



SUMMARY REPORT

on public accreditation of the cluster of educational programmes in

«Applied Informatics» (09.03.03, 09.04.03),
«Information Technologies and Computer Science»
(09.03.01)

delivered by the Federal State Budgetary Educational Institution of Higher Education «Shadrinsk State Pedagogical University»

While preparing this presentation we used information from the Self Evaluation Report and the Report of the External Review Panel of the cluster of educational programmes «Applied Informatics» (09.03.03, 09.04.03), «Informatics and Computer Science» (09.03.01) delivered by the Federal State Budgetary Educational Institution of Higher Education «Shadrinsk State Pedagogical University».

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

CONTENTS

| | |
|---|----|
| General information on educational institution..... | 4 |
| Information on the educational programmes undergoing accreditation..... | 5 |
| Good practice..... | 12 |
| Recommendations | 15 |
| Distribution digram of the external review outcomes..... | 16 |
| Conclusion of the external review panel..... | 17 |
| Schedule of the site visit of the external review panel | 18 |

GENERAL INFORMATION ON EDUCATIONAL INSTITUTION

| | | |
|--|---|--|
| Full name of the educational institution | <i>Federal State Budgetary Educational Institution of Higher Education «Shadrinsk State Pedagogical University»</i> | |
| Founders | <i>Ministry of Education and Science of the Russian Federation</i> | |
| Year of foundation | <i>1939 — Shadrinsk Teacher Training Institute 1954 — Shadrinsk Pedagogical Institute 2002 — State Educational Institution of Higher Professional Education «Shadrinsk Pedagogical Institute» 2011 — Federal State Budgetary Educational Institution of Higher Professional Education «Shadrinsk State Pedagogical Institute» 2016 — Federal State Budgetary Educational Institution of Higher Education «Shadrinsk State Pedagogical University»</i> | |
| Location | <i>3, K. Libknecht Str. , Shadrinsk, Kurganskaya Oblast, 641870</i> | |
| Rector | <i>Artur Dzirov, Candidate of Philological Sciences, Associate Professor</i> | |
| License | <i>Series 90Л01 № 2129 reg. № 9165 dated 11.05.2016 permanent</i> | |
| State accreditation | <i>Certificate of State Accreditation Series 90A01 № 2057, reg. №2156 dated 24.06.2016 valid till 23.12.2017</i> | |
| Number of students | <i>3871 including: full-time 1443 part-time 2428</i> | |

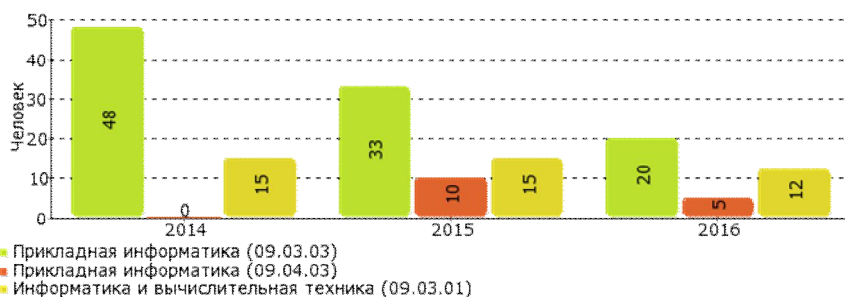
INFORMATION ON THE EDUCATIONAL PROGRAMMES UNDERGOING ACCREDITATION

| | |
|---|--|
| Educational programmes | <i>«Applied Informatics» (09.03.03), «Applied Informatics» (09.04.03), «Informatics and Computer Science» (09.03.01)</i> |
| Level of training / Standard period of training | <i>Bachelor's degree programme/ 4 years Master's degree programme / 2 years</i> |
| Structural subdivision (head) | <i>Faculty of Informatics, Mathematics and Physics (Candidate of Pedagogic Sciences, Associate Professor Slinkina Irina Nikolaevna)</i> |
| Major departments (heads) | <i>Department of Programming and Business Processes Automation (Doctor of Physical and Mathematical Sciences, Associate Professor Pirogov Vladislav Yurievich)</i> |
| Date of the site visit | <i>06-08 December, 2016</i> |
| Person responsible for public accreditation | <i>Slinkina Irina Nikolaevna, Candidate of Pedagogic Sciences, Associate Professor, Dean of the Faculty of Informatics, Mathematics and Physics</i> |

