Higher School
of Economics

Awarding Body

UNIVERSITY
OF LONDON

Academic Direction
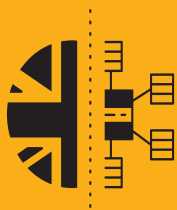
LSE THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE

HSE and University of London Double Degree Programme

DATA SCIENCE
AND BUSINESS ANALYTICS

HSE and University of London
Double Degree Programme

Data Science and Business Analytics

Faculty of Computer Science

The applicant must take two exams:
www.hse.ru/admissions/undergraduate-apply

Mathematics ⋮ English

Tuition fee: 9500 USD per year

Study duration: 4 years

Full-time programme

Degrees:

Bachelor of Science in Applied Mathematics and Information Science, HSE

Bachelor of Science in Data Science and Business Analytics, University of London

Languages of instruction: English

Address: 125319, Moscow,
3 Kochnovskiy Proezd

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Programme manager:
Tatiana Pak
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www.hse.ru/en/ba/data/

Programme Academic Supervisor

Tamara Voznesenskaya

About the Programme

The programme is aimed at educating well-versed analysts and data scientists to have knowledge in applied economics, specifically the financial industry. The main goal is to equip students with solid applied skills enabling them to solve tasks creatively and efficiently.

Major goals of the programme:

- To provide rigorous training in mathematical courses, which is the necessary foundation for traditional quality higher education in Russia

- To build competences in various domains of programming and modern information science, such as data analysis, machine learning, software design and development

- To emphasize technical skills in working with big data and building analytical models to solve financial goals

- To immerse students in an environment where the courses are taught entirely in English, which will also contribute to a student's adaptation to the international system of higher education

Since 2016, HSE has been in the **QS - World University Rankings by Subject** for **Mathematics,** moving up from the 251-300 group to the **101-150** cohort over the past 4 years, as well as progressing from the 401-500 group to the **201-250** cohort in **Computer Science & Information Systems** in the same period.

How to apply

The application process for international students (who have not taken the Russian Unified State Exam (EGE)) consists of two stages:

- Online registration.
  The application period:
  October15, 2018 – August 10, 2019
- Examination stage (online or in Moscow)It is possible to take exams online or on-site or participate in International Youth Olympiad
- If you have an international certificate in English and/or Mathematics, the results of these examinations can be recognized by HSE and used instead of HSE internal examinations.

More:

- www.hse.ru/admissions/undergraduate-apply
- www.hse.ru/en/ba/data/apply

Advantages of the programme

Studying at the faculty established by HSE and Yandex

In 2014, the Higher School of Economics and Yandex, a leading Russian IT company, established the Faculty of Computer Science where the intersection of academic science and hands-on experience is key to preparing specialists who are qualified enough to tackle a wide range of IT challenges immediately upon graduation.

UK university partner with a prominent and established reputation

The London School of Economics and Political Science designed and supervises 'the British part' of the programme. LSE is one of the world's leading universities, ranked #35 in the QS World Universities ranking. It places within the top 150 universities offering education and research in Computer Sciences and ranks 7th in Economics.

High-quality Teaching

Experienced teaching staff who also contributed to developing the Bachelor's programme in Applied Mathematics and Information Science

Obtaining professional competences for a specific industry

The programme offers a cluster of financial and economic disciplines and applied courses that introduce students to real-world cases and teach them how value added can be accumulated.

THE WORLD UNIVERSITY RANKINGS · TIMES HIGHER EDUCATION

SInce 2018, HSE has been in the **301-400** cohort of the **THE World University Ranking by Subject** in **Computer Science**.

Access to continuing education at top-notch Master's programmes in Applied Mathematics, Information Science and Economics

The programme's graduates have broad prospects to enter best Master's programmes in both Applied Mathematics and Informa-tics and Economics. In particular, recently launched Master's programme in Financial Technologies and Data Analysis, in collaboration with Sberbank – Russia's leading bank championing innovative IT transformation – welcomes graduates of the programme.

