

**FEDERAL STATE BUDGETARY EDUCATIONAL INSTITUTION
of Higher Professional Education
"NOVOSIBIRSK STATE TECHNICAL UNIVERSITY"**

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Department of Accounting and Statistics
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**REPORT
on Self Evaluation of the Educational Programmes Cluster in
"Economics" (38.03.01, 38.04.01, 38.06.01) and
"Management" (38.03.02, 38.04.02)**

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INTRODUCTION

The report is based on the self-evaluation results of the study programmes cluster delivered by the Faculty of Business of the Novosibirsk State Technical University (NSTU) in 38.03.01 "Economics", 38.04.01 "Economics", 38.06.01 "Economics"; 38.03.02 "Management" (with skills profiles in "Management in Organizations" and "Marketing"), and 38.04.02 "Management" (with skills profiles in "Marketing", "Production Management", "Global Management of Innovations and Technologies", "Global Innovation Management", and "International Management"). The self-evaluation was carried out during the period from January,1 to March,14 2015 in compliance with the Guidelines of Self-evaluations of Educational Programmes of the National Center for Public Accreditation (hereinafter – Guidelines).

The self-evaluation main purpose was to analyze whether the educational programmes in 38.03.01 "Economics", 38.04.01 "Economics", 38.06.01 "Economics"; 38.03.02 "Management" (with skills profiles in "Management in Organizations" and "Marketing"), and 38.04.02 "Management" (with skills profiles in "Marketing", "Production Management", "Global Management of Innovations and Technologies", "Global Innovation Management", and "International Management") meet the Standards and Criteria for Public Accreditation developed by the National Center for Public Accreditation in accordance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG-ENQA).

The following tasks were accomplished during this self-evaluation process:

- accurate, objective information about the educational process based on the cluster of the educational programmes was accumulated and systemized; the analyses and assessment of the obtained results were performed;
- degree of compliance of the actual academic content area and training of the graduates to the Standards and Criteria for Public Accreditation was defined;
- main trends in educational activity of Business Faculty delivering the educational programmes under the accreditation, strengths, and areas for improvement were identified
- possible solutions of the problems revealed through self-evaluation were found.

In compliance with the provisions of Para 6 of the Guidelines for self-evaluation of educational programmes the Internal Review Panel was appointed. The representatives of the University administration, Dean office of the Faculty of Business, academic staff, student council, and professional community entered this panel of experts (Order of NSTU rector of February 18, 2015 #161 "Composition of Internal Review Panels").

The Internal Review Panel approved the self-evaluation plan and then reported the results of its accomplishment on the Academic Council meeting.

The Academic Council of NSTU (Minutes of the meeting #4 of March 25, 2015) concluded that the Faculty of Business graduate departments are ready to undergo external expert review of the cluster of basic educational programmes in 38.03.01 "Economics", 38.04.01 "Economics", 38.06.01 "Economics"; 38.03.02 "Management" (with skills profiles in "Management in Organizations" and "Marketing"), and 38.04.02 "Management" (with skills profiles in "Marketing", "Production Management", "Global Management of Innovations and Technologies", "Global Innovation Management", and "International Management").

The text of the report is available on official site of NSTU (<http://www.nstu.ru/info/information/doc>).

1. General Information

Federal state budgetary educational institution of higher professional education "Novosibirsk State Technical University" (NSTU) has a license to carry out educational activities (registration number: 0741, serial number: 90Л01 № 0000795 of 24.05.2013, issued by Federal Service for Supervision in the Sphere of Education and Science of the Russian Federation; with no time limit), State Accreditation Certificate (registration number: 0737, serial number: 90A01 № 0000795 of 04.07.2013, issued by Federal Service for Supervision in the Sphere of Education and Science of the Russian Federation; expiry date: 27.04.2018).

University foundation date: August 19, 1950. Legal and actual address of NSTU: Russia, 630073, Novosibirsk, Karl Marx Prospect, 20. Official site: www.nstu.ru.

In 2014 NSTU among other 26 Russian Universities entered the top 100 QS University Rankings: Emerging Europe and Central Asia - EECA 2014/15 being rated 71-80; and among the universities of BRICS countries it took the 131-140 position, being rated 32nd among the Russian universities.

Today the educational programmes in NSTU are delivered by 74 departments, 11 faculties, Institute of Distance Education, Institute of Social Rehabilitation, Institute of Further Professional Education, Faculty of Teacher Development, scientific and learning-scientific laboratories, resource centers and language training centers.

The NSTU structure approved by the Academic Council is listed in the register of units and on the University portal <http://www.nstu.ru/info/structure>. The issues of structure units' management, coordination order, and activities are regulated by the provisions approved by the rector's orders. Governing and organizational/management documents are in line with the Charter's requirements and they do not contradict the legislation.

The Faculty of Business (FB) is a structural unit of NSTU and one of the largest faculties by the number of students. FB was established in

December 3, 1991. During the 23 years of its history the Faculty became a developed scientific and educational structure comprising 7 graduate departments, 11 scientific and educational centers, a small innovative enterprise (established due to Federal Law #217-FZ). The Faculty of Business delivers multilevel professional education:

- in the main educational programmes of higher education: bachelor degree (Economics, Management, Applied Informatics, Business-Informatics, Service, Tourism, Quality Management); specialist degree (Economic Security); master degree (Economics, Management, Applied Informatics, Finance and Credit, State Auditing); PHD degree (Economics: economics and management of enterprises, industries and complexes; management of innovations; economic security; finance; money circulation and credit);

- in the additional professional programmes: a wide range of programmes in further training and professional retraining of economic-management profile including the Presidential Programme of Training Managers for the National Economy (Management), MBA programme (Strategic management and Entrepreneurship, Marketing, Financial Management in Organization).

The number of students of FB in all the levels of education (bachelor, master, PHD) is accounted for 1757, including 407 students in Economics, 377 – in Management. The number of daytime students (bachelor and specialist degree) is as follows: 1st year – 612, 2nd year – 326, 3rd year – 290, 4th year – 182, 5th year – 40. The number of evening-education students is 172. The dynamics of student contingent (including students of Economics and Management) during the last 5 years is given in Appendix B.

The number of academic staff is accounted for 126 people, auxiliaries – 29 people.

In order to continuously improve educational process and optimize resources the organizational changes are in progress beginning from 2013. More specifically, a new department of Economic Theory and Applied Economics has been formed on the base of the merger of two departments (Economic theory and Economics of enterprise). Currently the departments of Market theory and Economics of service are in the merger process to form the department of Marketing and service by 06.07.2015. The Institute of additional education was integrated into the Faculty of Business in April 01, 2015. Due to this the optimization of the staff is taking place as well.

The Dean office organizes and coordinates the educational process on the Faculty with its daytime and evening classes departments. The Dean office staff includes four deputy deans for academic affairs, deputy dean for evening classes, deputy dean for research work, deputy dean for morale, deputy dean for sports, and four inspectors. The decisions on the Faculty level are made by the Academic council, Methodological council, and Attestation commission of the Faculty of business in accordance with the procedures specified in certain rules and regulations.

Both the academic staff and students of the Faculty of Business actively cooperate with various local and national universities by participating in numerous scientific and educational events, in training and professional development programmes. The Faculty works together with Novosibirsk State University, Novosibirsk State University of Economics and Management, Siberian State University of Geosystems and Technology, Siberian State University of Telecommunications and Information Sciences, Siberian Institute of Management – the branch of Russian Presidential Academy of National Economy and Public Administration (RANEPA), Tomsk State University, Tomsk Polytechnic University, Siberian State Industrial University (Novokuznetsk), Baikal State University of Economics and Law (Irkutsk), Siberian Federal University (Krasnoyarsk), Altai State University (Barnaul), etc.

In 2014 for 38.04.01 "Economics" the Master network programme "Economics and organization of industry markets" was developed together with Magnitogorsk State Technical University and Saint-Petersburg State University of Aerospace Instrumentation. Both the academic staff and students regularly take part in the special events organized in St. Petersburg State University of Economics, Financial University under the Government of the Russian Federation, Plekhanov Russian University of Economics, etc.

The departments of the Faculty of Business are in permanent cooperation with the research institutes of the Siberian Branch of Russian Academy of Sciences. It allows working on integrative research projects, joint scientific publications and events. Specialists from innovative companies, engineering centres, Novosibirsk Akadempark and Technopark take part in the educational process of FB.

The education process improvement is supported by the stable relations with the professional associations of accountants and auditors (through nonprofit partnership "Russian Audit Chamber"), with the Chambers of commerce and industry of Novosibirsk and Novosibirsk oblast, with the Interregional Association of the Economic Cooperation of the Constituent Entities of the Russian Federation "Siberian Accord".

