



**Immanuel Kant
Baltic Federal
University**




National Centre for
Public Accreditation

SUMMARY REPORT OF THE EXTERNAL EVALUATION

of the cluster of educational programmes in

“Biology” (06.03.01, 06.04.01),
“Bioengineering and Bioinformatics” (06.05.01),

delivered by the Federal State Autonomous Educational
Institution of Higher Professional Education
“Immanuel Kant Baltic Federal University”



2016

While preparing this Summary Report we used information from the Self-Evaluation Report and the Report on the External Review of the cluster of educational programmes in "Biology" (06.03.01, 06.04.01), "Bioengineering and Bioinformatics" (06.05.01), delivered by the Federal State Autonomous Educational Institution of Higher Professional Education "Immanuel Kant Baltic Federal University".

The presentation document for the use by the National Accreditation Board.

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GENERAL INFORMATION ON EDUCATIONAL INSTITUTION

Full name of the educational institution	<i>Federal State Autonomous Educational Institution of Higher Professional Education "Immanuel Kant Baltic Federal University"</i>	
Founders	<i>Ministry of Education and Science of the Russian Federation</i>	
Year of foundation	<i>1947 – Kaliningrad Pedagogical Institute 1966 – Kaliningrad State University 2005 – Russian State University named after Immanuel Kant 2010 – Immanuel Kant Baltic Federal University</i>	
Location	<i>Russia, 236041, Kaliningrad, A. Nevskogo 14</i>	
Rector	<i>Doctor of political sciences, professor Klemeshev Andrey Pavlovich</i>	
License	<i>Series AAA №002625 reg. № 2506 dated from 22.02.2012 permanent</i>	
State Accreditation	<i>Certificate of State Accreditation Series 90A01 № 0001060 reg. №0995 of 15.05.2014 valid till 15.05.2020</i>	
Number of students	<i>10891 among them:</i>	
	<i>full-time</i>	<i>8782</i>
	<i>on-site and off-site</i>	<i>141</i>
	<i>part-time</i>	<i>1968</i>

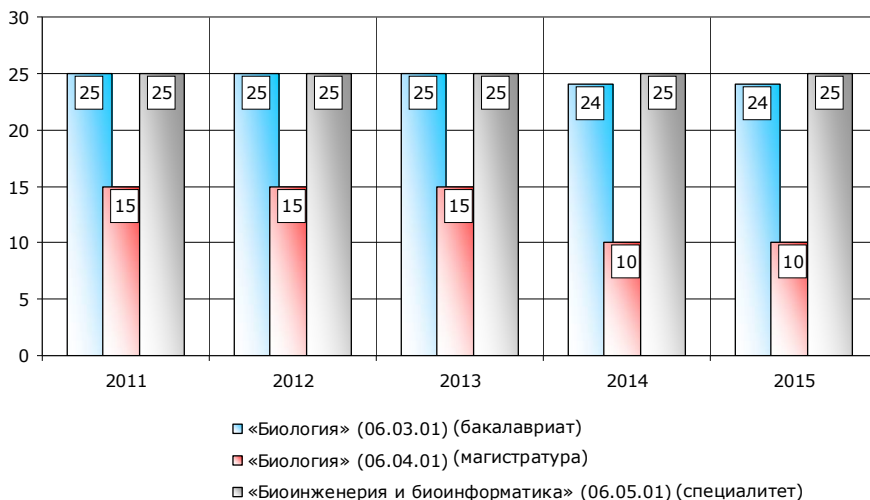
INFORMATION ON THE EDUCATIONAL PROGRAMMES UNDERGOING ACCREDITATION

Educational programmes	<i>"Biology" (06.03.01, 06.04.01) "Bioengineering and Bioinformatics" (06.05.01)</i>
Level of training / Standard period of training	<i>Bachelor's degree programme / 4 years Master's degree programme / 2 years Specialist degree programme / 5 years</i>
Structural subdivisions (head)	<i>Institute of Chemistry and Biology (Cand. Sc. Biology., assistant professor Patrushev Maksim Vladimirovich)</i>
Major departments (heads of major departments)	<i>Department of Bioecology and Biodiversity (Doct. Sc. Biology., professor Dedkov Viktor Pavlovich) Department of Molecular Biotechnology (Cand. Sc. Biology., Vakoluk Irina Anatolievna)</i>
Date of the site visit	<i>October 05-07, 2015</i>
Person responsible for public accreditation of the study programme	<i>Manager of the educational programmes Cand. Sc. Biology., assistant professor Kurkina Marina Viktorovna</i>

