

# BELARUSIAN STATE UNIVERSITY OF INFORMATICS AND RADIOELECTRONICS



**HANDBOOK FOR APPLICANTS** 

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# BELARUSIAN STATE UNIVERSITY OF INFORMATICS AND RADIOELECTRONICS

# WE WELCOME EVERYONE WHO SEEKS HIGH-QUALITY ENGINEERING EDUCATION



#### **DEAR STUDENTS!**

Welcome to Belarusian State University of Informatics and Radioelectronics, a starting point of many famous scientists, talented engineers, successful businessmen and high-class software designers.

The university has everything in place for you to grow into a sought-after professional and choose your own way in the modern world – the world of IT, digital society and innovative economics.

BSUIR will provide you with the knowledge to become an outstanding specialist and join scientific and engineering elite. The teaching staff is focused on training students both in the course of lectures and within the scope of innovative and R&D projects.

You are always welcome to use up-to-date study rooms and educational centres of top-rated international IT companies, R&D laboratories and BSUIR incubator, which host both regular classes and workshops of practical specialists, educational projects and hackathons.

A lot depends on you personally. Strive to learn more, be inquisitive, don't fear any difficulties and pay heed to you teachers' advice!

All this will help you to unlock your potential and give you a successful start of future career in IT.

Have a successful study year in BSUIR!



#### Being founded in 1964

The University is following the world trends in engineering education in high-tech fields; that's why we believe the role of BSUIR as the national leading educational institution in ICT, electronics, telecommunications, and micro- and nano electronics will increase in future.

#### **TIME-TESTED QUALITY**

Leading IT university, Core institution in information technologies among CIS countries

QS World University Rankings **1001+** 

Accredited by the State Committee and by the National Academy of Sciences of Belarus as a scientific organization

Main institution in the study of protection from interference problems and provision of electromagnetic compatibility of electronic means

BSUIR is awarded by the Government of the Republic of Belarus for excellence in quality in the year 2011, 2016, 2019,2020

Over **90 000** successful graduates, including academicians, heads of ministries and departments, directors and leading experts of companies and large holdings

Certified for compliance of quality management system with International standard ISO 9001

**16000+** students

#### **BSUIR FACTS & FIGURES**



#### **SCIENCE**

#### **PERSPECTIVES**



**34** research laboratories and groups

8 research centers

**7** councils for defense of the doctor theses

**20+** annual international scientific conferences

Centre of Technology Transfer The Council of Young Scientists, student scientific society Internationally recognized qualifications
Graduates demand

**400+** enterprises and leading world companies as places for practical training

Supplementary education in the leading world companies' centers on the basis of BSUIR

**Business Incubator** 



#### **OPENNESS TO THE WORLD**

**STUDENT LIFE** 



Bilateral cooperation agreements with **150+** educational institutions and research centers

**1000+** foreign students from 40 countries

Trainings and practical trainings abroad, student exchange programme ERASMUS+

Joint degree programmes

Grants from the leading world IT companies

**5** comfortable hotel-type dormitories

40+ creative teams

40 sports clubs

Campus 14 000+ m2

Forums, tournaments, festivals, contests, concerts, KVN (Club of the Funny and Inventive People), tourist gatherings

#### **PARTNERSHIP**











































































## CERTIFICATION EDUCATIONAL CENTERS OF WORLD TOP COMPANIES

Microsoft Academic Alliance Center
National Instruments Educational Center
IBM Center of Competency
Cisco Networking Academy Affiliate
SAP Academic Competence Center
Android Software Center
INTES Educational Center
Software Testing Training Center (jointly with A1QA)
ZTE Center

Huawei Center

#### **KEY AREAS OF TRAINING**



Computer Engineering

Software Engineering and Technologies

Cyber Security and Information Security

**Electronic Economy and Marketing** 

Artificial Intelligence

Radio Electronics and Radio Informatics

Infocommunication Technologies

Nanotechnology and Nanoengineering

Big DATA

Internet of Things

**Cloud Computing** 

Medical Electronics

Game Design

**FIRST DEGREE** 

Engineering-Psychological Maintenance of Information Technologies

**Automated Information Processing Systems** 

**Programmable Mobile Systems** 

Infocommunication Technologies (Infocommunication Networks)

