

جامعة لوباشيفسكي الحكومية في نيجني نوفغورود

Lobachevsky State University of Nizhni Novgorod (UNN)



Lobachevsky State University of Nizhni Novgorod (UNN) was founded in 1916 as People's University of Russia. On January 30 (January 17 in the old calendar) we celebrate our Foundation Day.

Our university was the first higher education institution in Nizhny Novgorod. After the merger with Polytechnic Institute evacuated from Warsaw, the University was given a status of 'State University'. Thus UNN became the first university established in the Soviet state.

The first university of Nizhny Novgorod laid the foundations for the development of the system of higher education institutions in the city. In 1930, six institutes resulted from the transformation of some faculties of State University of Nizhni Novgorod. They were Institute of Mechanical Engineering, Chemical Institute, Teachers Training Institute ('Pedagogical Institute'), Agricultural Institute, Construction Institute and Medical Institute. In 1932, UNN comprised faculties of Physics, Mechanics, Zoology, Botany, Chemistry and Mathematics.

By mid - 20th century, Lobachevsky State University was a research and educational hub, consisting of world-renowned scientific schools of the Theory of Oscillations, Crystallography, Radio physics, Metal-Organic Chemistry, Chemistry of High-Purity Substances, Theory of Functions, Theory of Dynamic Systems, and Population Genetics. The laboratories of UNN

served as the initial basis for the foundation of Nizhny Novgorod Institutes of Russian Academy of Sciences.

By that time, there had been significant achievements in the humanities – UNN philologists were actively engaged in researching into language styles and styles of speech as well as folklore and the literary works of famous Russian poet Alexander Pushkin, which were created during his stay in Nizhny Novgorod region.

Pre-University Preparatory Programme

Course aims

The Faculty for International Students offers preparatory courses to international students who wish to enter UNN and attend the degree programmes in Russian. The final examinations at the end of the preparatory courses are at the same time entrance examinations for international students who wish to enter the first year of the University (the degree programme in accordance with the chosen field of study at the preparatory courses).

Course content

During the course students study Russian language (30 academic hours a week) as well as the basics of the main subjects corresponding to the selected field of study which are necessary to enter the chosen degree programme.

International students study in one of the three offered fields – natural sciences, humanities or economics. The main subjects of these fields are Russian language and the Culture of Speech. In addition to that the curriculum includes the basic subjects of specialization for each field of study.

Natural sciences: Russian language, scientific style of speech, Mathematics, Physics, Chemistry, Computer studies, Biology

Humanities: Russian language, scientific style of speech, Literature, Geography, Country studies, History, Social science

Economics: Russian language, scientific style of speech, Economics, Social science, Mathematics, Geography

Students will be assessed at the start of the course and organised into classes according to their level of English. All classes will be organized in groups.

Duration & Tuition fees

- 1 year course (from September 2017 till June 2018) – 145 000 RUB
- 1,5 year course (from March 2017 till June 2018) – RUB

Accommodation and meals are not included in the price.

Application Deadlines

- 1,5 year course (if started in the spring semester) – January 15, 2017

- 1 year course (if started in the fall semester) – August 1, 2017

Entry requirements

1. Your international passport must be valid during **18 months or more** after the date of arrival.
 2. A candidate must be physically and mentally healthy and have no medical contraindications to study in Russia.
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Bachelor's Degree Programmes

Economics, Finance

Economics in English

Finance and credit

World economy and international markets

Economics

Finance and credit

Economics and entrepreneurship

World economy and international markets

Economics of enterprises and organizations

Regional economy

Economics of tourism and hospitality

Taxes and taxation

Banking

Accounting, analysis and audit

Business informatics

Informatics and mathematics in the analysis of economic systems and business

Management

Management of enterprises in commerce

Financial management

Organization management

Production management

Marketing

Personnel management

Personnel management in an organization

Management of personnel professional development

Commerce

Organization and economics of trade enterprises

Organization and economics of public catering enterprises

Logistics

Commodity merchandizing and expert examination of goods

State and municipal government

Management of state and municipal property

International Relations, Tourism, History

International relations in English

International relations

International relations and foreign policy

World political processes

International security

Political science

Theory of politics; policy analysis and forecasting

Comparative political science; political regional studies and ethnic policies

Public policy and management; political management

Foreign regional studies

European studies

North American studies

Studies of regions in Asia and Africa

Advertising and public relations (Faculty of Filology)