The cooperation treaties are concluded with major international consulting agencies «PWC» and «KPMG», OAO "Sberbank of Russia", Ministry of finance and taxation policy of Novosibirsk oblast. The practice focus of the educational programmes is supported by internship sites provided for students by such companies as OAO "MDM Bank", OOO "GK SAN", OOO "Company BrockerCreditService", «Ernst &Young» corporation, "Coca-Cola HBC AG Eurasia", "PepsiCoHoldings", OOO «Pronto-Novosibirsk», OOO «Aucustic Technologies», OOO «AMT Stroy», OOO «Joker», "Prom-Arsenal NSK", non-profit Altay company «ALTEK», OOO «Plazmatech», etc. Pilot projects are carried out there to develop modern approaches to the organization of production and logistic processes.

The international activities of the Faculty involve teaching of foreign students, supervising of their PhD dissertations, developing and delivering joint educational programmes, issuing of the annual conjoint journal on economics «North-East Asia Academic Forum» (together with Kharbin University of Commerce, China; Universities of Siberia and the Far East);

teaching English to academic staff, developing of author's courses in English. These activities also include publications co-authored by foreign colleagues in journals abroad, academic mobility due to participation of teachers and students in international forums, conferences, seminars, olympiads, and so on.

At present the Faculty of Business delivers the following joint Master programmes : dual degree programmes for "Management" in "International management" (with the University of Warsaw, Poland), "Global Management of Innovations and Technologies" (with the Lappeenranta University of Technology, Finland, and the East Kazakhstan State Technical University of D. Serikbayev, Kazakhstan); the exchange education programme (with the University of Sibiu, Romania) for "Economics".

Compliance with standards of public accreditation

Standard 1. Policy (mission, vision) and procedures for quality assurance of educational programmes cluster

Activities description and achievements in 2010-2014

Mission and vision of educational programmes . Under Article 29 "Information transparency of an educational organization" of the Federal Law "On education in the Russian Federation" (of December 29, 2012 No 273-FZ) there is prescribed information about the University activities on the NSTU site. The mission, goals, and objectives are in the Charter of NSTU, in the University strategic development programme "Engineering and scientific staff for innovative economy" (2012-2016).

Mission of the University is to prepare competitive specialists for high-tech sectors of the Russian economy, conduct world-class fundamental and applied research, transfer intellectual property, and integrate into the global scientific and educational area (<http://www.nstu.ru/info/info>).

Faculty of Business (FB) operates in accordance with the University mission, goals and objectives, decomposing them in the programme of the Development of NSTU Faculty of Business for 2014 - 2018. (adopted by the Academic Council of the FB 10.21.2013, Minutes No 9; www.fb.nstu.ru).

Mission of the Faculty of Business is a quality training and retraining of highly qualified specialists for the sphere of entrepreneurial business, engineering business, and government; promoting the growth of competitiveness of the university, its national and international rankings based on continuous improvements in the educational, scientific, innovative, international activities, in the production and dissemination of new knowledge.

Strategic goals (Vision) of the Faculty of Business is to ensure leading positions on the educational services and labour market in the training of highly qualified in-demand specialists on the basis of the formation and development of the internal environment, the integration of

education, research and project activities, the interaction with the regional business community, the internationalization of educational programmes .

To achieve the mission and strategic goals the performance targets, which are the basis of "efficient contracts" for University and Faculty administration and teaching staff, are formed. Indicator values are annually reviewed and adjusted taking into account their actual achievements, posted on the University portal for open access (http://www.nstu.ru/projects/programmema_razvitiya/#goals) as well as for internal use (<https://ciu.nstu.ru/WebInput/persons/60482/corp>).

Objectives and strategies of educational programmes development are subject to the mission and strategic goals of the Faculty and the University.

The purpose of basic educational Bachelor degree programmes for 38.03.01 Economics and 38.03.02 Management is the formation of the competences demanded by the market for the management of organizations of different legal forms and their agencies, state and municipal authorities, for the solution of professional tasks in the sphere of organizational management, business calculations, data analysis, and entrepreneurial activity.

The purpose of basic educational Master degree programmes for 38.04.01 "Economics" and 38.04.02 "Management" is the formation of competences to manage socio-economic systems and processes at an advanced level, formulate and solve professional tasks in the sphere of organizational management, project economics, data analysis, entrepreneurship, research and teaching activities.

The purpose of the basic educational PhD degree programmes for 38.06.01 "Economics" is the formation of the set of competencies to carry out research and teaching activities in the sphere of economics and management, to solve conceptual (fundamental) tasks of economic science and applied problems in the functioning of various economic agents, markets and systems.

FB Academic council, teaching staff, employers, social organizations, and students participated in the development and implementation of the goals and objectives of educational programmes. The best international practices were taken into account as well. For example, the educational programme of a Bachelor degree for "Economics" started at NSTU in 1996 as part of an international project EU TACIS «Teaching economic and business disciplines in secondary schools, technical and classical universities". Programmes of a Master degree were opened and being improved since 2002 in the course of the project "Development of training programme in "Theory of Economics" in NSTU" within the programme "Improving the socio-economic education in Universities", financed by the International Bank for Reconstruction and Development.

The purpose, the main content, and the key competences of each educational programme are given in the Description of educational programmes that are available for all on the NSTU website, (http://www.nstu.ru/education/edu_plans/#fb). The educational

programmes are delivered in day-time, evening-time, and combined forms.

NSTU justifiably positions itself as an international scientific and educational center, providing quality assurance. In order to integrate into the international community a strategy of international activities within the programme of the strategic development of NSTU has been developed, the results of which are analyzed annually and placed in the public domain:

http://www.nstu.ru/static_files/30030/file/nstu_otchet_samoobsledovanie_2013.pdf). It contributes to the development and internationalization of educational programmes. The International Service of NSTU coordinates these activities. Its main goal is the organization, development, and maintenance of the NSTU external economic activities and cooperation with foreign universities, research institutions, organizations and companies in the areas of education, science and culture. The International Service has developed a number of internal legal documents placed in the public domain: <http://www.nstu.ru/international/info>.

FB is actively involved in the implementation of the University international strategy.

2. Methods for achieving the goals and adjusting educational programmes. The implementation of the goals of the educational programmes cluster under accreditation is provided in the course of both curricular and extracurricular activities of students, methodological, scientific and educational work of teachers. Graduate Departments for 38.03.01, 38.04.01, 38.06.01 "Economics" are Departments of accounting and statistics, finance and tax policy, economic theory and applied economics; for 38.03.02, 38.04.02 "Management" there are Departments of management and market theory. For 38.06.01 "Economics" (economics, organization and management of enterprises, industries, complexes; the management of innovations) there are Department of economics and applied economics; of management; for 38.06.01 "Economics" (economic security, finance, monetary circulation and credit) there is a Department of financial and tax policy.

Objectives of educational programmes are achieved through:

- highly qualified teachers and their regular professional development at least once every three years, including the internships in enterprises: 61% of the Faculty teachers have PhD degree, 15% are Doctors of Science;
- involvement of students in research projects, conferences, olympiads, and contests at various levels;
- academic and student mobility (domestic and foreign): in 2010-2014 years 118 teachers and students of the Faculty were involved in this process;
- involvement of managers and specialists of enterprises and organizations into the educational process;
- widespread use of active learning methods in the educational process;
- development and continuous improvement of teaching materials in the academic disciplines, including electronic ones;

- development of the material, technical, and information resources (annually for this purpose not less than 4.5 million rubles of FB extrabudgetary funds is spent).

The degree of the goals achievement and the implementation effectiveness of the educational programmes cluster under the accreditation are estimated by:

- midterm (tests, pass-fail exams) and final (state exam and graduate qualification work) certification;
- score-rating system evaluation of students performance (<http://www.nstu.ru/education/rating>);
- rating evaluation of the departments and teaching staff activities (including "effective contract" since 01.01.2015);
- questionnaire of teachers on the satisfaction of working conditions;
- questionnaire of students on satisfaction of the education quality;
- regular training of teachers and staff in quality management;
- teaching staff performance evaluation on adequacy for the job (based on the analysis of "effective contract" implementation);
- analysis of the active participation of students in scientific research and international activities;
- analysis of the students' employment.

The results of these evaluations are recorded in the following documents: academic records; reports on the performance of students at the end of the term; reports on the results of the state final examination; external reviews and the research advisers' feedbacks on the graduate qualification works; internship reports; a review of the internship; annual reports on the activities of the teaching staff and departments, on professional development; teachers' performance appraisal sheets; reports on international activities and coordination of students' scientific research; minutes of departments' meetings; Scientific-methodological council, and Academic council of FB.

Mechanism of adjusting goals, objectives and content of the educational programmes is based on the analysis of employers' requests and their further changes, which are identified during the interaction with enterprises (including internships and pilot projects); the study of best practices (both domestic and foreign mobility); feedback from students and graduates.

3. The system of educational programmes quality assurance is based on the existence and availability of the internal regulatory and legal framework on key processes, learning and teaching support of academic disciplines, regular self-evaluation (http://www.nstu.ru/info/quick_links).

