Programme Specification
2022–2023

Online Taught

Economics, Management, Finance and the Social Sciences (EMFSS)

Data Science and Business
Analytics
BSc

Important document – please read

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Important information regarding the Programme Specification

About this document

Last revised 04 May 2022

The Programme Specification gives a broad outline of the structure and content of the programme, the entry level qualifications, as well as the learning outcomes students will achieve as they progress. Some of the information referred to in a programme specification is included in more detail on the University of London website. Where this is the case, links to the relevant webpage are included.

Where links to external organisations are provided, the University of London is not responsible for their content and does not recommend nor necessarily agree with opinions expressed and services provided at those sites.

If you have a query about any of the programme information provided registered students should use the *ask a question* button in the student portal otherwise the *Contact Us* button on each webpage should be used.

Key revisions made

Programme specifications are revised annually. The LSE, as part of its annual review of standards, confirms the programme structure and the educational aims and learning outcomes, and advises on any development in student support. Where there are changes which may impact on continuing students, these are listed below. For all new students, the programme and general information provided in this document is correct and accurate and will be applicable for the current year.

Significant changes made to the programme specification 2022-2023:

Internet access and computer specification requirements have been updated.

Terminology

The following language is specific to the EMFSS BSc Online Taught degree programme:

Course: Individual units of the programme are called courses. Each course is a self-contained, formally structured learning experience with a coherent and explicit set of learning outcomes and assessment criteria.

New: Either as 'new course' or 'new credit'**.** A course which you have never previously registered for.

Prerequisite: A course that you must register and complete live sessions for before you are permitted to complete the teaching for another course.

Corequisite: A course that you must register and complete the live session for either before or at the same time as another course.

100 level / 200 level / 300 level: In the context of UK higher education, the Framework for Higher Education Qualifications (FHEQ) levels are as follows:
100 courses are equivalent to FHEQ Level 4
200 courses are equivalent to FHEQ Level 5
300 courses are equivalent to FHEQ Level 6

Online Taught: The qualifications awarded under these regulations are taught online only. You will receive advice via your virtual learning environment (VLE) from a class teacher.

VLE: Your virtual learning environment where you access your learning materials, live sessions. We may also refer to this as Digital Campus.

Study session: The academic year is split into two study sessions. You will register for each study session independently.

Teaching block: Each study session is split into two ten-week teaching blocks.

Student Success Advisor: Will provide advice and guidance throughout your programme.

Class teacher: Will facilitate live, online teaching sessions.

Live sessions: A compulsory element of your teaching accessed on the VLE.

Programme title and awards

Undergraduate degrees of the University of London are awarded with Honours. The award certificate will indicate the level of the academic performance (Honours) achieved by classifying the award. The classification of the degree will be based on the ratified marks from the completed assessments.

The standard classification system for Bachelor's degrees with Honours is:

First-Class; Upper Second-Class; Lower Second-Class; Third-Class.

A Pass Degree is a degree without Honours.

Specific rules for the classification of awards are given in the Programme Regulations, under Scheme of Award.

Programme title

Data Science and Business Analytics

Qualifications

Bachelor of Science in Data Science and Business Analytics

Exit qualifications

- Diploma of Higher Education in Data Science and Business Analytics

- Certificate of Higher Education in Social Sciences

An exit qualification is an intermediate qualification, for which the student may not have registered at the outset but which may be awarded on completion of specific modules/courses (or credit accumulated) in a longer programme of study, if the student leaves the programme.

Exit qualifications are awarded at the discretion of the Board of Examiners and once a student has accepted an exit qualification they will not normally be permitted to continue their study of the same award with the University of London.

Individual courses

There is no provision for individual courses of the programme to be studied on a stand-alone basis.

Notes

The BSc degree in Data Science and Business Analytics is available through a 12 course Standard Route and through a 9 course Graduate Entry Route.

Qualification titles may be abbreviated as follows:

Bachelor of Science – BSc

Diploma of Higher Education in Data Science and Business Analytics – DipHE

Certificate of Higher Education – CertHE

Level of the programmes

> The Framework for Higher Education Qualifications of UK Degree-Awarding Bodies (FHEQ) forms part of the UK Quality Code for Higher Education of the Quality Assurance Agency for Higher Education (QAA).