Advertising and public relations in the commercial sphere

Advertising and public relations in the system of state and municipal government

Advertising and public relations (Institute of International Relations and World History)

Advertising and public relations in politics

Advertising and public relations in the commercial sphere

Tourism

Technology and organization of tour operator and travel agent services

Hospitality and tourism business

History

Universal history

History of Russia

Archaeology

Teacher education

History

Information technologies

Information Technologies in English

Information systems and technologies

Information systems and technologies in physics research

Fundamental computer science and information technologies

Supercomputing

Network information technologies

Methods and means for signal processing in information transmission channels
Information technologies for the analysis of complex systems and control of their operation
Applications of nonlinear dynamics to problems of transmission, processing, storage and protection of information
Optical information systems
Analysis of the quality of information systems
Automation of research
Information security and data protection
Informatics and computer sciences
Software engineering

Applied mathematics and informatics

Theoretical informatics and cybernetics
Informatics and computer sciences
Network information technologies
Mathematical modeling and computational mathematics
System analysis, operations research and control
System programming and computer technologies

Applied informatics

Applied informatics in decision-making
Applied informatics in economics

Software engineering

Development of software and information systems

Electronics, Nanotechnology

Electronics and nanoelectronics

Nanotechnology in electronics
Microelectronics and solid state electronics

Nanotechnology and microsystems engineering

Components of micro-and nanosystems engineering
Structural nanomaterials and nanotechnologies
Materials of micro-and nanosystems engineering

Chemistry

Chemistry

Inorganic chemistry and chemistry of coordination compounds
Analytical chemistry
Organic and bioorganic chemistry
Physical chemistry
Macromolecular compounds
Chemistry of organometallic compounds
Solid state chemistry and materials chemistry
Petrochemistry

Chemical engineering

Technology of inorganic substances

Biology. Ecology

Biology

General biology
Zoology
Zootoxinology
Biochemistry
Molecular biology and immunology
Bioengineering
Biotechnology
Biomedicine
Botany
Human and animal physiology
Plant physiology
Biophysics
Microbiology and virology

Ecology and management of natural resources

General ecology

Philology

Journalism

Periodical press
Television
Radio broadcasting

Philology

Russian philology (Russian language and literature)
Teaching of philological disciplines
Foreign philology
Applied philology

Philology (online learning)

Publishing

Book publishing

Social sciences

Philosophy

Social philosophy

Psychology

General and social psychology
Psychology of management
Psychophysiology

Sociology

Social theory and applied social knowledge

Social work

Organization of social work with different groups of population

Mathematics, Mechanics

Mathematics

Algebra, number theory, mathematical logic

Geometry and topology

Differential equations, dynamical systems, optimal control

Mathematics and computer science

Mathematical and computer modeling

Mechanics and mathematical modeling

Mathematical modeling and computer engineering

Mechanics of deformable bodies and media

Physics, Radiophysics

Radiophysics

Fundamental radiophysics

Electrodynamics

Quantum radiophysics and quantum electronics

Electronics, micro- and nanoelectronics

Ionospheric physics and wave propagation, radio astronomy

Physics of oscillations and wave processes

Telecommunication systems and information technology

Radiophysical measurements

Radiophysical methods in application areas (ecology, medicine, biophysics, geophysics, etc.)