SAMPLING RESULTS OF THE PROJECT "THE BEST EDUCATIONAL PROGRAMMES OF INNOVATIVE RUSSIA"

Indicators	2015
Cluster of the educational programmes "Biology" (06.03.01, 06.04.01), "Bioengineering and Bioinformatics" (06.05.01)	
Number of the given programmes in the RF	313
Number of higher educational institutions to offer the given programmes	151
Number of programmes – winners of the project (% from total amount of these programmes offered in the RF)	31 (9,9%)
Kaliningrad region	
Number of the given programmes offered in the region	3
Number of programmes – winners of the project (% from total amount of these programmes offered in the region)	3 (100%)
Number of higher educational institutions and subsidiaries in the region	29
Total number of programmes offered in the region	128
Total number of programmes – winners of the project (% from total amount of these programmes offered in the region)	52 (40,6%)

REFERENCE DATA ON STUDENT ENROLLEMENT FOR PROGRAMMES



ACHIEVEMENTS OF THE EDUCATIONAL PROGRAMMES

Quality of the delivered educational programmes

The quality of educational programmes is ensured by a competitive approach based on FSES HE with regard to state requirements to a minimum content, level of training of graduates, formation of general cultural, general professional and professional competencies, as well as competencies offered by employers. Transition to a modular system of the educational process was made in 2015. It permits the integration of the content of different disciplines building up one competence or a group of related competencies by the way of combining the disciplines in large educational modules.

Monitoring of implementation of educational programmes is carried out on a regular basis. State accreditation of the Master degree educational programmes "Biology" and "Ecology" was carried out in 2013. State accreditation of the University was conducted in 2014.

Provision of up-to-date education

In order to update the content of educational programmes the Institute arranges different methodological seminars, questionnaires of students, employers, representatives of professional communities of the region and graduates; carries out analysis of curricula of the leading Russian and foreign universities; improves the methods of achievement of objectives of educational programmes.

Teaching staff (competence of the teaching staff)

The total number of the teaching staff providing the study process in the Institute of Chemistry and Biology is 52 including 41 (79%) teachers with academic degrees and titles.

The advancement of human resources goes in several directions: professional development of the teaching staff (thesis defense, professional development in the leading Russian and foreign institutions of higher education, scientific work), involvement of graduates and postgraduate students in the teaching activities, attraction of leading specialists from other organizations and educational institutions of the city as teachers with external secondary employment on an hourly basis pay.

Scientific activity

Scientific activity in the Institute of Chemistry and Biology is carried out in priority areas of science, technology and technique development as well as development programme of the University: Life sciences and Environment conservation. The teaching staff of the Department of Molecular Physiology and Biophysics carries out pilot scientific projects on the following subjects: "Analysis of content, biosynthesis and metabolism of polyphenols in plants", "Neuronal mechanisms of cognitive processes and psychopathologic state", "Cell technologies". Teachers

take active part in the work of different scientific conferences and seminars. During 2011-2015 teachers of the leading departments of the Institute published over 150 scientific works in different Higher Attestation Commission journals.

Material and technical base

Over a number of years the Institute of Chemistry and Biology constantly augments its material and technical base. Due to implementation of the development programme of the University it became possible to modernize the equipment, equip the laboratories with up-to-date instruments, create new structural subdivisions and supply classrooms with modern technical means. All subdivisions are supplied with computers and other office appliances. Use of laboratory equipment in the study process, research, course works and graduation thesis is 100 %.