Information Systems and Technologies (in Business Management)

Information Protection in Telecommunications

**Medical Electronics** 

MASTER'S DEGREE

Infocommunication Systems and Networks

Information Security

**Digital Economics** 

Informatics and Programming Technology

PHD DEGREE

30 programmes

ADVANCED TRAINING

30+ programmes

PREPARATION DEPARTMENT

Technical and medical disciplines



## FIRST DEGREE STUDY PROGRAMMES (BACHELOR DEGREE)

STUDY PROGRAMME	QUALIFICATION	
FACULTY OF COMPUTER-AIDED DESIGN		
Modeling and Simulating and Computer Design of Radioelectronic Devices	Radioelectronics Engineer	
Design and Manufacture of Software-Controlled Electronic Devices *	Electronics Software Engineer	
Programmable Mobile Systems * *	Systems Engineer	
Medical Electronics *	Electronics Software Engineer	
Engineering-Psychological Maintenance of Information Technologies * *	Computer Engineer	
Electronic Security Systems	Design Engineer	
Information Systems and Technologies in Industrial Safety	Engineer. Systems Analyst	
Information Systems and Technologies in Business Management * * *	Programmer. Business Analyst	
Software-Controlled Digital Optical Systems	Electronics Software Engineer	
FACULTY OF INFORMATION TECHNOLOGIES AND CONTRO	DL	
Automated Data Processing Systems * * *	Information Technologies Enginee	
Artificial Intelligence	System Engineer	
Information Technologies and Control in Engineering *	Information Technologies and Control Engineer	
Industrial Electronics	Radioelectronics Engineer	
Information Systems and Technologies in Game Industry	Software Engineer. Designer	
FACULTY OF RADIOENGINEERING AND ELECTRONICS		
Micro- and Nanoelectronic Technologies and Systems	Engineer of Electronics	
Radio Engineering (Programmable Radioelectronic Devices)	Radioelectronics Engineer	
Radio Engineering (Digital Radio Communication Technology)	Radioelectronics Engineer	
Radioinformatics	Engineer for Radioinformatics	
Radioelectronic Data Protection	Radioelectronic Engineer	
Nanotechnologies and Nanomaterials in Electronics	Electronic Equipment Engineer	
FACULTY OF INFOCOMMUNICATIONS		
Infocommunication Technologies (Telecommunication Systems)	Infocommunication Engineer	
Infocommunication Technologies (Infocommunication Networks) * *	Infocommunication Engineer	
Infocommunication Technologies(Digital Video and Sound Broadcasting)	Infocommunication Engineer	
Infocommunication Systems (Standardization, Certification and Parameters Monitoring)	Infocommunication Systems Engineer	
Information Security in Telecommunications *	Specialist in Information Security.	

STUDY PROGRAMME	QUALIFICATION		
FACULTY OF COMPUTER SYSTEMS AND NETWORKS			
Information Technology Software *	Software Engineer		
Computers, Systems and Networks *	Computer Engineer		
Computer Science and Software Engineering *	Software Engineer		
Computer Engineering *	Computer Engineer		
FACULTY OF ENGINEERING AND ECONOMICS			
Economics of Electronic Business *	Economist. Programmer		
Digital Marketing *	Marketing Specialist and Software Developer		
Information Systems and Technologies in Economics	Engineer. Programmer. Economist		
Information Systems and Technologies in Logistics	System Programmer. Logistics Specialist		

#### \* FULL-TIME PROGRAMMES in English

Academic year starts: On September 01

#### \* DISTANCE PROGRAMMES in Russian

#### \* DISTANCE PROGRAMMES in English

Study wherever you like (at home, at work, on a business trip, on vacations - wherever you have Internet access)
Study whenever you like
Apply at convenient time (4 times per annum)

#### **DURATION OF STUDIES**

Full-time - 4 years Distance form - 5 years





#### **MASTER DEGREE STUDY PROGRAMMES**

#### MASTER'S DEGREE – SECOND LEVEL OF HIGHER EDUCATION

Studying in Master's degree programmes is research-oriented. Master programmes provide training of researchers, who intend to enter Ph.D. programmes