Statistical radiophysics

Physical acoustics

Physics

Crystal physics

Theoretical physics

Physics of condensed matter

Physics teaching methods

Law

Law

International law profile

State law profile

Civil law profile

Criminal law profile

Records management and archivistics

Document support for management

Sports

Management in the field of physical education and sports

Specialist Programmes

Chemistry

Fundamental and applied chemistry

Inorganic chemistry
Analytical chemistry
Organic chemistry
Physical chemistry
Macromolecular compounds
Chemistry of organometallic compounds
Solid state chemistry
Petrochemistry
High energy chemistry
Radiochemistry

Electronics

Information security of telecommunication systems

Systems of mobile digital secure communication

Social Sciences

Psychology of service activities

Psychological support for service activities in extreme conditions
Psychological support for military and law enforcement activities

Law

Forensic examination

Forensic expert examination
Economic expert examination
Linguistic expert examination

Customs

Customs fees and currency regulation

Master's Degree Programmes

Economics, Finance

Economics

Accounting, analysis and audit
Economics of the firm and industry markets
International economics
Economics of innovation and entrepreneurship
International tax planning
Applied macroeconomics and economic policy
Economics of companies and corporations
Accounting and taxation

Mathematical methods of economic analysis

Business informatics

Information technologies and analytical methods of business process modeling and optimization

Finance and credit

Financial management

Investment valuation and corporate finance

Information systems and technologies in business

State and municipal finances

Banks and banking

Commerce

Commercial activity in the market of goods and services

International business

Strategies and innovations in the market of goods and services

International Relations, Tourism

International relations

World politics

World politics and international law

International security and conflict resolution

International tourism and cultural diplomacy

International peacekeeping

Political science

Theory of world political process and international relations

Political relations and political process in modern russia

Political management

Foreign regional studies

European studies

North American studies

Studies of regions in Asia and Africa

Tourism

Hospitality and tourism business (Institute of Economics and Entrepreneurship)

International tourism and cultural diplomacy (Institute of International Relations and World History)

Information technologies

Information systems and technologies

Information systems and technologies in physics research

Fundamental computer science and information technologies

Analysis of the quality of information systems

Automation of research

Information security and data protection

Informatics and computer sciences

Software engineering

Bioinformatics
Computer graphics

Applied mathematics and informatics

Mathematical modeling and computational mathematics
Mathematical modeling
System analysis, operations research and control
System programming and computer technologies
Mathematical and information support for economic activities
Numerical methods
Probability theory and mathematical statistics
Optimization and optimal control
Mathematical cybernetics

Applied informatics

Business process reengineering

Management

Management in English

Management

Production management
Marketing
Insurance management
Information technologies in management
Hospitality and tourism business
Social services management
Business performance management

Personnel management

Personnel management in an organization

State and municipal government

Regional and municipal self-government

Biology. Ecology

Biology

Botany
Human and animal physiology
Plant physiology
Biophysics
Microbiology and virology
Theory and methods of teaching biology and ecology
Invertebrate zoology

Ecology and management of natural resources

General ecology

Chemistry

Chemistry

Analytical chemistry
Organic and bioorganic chemistry
Physical chemistry
Macromolecular compounds
Chemistry of organometallic compounds
Solid state chemistry and materials chemistry
Petrochemistry
High energy chemistry
Inorganic chemistry
Radiochemistry
Mathematical and quantum chemistry

Chemical engineering

Technology of inorganic substances

Physics, Radiophysics, Electronics

Radiophysics

Radiophysical methods in application areas (ecology, medicine, biophysics, geophysics, etc.)
Statistical radiophysics
Physical acoustics
Nonlinear oscillations and waves
Electromagnetic waves in media
Physical electronics
Computer radiophysics
Information processes and systems
Quantum radiophysics and laser physics

Physics

Theoretical and mathematical physics
Physics of condensed matter
Physics teaching methods
Physics of semiconductors.
Microelectronics
Plasma physics

Electronics and nanoelectronics

Nanoelectronics
Micro-and nanoelectronics

Mathematics, Mechanics

Mathematics and computer science in English

Mathematics

Ordinary differential equations
Partial differential equations
Geometry and topology
Algebra

Number theory
Complex analysis
Mathematical methods in the humanitarian and socio-economic sciences (in economics)
Computer mathematics