The awards are placed at the following Levels of the Framework for Higher Education Qualifications (FHEQ):

- **Bachelor of Science degree (BSc)**   **Level 6**
- Diploma of Higher Education (DipHE)   Level 5
- Certificate of Higher Education (CertHE)   Level 4

Relevant QAA subject benchmarks group(s)

> See the QAA website for information

Statistics

Awarding body

University of London

Registering body

University of London

Academic direction

The London School of Economics and Political Science (LSE)

Accreditation by professional or statutory body

Not applicable

Language of study and assessment

English

Mode of study

Flexible and online study

Programme structures

The Economics, Management, Finance and the Social Sciences programmes are comprised of courses. Each course is referred to as a '100 course', '200 course' or '300 course', corresponding to the following levels of the Framework for Higher Education Qualifications (FHEQ):

- 100 courses are placed at FHEQ Level 4
- 200 courses are placed at FHEQ Level 5
- 300 courses are placed at FHEQ Level 6

Where half courses are indicated, two half courses are equivalent to one full course in terms of structure. For each programme, some courses are compulsory, whilst others can be selected from lists of options called 'selection groups'.

The current structure can be found on the programme's Structure page on the University of London website.

Where a student satisfies certain conditions, transfer may be permitted between different degrees and routes.

To be considered for the award of a BSc honours degree in the field of Economics, Management, Finance and the Social Sciences:

- For degrees through the Standard Route – a student must have attempted 12 full courses and must have passed with a mark of 40 or above at least eleven full courses.

- For degrees through the Graduate Entry Route – a student must have attempted and passed, with a mark of 40 or above nine full courses.

Maximum and minimum periods of registration

The maximum and minimum period of registration, from a student's effective date of registration, are:

	Minimum	Maximum
BSc (Standard Route)	Three years*	Six years
BSc (Graduate Entry Route)	Two and a half years*	Six years

*This period may vary if recognition of prior learning is permitted.

Study materials are made available after registration and on payment of the applicable fee.

Credit value of courses

Further information about the credit systems used by universities in the UK and Europe is provided by the Quality Assurance Agency and the European Credit Transfer and Accumulation System.

Where credits are assigned to each course of a programme, credit indicates the amount of learning carried out in terms of the notional number of study hours needed, and the specified Frameworks for Higher Education Qualifications of UK Degree-awarding Bodies (FHEQ) credit level indicates the depth, complexity and intellectual demand of learning involved. The details below indicate the UK credits and the European Credit Transfer and Accumulation System (ECTS) values.

For the Economics, Management, Finance and the Social Sciences suite of programmes, credits are assigned to the courses as follows:

- 30 UK credits or 15 ECTS credits for a full course at level 4, or 15 UK credits or 7.5 ECTS credits for a half course at level 4

- 30 UK credits or 15 ECTS credits for a full course at level 5, or 15 UK credits or 7.5 ECTS credits for a half course at level 5

- 30 UK credits or 15 ECTS credits for a full course at level 6, or 15 UK credits or 7.5 ECTS credits for a half course at level 6

One UK credit equates to a notional ten hours of study.

Recognition of prior learning

Recognition of prior learning is a generic term for the process by which we recognise and, where appropriate, award credit for learning that has taken place elsewhere, before entry onto this programme of study.

Where the prior learning covered a similar syllabus to a module/course studied elsewhere, credit will be awarded as if you took the University of London module/course.

See the General Regulations (Section 3) and Programme Regulations for more rules relating to prior learning.

Details on how to apply for RPL can be found on our website

This programme allows recognition of prior learning (RPL). A student studying a degree through the Standard Route may apply for RPL for up to four 100 courses. A student studying a degree through the Graduate Entry Route may apply for RPL for up to one 100 course named on the degree structure.

To be eligible to apply for RPL a student must provide evidence to the University that they have already passed examinations that equate in level, content and standard to the 100 course(s) that form part of the programme. The qualification must have been awarded within the past five years preceding the application. If a student is awarded RPL they do not have to take that particular 100 course as part of their degree.

Entrance requirements

We consider qualifications from around the world. Details are available here and in the Qualifications for Entrance schedule

The full list of EMFSS programmes offered online can be found on our website. Entrance requirements are set out in detail under the 'Admissions' tab for each programme.

Applicants must submit an application in line with the procedures and deadlines set out on the website.

All entrance requirements are set out in detail on the programme page under the Requirements tab.

General Entrance requirements for undergraduate degrees

Age:

Applicants must normally be at least 17 years of age on or before 30 November in the year of initial registration.