SAMPLING RESULTS OF THE PROJECT «THE BEST EDUCATIONAL PROGRAMMES OF INNOVATIVE RUSSIA»

| Indicators | 2016 |
|--|----------------|
| Cluster of the educational programmes «Applied Informatics» (09.03.03, 09.04.03), «Informatics and Computer Science» (09.03.01) | |
| Number of the given programmes in the RF | 599 |
| Number of higher educational institutions to offer the given programmes | 411 |
| Number of programmes – winners of the project (% from total amount of these programmes offered in the RF) | 86 (14,36%) |
| Kurgan Oblast | |
| Number of the given programmes offered in the region | 5 |
| Number of programmes – winners of the project (% from total amount of these programmes offered in the region) | 3 (60,00%) |
| Number of higher educational institutions and branches in the region | 8 |
| Total number of programmes offered in the region | 101 |
| Total number of programmes – winners of the project (% from total amount of these programmes offered in the region) | 13 (12,87%) |

REFERENCE DATA ON STUDENT ENROLMENT FOR EDUCATIOANL PROGRAMMES



ACHIEVEMENTS OF THE EDUCATIONAL PROGRAMMES

Quality of the delivered educational programmes

Quality of the delivered educational programmes is ensured by systematic work on career guidance that helps to form quality cohort, by monitoring of the educational programmes acquisition including preparation courses for applicants, ongoing monitoring, interim attestation, the State Final Examination of students, feedback from employers, student victories in Olympiads and different competitions, high percentage of students' employability.

The quality of the delivered educational programmes is ensured by highly qualified teaching staff, considerable research activities of the teaching staff and students, close cooperation with employers, development and continuous improvement of learning resources, use of innovative educational technologies during training (case-methods, business games, project-based learning, portfolio and others).

Providing up-to-date contents of education

The up-to-date content of education is ensured by the annual renewal and correction of the educational programmes, curricula and programmes of disciplines with the account of employers' recommendations on introduction of new disciplines, modules and topics. The educational programmes are approved by the professional community, in particular, by the programmers' club, the Staff Council under the jurisdiction of the Head of Shadrinsk Administration.

The teachers involved in the educational process improve their qualification in a timely manner. Representatives of the professional community are involved in the educational process.

The specialized department was opened on the basis of JSC «Delta Technology».

Teaching staff

Basic education and qualification level of the teachers involved in the educational process comply with the requirements. The educational process on the level of the bachelor's degree programme «Information Technologies and Computer Science» involves 27 teachers (78% of them have academic degree), on the level of bachelor's degree programme "Applied Information Technologies" it involves 25 teachers (84% have academic degree), on the level of the master's degree programme it involves 10 teachers, 9 of them (90%) have academic degree, 3 people (11%) have significant practical experience, and they work as a computer specialist, the Head of the Educational Computer Centre and a systems administrator in Shadrinsk organizations.

Independent assessment of knowledge

Independent assessment of the educational programmes acquisition is undertaken by employers during students' practical training in relevant organizations, during work of the State Examination Board and review of the graduation works. The students actively participate in Olympiads, competitions and conferences. The second-year students work the Faculty's temporary research groups. The results of research are published in the collections of research works. The students represent it on competitions «Umnik», «HTTM», national and regional forums «Morning», «Terra Scientia on Klyazma River».

In 2013 ShSPU and the Faculty of Information Technologies, Mathematics and Physics underwent the procedure of recertification audit, and in 2015 they passed the procedure of QMS compliance audit.