Employability of graduates

Graduates find employment in different research organizations, Atlantic Scientific Research Institute of Marine Fishery and Oceanography, Kaliningrad State Technical University, State nature parks, reserves, botanic gardens: "Curonian Spit", "Lake Pleshheyev", regional nature park "Vishtynetsky", at enterprises of oil-and-gas industry in Khanty-Mansi Autonomous Okrug – Yugra, in the sphere of small business, state, educational and other organizations and institutions (Federal Service for Supervision of Natural Resource Usage, Federal Service for Veterinary and Phytosanitary Surveillance), in the sphere of consumer rights protection, environmental control and surveillance natural management.

Academic mobility of students

Students and postgraduate students take active part in the international programme of academic exchanges Erasmus Mundus MULTIC.

At present the University has 82 partnership agreements with the higher education institutions of Poland, Germany, Lithuania, Latvia, Estonia, Belorussia, Finland, Denmark, Austria, France, Sweden, Italy, USA and other countries. The University implement programmes of bilateral cooperation with many of its partner HEIs: FIRST – exchange programme with the University of Turku (Finland); exchange programme with the University of Kiel (Germany); exchange programme with the University of Greifswald (Germany) and others.

Mobility programmes Erasmus Mundus Triple 1 and AURORA include a consortium of European and Russian HEIs and are oriented towards promotion of exchanges of students, postgraduate students and teachers. Various universities of Finland, Italy, Spain, Portugal, Holland, Germany, Poland and other countries become partners of IKBFU in the frameworks of these programmes.

Academic exchanges are promoted by German ecological fund, German service of academic exchanges, as well as programme of the Council of Ministers of Nordic countries and scholarship of the Government of France.

Students participate in the system of international internships in the frameworks of scientific cooperation with the Institute of Ecology of Nature Research Centre, Lithuania.

International projects

The Institute of Chemistry and Biology constantly develops its international relations. The Institute conducts joint research and scientific seminars with colleagues from foreign organizations and universities.

On the basis of ornithological genetics laboratory of the Lithuanian Center of Nature Research the teaching staff of the Department of Bioecology and Biodiversity carries out research in bird genetics.

Together with the colleagues from the Technical University of Berlin the University developed the unique landscape programme of the Kaliningrad region with the use of geoinformatic technologies.

In the frameworks of the initiative project "Introduction and acclimatization of plants in the Kaliningrad region" the University maintains relations with 198 botanic organizations (133 foreign, 65 Russian).

The Department of Molecular Physiology and Biophysics concluded cooperation agreement with Polish academic institute of physical chemistry in Warsaw. The Department conducted joint work with the University of Magdeburg (Germany) – a German postgraduate student worked in BFU for 1 month, in the Center of non-linear chemistry. It also maintains cooperation with Aston University (Birmingham).

EXTERNAL REVIEW PANEL



Yongzhang Luo (China)

Review Chair, foreign expert

PhD, professor at School of Life Sciences, Tsinghua University, Director at National Engineering Laboratory for Anti-Tumor Protein Therapeutics, Director at Beijing Key Laboratory for Protein Therapeutics, Vice Chair of the Council of the Chinese Society of Biochemistry and Molecular Biology, Vice President of The Chinese Protein Society, Member of the Executive Committee, Chinese Society of Clinical Oncology

A nominee of the Higher Education Evaluation Center of the Ministry of Education (HEEC)



Dmitry Vinokhodov (Russian Federation)

Deputy Review Chair, Russian expert

Doctor of Biological Sciences, professor of the Department of Molecular Biotechnology, Head of the Training and Analytical Office of St Petersburg State Technological Institute (technical university)

A nominee of the Guild of experts in the sphere of professional education



Aleksandar Jovanovic (Serbia)

Panel member, foreign expert

Doctor of Medicine, professor of the Faculty of Medicine at the University of Pristina (Serbia), Head of the Department at Clinical-hospital Center of Pristina, European Commission Academic Expert, member of the Serbian Medical Society, a nominee of the Lithuanian Centre For Quality Assessment In Higher Education

A nominee of the Centre for Quality Assessment in Higher Education (SKVC)



