



# Educational Institution “Francisk Skorina Gomel State University”: *Education, Research and Innovation Activities*



**Project 543707-TEMPUS-1-2013-1-DE-  
TEMPUS-JPHES – „EcoBRU“**



## 12 faculties

- **Faculty of Mathematics:** Mathematics, Applied Mathematics, Software for Computer Network
- **Faculty of Physics:** Physics, Technical Creative Work, Physical Electronics, Automated Systems of Information Processing
- **Faculty of Biology:** Biology, Forestry
- **Faculty of Geology and Geography:** Geography, Geoecology, Geology & Prospecting for Mineral Deposits
- **Faculty of Philology:** Russian Philology, Byelorussian Philology, Byelorussian Philology with additional specialization “English Language”
- **Faculty of Foreign Languages:** English Language, German Language
- **Faculty of History:** History, History and English Language
- **Faculty of Law:** Jurisprudence
- **Faculty of Economics:** Book-accounting, Analysis & Audit, Economics & Enterprise Management, Commercial Activity, Finances & Credit, World Economy
- **Faculty of Physical Culture:** Physical Culture
- **Faculty of Psychology and Pedagogics:** Psychology
- **Teaching and learning of foreign students**



# Educational Institution “Francisk Skorina Gomel State University”

## PERSONNEL POTENTIAL



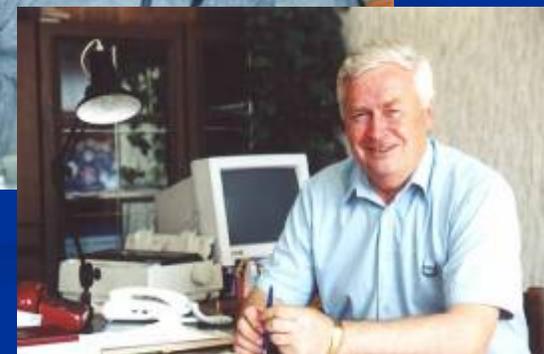
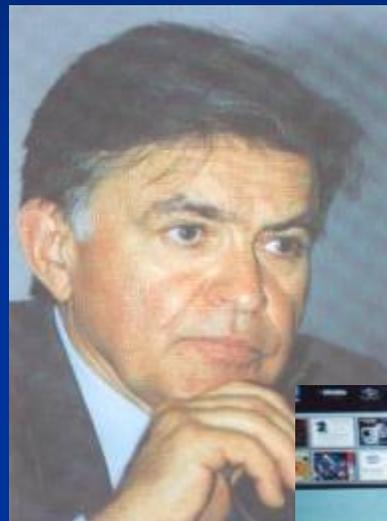
At present 702 teachers from 52 chairs work at the university. Between them:

- 4 corresponding members of the National Academy of Science of the Republic of Belarus,
- 40 Doctors of Science,
- 31 professors,
- 250 candidates of science,
- 209 associate professors.



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## 14 Scientific and Pedagogical Schools





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15 Fields of Scientific Research





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- 17 Science and Research Laboratories
- Centre for collective use of scientific equipment





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## 34 Student Science and Research Laboratories