Mathematics and computer science

Mathematical and computer modeling

Mechanics and mathematical modeling

Mechanics of deformable bodies and media

Computer mechanics

Philology

Journalism

Theory of journalism

International journalism

Philology

Foreign philology

Applied philology

Russian language

Russian as a foreign language

Slavic philology

Russian literature

Literature of the peoples of foreign countries

Ancient literature

Folklore and mythology

Social sciences

Philosophy

Social philosophy

Ontology and epistemology

Psychology

Psychology of personality

Organizational psychology

Psychophysiology

Psychological counselling

Psychology and psychophysiology of extreme situations

Sociology

Sociology of culture

Management sociology

Economic sociology

Family sociology and demography

Social work

Organization of social work with different groups of population

Law

Law

Administration, public and municipal service
Law enforcement service
Civil law, family law, international private law
Legal regulation of state and municipal government

Sports

Management in the field of physical education and sports

History

History

History of Russia
Archaeology
Modern history of Europe and America
Contemporary History of Europe and America
Ancient history

Culturology

Historical culturology

Art history

Universal history of art

PhD Programmes

Mathematics and mechanics

01.01.02 - Differential equations, dynamical systems and optimal control
01.01.04 - Geometry and topology
01.01.05 - Theory of probability and mathematical statistics
01.01.06 - Mathematical logic, algebra and numbers theory
01.02.04 - Mechanics of deformable solids
01.02.06 - Dynamics, durability of machines, instruments, and equipment

Computer and information sciences

01.01.09 - Discrete mathematics and mathematical cybernetics

Physics and astronomy

01.04.02 - Theoretical physics
01.04.03 - Radiophysics
01.04.06 - Acoustics
01.04.07 - condensed state Physics
01.04.10 - semiconductor Physics
01.04.21 - Laser physics

Chemical sciences

- 02.00.01 - Inorganic chemistry
- 02.00.02 - Analytical chemistry
- 02.00.03 - Organic chemistry
- 02.00.04 - Physical chemistry
- 02.00.06 - Macromolecular compounds
- 02.00.08 - Chemistry of organoelemental compounds

Earth sciences

- 03.02.08 - Ecology (biology, chemistry)

Biological sciences

- 03.01.02 - Biophysics
- 03.01.04 - Biochemistry
- 03.01.05 - Physiology and biochemistry of plants
- 03.02.01 - Botany
- 03.02.03 - Microbiology
- 03.03.01 - Physiology
- 03.03.03 - Immunology

Computer and Information science

- 05.13.18 - Mathematical modelling, numerical methods and program complexes

Electronics, radio engineering and communications systems

- 05.27.01 - Solid-state electronics, radioelectronic components, micro- and nanoelectronics, quantum effect-based devices

Psychological sciences

- 19.00.01 - General psychology, personality psychology, history of psychology
- 19.00.03 - Psychology of labour, engineering psychology, ergonomics
- 19.00.13 - Developmental psychology, acmeology

Economics

- 08.00.01 - Economic theory
- 08.00.05 - Economics and management of national economy
- 08.00.10 - Finance, circulation of money and credit
- 08.00.12 - Accounting, statistics
- 08.00.13 - Mathematical and instrumental methods of economics
- 08.00.14 - World economy

Sociological sciences

- 22.00.03 – Economic sociology and demography
- 22.00.04 - Social structure, social institutes and processes

- 22.00.06 - Sociology of culture
- 22.00.08 - Sociology of management

Law

- 12.00.01 - Theory and history of law and state; history of law and state doctrines
- 12.00.02 - Constitutional law; constitutional litigation; municipal law
- 12.00.03 - Civil law; entrepreneurial law; family law; private international law
- 12.00.04 - Financial law; tax law; budget law
- 12.00.05 - Labour law; social security law
- 12.00.08 - Criminal law and criminology; criminal executive law
- 12.00.09 - Criminal process
- 12.00.12 - Criminalistics; judicial examination; investigation activity
- 12.00.13 - Information law
- 12.00.14 - Administrative law, administrative process

Political sciences and regional studies

- 23.00.02 - Political institutes, processes and technologies
- 23.00.04 - Political problems of international relations and global and regional development
- 23.00.05 - Regional politics. Ethnopolitics

Mass media, library and information science

- 10.01.10 - Journalism

Education and pedagogical sciences

- 13.00.01 - General pedagogy, history of pedagogy and education
- 13.00.02 - Theory and methods of training and education (by areas and educational levels)
- 13.00.08 - Theory and methods of professional education