Educational resources

According to the requirements of FSES «Information Technologies and Computer Science», the Faculty of Information Technologies, Mathematics and Physics has necessary material and technical resources. There are classrooms with interactive boards, access to the local network and the Internet. There are classrooms for seminars that are provided with interactive boards, academic literature and demonstration equipment. There is a specially equipped room for the classes in electrical engineering. There are all necessary instruments for research in the laboratories of Physics. There are 9 computer classes at the Faculty. There is a classroom for special needs students that is provided with an interactive board, special furniture and computers. All computers are interconnected in the local network and have an access to the Internet.

Multicore and multiprocessor 64-bit server systems of higher resilience capabilities with disk arrays RAID5 and RAID 10, with hardware virtualization support are used in the educational process. Different Linux- and Windows-based operating systems are used as server operating systems. There are server virtualization on the basis of KVM+QEMU and system level virtualization on the basis of OpenVZ.

The students, teachers and staff of the Technical Services Department and of the Educational Computer Centre developed and equipped tables and training areas for classes and tournaments on robotechnics. Every year the Faculty buys necessary training equipment.

Research activity

The teachers and students of the Faculty of Information Technologies, Mathematics and Physics do research. 4 Candidates of Sciences (1 – Economic Sciences, 2 – Pedagogical Sciences, 1 - Physical and Mathematical Sciences) have presented their thesis works for the last five years.

8 coursebooks, 35 study guides, 5 monographs were published in 2012-2016. 106 scientific works were published in total; 32 of them were

published in the HAC journals, 124 works were included in RSCI, and 3 works were included in Scopus, Web of Science. 2 items of intellectual property were registered.

12 scientific events were held (round tables, national forums, etc.); 6 students took part in the competitions for grants. Following the results of different conferences, 214 student works have been published. 18 youth events were held. The Scientific Student Society works at the Faculty, the collection of the young scientists' works «Topical Issues of Theory and Methods of Information Technologies, Mathematics and Physics» is published annually. The Faculty of Information Technologies, Mathematics and Physics organizes and supervises the work of the students and pupils of secondary schools in the project «Educational Robotechnics».

Employability of students

There is a centre of employment and labour market adaptation for graduates in ShSPU. The centre cooperates with regional and municipal authorities in the sphere of staff training and graduates' employment. The Career Fair is held every March where employment centres, organizations and enterprises offer the graduates jobs for further employment.

More than 40% of the graduates work in the enterprises and organizations where they served their apprenticeship and pre-degree practice. More than 20% of students find jobs connected with their field of study after the 3rd year of training. Employability in the University is 80%. The graduates work in the organizations of the Kurgan and other Russian regions (Tyumen, Sverdlovsk, Chelyabinsk regions, etc.).

EXTERNAL REVIEW PANEL



Gostin Aleksey Mikhailovich (Ryazan)

Review Chair, Russian expert

Candidate of technical Sciences, Associate Professor, Director in the Center of New Information Technologies, FSBEI HE «Ryazan State Radio Engineering University», member of the Independent Agency for Accreditation and Rating (IAAR) (the Republic of Kazakhstan)

A nominee of the Guild of Experts in Higher Education



Babushkin Mikhail Anatolievich (Glazov)

Deputy Review Chair, Russian expert

Candidate of Physical and Mathematical Sciences, Associate Professor, Vice-Rector on monitoring, FSBEI HE «Glazov State Pedagogical Institution named after V. Korolenko»

A nominee of the Guild of Experts in Higher Education



Shohirev Mikhail Vasilievich (Shadrinsk)

Panel member, representative of the professional community

Head of the System and Technical Support Department in the JSC «SACF»

A nominee of JSC «Shadrinsk Automotive Components Factory»



Huzhin Ildar Rushanovich (Shadrinsk)

Panel member representative of the professional community

4th year student of the programme «Public Administration», the Shadrinsk Branch of FSBEI HE «Moscow State Pedagogical University»

A nominee of the Shadrinsk Branch of FSBEI HE «Moscow State Pedagogical University»

INFORMATION ON THE LEADING TEACHERS OF THE EDUCATIONAL PROGRAMMES

Slinkina Irina Nikolaevna

Candidate of Pedagogic Sciences, Associate Professor, Dean of the Faculty of Information Technologies, Mathematics and Physics, member of the Staff Council under the jurisdiction of the Head of Shadrinsk Administration, member of the Expert Board in the Education Department of Shadrinsk Administration