Master programmes are individually-tailored and include:

deeper study of special subjects terminal credits and exams exams for a PhD Candidate's degree research work on the chosen topic preparation and defense of the master thesis



#### **DURATION OF STUDIES**

Full-time - 1-1,8 years Part-time - 2 years

**ACADEMIC YEAR STARTS** 

On September 01

Admission to a Master programme requires previous training equivalent to the first level of higher education of the Republic of Belarus

In the Republic of Belarus foreign diplomas shall undergo a certain recognition procedure of the Department of Document Analysis and Recognition of THE NATIONAL INSTITUTE FOR HIGHER EDUCATION



STUDY PROGRAMME	FULL- TIME	PART- TIME
FACULTY OF COMPUTER-AIDED DESIGN		
Engineering Geometry and Computer Graphics	+	
Labor Protection and Ergonomics	+	+
Electronic Systems and Technologies	+	+
FACULTY OF COMPUTER SYSTEMS AND NETWORKS		
Computer– Aided Engineering	+	
Informatics and Programming Technology * *	+	+
Software Engineering	+	+
FACULTY OF INFORMATION TECHNOLOGIES AND CONTR	ROL	
Artificial Intelligence	+	+
System Analysis, Management and Information Processing	+	+
FACULTY OF RADIOENGINEERING AND ELECTRONICS		
Micro- and Nanoelectronics	+	+
Radio Systems and Radio Technologies	+	+
Nanotechnology and Nanomaterials	+	
FACULTY OF ENGINEERING AND ECONOMICS		
Digital Economics * *	+	+
FACULTY OF INFOCOMMUNICATIONS		
Information Security *	+	+
Infocommunication Systems and Networks *	+	+

#### **DOCTORAL PROGRAMMES**

Doctoral study is a level of postgraduate education. Programmes at this level are devoted to in-depth study of specific disciplines, research methods and means, completion of research on a relevant topic in the field of training, and systemic collection and aggregation of results received for the purpose of completion and submission of a doctoral thesis

Foreign applicants should have:

Master or equivalent qualification

Aptitude for research confirmed by scientific publications,
participation in R&D and innovative projects, conferences or other materials

1-2 years for individual consultations and external PhD studentship (Russian: *soiskatelstvo*) geared towards the preparation for candidacy examinations in general disciplines + 3 for a full-time doctoral study

Full-time and external doctoral students (Russian: soiskately) who have successfully passed final attestation in the form of preliminary examination of the thesis receive A QUALIFICATION OF RESEARCHER

A PhD degree is awarded by a special Council for Dissertation Defense upon the public defense of the thesis. Its decision is approved by the Presidium of the Higher Certification Commission (HCC) of the Republic of Belarus.

The decision approved by the HCC comes into force from the date of its adoption by the Council for Dissertation Defense Foreign doctoral graduates are awarded an internationally recognized degree of the DOCTOR OF PHILOSOPHY (PhD)



#### PHYSICS AND MATHEMATICS RELATED:

01.04.03 Radiophysics
01.04.04 Physical Electronics
01.04.05 Optics
01.04.07 Condensed Matter Physics

#### ENGINEERING RELATED:

05.09.05	Theoretical Electrical Engineering
05.11.08	Radio-Measuring Devices
05.11.15	Metrology and Metrological Assurance
05.11.17	Medical Devices, Systems and Products
05.12.04	Radioengineering, including Television Systems and Devices
05.12.07	Antennas, Microwave Devices and Technologies
05.12.13	Telecommunication Systems, Networks and Devices
05.12.14	Radio Location and Radio Navigation
05.13.01	System Analysis, Information Control and Processing
05.13.05	Components and Devices of Computers and Control Systems
05.13.06	Automation and Control of Technological Processes and Production
05.13.11	Software for Computers, Computer Complexes and Networks
05.13.12	Computer-Aided Design Systems
05.13.15	Computers, Computer Complexes and Networks
05.13.17	Theoretical Foundations of Informatics
05.13.18	Mathematical Modeling, Numerical Methods and Programme Complexes
05.13.19	Methods and Systems of Information Protection, Information Security
05.16.08	Nanotechnologies and Nanomaterials (in Electronics) -
	(engineering related and physics and mathematics related sciences)
05.26.01	Labour Protection
05.26.02	Safety in Emergency Situations
05.27.01	Solid-State Electronics, Radioelectronic Components,
	Micro- and Nanoelectronics, Quantum Effect Devises
05.27.06	Technology and Equipment for Production of Semiconductors, Materials and Electronic Devices
19.00.03	Labour Psychology, Engineering Psychology, Ergonomics
05.12.10	Management in Social and Economic Systems (Engineering Sciences)

