Belarusian State University: education, research, innovations, international cooperation
BSU today

BSU is the leading university in the national system of higher education of the Republic of Belarus. Founded on October 30, 1921

Certified for standards

ISO 9001
INTERNATIONAL RANKINGS

Webometrics

QS

Scimago

University Ranking by Academic Performance (URAP)

4 international Colleges & Universities (4icu)
According to Webometrics BSU takes 673 place in the World

In QS World University Ranking BSU is in Top-500

INTERFAX ranking: BSU takes the 2nd place among the universities of CIS, Lithuania, Latvia, Estonia, Georgia
BSU COMPLEX

- 26 faculties and educational institutes, including lyceum and law college
- 3 research stations
- 3 museums
- 4 research institutes
- 41 research laboratories
- 9 research centers
- 11 unitary enterprises
FACILITIES

- More than 100 buildings
- 3 campuses
- 8 dormitories
- 4 media classrooms
- University Network Resources
- Fundamental library
- 3 sport complexes with swimming pools
<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall staff</td>
<td>7783</td>
</tr>
<tr>
<td>Students</td>
<td>38972</td>
</tr>
<tr>
<td>Academic staff</td>
<td>2966</td>
</tr>
<tr>
<td>Researchers</td>
<td>1900</td>
</tr>
<tr>
<td>Doctors of Science</td>
<td>297</td>
</tr>
<tr>
<td>PhD degree holders</td>
<td>1437</td>
</tr>
</tbody>
</table>

15 academicians and 16 corresponding members of the National Academy of Sciences
BSU INCOME STRUCTURE

- Own funds: 45.3%
- Budget funds: 54.7%
BSU INCOME STRUCTURE

- Education, budget funds: 36.3%
- Education, own funds: 23.6%
- Production, own funds: 17.4%
- Production, budget funds: 8.3%
- Research, own funds: 4.2%
- Research, budget funds: 10.1%
Education
Faculties and Educational Institutes

- Mechanics and Mathematics
- Applied Mathematics and Computer Science
- Radiophysics and Computer Technologies
- Physics
- Chemistry
- Biology
- Geography
- Economics
- Military
- History
- Philosophy and Social Science
- Law
- International Relations
- Pre-University Education

- Journalism
- Philology
- Liberal Arts
- Business and Management of Technologies
- Management and Social Technologies
- Theology
International Master programs in the School of Business and Management of Technologies

- **Master of Business Administration**
  most popular MBA program in the world practice of professional education

- **Master of Science in Logistics**

**Our Partners**
- USAID / Eurasia
- Swedish Institute
- Vaxjo University, Sweden
- Central Washington University, USA
- Molde University College, Norway
- Indiana University Northwest, USA
- Nebraska Lincoln University, USA
PHD AND POST-DOC TRAINING

• PhD students – 931, including 81 foreigners from 15 countries
• Post-doctoral students – 35

• 118 PhD programs
• 112 post-doctoral programs
International students from 53 countries of the world.

Among them:
- China – 31 %
- Turkmenistan – 30,6 %
- Russia – 15,7 %
- Kazakhstan – 2,6 %
- Republic of Korea – 2,5 %

In 2014/2015 academic year:
- 23 students from Japan
Scientific and Research Structure
On April 20, 2011 the Belarusian State University was accredited as scientific organization
Staff:
- 130 researchers and engineers
- 7 doctors and 61 PhD

Main directions

- Nanocrystal, amorphous, fine and composite materials
- High-temperature electrochemical and electronic devices
- Energy-and-source saving technologies to manufacture organic substances, materials and fuels
- New medications
- Synthesis and modification of inorganic materials
- Magnetic, thermo- and wear-resistant coatings
- New organic compounds synthesis
- Extraction and sorption processes
- Natural and synthetic polymers
Research Institute of Applied Physical Problems named after A.N. Sevchenko

Main directions

• Spectroscopy and luminescence
• Ultrasonic and electromagnetic waves
• Nuclear and powerful electromagnetic radiations
• Semiconductors and other materials for electronics and machine building
• Fast processes in applied tasks of physics
• Data processing measuring-calculating facilities
• Intelligent control systems

Staff:
- 101 researchers and engineers
- 28 doctors and 13 candidates of sciences (Ph.D.)
Research Institute of Nuclear Problems

Structure:
- Nuclear Research Department
- Coherent and Nonlinear Processes Department
- High Energy Physics Department
- Optics Experimental Division
- Mechanics Experimental Division

Staff:
- 89 researchers and engineers
- 6 doctors and 21 candidates of sciences (Ph.D.)