Pirogov Vladislav Yurievich

Candidate of Physical and Mathematical Sciences, Associate Professor, Head of the Department of Programming and Business Processes Automation

Balandin Aleksandr Anatolievich

Candidate of Pedagogic Sciences, Associate Professor at the Department of Programming and Business Processes Automation

Gordievskikh Vitali Mikhailovich

Candidate of Pedagogic Sciences, Associate Professor at the Department of Programming and Business Processes Automation, Head of the Laboratory of Automated Control System and Robotechnics

Gordievskikh Dmitry Mikhailovich

Candidate of Physical and Mathematical Sciences, Senior Teacher at the Department of Programming and Business Processes Automation, winner of RFBR grant for young scientists

Slinkin Dmitry Anatolievich

Candidate of Pedagogic Sciences, Associate Professor, Head of the Educational Computer Centre

Yurovskikh Elena Vasilievna

Candidate of Economic sciences, Associate Professor at the Department of Programming and Business Processes Automation, member of the «Centre of Labour Potential Development» in the Institute of Economics at the Russian Academy of Sciences (Ural branch), member of the Expert Board «Science»

GOOD PRACTICE

Standard 1. Policy (goals, development strategy) and quality assurance procedures of the educational programme

The Quality Management System is certified, meets the requirements of ISO 9001:2008, and is aligned with the programme of the University strategic development.

When developing and implementing the programmes and quality assurance policy the University actively cooperates with the stakeholders: Department of Education and Science of the Kurgan Oblast, Shadrinsk Administration, the Union of Industrialists and Entrepreneurs of the Kurgan Oblast, and main employers (LLC «Technology», LLC «Delta Technology», telecom company «Courier Plus»).

Standard 2. Design and approval of programmes

Correction procedures of the educational programmes and expected learning outcomes are developed with the account of science and production development as well as opinions of stakeholders (administration, teachers, students, and employers), and are regulated by the quality management system.

Opinions of stakeholders are taken into account when developing the educational programmes.

There is a specialized department in the workplace.

Standard 3. Student-centered learning and assessment

Developed social and cultural environment in the University.

Students are encouraged to participate in the educational process through an incentive system. Requirements of different groups of students are taken into account, conditions for individual learning paths were created.

Opinions of the students are taken into account when organizing the courses and practical training.

Effective appeal and responding to the students complaints procedure is in place.

Standard 4. Student admission, support of academic achievements and graduation

There is a student support system in the University. Work on career guidance is carried out.

All normative documents on the University Admission Committee are published on the ShSPU web-site in the section «For Applicants».

The University organizes and participates in Olympiads and competitions for pupils of secondary schools and students.

Standard 5. Teaching staff

An effective contract system has been implemented.

There are grants for the academic staff in the University.

Academic degree holders' percentage: 78% of teachers have academic degree relating to the programme "Information Technologies and Computer Science", 84% of teachers have academic degree relating to the programme "Applied Information Technologies" (Bachelor's programme), 90% have academic degree on the Master's programmes.

Standard 6. Learning resources and student support

The University has modern library systems and electronic information educational environment.

Modern material and technical resources are used for the programme implementation, independent academic and research work, development of social and cultural environment in the University.

There are electronic library systems «University Online Library», «ELS Yurayt».

The feedback system is well developed.

Standard 7. Collection, analysis and use of information for managing the educational institution

There is a modern information network system with developed IT infrastructure.

There is a marketing team in the University that controls information collection and processing and is regulated by the University quality management system.

Collection, analysis and the use of information for managing the educational institution provides the participation of students, teachers and representatives of the professional community in the assessment of the educational programmes efficiency.

Standard 8. Public information

There is a department of technical support and development of the University web-site.

ShSPU web-portal consolidates all information resources of the University for the external Internet access: content of the educational programmes, expected learning outcomes, awarded qualifications, quality of teaching, teaching methods and marks, student training opportunities.