#### **ECONOMICS RELATED:**

08.00.05	Economics and Management of the National Economy
08.00.13	Mathematical and Instrumental Methods in Economics

In the Republic of Belarus foreign diplomas shall undergo a certain recognition procedure of the Department of Document Analysis and Recognition of THE NATIONAL INSTITUTE FOR HIGHER EDUCATION

#### **FACULTY OF PRE-UNIVERSITY PREPARATION**

The Foundation Year lasts for about nine months

The first group of trainees starts on September 15

As a rule there are two to three additional groups beginning their studies

within the next two months

The Foundation Year courses last till June 30,

with a break for vacations in the midterm (2 weeks in February, as a rule)

In June there is an examination session on four subjects taught at the course, which are a Language course (Russian for Russian-medium programmes applicants, or English for the English ones),

Physics, Mathematics and Computer Science

In addition to the English language classes the English-medium Foundation Year offers some extra-hours of the Russian language skills for international students to be able to communicate on the street. Generally the group size is 8 to 12 people Modern teaching methods are used to make the trainees' progress faster and include lecture hours and practical classes, workshops and linguaphone classes.

Upon successful graduation international students are awarded with the official **FOUNDATION YEAR CERTIFICATE** 

that grants them a possibility to progress directly into the University degree programmes of their choice without taking any entrance exams or interviews

BSUIR provides training in English in the Faculty of Pre-University Preparation and Occupational Guidance to facilitate further study in English in the selected speciality

STUDY PROGRAMME TYPE & COURSE LANGUAGE	DURATION OF STUDY	TUITION FEE PER YEAR IN USD
Foundation year in Russian (technical profile): a course for entering into the University Russian-medium programmes Subjects: Russian, Physics, Mathematics and Informatics	10 months	2000
Foundation year in Russian (medical profile): a course for entering into the University Russian-medium programmes Subjects: Russian, Chemistry, Biology	10 months	2000
Foundation year in English (technical profile): a course for entering the University English-medium programmes Subjects: Russian, Physics, Mathematics and Informatics	10 months	3000
Foundation year in English (medical profile): a course for entering into the University English-medium programmes Subjects: Russian, Chemistry, Biology	10 months	3000
Russian language course	3 months	450-600
Russian language course	6 months	800-1000
Russian language course	9 months	1200-1600

#### THE RUSSIAN LANGUAGE SUMMER SCHOOL

THE RUSSIAN LANGUAGE SUMMER SCHOOL is a great opportunity to get acquainted with Belarus, start learning or improve the knowledge of the Russian language and make new friends!

The Summer School programme includes:

the Russian language practice visits to exhibitions, museums and historical sites walking and bus tours around the city of Minsk, cultural and historical places of Belarus

Classes are held in groups of 6 to 12 people.

At the end of THE RUSSIAN LANGUAGE SUMMER SCHOOL the participants will receive traineeship certificates

Classes are held every day except weekends Excursions and entertaining programmes will be held every day Duration of the programme - 11 days Cost of participation in the programme - \$200

The cost of the programme includes:

expenses of the organizer for preparation and implementation of the programme issuing invitations (visa letters) to foreign nationals to ensure the receipt of visas (if necessary) lodging expenses

Expenses on participation in the programme:

visa fee (if a country of residence of a foreign national has a visa regime with Belarus) health insurance to obtain a Belarusian visa travelling, board expenses