Linguistics and literature studies

- 10.01.01 - Russian literature
- 10.01.03 - Literature of foreign countries
- 10.02.01 - Russian language
- 10.02.04 - Germanic languages

Historical sciences and archeology

- 07.00.02 - Russian history
- 07.00.03 - Universal history (of a certain period)
- 07.00.15 - History of international relations and foreign policy

Philosophy, ethics and religious studies

- 09.00.01 - Ontology and theory of knowledge
- 09.00.11 - Social philosophy

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Degree Programmes in English

Bachelor's Programme Information Technology

The Bachelor's programme "Information Technology" in English is aimed at training experts in high-level programming for hi-tech companies of the information industry.

The curriculum and programmes of studies have been developed with the account of the specific nature of this course intended for international students. Teachers take into account different levels of international students' knowledge in mathematics. A special introductory course helps to equalize the students' level in mathematics. The programme of studies in Information Technologies is envisaged by Computing Curricula 2001 recommended by such international organizations as IEEE-CS and ACM. The programme meets high European and international standards and is awarded the EUR-ACE label which is recognized by employers in Europe and makes it easier to apply for EUR-ACE® Master and doctoral programmes in other higher education institutions.

The programme is accredited by [the European Network for Accreditation of Engineering Education \(ENAE\)](#) and [the Association for Engineering Education of Russia \(AEER\)](#). The former is 'responsible for awarding authorisation to accreditation agencies to award the EUR-ACE® label', which is aimed at facilitating both academic and professional mobility. The latter has membership in ENAE, Washington Accord and IPEA so that its criteria and procedures for accreditation are recognized by over 25 countries worldwide.

Teachers, working in this programme, are all recognized experts in various fields of science, Doctors and Candidates of Science. Multimedia presentations are available for all study courses of the "Information Technologies" programme. Classes take place in specialised multimedia classrooms suited for lectures and presentations as well as for practical training on modern personal computers.



Master's Programme Supercomputer Technologies and High Performance Computing

The goal of the Master's program is **to train highly skilled specialists** that have all the modern scientific knowledge and practical skills necessary for using huge computational potential of high performance computer systems including parallel programming and database technologies, computer networks, parallel computations in applications, computer vision and others.

The training courses of the educational program provide the necessary theoretical knowledge and **advanced practical training in supercomputer technologies and high performance computing**. A considerable part of the study training is the broadened laboratory practical works intended for applying the studied knowledge and skills to solve practical problems of different complexity from the various application fields.

The educational Master's program is divided into basic and advanced blocks. The training courses of the basic block cover the main SC&HPC areas, while the courses constituting the advanced block are focused on using the parallel programming in selected knowledge domains.

During the studies, the students will have access to **the latest high performance hardware platforms** (cluster systems with multicore computational nodes, graphic processors, coprocessors) to carry out the practical works on the courses. The supercomputer at the University of Nizhny Novgorod is one of the most powerful systems in the world (see <http://hpc-education.unn.ru>).

Master's Programme Mathematics and Computer Science

Master's degree programme in mathematics and computer science aims at developing professionals for systems integrators and software companies, large and medium-sized enterprises with their own IT departments, research organizations conducting research and development in the field of high technology.

Graduates of the Programme are specialists in the field of mathematics and computer science. The Master's programme focuses on computer modeling, simulation and visualization of technological and economic processes. This allows graduates to work not only in the field of information technology where they need to process and present the information, but also in areas requiring the development of mathematical models, data analysis, developing computational algorithms and their implementation.

The students study a series of mathematical disciplines (Contemporary Algebra, Discrete Mathematics and Algorithms, Discrete Dynamical Systems, Advanced Ordinary Differential Equations, Chaos, Fractals and Dynamical Systems, etc), and a series of computer science disciplines (Computer Technology in Natural Sciences and Business, Microarchitecture Processors and Programming, Computer Geometry and Topology, Simulation and Computer Modeling in Economics and Social Sciences, Mathematical Modelling, Visualization of Dynamical Systems, and others).

Duration: 2 years

The program starts October 15, 2017

Tuition fees: 135 000 RUB per year

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