Svetlana Sokolova (Russian Federation)

Panel member, representative of professional community

Director, MAUK "Zoopark"

A nominee of the MAUK "Zoopark"



Kristina Terekhova (Российская Федерация)

Panel member, representative of students

2nd year Master's degree student, Faculty of Bioresources and Nature Management, Kaliningrad State Technical University

A nominee of the "Kaliningrad State Technical University"

COMPLIANCE OF THE EXTERNAL REVIEW OUTCOMES WITH THE NCPA'S STANDARDS

STANDARD 1. Policy (mission, vision) and procedures for quality assurance

Compliance with the standard: **substantial compliance**

Good practice

Tasks and objectives of educational programmes comply with the mission of the University. All stakeholders (administration, teachers, students and employers) participate in defining the objectives and the development strategy of educational programmes. Mission and development programme of the Institute are oriented towards the achievement of high results in the process of education as well as in research.

Regional and national requirements to the quality assurance of education are taken into account in the implementation of educational programmes. The Institute arranges regular consultations with partner organizations, coordinates the elective part of curricula, discusses topics of the course works and graduate qualification works with potential employers; attracts representatives of employers in the State Final Examination commission.

Areas for improvement:

- It is necessary to define the objective of the Institute of Chemistry and Biology wider, for example “integration of educational, scientific and innovative activity corresponding to the needs of the labour market, research circles and research institutions”.
- It is recommended to bring into compliance the quality control mechanisms with the criteria of international ratings of universities.
- It is necessary to formalize, systematize and make regular work on correction of objectives and development strategy of educational programmes (for example, to introduce a system of annual survey with integration of results by different target groups at the official website).
- It is recommended to conduct analysis of the region's need in specialists and graduates' employability (with indication of specific sectors of activity: schools, state structures, laboratories, and business setting up). Research results should be posted at the official website of the University.

STANDARD 2. Approval, monitoring and periodic review of study programmes

Compliance with the standard: **substantial compliance**

Good practice

A great majority of system activities on quality assurance of educational programmes are implemented and are used: regular revision of working curricula and programmes of course units, monitoring of effective implementation of educational programmes, which involves surveys of students and postgraduate students of the Institute of Chemistry and Biology. Methodological materials as well as funds of assessment tools are corrected and improved on a constant basis.

Monitoring of students' achievements and academic performance is developed and implemented in personal electronic accounts.

Internal and external assessment of educational programmes is held regularly during state accreditation, in the frameworks of an independent rating, self-evaluation process and procedures of internal monitoring and surveys.

Areas for improvement:

- It is recommended to develop and implement a directive document regulating forms, methods and frequency of a systematic participation of students, teachers and employers in the process of development of educational programmes. The document should include changes in educational programmes (similarly with the changes introduced in normative acts), assessment of development of educational programmes (programme - suggestions – consideration of suggestions – rejection of suggestions or introduction of changes in the programmes), and assessment of efficiency of programme development.
- It is necessary to inform more actively students and employers about the possibilities of influence on the development of the educational programmes.
- Self-assessment of teachers which is an important component of quality assurance should be conducted on a regular basis.
- It is recommended to consider the possibility of development of unique educational programmes together with employers to assure leading positions of the University in specific directions in the educational area of Russia and Baltic region.

STANDARD 3. Assessment of student learning outcomes / competencies

Compliance with the standard: **substantial compliance**

Good practice

There is a high level of organization and variety of procedures of intermediate and final assessment. Computer testing of students is used on the basis of special software posted at the Unified test portal of the University.

Annual conferences of students and postgraduate students in the frameworks of "Days of Science", Fairs of youth projects, forum of young scientists "Химбиосезоны" are oriented towards the development of research culture of students.

The University has 82 partnership agreements with higher education institutions of Poland, Germany, Lithuania, Latvia, Estonia, Belorussia, Finland, Denmark, Austria, France, Sweden, Italy, USA and other countries.

There is an electronic job centre which is posted at the official website of the University with information about job vacancies not only at the University but also in other organizations of the region.