Since 2010 NSTU participates in the All-Russian project "Best Educational programmes of Innovative Russia", organized by the National Center for public accreditation, Guild of experts in the sphere of vocational education, national journal "Accreditation in Education". The educational programme "Economics" of the NSTU Faculty of Business was one of the best among similar programmes in 2012-2014 years.

Analysis of scientific activity of full-time teachers from the graduate departments, involved in the implementation of the educational programmes, showed that all teachers have scientific publications in the

relevant branch of science, including foreign publications, collective and individual monographs.

Teachers of the departments carry out research on a wide range of fundamental and applied problems, including grants of the Russian Foundation for Basic Research (RFBR), the Russian Foundation for Humanities (RFH) within the Federal Target Programme "Scientific and scientific-pedagogical personnel of innovative Russia", Programme of Strategic Development of NSTU "Engineering and scientific personnel for the innovative economy."

4. Information on the mission, goals, strategies of educational programmes development at FB is presented at the NSTU portal, on the departments' websites by means of articles, photos and videos, in print media including "Accreditation in Education» ([http:// www.akvobr.ru/](http://www.akvobr.ru/)), Bulletin "NSTU INFORM» (<http://inform.nstu.ru/>), the newspapers "Izvestia", "Poisk" and others, as well as in online publications and portals, such as ngs .ru, Internet portal for applicants and students MoeObrazovanie.ru (<http://www.moeobrazovanie.ru>), advertising leaflets.

The NSTU portal contains "success stories" of the FB graduates, presenting their achievements, the benefits of training in the educational programmes under accreditation.

In the work programmes of academic disciplines, whose annotations are in the public domain (http://www.nstu.ru/education/edu_plans), the goals and objectives of education programmes are specified. Experts from other universities and research organizations of the city, practitioners are involved in teaching and learning activities. Discussion of the work programmes with all participants of the educational process (teachers, professional community, students) gives the opportunity to make the necessary adjustments of their purpose, structure and content, improve training technologies.

Standard 1 activity strengths:

1. The continuity of the mission and goals of the University and Faculty of Business educational programmes cluster under accreditation. Documentation of goals, objectives and strategies is available for public
2. The involvement of all interested parties (the university and faculty administration, teachers, representatives of professional associations, students) in the setting the objectives and strategies of educational programmes.
3. The compliance of the educational programmes with the best domestic and foreign experience in economic and management education. There exists the mechanism for assessing the degree of meeting the goals.
4. The high availability of the internal regulatory and legal documents for the educational process.
5. Information openness of educational programmes, the feedback from all stakeholders.

Areas for improvement.

1. Modular design of curricula and programmes is underused.
2. There are not enough teachers who are ready to actively use distance technologies.

3. Uneven level of international activity of the graduate departments in terms of the number of foreign partners, joint educational programmes, academic and student mobility, applying for grants.

Standard 2. Approval, monitoring, and periodic review of educational programmes and qualifications

Activities description and achievements in 2010-2014

1. In accordance with changes in the federal state educational standards (FSES), the needs of employers, improving the learning content, strengthening the practical orientation there is a regular review of curricula and programmes of academic disciplines once a year on average. This is consistent with the mission and goals of educational programmes. The changes are discussed at the departments' meetings and recorded in the minutes.

Overall coordination of the educational process, preparation of the regulatory documents, monitoring, control of the design and implementation of educational programmes at the University are provided by Learning Management Division (http://www.nstu.ru/staff/umo_dept) and the Scientific and Methodological Centre (<http://smc.nstu.ru/>).

Curricula for each educational programme fully comply with FSES, they are developed on competence-based approach, which is supported by the System of computer-aided design of educational programmes (TPD - Training Programme Design) <https://ciu.nstu.ru/programme-fgos3/>. This takes into account the best practices of Russian and foreign universities. They are analyzed at the meetings of the Board of Educational Methodological Association on economics in Plekhanov Russian University of Economics, on management in Saint-Petersburg State University of Economics, in the process of marketing of educational programmes of the leading Russian and foreign universities using the Internet. International constituent is taken into account to the maximum extent while shaping curricula of joint Master programmes.

Enhancing vocational training the elective courses consider the needs of employers, supplement and develop competences formed by the basic academic disciplines.

Teaching materials of disciplines correspond to the structure of the curriculum and include mandatory requirements for learning outcomes; analysis of the role and place of the discipline in the competency development; content description, learning technologies, methods of assessment.

In the context of a three-level education the continuity of curriculum (undergraduate, graduate, post-graduate) is secured taking into account a set of acquired competences, the need to deepen the knowledge and additional competences according to specific profiles and programmes in the cluster of educational programmes under accreditation. The role of the research work of students (undergraduates, graduate students) grows moving up the educational trajectory. The undergraduate curriculum includes the course work and final qualification work with the elements of scientific research. Master's curriculum is complemented by research

practice and the section "Research work" in the amount of 36 credits. PhD students usually continue to work on the chosen Master's degree research topics that ensures the continuity of research throughout the training period. The results of the research work of students can be found in publications and presentations at scientific conferences, seminars, including international ones.

In the development and implementation of programmes of academic disciplines innovative technologies and active learning methods: business games, trainings, discussions, problem lectures, automated training systems with computer-based knowledge control, simulation, etc. are widely used. In NSTU Master programme a unique educational practice is applied. It is an interdisciplinary project within the course of "Innovation Management". Teams of students from different faculties and profiles, including economics and management, develop an innovative project "from the idea to investors". The best projects were displayed on the prestigious innovative exhibitions and received grant supports.

Independent work of students is an important part of the learning process. It includes not only the learning of some course units, but also consolidation of the knowledge and skills acquired in research and innovation projects. The efficiency of self-study is evaluated during the defense of research and project reports, coursework and final qualification works / dissertations. The publication activity of students is also very critical. Currently, the teaching materials for students' independent work and its assessment are being developed.

2. The opinions of students and employers are taken into account while developing curricula and working programmes of academic disciplines. Students express their ideas in the process of questioning, oral interviews and discussions with teachers, heads of the departments, the dean.

This issue is under constant interaction with employers. With some organizations the long-term agreements on cooperation are signed, including curricula and programmes of internship. Partner companies that regularly participate in "Career Days" fill in the questionnaire (Appendix C) and give their opinion on the improvement of curricula and programmes. In order to monitor the quality of training employers are involved in an annual survey conducted by the NSTU Department of Marketing. It resulted in suggestions for curricula and programmes adjustment. Practitioners teach students, combining the educational process and the work in relevant professional organizations. It makes disciplines practice-oriented and allows adjusting their content to changes in the economy.

3. Monitoring of the effectiveness of the educational programmes implementation. The main indicators of the implementation effectiveness of each of the educational programme are:

- the results of the midterm and ongoing assessment of students (twice a year during examinations); controlled by the Regulation on exams and tests;
- the results of the final state certification, the examination boards are chaired by practitioners (according to the study programme);

controlled by the Regulation on the State Final Examination and recorded in the reports of the State Examination Board chairpersons;

- review of the final qualification works; review of the internship;
- the number of graduates' applications in employment agencies

4. Regular internal and external evaluation of the educational programme

The results of the internal evaluation of the implementation of educational programmes, including the questionnaires on students' satisfaction for the learning process at the University, are regularly reviewed at the departments and the Academic Council of FB meetings.

Regularly, every six years, the University runs the state accreditation; annually it goes through the procedure of self-evaluation and monitoring of educational institutions of Ministry of Education and Science. The results are published in the self-evaluation reports, which are open to external users and posted on the portal: <http://www.nstu.ru/info/information/doc>.

Not less than twice a year, an analysis of market demand for graduates of "Economics" and "Management" is carried out. According to the Employment center in Novosibirsk, at the beginning of 2015 at least 500 vacancies were opened in compliance with programmes "Economics" and more than 1,500 jobs appeared associated with "Management": <http://www.gczn.nsk.su/rinok/2010-12-02-11-19-31>.

Standard 2 activity strengths

1. Compliance of the curricula of FSES educational programmes with the best Russian and international practices. Joint Master's curricula and programmes consistency with those of foreign partner universities. Regular review of curricula and programmes under the overall coordination of the Learning Management Division.

2. The system of computer-aided design of educational programmes on the basis of competence approach that allows quickly adjusting of the curricula and programmes.

3. Proven monitoring system of educational programmes efficiency, stable relations with employers to assess the achievements of students and graduates.

4. The unique experience of training to promote innovation and entrepreneurship within the discipline of "Innovation Management".

Areas for improvement.

1. Insufficient feedback from graduates.

2. Poor integration with Russian universities in improving the educational process, including network based educational programmes .

3. Insufficient consistency of interaction with employers in adjusting the work programmes content to balance the professional standards with the requirements of FSES.

Standard 3. Assessment of student learning outcomes (competencies)

Activities description and achievements in 2010-2014

1. Regulation of applicants and students' knowledge/competence assessment. Improving the procedures for assessing the efficiency level of educational programmes is one of the priorities of the quality management system at NSTU and at FB.