#### **INSTITUTEOF INFORMATION TECHNOLOGIES**

# FACULTY OF COMPUTER TECHNOLOGY

BACHELOR'S DEGREE PROGRAMS BASED ON THE PREVIOUSLY ACCOMPLISHED SPECIALIZED SECONDARY EDUCATION

#### **Information Technologies Software**

Specialization – Software engineer Evening classes and Part-time study Time to complete – 3,5 years

#### Computer science, systems and network

Specialization – System and computer network engineer Evening classes Time to complete – 4 years

#### **Electronic Security Systems**

Specialization – Structural engineer Part-time study Time to complete – 3,5 years

#### **Programming & Mobile Systems**

Specialization – Mobile systems engineer Part-time study Time to complete – 3,5 years

DIPLOMA
IN THE GOVERNMENT
-APPROVED FORM

# FACULTY OF CONTINUING EDUCATION AND RETRAINING

RETRAINING COURSES

BASED ON THE

ACCOMPLISHED

BACHELOR'S

DEGREE PROGRAMS

#### **Software Supply of Information Systems**

Specialization – Software engineer Evening classes – 18 months Part-time study– 24 months

#### Web-design and computer graphics

Specialization – Web-design & Front-end programmer Evening classes – 18 months Part-time study – 20 months

#### Software products testing

Specialization – Software testing specialist Evening classes – 18 months Part-time study– 20 months

#### BASED ON ACCOMPLISHED SPECIALIZED SECONDARY EDUCATION:

#### Software products testing

Specialization – Software testing specialist Evening Classes – 9 months Part-time study– 11 months



#### INFORMATICS ACADEMY FOR ADOLESCENTS ATTENDING SCHOOL

Graphics and Design, 3D Graphics (basic and advanced levels)

Web-master (basic and advanced levels developed on JavaScript)

Application development for Android

Introduction to C# and .NET Framework

Basics necessary to work with PC (Cisco® IT Essentials)

**Programming with Scratch** 

Engineering and Robotics (arduino)

Cybersecurity: personal data, information systems

Programming using programming languages C++,

C#, Java, Python, Ruby, Swift (basic and advanced levels)

#### **ADVANCED TRAINING**

Deploying computer technologies in professional activities

Web-technologies

**Computer Graphics** 

Computer network administering

Programming languages C++, C#, Java, Python, Ruby, etc.

**Data Bases** 

Operational systems

Digital Medium

Automatization of technological processes and manufacturing

Business in IT field

Information and cybersecurity

Certified courses: CISCO, Siemens, MikroTik, National Instruments

**Blockchain and Cryptocurrencies** 

Big-data

Internet of Things

Cloud services

Computational tools building

on the basis of Programmable Logic Device and microcontrollers

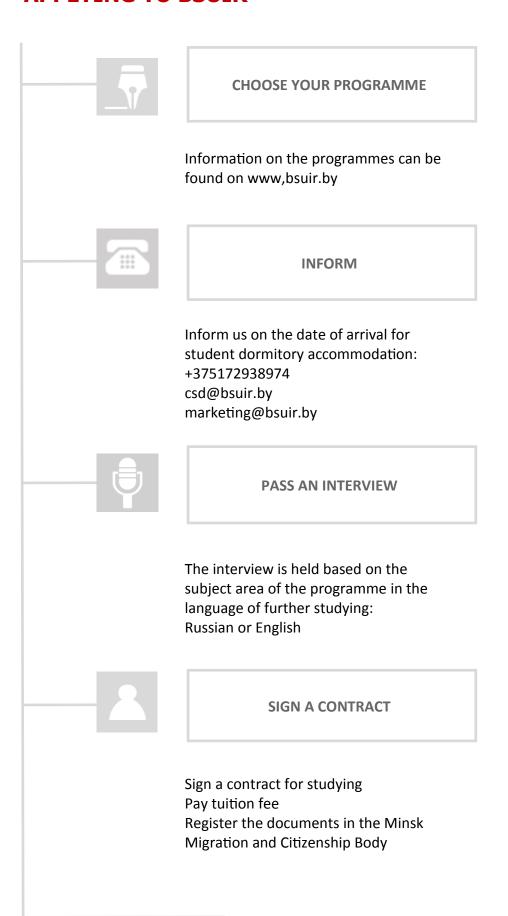
CERTIFICATE
OF COMPLETION
IN THE
GOVERNMENT
-APPROVED FORM