Areas for improvement:

- It is required to fully implement a competence-based approach. The process of education as well as methods and assessment procedures of learning outcomes should be oriented towards measurement of competences as final learning outcomes.
- It is necessary to use the procedures of independent assessment of learning outcomes on a regular basis.
- It is recommended to increase the amount of laboratory works in programmes of specialist discipline.
- It is necessary to consider the possibility of introduction into the educational programmes the disciplines allowing students to acquire skills of writing scientific and technical documentation, patent and grant applications, business communication.
- It is important to strengthen the language competence of students and support their participation in all types of international mobility (teachers' assistance in search of grants, methodological support of students' activity in search of international grants, financial support of gifted students).
- It is recommended to establish relations with industrial enterprises of biotechnological cluster of the Kaliningrad region for the target training of specialists.

STANDARD 4. Quality assurance of teaching staff

Compliance with the standard: **substantial compliance**

Good practice

The educational programmes are implemented by a qualified teaching staff of a low average age. There are also a lot of young enthusiasts among teachers.

The University cooperates closely with research and educational institutions in Russia as well as at international level. Teachers take active part in international projects and foreign internships.

Teachers in co-authorship with students publish their works in terms of a limited financing.

Areas for improvement:

- It is necessary to undertake additional measures to attract teachers from other parts of the country as well as from foreign countries not only for elective courses but also for separate lectures.
- It is necessary to align the balance in the ratio of academic and research activity of the teaching staff without wage reduction.
- It is recommended to modernize a pedagogical component of further vocational training for teachers, concentrating attention on person-oriented learning outcomes and on a competence-based approach in education as well as on language improvement.
- It is necessary improve second-language skills through the system of material incentives (for example, through personal coefficient to a salary). Second-language skills are on a level that complicates participation in international internships, publication of research results in foreign scientific reviews, teaching in groups with foreign students.
- It is recommended to motivate teachers' mobility (especially external one) by development of language competences and enlargement of the range of research activity.
- It is necessary to intensify the motivation system of teachers with achievements in the sphere of education and research.

INFORMATION ON THE LEADING TEACHERS OF THE EDUCATIONAL PROGRAMMES

Dedkov Victor Pavlovich

Doctor of Biological Sciences, professor, head of Department of Bioecology and Biodiversity, Honoured Worker of Higher School of RF, Honoured Scientist of RF, Honoured Science and Engineering Worker of RF

Goncharov Andrey Gennadievich

Candidate of Medical Sciences, assistant professor of the Department of Molecular Physiology and Biophysics, awarded with Lenin Komsomol Prize

Grishanov Gennady Victorovich

Candidate of Biological Sciences, assistant professor of the Department of Bioecology and Biodiversity, Honoured Worker of Higher Professional School of RF

Kudikina Natalya Petrovna

Candidate of Biological Sciences, assistant professor of the Department of Bioecology and Biodiversity, Diploma of the Ministry of Education and Science of RF

Kurkina Marina Victorovna

Candidate of Biological Sciences, assistant professor of the Department of Bioecology and Biodiversity, Diploma of the Ministry of Education and Science of RF

Mazova Olga Vladimirovna

Candidate of Chemical Sciences, associate professor, assistant professor of the Department of Chemistry, Diploma of the Ministry of Education of Kaliningrad region

Nikitina Svatlana Mikhailovna

Doctor of Biological Sciences, professor of the Department of Bioecology and Biodiversity, Honoured Worker of Higher School of RF

Patrushev Maksim Vladimirovich

Candidate of Biological Sciences, associate professor, director of the Institute of Chemistry and Biology, Diploma of the Ministry of Education and Science of RF

Funtikov Valery Alekseevich

Doctor of Chemical Sciences, professor, professor of the Department of Chemistry, Honoured Worker of Higher Professional School of RF

Chupakhina Galina Nikolaevna

Doctor of Biological Sciences, professor of the Department of Molecular Physiology and Biophysics, Honoured Worker of Higher Professional School of RF, Order "For Merit to the Fatherland" of the second degree

STANDARD 5. Learning resources and student support

Compliance with the standard: **substantial compliance**

Good practice

Laboratories and research equipment correspond to the requirements of the study programme and constantly develop.