Existing procedures for assessment of applicants and students' knowledge/competence in the educational programmes cluster under accreditation are regulated by the following documents:

- ☐ Regulations on admission to NSTU on educational programmes of higher education (Bachelor and Specialist degree programmes; Master degree programmes; Phd degree programmes;

- ☐ Regulation on the organization of interterm assesement (examinations and tests) at NSTU main educational programmes based on Federal state educational standards;

- ☐ Regulation on the score-rating system of evaluation of NSTU students' achievements;

- ☐ Order of development of individual educational trajectories on educational programmes of higher education in Novosibirsk State Technical University;

- ☐ Provisional Regulations on the State Final Certification of graduates of the federal state budgetary educational institution of higher education "Novosibirsk State Technical University" on the main educational programmes implemented in accordance with the Federal state educational standards of higher education;

- ☐ Funds of assessment tools in various academic disciplines and State Final Certification;

- ☐ Programme of qualifying examinations for the Candidate degree (for graduate students).

Latest edition of the normative documents are posted on the NSTU website, (<http://www.nstu.ru>) in the "Applicants", "Students", "Undergraduates" and "Graduates" and are open and accessible to all interested parties.

For applicants the necessary information about specialties, the rules and plans of admission, entrance examinations, the competition and the passing score according to previous years is available on the NSTU website, in the "Applicants".

During the admission campaign both in-person and electronic applications are valid. (via "My Profile"): http://www.nstu.ru/enrollee/enrollee_account). Every year at the end of the admission campaign the analytical reports on the dynamics of application and admission to educational programmes are provided and placed in the corporate system of the University (<http://ciu.nstu.ru/isu/>).

2. The use of accurate criteria and independent students' knowledge/competence assessment procedures. In the work programmes of all academic disciplines there are sections containing the rules of certification, as well as the evaluation tools for current and interterm assessment of students on the basis of the discipline acquisition. In accordance with the NSTU score-rating system, rating of students, as well as rules for examinations or pass/fail exams are set on a 100-point

scale. Assessment rules include minimum and maximum number of points in the semester, deadlines; types of control and final certification.

Monitoring and assessing of the students' competences acquisition are performed within the whole period of study by various evaluation tools: tests, term papers, essays, abstracts, homework, workshops, etc.

Regular individual and group consultations make considerable contribution to the students' competences development. Schedule of consultations is available on websites and department stands at the beginning of each semester.

Funds of assessment tools in the academic disciplines are approved by the minutes of the departments meetings. They contain practical exercises, calculation tasks and the banks of tests, including those placed in the e-learning system DiSpace. In this system, teachers develop and place their electronic teaching materials.

At the beginning of the semester the students get information about the rules and types of assessment and certification. Electronic educational materials are available for the entire period of study in the e-library system of NSTU. Access to resources is provided through "My Profile» - https://ciu.nstu.ru/student_study/; <https://ciu.nstu.ru/postgrad/>.

Information transparency regarding the criteria, procedures, and results of educational achievements evaluation is provided by the Student's E-Profile where one can monitor their current progress by the check points in the semester (seventh and twelfth weeks), the results of the session on a 5-point scale; the results of the session on a 15-level ECTS scale (European Credit Transfer System). Students' progress data is posted on the website by teachers and Dean Office staff.

NSTU score-rating system takes into account the student's results not only in curricular, but also in extra-curricular activities. It provides employers with detailed information about the graduates to facilitate their job placement. Extra-curricular student rating is determined by their achievements in scientific, sporting, social, and creative activities that are included in the relevant sections of the personal e-profile and verified by academic advisors (tutors). The integral student's ranking is defined as the sum of curricular and extracurricular rating points and it serves as a decision-making basis for the reward, scholarships, transfer from the contract form of training on the budget, further education in Master and PhD degree programmes. The integral student's rating is given in the European Diploma Supplement (Diploma Supplement), which is issued to graduates of NSTU since July 1, 2006.

An important part of ensuring a high level of students' training for a cluster of the programmes under accreditation is regular monitoring of student satisfaction of the educational process quality, which is carried out by means of questionnaire survey. Questionnaire (Appendix D) was developed in accordance with the requirements of the FSES to provide students with opportunities to evaluate the content, organization and quality of the educational process. It complements the methodology (applied in NSTU since 2003) of measurement of students' opinions about the quality of both the learning process and teaching staff. (Order No 651 of 16.09.2003). The questionnaire is placed in student's e-profile and filled

in by them on-line after the completion of course of study. The results are anonymous, they are stored and processed automatically by the information system of NSTU. The results of profiles processing are available to deans, heads of the departments and staff of the Scientific and Methodological Center.

Objective evidence of a high level of knowledge and competences of students is awarding scholarships for outstanding achievements, in particular, grants of the Government of Novosibirsk Oblast and the Governor of Novosibirsk Oblast named after G.P. Lyschinskiy, and scholarships of public organizations (such as Vladimir Potanin Foundation).

3. Independence, objectivity and professionalism of graduates' competences assessment conformity with the awarded qualifications are provided during the final certification by the State Examination Commission, whose members, along with teachers, are practitioners and employers as well. Their high qualification is confirmed by membership in professional associations, academic degrees and titles, honorary titles, state prizes and awards.

4. The degree of activity of students in scientific research. A plan of students' scientific research is developed annually for all educational programmes under accreditation. Research advisers decide on the focus of the research work, corresponding to the major and including the work stages in the department, in partner companies or NSTU business incubator.

Monitoring of students' scientific research results is done twice a year according to the approved plans and procedures for rating of the departments according this indicator. The results of this work are reported on conferences, in publications, testified by diplomas and certificates. They are also reflected in coursework and final qualifying works that pass a preliminary examination on student scientific conferences youth forums of various levels.

All activities involving students' research can be divided into two sections: the traditional internal (planned) and external ones. The former includes:

- Scientific conference of young scientists "Science. Technology. Innovation";
- Days of students' science in NSTU;
- Student Forum "Innovation management and technological entrepreneurship";
- Olympiads on the economics, accounting, and management ("Enterprise Management in a competitive environment.")

5. The independence of the assessment of learning outcomes and students' research is confirmed by prizes and top places, awarded to students of FB by external experts on regional, all-Russian, and international competitions and Olympiads, the main of which are presented in Appendix E. In 2014, students of "Management" and "Economics" became winners of all-Russian and regional contests and Olympiads held at universities of Tyumen, Tomsk, Irkutsk, St. Petersburg, Kazan, Omsk, Krasnoyarsk and others. In Madrid (Spain), a team of NSTU "Management" students was placed fifth among 1957 teams in the final of

the international «Global Marketing Competition-2014» (in 2012 at the same competition our team was on the 1st place). Due to the results of scientific and innovation activity the student of Master degree programme in "Management" became a winner of the X Winter innovative school of Novosibirsk Academpark in 2014 and got the resident status of technological business incubator with the project "Development of intelligent system of events selection for leisure activities based on assessment of psycho-emotional state".

6. Promotion of students' international mobility.

In 2011-2014 NSTU participated in the international projects of EU: ERASMUS MUNDUS Jean Monnet programme ; ERASMUS MUNDUS Aurora Action 2; TEMPUS. The budget of all international projects for the 2010-2014 amounted to about 26 million rubles; volume of financing of the University activities with funds raised from international companies and organizations amounted to about 35 million rubles.

During the same period six Master double degree programmes were opened, including 38.04.02 "Management": "Global Management of Innovation and Technology» together with the Lappeenranta University of Technology (Finland) and East Kazakhstan State Technical University of D.Serikbaev (Kazakhstan). Since 2009, FB implements a programme of inclusive education for 38.04.02 "Management": "International Management" together with the University of Warsaw (Poland), since 2014 - for 38.04.01 "Economics" jointly with the University of Sibiu (Romania) (Lucian Blaga University, Romania). Some disciplines are designed and delivered in English by teachers of the Faculty of Business.

1297 students and teachers participated in the short-term academic mobility over the past five years. The number of foreign students almost twice increased at the same period and now it is accounted for 2,200 people. Currently, students from 11 CIS countries (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Uzbekistan, Ukraine) and 23 foreign countries (Australia, Austria, Brazil, Bulgaria, Vietnam, Germany, Ghana, Egypt, Iraq, Iran, Italy, China, Colombia, Lithuania, Mali, Mongolia, Nigeria, Republic of Korea, Peru, the United States, Finland, France, Japan) study at the NSTU. Kazakhstan is the leader in the number of students in NSTU (90%). 175 foreign students from Kazakhstan, Mongolia, Vietnam, Uzbekistan study at the Faculty of Business.

In 2014 a group of FB students (18 persons) undertook internship in management in Harbin University of Commerce (China), five students were at the University of Sibiu (Romania) training in economics, and three students participated in the summer school on innovation management in Lappeenranta University of Technology (Finland).

There are some centers of foreign languages at NSTU: German Center (Goethe Institute Partner), Information Center DAAD, Resource Center of the French language, Hebrew Center, Language Center "East-West", the Confucius Institute, Polish center, several English centers.