Qualifications:

Applicants must

- have passed qualifications that satisfy category G in the Qualifications for Entrance schedule.
- meet any additional programme specific entrance requirements; and
- satisfy English language requirements.

Entrance requirements for the Graduate Entry Routes to the undergraduate degrees

Age:

Applicants must normally be at least 17 years of age on or before 30 November in the year of initial registration.

Qualifications:

Applicants must

- have successfully completed a full undergraduate degree or postgraduate qualification from an acceptable institution
- meet any additional programme specific entrance requirements; and
- satisfy English language requirements.

Applicants with professional qualifications and professional memberships will be considered on an individual basis.

> The Qualifications for Entrance schedule can be found on the University of London website.

English language requirements

Applicants must satisfy the English language requirements for the programme. These are set out in detail on the programme page under the Requirements tab for each programme.

Additional information on English language proficiency tests are given on the website.

Where an applicant does not meet the prescribed English language proficiency requirements but believes that they can demonstrate the requisite proficiency for admission the University may, at its discretion, consider the application.

Internet access and computer specification

Students will require regular access to a computer with an internet connection to use the University of London's online resources and systems.

The computer must have at least the following minimum specification:

- Windows: 7, 8, and 10 on 64-bit platforms (Windows 10 recommended)

- macOS: OS X 10.14 and higher

- CPUs newer than 2011 (Intel Sandy Bridge or newer)

- OpenGL 2.0 graphics driver

- Local storage for the recording of proctored examinations (75MB per hour)

- Web camera & microphone (internal or external)

- A steady hardwired internet connection requires speeds no less than (Note: A hardwired connection is strongly recommended):
    - 10 MB/S download & 5 MB/S upload;

- Wired headset and phone (mobile or landline);

And the following applications installed:

- a word processor for Microsoft Word documents (.doc and .docx);

- a PDF reader (for example Adobe).

- Latest versions of at least two browsers downloaded onto computer
    - Recommended: Google Chrome
    - Note: Programs on Atrio cannot use Internet Explorer or Edge.

Students will need to perform System Compatibility Check (monthly)

Students must be able to download and install software to their Windows or MacOS device to include secure examination browsers for online assessment purposes (if offered on your programme of study)

Students with access requirements

The University of London welcomes applications from disabled students and/or those who have access requirements. The University will make every effort to provide reasonable adjustments to enable those with a disability, learning difficulty or access requirements to have the same opportunity as all other students to successfully complete their studies.

The University is committed to managing the application procedure and the programme itself to ensure that services are accessible for all students and that an inclusive environment is created. Students with a disability, or others who may need access arrangements to assist in taking examinations, should complete the relevant section of the application form, or contact the Inclusive Practice Manager. A separate room or other arrangements may be considered.

Requests are considered by a University panel, whose purpose is to ensure that students with disabilities and/or specific access requirements are neither advantaged nor disadvantaged by such arrangements when compared with other students. These considerations remain separate from the academic selection processes.

For further information, see Inclusive Practice Policy

Sources of funding and scholarships

Information about potential sources of funding and scholarships is updated annually and where available is included in the prospectus web pages.

For further information see the website

Educational aims and learning outcomes of the programmes

Each of the programmes within the fields of Economics, Management, Finance and Social Science aims to offer a challenging, flexible scheme of study invigorated by research, which advances a student's ability to develop academic and practical insights into the subjects studied. Students will be encouraged to develop a broad range of transferable and in some cases technical expertise.

Graduates of the programmes will have a sound basis for careers in a wide range of areas from major corporations to small businesses, government organisations, the voluntary sector, international organisation and the media.

Successful completion of a degree, with Honours, may allow a student to progress to postgraduate study in the degree field or a related area or to undertake further professional qualifications.

Within the programmes there is a natural progression between the levels. A student who passes the 100 courses (FHEQ Level 4) will have the essential introduction to that subject. The 200 and 300 courses (FHEQ Level 5 and 6) build on the 100 courses and provide opportunity to develop a more detailed understanding. Although the courses may not in themselves be more difficult, students will develop a greater understanding and a sophistication of thinking as they work through the courses.

The programmes aim to:

- promote independent critical and evaluative skills, and intellectual curiosity for life-long learning;

- expand knowledge and understanding of the chosen discipline;

- promote analytical, creative and imaginative engagement with theory, research and practice in the chosen discipline;

- encourage self-development into professionally organised and interactive individuals by practicing skills of selection, assimilation and communication.