Students have an on-line access to all educational materials necessary for mastering the educational programme.

The University has its own unique infrastructure: Museum of Zoology, Aquatic laboratory, Bank of genetic information of tracheophytes of the region, new laboratories (of microphytology and biotechnology, of natural antioxidant, of bioindication and biotesting).

Students undertake internships in many research institutes of the region and at specialized biological centers.

The University hostel stands out due to its favorable location and apartment-type planning.

Areas for improvement:

- It is necessary to improve conditions for handicapped students.
- It is recommended to develop external infrastructure, to provide students and the teaching staff with bicycle parking, tent places and smoking areas.
- It is reasonable to address the issue of price reduction in the University canteen by the change of management.
- Students' opinions collected during anonymous on-line surveys need to be systematized, analyzed and realized (if necessary and if possible).

STANDARD 6. Information system providing effective implementation of the study programme

Compliance with the standard: **full compliance**

Good practice

The University has an internal monitoring system of students' academic performance including current, preliminary and final attestation, surveys as well as assessment system of the teaching staff by students.

The official website of the University is well-structured and contains all necessary information for students.

Electronic accounts of students and teachers are organized and widely used.

Areas for improvement:

- It is recommended to develop a mechanism of systematic collection and analysis of information on the graduates' employability at the labour market. The results of annual systematic research on the needs of the region in specialists and graduates' employment (with indication of specific areas of activity: school, state structure, laboratories) should be posted at the official website on a regular basis.
- It is necessary to post a comparative information about the achievements of educational programme against other educational programmes of the University and other educational institutions at the official website of the University.

STANDARD 7. Public information

Compliance with the standard: **substantial compliance**

Good practice

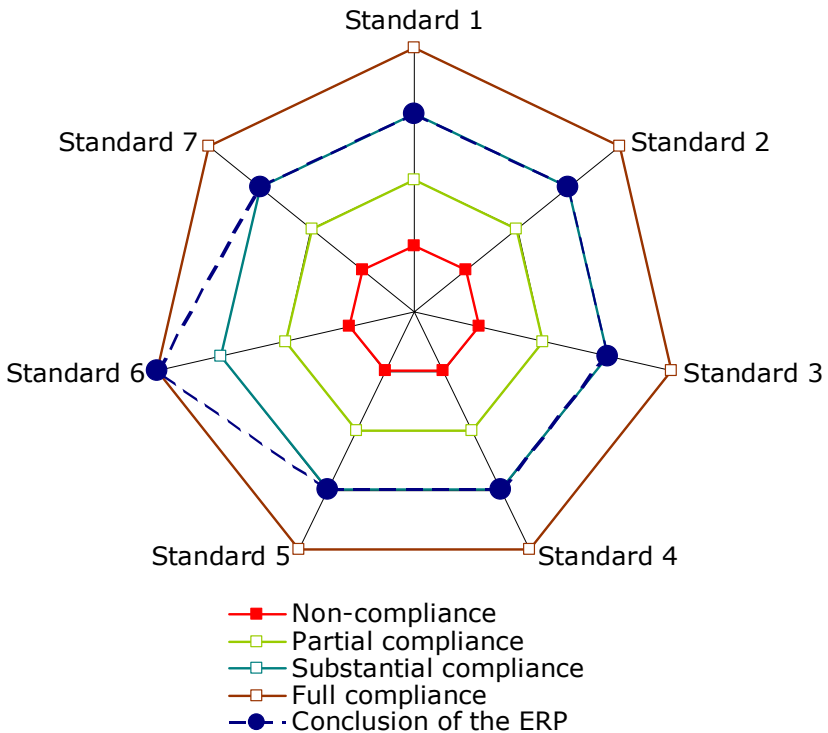
Information about the educational programmes, research and innovative activity, teaching staff, types of education is posted at the official website of the University and the Institute of Chemistry and Biology, in regional mass media, in journals: "Baltic region", "University Bulletin", "Kant collection".