In 2010-2014 the Faculty of Business signed the agreements on cooperation in the field of education and research activities with the University of Warsaw (Poland), University of Landshut (Germany),

University Lucian Blaga (Romania), Lappeenranta University of Technology (Finland), University of the Chamber of Commerce of the Kingdom of Thailand, Harbin University of Commerce (China), East Kazakhstan State Technical University of D. Serikbaev (Kazakhstan), Innovative University of Eurasia (Kazakhstan). A memorandum of understanding is signed with the Department of Mathematics and Computer Science of the University of Havana (Cuba).

7. Employment of graduates. Graduate departments, Marketing Department of NSTU, Regional Centre for employment and adaptation of graduates to the labour market, regional public organization "Association of Graduates NSTU-NETI» (<http://assoc.nstu.ru/>) organize and support interaction with alumni.

To study the graduates' career paths the NSTU marketing department twice a year conducts a complete study of their employment, including a survey via telephone interviews, and electronic questionnaire. Results of this study are published on NSTU portal (<http://www.nstu.ru/alumni/employment>).

The results of NSTU graduates' employment for five years and graduates of FB in 2014 ("Management" and "Economics") are given in Appendix F. In 2014, it was low percentage of unemployed graduates in areas of management and economics, mainly for reasons of maternity leave, military service and disease. This corresponds to a university-wide trend.

Regional Centre for employment and adaptation of graduates to the labour market is engaged into graduates' employment (<http://om.nstu.ru/>). Its tasks are as follows:

- selection of appropriate jobs for young professionals;
- informing the public about the training and internship;
- expert communication on employment;
- career guidance activities (Career Fairs (<http://om.nstu.ru/events/item?id=90>), company presentations, the Practices Fair (<http://om.nstu.ru/events/item?id=80>) Days of IT-companies (<http://om.nstu.ru/events/item?id=150>), meeting with alumni "Business Lunch» (<http://om.nstu.ru/events/item?id=113>), public lectures (<http://om.nstu.ru/events/item?id=151>), workshops (<http://om.nstu.ru/events/item?id=124>), etc.).

The departments have the lists of organizations that employ graduates, the employers' reviews of graduates from the programmes being accredited. These include Trading house "Kalina", Ministry of Finance and Tax Policy of the Novosibirsk oblast; ZAO "SibAcademSoft"; OOO Kirov Real Estate Agency "Pallas Athena"; The Arbitration Court of Novosibirsk oblast; GU "Novosibirsk regional department of Social Insurance Fund of the Russian Federation", a subsidiary No 18; OAO "Siberian Bank of Sberbank of Russia"; Interdistrict Inspectorate of the Federal Tax Service No 3 on VAT, g.Iskitim; JSC "Russian Agricultural Bank"; Novosibirsk regional branch "Gorvodokanal"; the NSTU Marketing department; OOO "Joker"; IE "Streltsov"; OOO "SibirTransAziya"; IE "Fatkina" and others.

Employers are able to assess the level and quality of training of the students during all types of practices. Testimonials of heads of organizations, practice reporting data indicate a high level of the students' competency. This is confirmed by the SFC where employers are the members of the examination boards.

Standard 3 activity strengths:

1. NSTU has been incorporated into the European educational area since 1992 and has extensive experience in the implementation of educational programmes under the Bologna system.

2. The criteria, requirements, and procedures for assessing the quality of education are defined in the documentation of the University and they are available for students, teachers and other stakeholders.

3. Developed corporate information system provides transparency of information in regard to assessment of knowledge / competences of applicants and students. Assessment criteria ensure consistency with the processes of teaching and learning, as well as the expectations of employers.

4. Active research work results in good outcomes.

5. The employment of graduates is conducted at the system level. The graduates are in demand on the labour market.

Areas for improvement

1. The small number of students with a high-level skills in foreign languages that limits mobility.

Standard 4 Teaching staff quality and competencies assurance
Activities description and achievements in 2010 – 2014.

1. Sufficiency of teaching staff qualification level. Learning process in the educational programmes cluster under accreditation is provided by academic teaching staff in a quantity sufficient for high-quality training of graduates. Graduate departments include 19 Doctors of Science, professors, two corresponding members of Science Academy of higher school of Siberean branch of Russian Academy of Sciences (SO RAN), 76% of academic teaching staff hold a science degree and academic title.

Teachers have honorary degrees "Honored master of sciences and education", "Honorary worker of higher professional education", "Founder of scientific school"; awarded with honorary certificates of Ministry of Education and Science of the Russian Federation, Ministry of Education, sciences and innovation policy of Novosibirsk oblast for significant achievements in academic and educational activities and fruitful and lengthy service; noted by acknowledgements of Ministry of Education and Science of the Russian Federation and other departments for success in practical training of students, implementation of new techniques and teaching methods into the academic and educational processes, development of scientific research.

Among teachers there are specialists acknowledged and awarded by professional communities: "For merits in conducting the National

population census" medal; medal of Professional accountants and auditors of Russia institute "For contribution into professional occupation development"; medal of Professional accountants and auditors of Russia institute "For merits in professional occupation development".

In educational programs cluster under accreditation about 50% of professional disciplines of Bachelor degree curricula and more than 70% of professional disciplines of Master degree curricula are realized by the academic staff of graduate departments of economic theory and applied economics, management, market theory, records and statistics, finance and tax policy. Several professional disciplines are presented by lead specialists of companies such as KPMG, OOO "InTech Techno", OOO "Joker", "Travellers coffee", ZAO "Innovation medical-technological center" (Technopark), Novosibirsk city hall and others, as well as research associates of Institute of economics and industrial engineering SB RAS.

During 2010-2014 academic staff of graduate departments published 81 textbooks and study guides, including 22 with UMO labels.

2. Academic staff competency in respective knowledge areas.

University and business faculty leadership team conduct systematic analysis of academic staff supply to educational processes. During this individuals who aspire to fill teaching staff positions undergo the procedure of competitive examination in accordance with the Statute on order of filling teaching staff positions and conditions of collective agreement. Only those individuals who meet conditions described by Clause 331 of the Russian Federation Labour code are admitted for teaching:

http://www.nstu.ru/static_files/433/NSTU_koldogovor_2014.pdf.

Besides, the order of competitive examination is regulated by internal normative documents that have been passed at Business Faculty:

- Statute on certifying commission of NSTU Faculty of Business (passed at FB academic council session 24.10.2012, report No 9);
- Order of submitting documents and decision making on election of FB teaching staff on a competitive basis;
- Form of teaching staff Appraisal sheet.

When accepting foreign teachers NSTU HR department follows the respective rules of Russian legislation.

Information of competencies level of the teacher, dynamics of his/her professional and scientific achievements, as well as other activity indicators, ensuring competencies guarantee, is presented on the NSTU web-portal and web-sites of teachers and other staff. Structure of this information allows characterizing professional and scientific activity of a teacher in the following areas: general information (education, work experience and length of research and educational experience); educational work (schedule and list of teaching and guiding activities, research activities (thesis information, research areas, list of monographs and other published papers). As additional information the teacher's website contains information such as: participation in conferences and seminars, participation in projects, tenders, grants; membership in social-

professional communities, public recognition (e.g. <http://ciu.nstu.ru/kaf/persons/60482/about>).

Information that is posted on teachers' web-sites is controlled and analyzed on the level of sub-faculties, scientific units, scientific library (in order to control reliability and accuracy of the information). Thus, information about teachers as the main resource of the educational process is available for students and other individuals interested in teaching staff quality and competency assurance.

Retention of teachers from other universities, including foreign. In the programmes cluster under accreditation in 2013-2014 there were many professionals engaged in the scientific and educational process in the form of lecturing, conducting seminars and participation in scientific conferences, coming from leading Russian institutes of higher education and academic institutes: Saint-Petersburg State university (Honored worker of Science in the Russian Federation, head of the statistics, accounting and auditing department, member of Presidential council of the Institute of professional accountants and auditors of Russia, Doctor of Economics, professor Kovalev V.V.); Moscow State University (director of Institute of Economics of RAS, corresponding member of RAS, editor-in-chief of the "World of change" magazine, Doctor of Economics, Grinberg R.S.); Institute of Economics of RAS (Doctor of Social sciences, head of social-economics problems evolution sector of KirDin S.G.); Institute of economics and industrial engineering SB RAS, scientific and research university Higher School of Economics (deputy director, head of Resource-based economy Center, corresponding member of RAS, concurrently - head of energy and raw materials markets department in Higher School of Economics, professor Kryukov V.V.; head of Industrial establishments administration department, Doctor of Economics, Titov V.V.); Novosibirsk national research state university (Doctor of economics, Yusupova A.T); Siberian institute of administration – branch of RANEPa (Doctor of Economics, Knyazeva I.V.); regional universities – Tomsk State University, Altai State University, Siberian State Industrial University, Kemerovo State University, etc.