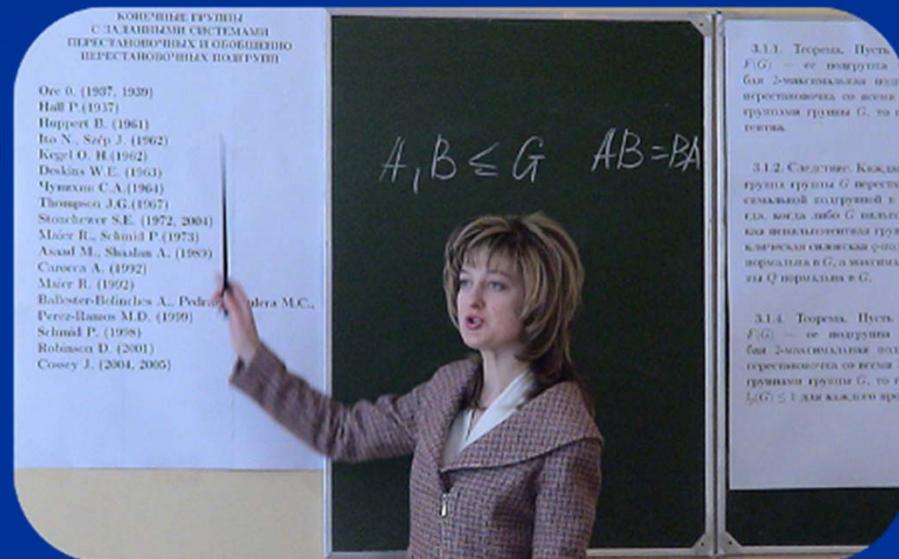




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# Postgraduate School

The University has a postgraduate school in 56 specialties, doctoral school in 5 specialties, 4 Councils of theses defense in 6 specialties, including doctoral one.





# Educational Institution “Francisk Skorina Gomel State University”

## International Collaboration



### GSU Partners:

**People's Republic of China** (Jiangsu University, Suzhou University of Science and Technology, Nanjing University of Science and Technology, Nanjing Chemical Industries Group Co. Ltd., Institute of Chemistry and Biology of the Chinese Academy of Science);

**France** (Université Auvergne-Clermont 1);

**Japan** (University Shizuoka);

**Korea** (Company Rost Group Technology, Inha University, city of Incheon);

**Taiwan** (Formosa National University);

**Sweden** (Stockholm University);



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### International Collaboration

**Finland** (Helsinki University of Technologies, School of Electrotechnical Engineering of Aalto University);

**Czech Republic** (“TRADO HOLDING” A.S., Westmoravian University, Westmoravian College, city of Trebic);

**Mexico** (Centre for condensed material science of Mexico autonomous University, city of Ensenada (Centro de Ciencias de la Materia Condensada, Universidad Nacional Autonoma de Mexico, Ensenada);

**Poland** (Institute of low temperatures and structural analysis named after Trzebiatowskiego «Instytut Niskich Temperatur I Badań Strukturalnych im. Włodzimierza Trzebiatowskiego”, Wrocław, Białystok University);

**Rumania** (Constanta Ovidius University (Universitatea “Ovidius” de Constanta);

Etc.





## Educational Institution “Francisk Skorina Gomel State University”

### International Collaboration



- The University enters in «Inter-Academia» Association. The Association is an international organization uniting 7 universities (Japan, Germany, Hungary, Slovakia, Poland, Rumania and Belarus).
- The University participates as associate member in «Erasmus Mundus Ianus II» project. Its partners from the European Union are: Graz University (Austria), Lille University (France), Cologne University (Germany), Riga Technical University (Latvia), University of Lodz (Poland), University of Grenada (Spain), University of Groningen (Holland). The project coordinator is Alexandru Ioan Cuza University of Iasi, Romania.



# Educational Institution “Francisk Skorina Gomel State University”

## International Collaboration



The University has:

- French-Byelorussian Educational Advisory Department;
- Cabinet of Chinese, Polish and Hebrew;
- Centre for Russian Language and Literature;
- Confucius Cabinet of Confucius Republican Sinology Institute of Byelorussian State University.



# Educational Institution “Francisk Skorina Gomel State University”

## Participation in Tempus TACIS projects

- «Preparation and advanced training of the teachers of tourism disciplines in the Republic of Belarus». The project coordinator is the University of Paderborn (Germany).
- «Eastern Partnership in Pedagogical Innovations in Inclusive Education». The project coordinator is the University of Alicante (Spain) and Royal Technical Institute, Stockholm, (Sweden).
- «Centers of Excellence for young Researchers ». The project coordinator is the University of Žilina (Slovakia).