Information about planned and past activities is published in the news section on the University web-site.

There is a section «Centre of Graduates Employment» on the web-site that provides all information about the next class of graduates (their CVs) and vacant jobs.

Standard 9. On-going monitoring and periodic assessment of the educational programmes

There are documented procedures of the educational programmes monitoring established by the local normative acts.

An effective system of feedback from the students and employers is in place.

Standard 10. Cyclical external quality assurance of the educational programmes

The University underwent public accreditation in 2011.

Pastukhov State Academy of Industrial Management carried out external audit of the educational programme 09.00.00 «Information Technologies and Computer Science» in 2015.

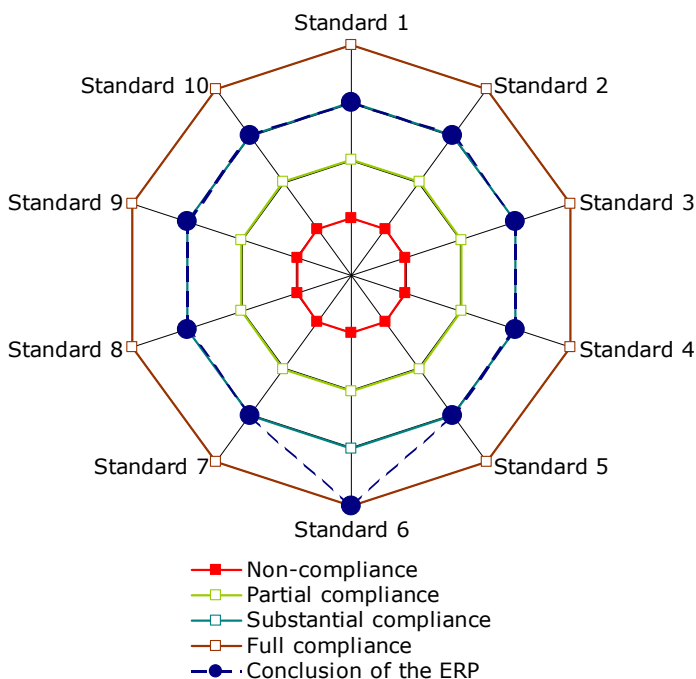
In 2015 the programmes were among the best programmes of higher education in the project «The Best Programmes of Innovative Russia».

Monitoring of the educational programmes with the following update in accordance with the normative legal documents of the Ministry of Education and Science of the Russian Federation is carried out annually.

RECOMMENDATIONS

1. It is necessary to update the local normative base for development and implementation of the educational programmes.
2. It is recommended to enhance work on career guidance to attract the graduates of the bachelor's degree programme to the master's degree programmes.
3. It is advisable to develop an action plan on improvement of internal and external academic mobility of the teaching staff and students.
4. It is necessary to intensify efforts on publication of course books and study guides.
5. It is recommended to organize programmes of human resource development.
6. It is advisable to create conditions for professional certification of the students and academic staff (for example, opening the Cisco Networking Academy).
7. It is recommended to develop a system of the University web-site monitoring and regulations of information presentation on the University web-site (concerning departments, faculties, administration, library and others).

DISTRIBUTION DIGRAM OF THE EXTERNAL REVIEW OUTCOMES



- Standard 1. Policy (goals, development strategy) and quality assurance procedures of the educational programmes
- Standard 2. Design and approval of programmes
- Standard 3. Student-centered learning, teaching and assessment
- Standard 4. Student admission, support of academic achievements and graduation
- Standard 5. Teaching staff
- Standard 6. Learning resources and student support
- Standard 7. Collection, analysis and use of information for managing the educational institution
- Standard 8. Public information
- Standard 9. On-going monitoring and periodic assessment of the educational programmes
- Standard 10. Cyclical external quality assurance of the educational programmes

CONCLUSION OF THE EXTERNAL REVIEW PANEL

Based on the self-evaluation report analysis, documents and data submitted the External Review Panel has come to the conclusion that the cluster of the educational programmes «Applied Information Technologies» (09.03.03, 09.04.03), «Information Technologies and Computer Science» (09.03.01) **substantially comply** with the standards and criteria of public accreditation of the National Centre for Public Accreditation.