From foreign teaching staff in 2013-2014 the following specialists were engaged in NSTU scientific and educational process:

- D.Se, assisting professor Nugard Christian-Anders Bengamin, Riding University (Great Britian);
- Westminster university, School of Business (UK, London), member of academic standards committee, director of MAIBM course (master's program "International Business Administration"), Director of TACL Fund (financed by the Know How Fund) in the area of higher education on cooperation with CIS countries Girson I.;
- Sibiu University (Romania), professor Karagancu A., dean of economic sciences faculty Mikhaesku L., dean of faculty of engineering, professor L. Ion Roska;
- Presidential Academy of public administration in Republic of Kazakhstan, director of Institute of additional education of public officers, Doctor of Economics Suleimenova G.K;

- D. Serikbayev East Kazakhstan state technical university, head of innovational management department Konurmaeva Zh.T.;
- Kharbin University of Commerce (PRC), director of research Center Xu Linshi;
- [Lappeenranta University of Technology, LUT](#), professor of industrial management department V. Oyansen, «Global Management of Innovation and Technology» program coordinator R. Salminen, engineering and technical faculty.

3. System of diagnostics and motivation of quality of teaching.

At NSTU there is a system of stimulating activity of the teaching staff in place. It is described by the Order on incentives allocation among teachers and departmental staff based on semester and year results. The Statute is passed by the NSTU Academic board on April 24, 2013). Information on complex incentive approach is located on the site: <http://www.nstu.ru/staff/incentives>.

This Order sets the principles of allocating incentives among teachers and departmental staff, as well as heads of departments and a dean based on 1st semester and year results, and defines the rights of department heads for dispensation of rewards within the department. Allocation of incentive among reaching staff and department staff is performed based on Statutes passed in the departments and approved by the academic board of Faculty of Business.

Incentive allocation system includes the following teaching staff activity components: scientific, methodological, international and occupational.

Scientific work is one of the most important activity areas and is presented by the following indicators when allocating incentives: number of accomplished fiscal and economic contractual R&D projects; number of postgraduates assigned to the department, number of post-graduates who defended their thesis on schedule, number of postgraduate thesis defences, number of doctoral dissertations, number of patents, number of articles in issues from Higher Attestation Commission list; number of other scientific publications; number of publications in magazines and materials from international conferences which are indexed in scientometrical systems (Scopus, Web of Science and others); number of monographs.

The following methodological work areas are subject for stimulation: number of published text books and study guides classified and unclassified; coverage of educational process by electronic educational resources.

Efficiency of the system of stimulating activity of the teaching staff on the faculty of business in the accredited programs cluster is characterized by the following indicators. In 5 years (2010 – 2014) there have been 3 patents registered, fiscal and economic contractual R&D projects for the value of 32,2mln RUB accomplished, 418 articles published in the issues from the Higher Attestation Commission list, indexed in RSCI, 51 monographs. 3 doctoral theses and 12 postgraduate theses defended. Annual average number of postgraduates is 36 people. 100% of the in-

service teachers are registered in RSCI, and Hirsch index varies from 2 to 8.

At the present day the system of stimulating activity has been developed by introducing the "effective contract" between the dean, head of department and the teacher. Forming of the system of effective contract indicators and their monitoring are executed through the personal user account of the employee, which guarantees personal participation of the teacher in defining activity indicators of the department, as well as the faculty and the university. http://www.nstu.ru/staff/staff_account.

4. Systematic professional development of the teaching staff is a priority in the work of the department and is regulated by the Statute on advanced professional development of NSTU teaching staff, located on the website: <http://fpk.nstu.ru/normbase>. Frequency of advanced professional development – not less than once in three years.

Advanced professional development is carried out in the following ways: - short-term courses on professional development programs for the academic personnel (organized by the staff professional development faculty);

- specialized professional development programs for professional accountants, certified auditors, professional appraisers, specialist in the area of international standards of financial reporting, quality management, etc.;

- retraining programs (Presidential program of management training for the national economic enterprise, MBS, and others based on the faculty profile);

- internship in the real sector of the economy businesses, at the premises of national and international scientific and educational organizations.

In 2010 – 2014 the number of the teaching staff that has undergone professional development through programs with duration from 100 to 490 hours equaled 30 people, from 40 to 100 hours – 114 people, less than 40 hours – 31 people (attachment G). Expenses for professional development of the staff are allocated from the extra-budgetary funds of the Faculty of business as well as the Program of University strategic development subsidy.

In the last 5 years the range of professional development programs was significantly widened due to academic mobility development. These are internships as a part of «The internship program 'Innovative Infrastructure Development and Personal Training in the field of Innovative Entrepreneurship in NSTU» (Korea Polytechnic University); «Course in English Language of 4 weeks» (Dublin, Ireland) programs, programs of professional retraining "Translator in the area of professional communication" with the length of 1500 hours, "Conversational practicum of the English language. Culture of academic speech."

Thus, the structure of the teaching staff and their qualification level in the cluster of accredited educational programs allow to successfully adapt to ever rising requirements from the Ministry of Education and Science, employers, professional communities and ordering parties of the educational services.

5. Participation of the teaching staff in joint international projects.

Teaching staff mobility is achieved through visits to foreign partner universities and scientific organizations for internships, participation in scientific conferences and summer schools, lecturing.

In 2013-2014 faculty teachers who are a part of executing accredited educational programs, have went to participate in conferences and seminars to the universities and institutions of the USA, Romania, Bangladesh, Croatia, China, Indonesia, Finland, Germany (**приложение H**). In November-December an exchange has been conducted between the teachers of FB NSTU and Lucian Blaga University (Sibiu, Romania) for lecturing in economics. In December 2014 – January 2015 the associate professor of market theory department went through internship in the Hamburg University – Institute of marketing and innovations (Germany) as a part of DAAD project. At the end of 2014 several applications have been submitted for international contests for the following projects:

- in economics - ERA.Net RUS Plus together with Lucian Blag University (Sibiu, Romania);
- in management - ERA.Net RUS Plus together with German Institute of economic research (DIW-Berlin), Germany.

Teachers have the opportunity to improve their level of proficiency in foreign languages in the NSTU language centers: German center – partner of Goethe Institute, DAAD information center, intensive courses of English language at the department of English language of technical faculties, “Lingua” center (professional retraining “Translator in the area of professional communication”). Teaching staff mobility and improvement of foreign language proficiency level are carried out with extrabudgetary funds of the Faculty of Business and well as the Program of University strategic development subsidy.

Standard 4 activity strengths:

1. High skill level of the teaching staff. Systematic approach and planning base for professional development and professional growth of the teaching staff who carry out the cluster of accredited educational programs.
2. Existence of internal rules and regulations base that helps to manage the process of staff competency level appraisal, transparency of information that allows the ordering party to estimate quality guarantee and teaching staff competency.
3. Existence of the proven system of motivating and stimulating activity of the teaching staff that accounts for all types of activity: educational, scientific, international and occupational.

Areas for improvement

1. Low share of teaching staff with sufficient level of proficiency of the foreign language, which limits academic mobility and working on new international projects.
2. Low usage of internship format in the companies working in the real sector of economics for teaching staff professional development,

which restrains development of new applied practice-based courses/ disciplines /cases.

Standard 5. Learning resources and student support

Activities description and achievements in 2010-2014

1. Provision of material and technical resources for educational programmes under accreditation includes, first of all, the adequacy and quality of classroom fund, computer and office equipment, advanced software, availability of library and information resources.

Self-evaluation has shown that the material and technical resources are modern enough and sufficient for the effective implementation of the educational process. Mostly, they are offices and classrooms of Building VI with total area of 1744 square meters.

Classroom fund includes lecture halls (10 of them are multimedia with computer "audio theater", which allows for 80% lecture and 60% practical classes using presentations, audio and video), classrooms for workshops and trainings; computer labs (7 rooms in total with 100 computers). Each computer lab is connected to the Internet. There is access to Wi-Fi in Building VI.

Scientific Library of NSTU has the first category and the status of a scientific institution. There are 4 delivery desks, 10 reading halls, and 8 internal departments in the library. Library staff includes 98 people. Total area is 2900 sq.m. The library is located in Building I, two reading halls for students of FB are situated in B building VI. A new building of the library will be built by the end of 2015.

Library services as well include electronic request of books, electronic documents access, interlibrary lending, and multimedia library. The list of additional paid services of the library is quite wide and is presented in Appendix I.

The library fund is universal in content and includes about 1.4 million copies of various types of documents in all knowledge fields, including encyclopedias and reference books, special types of literature, learning, teaching, scientific and non-fiction, periodic, fiction, including those in electronic form. It contains 1250 thousand of books, 120 thousand of periodicals, 11.5 thousand of normative and technical documents, 1.6 thousand of dissertations, etc. Learning and teaching literature is accounted for about 923 thousand copies, scientific - 281.5 thousand, fiction - 21.3 thousand. There are 1,387 thousand in paper, 2.3 thousand in electronic, 102 in audiovisual format library resources.