## Educational Institution “Francisk Skorina Gomel State University”

### Activities of the University in integration of education, research and innovation fields

- formation of an integrated system of education, training and retraining of specialists on the basis of the integration of education, research and innovation activities (retraining of specialists in 38 specialties);
- development of multilevel system of highly qualified specialists training (2 degrees of higher education, postgraduate school, postgraduate vocational education);
- creation of conditions for simultaneous training of students in different specialties (students have the opportunity to study in 13 additional specialties);
- organization of interdisciplinary and integrating courses;





## Educational Institution “Francisk Skorina Gomel State University”

### Activities of the University in integration of education, research and innovation fields



- creation of conditions to attract and keep talented young people in science and technology field, including improved training abroad (UK, Sweden, Japan, France, Finland, Slovakia, etc.);
- orientation to satisfying needs of enterprises, research institutes and universities of the republic in highly qualified specialists;



# Educational Institution “Francisk Skorina Gomel State University”

## Activities of the University in integration of education, research and innovation fields

- creation and activities support of research laboratories (17 Science and Research Laboratories), department branches (30 branches);
- implementation of the principle "advanced training" through the involvement of students in research (about 40% of the students are involved in the science and research projects);
- increasing of production and innovation-oriented fundamental and search research (70% - fundamental research, 20% - applied research). In 2013 were opened 3 new types of innovation activities, were produced innovative products and services in 5 previously opened activities, were carried out the contractual works ordered by Belarusian and foreign enterprises and organizations);
- organization of scientific training of teachers and staff at the principal university departments, divisions of academic institutions and enterprises (Finland, Poland, China, Latvia, etc.);





# Educational Institution “Francisk Skorina Gomel State University”

## Activities of the University in integration of education, research and innovation fields



- renewal and development of scientific and technical relations (over 100 agreements on scientific and technical cooperation with more than 30 foreign countries are signed);
- expansion of international cooperation (India, South Korea, Japan , Kazakhstan , China, etc. );
- carrying of joint fundamental and applied research (Lithuania, Finland, Ukraine, etc.);
- joint participation in the formation of regional programs and the problems solution in science, innovation and production fields ( Russia, Ukraine);
- joint participation in grant contests of technical research programs announced by Russian and foreign funds (India, Romania, etc.);



# Educational Institution “Francisk Skorina Gomel State University”

## Activities of the University in integration of education, research and innovation fields

- creation of conditions for completing full cycle of the innovation process - from fundamental science research to commercialization of innovations, transfer of finished products and technologies in the industry and the social sphere (conducting of patent and market research, organization of experimental research, small-scale productions at the university, renewed scientific equipment and creation of the Center for collective use of equipment , participation in international exhibitions in Belarus and abroad, establishing direct contacts for manufacturing scientific and technical products and services for Belarusian enterprises and foreign partners (China, South Korea, Russia));
- training, retraining and advanced training of personnel for innovation activities in industrial and scientific fields, including small business ;





# Educational Institution “Francisk Skorina Gomel State University”

## Activities of the University in integration of education, research and innovation fields

- conducting market research to identify potential customers and consumers of high technology products ;
- organization of interaction and coordination activities with regional authorities, representatives of industry, banking, commercial structures, social sphere;
- exhibition and information activities to promote the achievements of science in the media ( in 2013 – participation in 14 international exhibitions in Germany, Mongolia, Lithuania, UAE, Kazakhstan, etc.);
- invention ( in 2013 are supported 54 patents in the Republic of Belarus and 6 patents in the Russian Federation, 18 patent applications are submitted in the Republic of Belarus).