Information about graduates' employability and employment is published at the Center of employment of graduates, which cooperates closely with the Institute of Chemistry and Biology.

Areas for improvement:

- It is recommended to improve the mechanisms of information collection, processing and publication about graduates' employment.
- It is necessary to develop additional mechanisms to promote education programmes.

DISTRIBUTION DIGRAM OF THE EXTERNAL REVIEW OUTCOME



- Standard 1. Policy (mission, vision) and procedures for quality assurance
- Standard 2. Approval, monitoring and periodic review of programs and qualifications
- Standard 3. Assessment of student learning outcomes / competencies
- Standard 4. Quality assurance and competencies of teaching staff
- Standard 5. Learning resources and student support
- Standard 6. Information system providing effective implementation of the study program
- Standard 7. Public information

CONCLUSION OF THE EXTERNAL REVIEW PANEL

Based on the self-evaluation report analysis, documents and data submitted and interviews the External Review Panel came to the conclusion that educational programmes "Biology" (06.03.01, 06.04.01), "Bioengineering and Bioinformatics" (06.05.01), delivered by the Federal State Autonomous Educational Institution of Higher Professional Education "Immanuel Kant Baltic Federal University" **substantially comply** with the standards and criteria of public accreditation of the National Centre for Public Accreditation.

The External Review Panel recommends the National Accreditation Board to **accredit the educational programmes "Biology" (06.03.01, 06.04.01), "Bioengineering and Bioinformatics" (06.05.01) for the period of 6 years.**

SCHEDULE OF THE SITE VISIT OF THE EXTERNAL REVIEW PANEL

Time	Activity	Participants	Venue
October 5			
08.45	Arrival at BFU		Administrative building, BFU
09.00–11.00	Training for the ERP members		Administrative building, BFU
11.00–12.00	Meeting of the ERP with the university administration and staff members responsible for accreditation	Rector, Vice-Rectors, ERP	Administrative building, BFU
12.00–12.30	Transfer to Building 3		
12.30–13.30	Lunch		
13.30–15.00	Excursion around the university	ERP	Building 3
15.00–16.00	Meeting with staff members responsible for accreditation of the area of learning	Dean of the Faculty, Deputy Deans, staff members, responsible for accreditation of the area of learning, ERP	Building 3, room 130/2
16.00–17.00	Work with documentation	ERP	Building 3, room 130/1
17.00–18.00	Meeting with representatives of employers	Representatives of employers, ERP	Building 3, room 130/2
18.00–18.30	Internal meeting of the ERP	ERP	Building 3, room 130/1

Time	Activity	Participants	Venue
October 6			
9.45	Arrival at BFU		Building 3
10.00–11.00	Meeting with students	Students, ERP	Building 3, room 130/2
11.00–11.30	Internal meeting of the ERP	ERP	Building 3, room 130/1
11.30–12.30	Meeting with teaching staff	Teaching staff, ERP	Building 3, room 130/2
12.30–13.30	Lunch		
13.30–14.00	Internal meeting of the ERP	ERP	Building 3, room 130/1
14.00–15.00	Meeting with heads of departments	Heads of departments, ERP	Building 3, room 130/2
15.00–16.00	Attending classes	ERP	Building 3
16.00–16.30	Work with documentation	ERP	Building 3, room 130/1
16.30–17.30	Meeting with alumni	Alumni, ERP	Building 3, room 130/2
17.30–18.00	Internal meeting of the ERP	ERP	Building 3, room 130/1
October 7			
08.45	Arrival at BFU		Building 3
09.00–12.00	Internal meeting of the ERP: discussion of preliminary results of the site visit, preparation of the oral report of the panel	ERP	Building 3, room 130/1
12.00–13.00	Lunch		Building 3
13.00–13.30	Transfer to main building		
13.30–14.30	Closing meeting of the External Review Panel with DSU representatives	University administration, Dean of the Faculty of Biology, chair of the major departments, teaching staff, students, ERP	Administrative building, BFU