Duration is as follows: 36 – 80 hours (1-2 weeks) Full-time and Part-time study

Courses conducted in English as well as in Russian

All programs presented have flexible curriculum, and wishes of the students attending will be taken into account if possible

#### **APPLYING TO BSUIR**





#### PREPARE THE DOCUMENTS

#### THE DOCUMENTS SHALL BE PROVIDED WITH A LEGALIZED TRANSLATION INTO RUSSIAN

LIST OF DOCUMENTS/ LEVEL AND THE LANGUAGE OF INSTRUCTION	FACULTY OF PRE- UNIVERSITY PREPARATION	1 YEAR RUSSIAN	1 YEAR ENGLISH	MASTER COURSE RUSSIAN	MASTER COURSE ENGLISH
Application form	+	+	+	+	+
National passport with the visa	+	+	+	+	+
Notarized copy of a passport	+	+	+	+	+
Birth certificate	+	+	+	+	+
Legalized original document on previous education with subjects studied and scores (grades) received	+	+	+	+	+
Notarized translation of documents on education	+	+	+	+	+
Certificate of equivalence of a diploma	-	-	-	+	+
Medical certificate	+	+	+	+	+
Certificate of the HIV-negative status of the applicant	+	+	+	+	+
The Russian language certificate	-	+	-	+	-
10 photos 3×4	+	+	+	+	+



### **OUR STUDY PROGRAMMES IN THE ACADEMIC YEAR 2021/2022**

STUDY PROGRAMME & LANGUAGE OF INSTRUCTION	DURATION OF STUDY	TUITION FEE PER YEAR IN USD
Foundation Year in Russian a course for entering into the University Russian-Medium programmes  Foundation Year in English a course for entering the University English-Medium programmes	10 months	2000 3000
Full-time 1st degree programmes in Russian offered by: Faculty of Computer-Aided Design Faculty of Radioengineering and Electronics Faculty of Infocommunications Faculty of Engineering and Economics  Faculty of Information Technologies and Control Faculty of Computer Systems and Networks	4 years	3000 3300
Full-time 1st degree programmes in English	4 years	5000
Part-time & Distance training in Russian	5 years	1800
Distance training in English	5 years	2500
Master degree programmes in Russian/Full-time	1-1,8 years	3300
Master degree programmes in Russian/Part-time	2 years	1700
Master degree programmes in English / Full-time	2 years	4300
Master degree programmes in English / Part-time	2 years	from 3300
Ph.D. Candidacy training for the purpose of taking PhD Qualifying Examinationsin in Russian and English	up to 2 years	from 2000
Ph.D. degree programmes training and carrying out of research work in Russian and English	3 years	from 5000
Internships/Professional Development courses in ICT, info communication and information security in Russian and English	7 days – 3 months	to be negotiated
Certification centers (Cisco, National Instruments, Android, IBM, Microsoft, SAP, INTES)	min. 1 month	to be negotiated

# IN ADDITION TO TUITION FEES FOREIGN STUDENTS BEAR THE FOLLOWING EXPENSES RELATED TO THE TEMPORARY STAY IN BELARUS:

Accommodation (the University dormitory): ~50 USD per month

Compulsory primary medical examination in the Minsk Student Clinic No. 33 (~100 USD)

Annual medical examination (during the next years of study) (100 USD)

Compulsory health insurance for medical aid in insurable events (170 EUR per year)

Passport registration at the Minsk Migration and Citizenship Body: ~55 USD per year

Living costs: 300+ USD per month

#### **INTERNATIONAL OFFICE SERVICES**





visa support services











passport
registration
at the
Minsk Migration
Department







### **CAMPUS**







5 comfortable student dormitories for 3,780 students

3 dining halls on the dormitories,

a dining hall, 3 snack-bars

and 5 fast food outlets in the educational buildings









40+ sport clubs

Sport facilities located in a total area of 10,420 square meters

A recreation centre at the Braslav Lakes

A swimming pool (silver ionisation is used to purify the water













## **BELARUSIAN STATE UNIVERSITY** OF INFORMATICS AND RADIOELECTRONICS





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