The Panel recommends that the National Accreditation Board **accredit the educational programmes** «Applied Information Technologies» (09.03.03, 09.04.03), « Information Technologies and Computer Science» (09.03.01), delivered by the Federal State Budgetary Educational Institution of Higher Education « Shadrinsk State Pedagogical University» **for the period of 6 years.**

SCHEDULE OF THE SITE VISIT OF THE EXTERNAL REVIEW PANEL

| Time | Activity | Participants | Venue |
|----------------------------|---|---|--|
| December 6, Tuesday | | | |
| 8.45 | Arrival at ShSPU | | K. Liebknecht St. 3, Academic Building № 1, Room 205A |
| 09.00 – 11.00 | The first meeting of the external review panel | | Academic Building № 1, Room 205A |
| 11.00 – 12.00 | Meeting of the ERP with the University administration and people responsible for accreditation | Rector, Vice-Rectors, people responsible for accreditation, ERP | Academic Building № 1, Room 205A |
| 12.00 – 13.00 | Tour of the University (visiting classrooms, library, etc.) | ERP | library, ShSPU museum, classrooms, research guidance centres, laboratories, etc. |
| 13.00 – 14.00 | Lunch | | Academic Building № 1,, Room 307B |
| 14.00 – 14.30 | Work with documents | | Academic Building № 1, Room 101 B |
| 14.30 – 15.30 | Meeting with the Dean, Vice-Deans | Institute Director, Deputy Directors, Dean, ERP | Academic Building № 1, Room 102 B |
| 15.30 – 15.45 | Break | | Academic Building № 1, Room 101 B |
| 15.45 – 16.45 | Meeting with Heads of Departments | Heads of departments, ERP | Academic Building № 1, Room 102 B |
| 16.45 – 17.00 | Break | | Academic Building № 1, Room 101 B |
| 17.00 – 18.00 | Meeting with graduates | Graduates, ERP | Academic Building № 1, Room 102 B |
| 18.00 – 18.30 | Internal meeting of the ERP | ERP | Academic Building № 1, Room 101 B |

| Time | Activity | Participants | Venue |
|------------------------------|---|---|--|
| December 7, Wednesday | | | |
| 9.45 | Arrival at ShSPU | | K. Liebknecht St. 3, Academic Building № 1, Room 101 B |
| 10.00 – 11.00 | Meeting with teachers | Teachers, ERP | Academic Building № 1, Room 102 B |
| 11.00 – 11.30 | Internal meeting of the ERP | ERP | Academic Building № 1, Room 101 B |
| 11.30 – 12.30 | Meeting with students | Students, ERP | Academic Building № 1, Room 102 B |
| 12.30 – 13.00 | Internal meeting of the ERP | ERP | Academic Building № 1, room 101 B |
| 13.00 – 14.00 | Lunch | | Academic Building № 1, Room 307B |
| 14.00 – 16.30 | Work with documents/Visiting classes (at the wish of the ERP) | ERP | Academic Building № 1, Room 101 B |
| 16.30 – 17.30 | Meeting with the representatives of professional community | Employers, ERP | Academic Building № 1, Room 102 B |
| 17.30 – 18.00 | Internal meeting of the ERP | ERP | Academic Building № 1, Room 101 B |
| December 8, Thursday | | | |
| 9.45 | Arrival at ShSPU | | K. Liebknecht St. 3, Academic Building № 1, Room 101 B |
| 10.00 – 13.00 | Internal meeting of the ERP: discussion of preliminary results of the site visit, preparation of the oral report of the panel | ERP | Academic Building № 1, Room 101 B |
| 13.00 – 14.00 | Closing meeting of the External Review Panel with the representatives of the University | ERP, University administration, Heads of the Graduate Departments | Academic Building № 1, reference room |
| 14.00 – 15.00 | Lunch | | Academic Building № 1, Room 307B |
| | Departure | | |