BSc Data Science and Business Analytics

The programme aims to:

- develop competence in students in the application of statistical techniques and machine learning at a high level

- provide students with a sound knowledge of the principles underlying standard applications of probability and statistics;

- provide practical skills of applied data science and business analytics to inform commercial and policy decisions.

The learning outcomes of the programme are as follows:

Knowledge and understanding;

A student will be able to:

- formulate and build statistical and algorithmic models in a logical manner.

- understand, formulate and use quantitative models arising in social science, business and other contexts to tackle real-world problems.

- understand probability theory and the concept of uncertainty.

- demonstrate a knowledge and understanding of prediction, classification, regression and clustering.

- analyse data and draw actionable insights for informed decision-making.

- show a good knowledge and understanding in advanced areas of statistics.

- Learn and use a variety of statistical software packages and programming languages R and Python to conduct data analysis

- apply advanced quantitative techniques to the analysis of large and complex data.

Intellectual and cognitive skills;

A student will be able to:

- locate, extract, analyse and draw reasoned conclusions from multiple sources (including electronic sources) of appropriate literature and relevant data and acknowledge and reference these sources appropriately;

- critically analyse data and text using quantitative and qualitative techniques;

- assess the relative merits of quantitative methodologies and use them appropriately for the problem in hand. , explanations and policies.

Transferable skills;

A student will be able to:

- communicate effectively in a written context;

- use information technology (spreadsheets, word-processing and online databases) appropriately;

- organise information, and to assimilate and evaluate competing arguments and methods;

- manage their own learning, including working effectively to deadlines;

- be open minded and have a capacity to handle ideas and scrutinise information in critical, evaluative and analytical ways.

Exit qualifications

Students exiting with a Certificate of Higher Education would expect to:

- have the essential introduction to that subject;

- demonstrate an understanding on the concepts and principles related to their area of study; and

- be able to communicate ideas and findings in a reliable and structured way.

Students exiting with a Diploma of Higher Education would, in addition, expect to:

- develop a greater understanding and a sophistication of thinking as they work through the courses;

- build on their existing knowledge to approach the concepts and principles from a wider context;

- be at a stage where they will have obtained qualities and skills necessary for employment and further study in the area.

Learning, teaching and assessment strategies

A student will access course materials on a Virtual Learning Environment (VLE) via desktop, mobile or table devices. Students will also complete assignments on the VLE.

Students will receive academic and technical support on the VLE. Class teachers will guide students through their learning and Student Success Advisors will advise students on progression within the programme.

Students will be required to attend live, online sessions and will be able to collaborate in real time with class teachers and fellow students and be able to engage in dialogue and develop and negotiate conclusions with others – key components in the acquisition of knowledge, understanding and transferable skills.

Written examinations form the greater part of the assessment of the programmes. For each course students will be assessed mainly by written examination. Questions are structured to allow students to demonstrate that they have acquired appropriate knowledge and understanding. The way that students manage data, solve problems, evaluate ideas and the organisational skills they use to structure their written answers allows the standard of intellectual and transferable skills to be assessed.

Assessment criteria for the programme take into account the level at which these skills have been achieved.

Assessment methods

> In line with our current General Regulations, the University may offer students alternative assessments where necessary. This includes holding online timed assessments in place of written examinations, which are usually held at examination centres.

Aside from a few exceptions, each full course is examined by one three-hour unseen written assessment and each half course by one two-hour unseen written assessment. The assessment of some courses also involves the submission of coursework or a project – in these cases, details are included as part of the course syllabus.

The written examinations take place on two occasions each year, normally commencing in May and October. These are held at established examination centres worldwide.

The first opportunity to be assessed for courses initially studied in the August and November teaching blocks is May of the following year. The first opportunity to be assessed for courses initially studied in the February and May teaching blocks is October of the same year.

> Full details of the dates of all assessments are available on the website.

Student support and guidance

- The Virtual Learning Environment (VLE) sometimes referred to as Digital Campus: this gives access to materials for each course, including live, online sessions and study support resources.

- A Student Success Advisor will provide advice and guidance throughout your programme.

- A class teacher will facilitate live, online teaching sessions.

- Student Guide: This provides information which is common to all students and gives information about matters of importance from the start of a student's relationship with the University of London through to their graduation.

- Student Portal: for accessing student induction, study skills support, student wellbeing advice.

- Recommended reading lists are provided online. Students may need to buy their own textbooks.