Rigorous project activities and research

A significant part of the programme consists of hands-on courses which are introduced in the second year when each student carries out a programming project under the supervision of a mentor from an IT company. During their third and fourth years, students can choose whether to focus on research activities or continue honing their project skills by working on team projects offered by the faculty's industry partners. Student projects will mostly be related to thefinancial industry.

Wide network of partners

The faculty partners with large banks (Sberbank, Alfa-Bank, Tinkoff Bank), consulting companies (PwC, McKinsey&Co), financial (Moscow Stock Exchange, Foreksis, Worldquant) and other types of companies that may be considered potential employers (SAS, MTS). The number of partnerships is consistently growing. While some partners' employees will be mentoring student projects, others will teach them to solve real-world cases within the Business Analytics and Applied Statistics course and research seminar.

What will I study?

- Mathematical disciplines essential for computer scientists: Discrete Mathematics, Mathematical Analysis, Linear Algebra and Geometry, Differential Equations, Probability Theory and Mathematical Statistics

- A set of compulsory courses in programming consistent with those offered as part of the program in Applied Mathematics and Information Science

- Databases, Information Systems Framework

- Machine Learning and Applications

- A distinguished set of financial and economic subjects:

  — Introduction to Economics
  — Introduction to Econometrics

— Statistical Methods in Market Analysis

— Business and Management in a Global World

- A range of elective courses

    — Corporate Finance

    — Financial Mathematics

    — Managerial Economics

    — Electronic Business

Applied economic tasks solved during student projects, work for a Bachelor's thesis, and within courses in Machine Learning and Business Analytics and Applied Statistics

Career prospects

- Banking, investment and insurance companies (Sberbank, Alfa-Bank, Tinkoff Bank, WorldQuant, Moscow Stock Exchange)
- Leading Internet companies (Yandex, Mail.ru, Google, Facebook, Rambler)
- Leading software manufacturers (Microsoft, SAP, SAS, Qlik, etc.)
- Consulting (PWC, McKinsey&Co, Accenture, BCG, Glowbyte)
- IT-departments and data analysis departments of large mobile providers (Beeline, MTS, Megafon)

Double-degree programme

- Prospective students follow the general admission process at HSE

    More information:
    www.hse.ru/admissions

- Intense training in English is an integral part of studies during the first year.

- Provided students have passed the exam session successfully under HSE's regulation on interim assessment, they transfer to the second year of studies at HSE and enrol in the first year at the University of London programme.

- The student's second, third and fourth years at HSE are considered the first, second and third year of studies at the University of London, respectively.

- Given that the University of London's programme consists of three years of full time studies, students complete the double-degree programme entirely in four years, which corresponds to the length of a Bachelor's programme in Russia.

- Degrees are awarded to students upon successful Bachelor's thesis defence.

Since 2016, HSE has appeared in the **U.S. News & World Report Best Global Universities by Subject,** taking **107**th place for **Mathematics** in 2018.

5 Benefits

English as a Medium of Instruction

Our students listen to lectures, participate in seminars and prepare papers in English only. This approach allows mastering both knowledge and language.

Educational and career prospects

The programme opens a broad list of educational and professional opportunities for graduates both in Russia and beyond.

Intensive Research Work

Practical work takes up to one-fifth of the total educational curriculum. Students can use all resources of the Higher School of Economics as a research university.

Obtaining professional competencies for a specific industry

The programme offers a cluster of financial and economic disciplines and applied courses that introduce students to real-world cases and teach them how value-added can be accumulated.

Wide network of partners

The faculty partners with large banks (Sberbank, Alfa-Bank, Tinkoff Bank), consulting companies (PwC, McKinsey&Co), financial (Moscow Stock Exchange, Foreksis, Worldquant) and other types of companies that may be considered potential employers (SAS, MTS).

Programme website

www.hse.ru/en/ba/data

International Admissions

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