Every year the library gets up to 40 thousand of printed copies. Since 2004 the library has been accumulating electronic resources. The number of publications in NSTU electronic library system accounts for 5308 copies, in "Rukont" - 1771 copies.

The educational programmes cluster under accreditation is fully supported by textbooks and manuals, as well as scientific periodicals.

In 2004 ALIS VIRTUA multifunctional integrated system for 8 licenses was installed in the library. The main advantage of ALIS VIRTUA is integrated automation and management of all library processes Access to

the catalog is carried out from any workstation connected to the Internet in real time.

The library delivery desks and reading halls are open from Monday to Saturday from 9 a.m. to 6 p.m. according to the schedule posted on the website (http://library.nstu.ru/users/raspisanie_rabot/).

Modern information and communication technologies such as interactive boards, TVs, audio centers, multimedia projectors, exhibition displays, digital cameras, copiers and colour printers are available for delivering the educational programmes under accreditation.

There is a local area network and high-speed access to the Internet for using the distance learning technologies, information resources of the library, teaching materials of departments, organizations of webinars and video conferencing.

The used software is as follows: simulation modeling, economic forecasting, data processing, discrete event simulation, including AnyLogic, SimulTrain, SPSS, Statistica for Windows v.6 Russian Academic Edition, and others; reference legal systems "Consultant Plus" and "Garant".

Sufficient material resources provide conditions for independent and research work of students.

Technical support of the educational process on FB is provided by 10 computer specialists with required level of expertise including the head of the computer laboratory, two engineers of the first category, two engineers of the second category, senior laboratory assistant, and 4 laboratory technicians. The responsibilities of support staff are determined by job descriptions.

Every year, according to the plan, material and technical resources of FB are updated by an average of 20%, which is about 4.5 million rubles. To do this, the Dean office calculates annual material expenses based at the request of departments. The long-term financing of renovation of the University is regulated by Program of strategic development of the NSTU to 2017.

2. Availability of modern information resources to students, except mentioned above, is provided by access to the electronic library system such as (http://library.nstu.ru/e_ycheb_res/): «ibooks.ru» (test access); LitRes (test access); publishing house "Lan"; Rukont. The site of the Scientific Library of NSTU offers resources from libraries of Russia, Novosibirsk, and University Library.

Domestic and foreign databases in the public domain provide scientific resources for the cluster of the educational programs under accreditation. They are:

- ELibrary.ru (SEL RFBR) (www.elibrary.ru/);
- Polpred.com (Media Review) (www.polpred.com/);
- Data bank of All-Union Institute of Scientific and Technical Information on-line (<http://www2.viniti.ru/>);
- Information portal LiBRARY.RU (<http://www.library.ru/>);
- System of Scientific and Technical Information (<http://www.gsnti.ru/>);
- STANDARTINFORM (www.vniiki.ru/);

- University Information System RUSSIA (UIS RUSSIA) (<http://uisrussia.msu.ru/>);

- Digital library of dissertations Russian State Library (<http://diss.rsl.ru/>);

- Annual Reviews (<http://arjournals.annualreviews.org/>);

- Copyright for Librarians - an Online Open Curriculum on Copyright Law (http://cyber.law.harvard.edu/copyrightforlibrarians/Main_Page);

- Oxford University Press (OUP) (www.oxfordjournals.org/);

- Springer (Images) (www.springerimages.com/);

- SpringerLink (books, journals) (www.link.springer.com/);

- SpringerProtocols (www.springerprotocols.com/);

- Taylor & Francis (<http://www.tandfonline.com/>);

- Wiley (<http://onlinelibrary.wiley.com/>);

- SciVerse Scopus (www.scopus.com/);

- Questel (www.orbit.com/).

The use of these resources also allows students to work independently.

3. The graduate departments of FB actively cooperate with organizations and companies in the region. The agreements on mutual cooperation are signed with host enterprises, organizations, and institutions. The main areas of cooperation cover the coordination of curricula of educational programmes; all types of internships; participation in competitions, round tables, scientific conferences held by enterprises and organizations; holding job fairs, career days; presentations, workshops, business games, excursions, and others.

To support the system of interaction of the University with the labour market and provide relevant information about the job vacancies, events held by NSTU the Internet portal "Career NSTU» has been created (<http://om.nstu.ru>). Employers have the opportunity to send a request for trainees in electronic form and to post information on vacancies.

4. The development of social infrastructure. Education of disabled people is implemented in the NSTU at the Institute of Social Rehabilitation (ISR). Special education and rehabilitation technologies are used in the ISR. The building (No 8) housing the ISR is adapted for teaching students with disabilities, is equipped with ramps, handrails, specialized lifts and parking lots.

Access to high quality education for these students is provided by their inclusion in regular student groups, as well as through the use of e-learning systems. This system is developed at the Institute of Distance Learning NSTU (IDO). Regulations on e-learning were developed, including the Provisions on electronic teaching materials in NSTU, Guidelines for working in DiSpace, and developing courses on Moodle platform (<http://ido.nstu.ru/info/curpk>), and so on.

Social infrastructure also involves University Cultural Center, Sports Complex, ski base, recreation camps "Erlagol" (Gorny Altai), "Sharap" (Novosibirsk oblast).

5. FB provides further vocational education. It is implemented by the Institute of Further Professional Education and Training and the Center "School of modern management."

The Faculty offers a wide range of programmes for professional retraining and professional development in the field of economics and management with the participation of managers and specialists from the city companies, with the issuing of certificates of standard pattern. On the Faculty there are "MBA Centre", "Center for training and certification of professional accountants"; "Center for training, certification and professional development of auditors". Appendix J. gives the list of the main programmes is presented of the Institute of Further Professional Education and Training.

6. Monitoring of students' opinions on the conditions and the organization of educational process is carried out on a regular basis. Scientific and Methodological Center of NSTU evaluates the quality of teacher performance in terms of "Customer Satisfaction from educational services" through questioning of students, analyzing the results and presenting materials for decision-making to Educational Administration, Dean Offices, and departments. Personnel decisions are taken due to results of such monitoring.

There is feedback opportunity on NSTU portal: applicants and students have the opportunity to ask questions in electronic form on a variety of topics. Graduates have the opportunity to post their own success stories.

The students' opinions monitoring allows to continuously improve the educational process. Sound comments and suggestions are discussed in the departments. Curricula and programmes adjustment proposals are analyzed by the Scientific and Methodological Council of the Faculty.

Standard 5 activity strengths:

1. High level of material and technical resources, their funding and modernization.
2. Developed library system and full access to modern information, educational, and scientific databases.
3. NSTU self-designed software and hardware, which allows a high level of accessibility of all students to educational and informational resources.
4. Integration of further vocational training with the basic educational process in order to deepen the knowledge and additional skills acquisition.
5. Well-developed social infrastructure.

Areas for improvement

1. Students are not informed about the results of the monitoring and management decisions on a regular basis.
2. Uneven interaction of departments with employers.

Standard 6. Information system providing effective implementation of the educational programmes cluster
Activities description and achievements in 2010-2014

1. Collection, analysis, and use of relevant information in the management of educational programmes is fulfilled by the information system of NSTU (NSTU IS), covering the main business processes of the University: work with students, starting with the Admission committee and finishing with the graduation; support of the learning process in its all aspects and at all stages of education; preparation of e-learning courses in e-learning system; personnel management of the university; management of students living in campus dormitories; management of research activities; financial management; writing of the university-wide reports including integral assessment of the performance.

NSTU information system is a software complex that includes a set of workstations, and the whole system of Web applications available over the Internet.

Supporting information is located on the links: <http://ciu.nstu.ru>, NSTU portal - <http://www.nstu.ru/>, NSTU-sites - http://ciu.nstu.ru/isu/isu_about/about_faculty, standard departments' websites - http://ciu.nstu.ru/isu/isu_about/about, standard sites of teachers - http://ciu.nstu.ru/isu/isu_about/about_personhair.

The development strategy of the electronic control system of the educational programmes under accreditation is determined by the changing requirements of the education system in general and the development of information and communication technologies. NSTU strategic development program provides for further development and modernization of information and communication environment of the University, including Grid system; structured cable network of the University; e-learning environment; NSTU portal, including information in English; Wi-Fi; and corporate domain system.

Supporting information is located on the link: http://www.nstu.ru/projects/programma_razvitiya - Strategic Development Program NSTU.

Information is communicated to the students and staff by means of: corporate email; students' and teachers' Profiles; DiSpace system; electronic mailbox address of groups; in-house NSTU Portal.

Depending on the specific tasks and information to deal with, all users are divided on Windows clients whose software is installed on their workstations, and web clients who access the system through the web interface. Categories of users receiving information through an information system:

- Employees of departments and services of FB (Windows-clients), using the information system according to their job descriptions (~ 30 persons);
- Employees of FB (web clients) using an information system to input information and to obtain the necessary information and reports, including reports of limited access (130 people have access authorization);

- Students (web clients), who can obtain some private data from the students' Profile on NSTU portal (access authorization);
- External users (web clients) who are granted limited data through the information portal of the university.