- Online discussion areas which allow students to communicate with each other.

- Past examination papers and examiners' commentaries. These provide an indication of the format of examinations and course-level feedback on completed assessments.

- Programme Regulations: these are a set of rules which apply to your programme – students are responsible for ensuring they are familiar with the regulations for their programme.

- The Online Library provides a range of e-books, along with full-text and multidisciplinary databases where journal articles, book reviews and reports can be found. The Online Library also has a dedicated homepage for EMFSS students.

- University of London library: Registered students may use the resources located within the Senate House library (for a small additional fee).

- A University of London email account and web area for personal information management.

Quality evaluation and enhancement

The University of London delivers the majority of its flexible and distance learning programmes through a collaboration between the University of London Worldwide and member institutions of the University of London. However some of the flexible and distance learning programmes draw solely on academic input from the University of London, and are delivered without academic lead by a member institutions. The policies, partnerships (where applicable) and quality assurance mechanisms applicable for the programmes are defined in the following key documents: The Quality Framework, the Quality Assurance Schedules, Guidelines for Examinations, General Regulations and, for each programme, programme specific regulations.

Awards standards

All University of London qualifications have to align with the [Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies](#) to assure appropriate standards for each qualification. In addition, every programme that is developed by a member institution of the University of London (or a consortium with representation by more than one member institution) will be developed to the same standard as would be applied within the institution concerned. Proportionate and robust approval procedures, including external scrutiny and student engagement are in place for all programmes. Learning materials are written and all assessments are set and marked by academic staff who are required to apply the University's academic standards.

Review and evaluation mechanisms

Some of the key mechanisms in place to assure the standards of all University of London qualifications and the quality of the student experience, include:

- Annual programme reports: produced for all programmes in order to review and enhance the provision and to plan ahead;
- Independent external examiners: submit reports every year to confirm that a programme has been assessed properly and meets the appropriate academic standards;
- Annual student information statistics: prepared for all systematic reporting within the University of London;
- Periodic programme reviews: carried out every 4-6 years to review how a programme has developed over time and to make sure that it remains current and up-to-date.

Improvements are made as necessary to ensure that systems remain effective and rigorous.

Student feedback and engagement

The principal channel for collecting feedback from students is the Student Experience Survey. Carried out every two years, this collects feedback from the student body on a range of topics relating to the student lifecycle. The results are analysed externally and then considered in a number of different ways, including by the programme team, principal committees and the senior leadership team. Details of any resulting actions taken are published on the Virtual Learning Environment and the Student Portal.

Additionally, on completion of their programme of study students will be invited to take a survey that seeks to measure what they have gained from their studies.

There are also opportunities for students to get involved in governance. An undergraduate and postgraduate student member is appointed by the University to the majority of committees through an annual appointment round. Some programmes also recruit student members at the programme level. Students are frequently invited to take part in quality review processes such as Periodic Programme Reviews, Programme approval, Thematic Reviews, MOOC review panels and ad hoc focus groups. Opportunities such as these are advertised through social media and on the website. More information can be found on the [website](#).

Students can also apply to join the Student Voice Group, which meets four times a year to consider initiatives for enhancing student experience. Notes from these meetings are published on the Student Portal.

After graduation

Further study

Successful completion of an EMFSS programme may serve as preparation for students who wish to go on to take further study in the subject area – whether to be undertaken at LSE or elsewhere.

Successful completion of a degree may allow a student to progress to postgraduate study in the degree field or a related area or to undertake further professional qualifications.

Graduate employment routes

Graduates of the EMFSS programmes will have a sound basis for careers in a wide range of areas from major corporations to small businesses, government organisations, the voluntary sector, international organisation and the media.

BSc Data Science and Business Analytics graduates may particularly consider the following areas:

- Finance
- Business
- Management
- Marketing
- Health Policy
- Social Policy
- Education
- Professional or managerial careers, particularly in areas requiring the application of quantitative skills (e.g. forecasting and risk)
- Further academic study

The Alumni Network

Upon finishing a course of study, graduates automatically become part of the University of London alumni community, a diverse global network of more than one million graduates in over 180 countries, providing lifelong links to the University and to each other.

Alumni are encouraged to keep in touch after they graduate and to become active members of the alumni community; in return they receive a number of benefits and services, including an extensive programme of events and engagement opportunities.

More information is available on the alumni webpage.

Follow the alumni community on social media: Facebook, Instagram, and LinkedIn