The Institute closely cooperates with a wide range of international research organizations:
- JINR (Dubna Russia)
- EDM Collaboration (Brookhaven USA)
- CMS (CERN Switzerland)
- PANDA (GSI Germany)
- COSY (Julich Germany)
- LAPP (Annecy France)
Main directions:

• Theoretical and experimental research of fundamental interactions and structures of micro particles at high energies
• Methods of recording of micro particles at extreme conditions
• Organizational support of research carried out in United Institute of Nuclear Researches (UINR, Dubna, Russia) with participation of organizations and institutions of the Republic of Belarus

Staff:
- 22 researchers and engineers
- 2 doctors and 8 candidates of sciences (Ph.D.)
Research Institute of Applied Problems of Mathematics and Informatics

Main directions

• Computer data analysis
• Mathematic modeling of complex systems, processes and phenomena in economics, engineering, ecology, medicine and other branches of national economy
• Software in the field of theoretical and applied informatics
• Mathematical methods of information security, cryptography

Staff: 27 researchers including 2 doctors and 8 candidates of sciences. Over 30 BSU lecturers, postgraduate students and students take part in the research of the Institute.
National Ozone Monitoring Research and Educational Center

The division employs
25 researchers
1 doctor of science
7 candidates of science
1 professor

Main directions

• Development of measuring equipment for ozonosphere monitoring
• On-line monitoring, analysis and forecast of ozonosphere condition and levels of surface ultraviolet radiation
• Taking measurements under BMO Global Atmosphere Watch
• Research in the field of ozonosphere physics, problems of ozonosphere preservation
Achievements:

The Center developed new methods of predicting professional teamwork of main control unit response personnel at nuclear power stations.

The Center implemented decision-making scenarios in the conditions of time pressure and tough provocative desynchronization of actions.
• Technology of extracting gold, silver and other precious metals from man-made wastes
• Technology of obtaining salts and compositions containing precious metals
• Modern technologies of precious metals analysis

The annual volume of output is around 10 mln. USD
Training technology

Computer-aided experiment

50 facilities

Software and hardware complexes and laboratory equipment to provide laboratory practicum in all sections of physics in secondary and higher schools
Measuring Multifunctional Devices for Radio Electronics

- Digital oscilloscopes
- Arbitrary waveform generators
- Multichannel logic analyzers/generators
- Digital acquisition systems
- Precision systems for time analysis
- Instruments for measuring and analysis:
  - acoustic noise
  - vibration
  - surface roughness and circularity
Technology of diesel biofuel production on the basis of rape-seeds

• Valuable accompanying products: solid fuel, oilcake to prepare forages, technical soap, glycerin.
• Low amount of sewage, absence of gaseous emissions.
• An opportunity to organize small-scale plants directly in places of diesel biofuel consumption.
International Cooperation
INTERNATIONAL CONTACTS

> 350 bilateral agreements:
  - CIS
  - Europe
  - Asia
  - Africa
  - North and South America

Membership of:
  - Eurasian University Association
  - European University Association
  - Baltic University
  - International Ass. of Teachers of Russia
  - Language as a Foreign Language
  - CEI University Network
  - IAESTE
  - ICRANet

International centers at the BSU:
  - EU Informational Center
  - Council of Europe InfoPoint
  - Center for UN study
  - Confucius Institute
Our partners in Japan

- Waseda University
- University of Tsukuba
- Fukushima University
- Tokyo Instruments Inc.
ACADEMIC MOBILITY

Annually:

- more than 1000 staff members are sent abroad for study and research visits
- about 700 students are sent abroad for study and participation in conferences
- about 150 incoming and 180 outgoing exchange students

Top 7 countries outgoing mobility
1. Russia
2. Germany
3. Poland
4. China
5. Czech
6. Italy
7. France

Top 7 countries incoming mobility
1. Russia
2. Germany
3. Poland
4. Ukraine
5. China
6. Lithuania
7. Italy
More than 40 international projects:

INTAS, FP7, ISTC, NATO, CEI, CERN, VISBY, SIDA, UNO, UCPD, FPB-Belarus, different EU funding instruments and etc.

Since 1994 the BSU has participated in 12 Tempus projects

Since 2007 BSU has participated in 6 ERASMUS MUNDUS projects

Approximate amount of personal grants BSU teaching stuff and researchers receive is about 200000 Euro per year
Welcome to the BSU!