktop computers, laptops for loan, photocopying and printing services. Students can also choose from several computer rooms at each campus where desktop computers are available with the general and specialist software that supports the courses taught at their College. Students can also securely connect their own laptops and mobile devices to the University wireless network. Apps anywhere will enable students to access SPSS, Python, R and other software specifically used in thiscourse.

Support Services

The University of Westminster Student and Academic Services department provide advice and guidance on accommodation, financial and legal matters, personal counselling, health and disability issues, careers, specialist advice for international students and the chaplaincy providing multi-faith guidance. Further information on the advice available to students can be found at westminster.ac.uk/student-advice. The University of Westminster Students' Union also provides a range of facilities to support students during their time at the University. Further information on UWSU can be found at westminster.ac.uk/students-union.

How do we ensure the quality of our courses and continuous improvement?

The course was initially approved by a University Validation Panel in **2019**. The panel included internal peers from the University, academic(s) from another university and a representative from industry. This helps to ensure the comparability of the course to those offered in other universities and the relevance to employers.

The course is also monitored each year by the College to ensure it is running effectively and that issues which might affect the student experience have been appropriately addressed. Staff will consider evidence about the course, including evidence of student achievement, reports from external examiners in order to evaluate the effectiveness of the course.

A Course revalidation takes place periodically to ensure that the curriculum is up-to-date and that the skills gained on the course continue to be relevant to employers. Students meet with Revalidation panels to provide feedback on their experiences. Student feedback from previous years is also part of the evidence used to assess how the course has been running.

How do we act on student feedback?

Student feedback is important to the University and student views are taken seriously.

Student feedback is gathered in a variety of ways:

- Through student engagement activities at Course/Module level, students have the opportunity to express their voice in the running of their course. Student representatives are elected to expressly represent the views of their peers. The University and the Students' Union work together to provide a full induction to the role of the student representatives.

- There are also School Staff Student Exchange meetings that enable wider discussions across the School. Student representatives are also represented on key College and University committees.

- At the end of each module run, students are invited to complete a questionnaire. The feedback from this will inform the module leader on the effectiveness of the module and highlight areas that could be enhanced.

The University also has an annual Postgraduate Taught Experience Survey or PTES which helps us compare how we are doing with other institutions, to make changes that will improve what we do in future and to keep doing the things that you value.

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[1] Students enrolled at Collaborative partners may have differing access due to licence agreements.