# Educational Institution “Francisk Skorina Gomel State University”

## Organization of education at the Department of Ecology (Specialty «GeoEcology»)

Number of lectures hours	Number of laboratory, practice hours	Number of seminars hours	Number of hours of optional classes
<b>Cycle of social and classical disciplines</b>			
142		96	44
<b>Cycle of general science and general vocational disciplines</b>			
444	654	14	98
<b>Cycle of special disciplines</b>			
1156	786	68	
<b>Cycle of specializations disciplines</b>			
226	118		



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## Approximate List of specialty/ specialization disciplines

№	Discipline	Number of hours
<b>Specialty «GeoEcology»</b>		
1	General Ecology	106
2	GeoEcology	124
3	Analytical Methods in Ecology	134
4	Medical Geography and Ecology	111
5	Ecology of Soils	110
6	Ecology of Plants	60
7	Ecology of Animals	67
8	Social Ecology	60
9	Hydroecology	141
10	Assessment of Impact on Environment	152
11	Ecological Passport System	92
12	Ecological Certification and Standardization	98
13	Economy of Nature Management	164
14	Ecological Law	50
15	Ecological Examination, Management and Audit	166
<b>Specialization «General GeoEcology»</b>		
1	Industrial Ecology	249
2	RadioEcology	114
3	Management of waste products	65
<b>Specialization «Monitoring of environment»</b>		
1	Engineering Ecology and protection of environment	249
2	Monitoring of environment	110
3	Radioecological monitoring	114



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## Development of Continuous Education

The University includes the Institute for Advanced Training and Retraining . New specialties are opened in 2014-2016:

- 1-08 01 71 Educational Activities of Specialists - "Teacher according to the qualifications of the principal diploma";
- 1-26 02 87 Environmental management - "Manager" ;
- 1-75 01 72 Forestry and hunting and secondary use of forest - "Forestry Engineer";
- 1-75 01 75 Forestry and silviculture - "Expert in hunting";

Education form - full time/correspondence;  
Period of studies - 16 months/20 months/20 months.





## Educational Institution “Francisk Skorina Gomel State University”

# Necessity of Environmental Education

- Training on various topics related to the environment, use of land and water resources is made for satisfying the country's need for qualified specialists and environmentally educated executive personnel, involved in management, use and protection of natural resources.





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## Necessity of Environmental Education

- It is necessary to activate the work in order to involve the potential of science research institutes in environmental education, to strengthen the relations between universities and schools, universities in other countries for the students and teachers exchange with educational and methodological center of vocational education that will enhance the effectiveness of the specialists training in accordance with the objectives of accelerated social and economic development of the country.





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## Necessity of Environmental Education

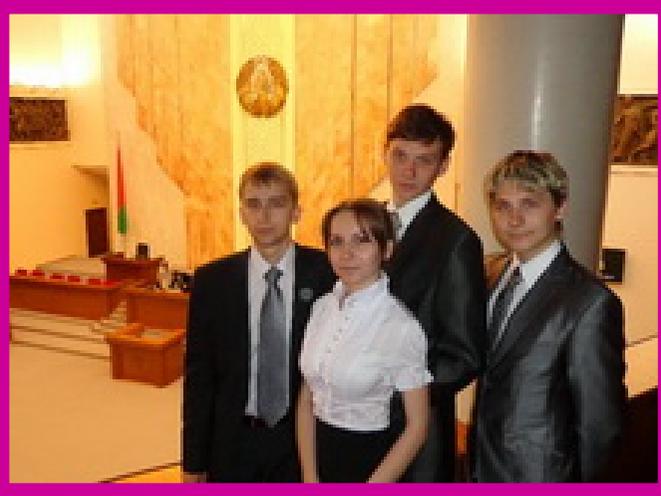


- Environmental education as a factor of minimizing the consequences of the Chernobyl accident. In connection with the ecological catastrophe at Chernobyl station, the radioecological education of different population groups is necessary, especially for the teachers in rural areas who are principal bearers of the rules of the habitation in the contaminated areas, the use of nature resources, as well as of agricultural products.



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### Necessity of Environmental Education



- The studies of environmental law, law on legal liability for environmental offenses, as well as issues on international legal protection of the environment will enhance environmental awareness, legal and environmental culture of the specialists. The legal culture will have a significant impact on the environment and protection of environmental human rights, including the right to healthy environment.

We will be glad to cooperate  
with you 😊

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