Supporting information is located on the links: corporate email <https://ciu.nstu.ru/WebInput/persons/1319/nstu>; DiSpace system - <http://dispace.edu.nstu.ru/diclass/discipline>; corporate resources - <http://www.nstu.ru>.

2. Integration with University in-house resources is also carried out within NSTU Information system. Common information area of the Faculty is formed including Dean Office, departments, centres and services.

Information System is equipped with a set of tools (Data collection system - DCS), which allows all Faculty staff to provide information about the scientific and professional activities, download e-learning courses, work programmes, educational materials, and others.

The teaching staff delivering the educational programmers under accreditation has an access to constantly updated library of normative documents, containing the basic regulatory documents: orders, instructions, regulations, instructions, rules, and so on.

Supporting information is located on the links: description of sections and modules - http://ciu.nstu.ru/site_new/projects, data collection system - http://ciu.nstu.ru/isu/isu_about/about_ssi, Library of regulations - http://ciu.nstu.ru/isu/isu_about/about_bnd, analytical reports - http://ciu.nstu.ru/isu/isu_about/about_reports.

3. Availability and completeness of teaching materials.

Local information network with Internet access is commonly used in the educational process. Computers are equipped with package of applications and databases, such as: BEST, legal reference system "Consultant Plus" and "Guarantor", the simulation of queuing systems GPSS, the economic strategy games "Delta" and "Decor" Database Management System Visual FoxPro, MS Access, automated system of mathematical calculations Mathcad, a system of statistical analysis Statistica, business analyses platform Deductor, multiple approach simulation tool AnyLogic, training programs in foreign languages, and others.

Electronic teaching materials, books and manuals from the local information system are available for students and university staff.

Supporting information is located on the links: e-learning - <http://dispace.edu.nstu.ru/diclass/discipline>, e-library system resources NSTU - <https://ciu.nstu.ru/e-library>.

Standard 6 activity strengths:

1. A unique and extensive NSTU information system ensuring effective implementation of the cluster of the educational programmes under accreditation, their availability and openness to all stakeholders and the general public.

Areas for improvement.

1. Both the lack of specific functions of NSTU information system and insufficient work of graduate departments towards accumulation of

comparative information (benchmarking) about achievements of educational programmes cluster

Standard 7. Public information

Activity description and achievements in 2010 – 2014.

1. Completeness and reliability of the information on the cluster of educational programmes being accredited. Information on planned education results, competencies, given qualifications is kept in FSES, characteristics of educational programmes, training disciplines and practices annotations that are public access on NSTU portal. This information, as well as information on educational programmes content, types of educational activities, evaluation criteria, educational resources are specified in curriculums and working programmes that are available to students in personal accounts on NSTU portal. It is possible to familiarize yourself with curriculums, time schedules, list of disciplines and descriptions of each of the educational programme at: http://www.nstu.ru/education/edu_plans/#fb.

The published information undergoes preliminary compulsory control by the NSTU Information office to verify its reliability and accuracy. The information office, among other things, is responsible for monitoring quality of informational advertising materials and their compliance with developed requirements: <http://www.nstu.ru/treb>.

Informing the public about educational programmes of the cluster, besides internal NSTU resources, is executed through local TV channels (RBK, Rossiya-2), "Radio Rossii" radio station, newspapers (Izvestiya", Vecherniy Novosibirsk", "Argumenty i Fakty. Novosibirsk", "Molodost Sibiri", "Energiya"), "Education and career in Siberia" magazine and Vkontakte social network. English version of the website is located at: <http://en.nstu.ru/> and contains brief information about the Faculty of Business in the «Faculties and Institutes» section.

2. Objective information on employment and demand for graduates of the educational programmes is published on NSTU website in «Information on graduates employment" subsection of the "Graduates" section. Here one can find in generalized format data on graduates distribution among occupational channels and statistical information on FB graduates employment. For enrollees FB website contains information on main career development directions they will be able to follow after graduating the University. In "Enrollee" sector there is a sub-sector for review, where FB graduates can leave their comments, e.g. http://www.nstu.ru/enrollee/directions/s_080800.

All active vacancies are represented on the "NSTU. Career" portal (om.nstu.ru). "NSTU. Career» portal is an informational and communicational space, offering possibilities of searching for the job in specific professional fields, as well as assisting companies in realizing their business strategies focused on investing in human resources of the University graduates, supporting expert communications on employment issues, providing information on internships and trainings for students. Students and graduates can freely monitor new and relevant vacancies

and communicate with employers directly. During 2014 in the "Vacancies" section (<http://om.nstu.ru/job/index>) there were more than 200 job offers presented, of which around 20% were in "Economics" and "Management" fields. More than 30% of the companies registered on <http://om.nstu.ru/companies/index> offer jobs with economics and management profile.

Statistical data present on the website are objective and unbiased, because they are based on systematic polls among students and graduates (twice a year), conducted by NSTU graduates employment regional center. Polls are conducted through phone interviews, results of which are analyzed through statistical mathematical methods. Sample amounts up to 60% of the general graduates totality. Limit of error is less than 3%.

High level of demand for university graduates is confirmed by many ratings. In June 2014 NSTU was given 16th position in the overall rating of institutes for higher education and 13th position by level of demand for graduates (RA "Expert RA") (http://www.raexpert.ru/rankings/vuz/vuz2014/vuz_rus_2014/).

FB cooperation with different professional associations and organizations in the field of employment of graduates of the educational programmes under accreditation is executed by signing contracts about target preparation (Multiregional association of business managers, Novosibirsk city hall, etc.), internships, coordination of curriculums and competence-based models; events by Innovations development centers – NSTU business-incubators, interdepartmental REC center "School of modern management"; establishing communication of students and companies during Career days, companies' presentations, career-guidance seminars and trainings, master-classes, excursions, etc.

NSTU marketing department is an important tool in collaborating with employers.

3. Information on educational programmes achievements are placed on university portal and FB website (<http://www.fb.nstu.ru/>), including information on teaching staff achievements, student participation and victories in international, national and regional contests, Olympiads, conferences, results of academic and student mobility, student scholarships. Information on graduates' achievements is placed on NSTU website on "Success stories" section http://www.nstu.ru/alumni/success_stories.

Detailed information is published: in NSTU monthly information newspaper «Inform»

(http://inform.nstu.ru/categories/anniversaries_dates/faculty_of_business_20_years.html); on the federal portal "Russian education" (<http://www.edu.ru/abitur/act.3/ds.12/isn.425/page.14/index.php>); on websites of associations and organizations of employers (<http://sroapr.ru/news/2919>).

University and faculty information policy requires publications and yearly booklet publishing of information on educational programmes, which are distributed among high school graduates during Open House days, enrollees during enrollment campaign, and other open events.

Electronic copies of booklets in the cluster of accredited programmes are placed on NSTU portal: <http://www.nstu.ru/enrollee/booklets/#fb>.

Standard 7 activity strengths:

1. Unique and multidivisional NSTU informational system that ensures effective realization of cluster of the educational programmes being accredited, their availability and transparency for all interested parties and wider public.
2. Existence of internal requirements to quality of information and to development of information materials contents.
3. Existence of specific offices within the university that are responsible for public information and relations building and maintaining with employers, federal and regional media.

Areas for improvement:

1. Lack of full and exceptionally informative English version of the website in the cluster of educational programmes under accreditation.
2. Low dynamics and refreshing of FB website on NSTU portal, and, as a result – its low attractiveness for external users.
3. Not yet systematic enough work on promoting educational programmes on the market of educational services though applying full marketing and advertising complex.

3. Conclusions

Based on the self-evaluation of the educational programmes cluster delivered by the Faculty of Business of the Novosibirsk State Technical University in 38.03.01 "Economics", 38.04.01 "Economics", 38.06.01 "Economics"; 38.03.02 "Management" (with skills profiles in "Management in Organizations" and "Marketing"), and 38.04.02 "Management" (with skills profiles in "Marketing", "Production Management", "Global Management of Innovations and Technologies", "Global Innovation Management", and "International Management") the expert panel drew the following conclusions:

1. NSTU in general and the Faculty of Business, in particular, have policies and procedures of quality assurance of implemented programmes and awarded qualifications. They are expressed in the clearly defined, documented, approved and published goals and strategies of educational programmes and methods of achieving them and adjustments, the participation of all stakeholders in this process.
2. There are formal mechanisms for the approval, regular assessment and monitoring of the educational programmes under accreditation and the qualification awarded. These include periodic review of curricula and working programmes of academic disciplines in accordance with the objectives and results of the implementation of educational programmes, taking into account the views of students and employers, regular monitoring, periodic internal and external quality assessment.

3. Achievements of students are evaluated using sequential procedures based on common criteria and provisions set forth in the published documents on the order of evaluation of knowledge and competencies. Evaluation is carried out by the qualified specialists on the basis of the principles of independence and objectivity.
4. In the course of training for the educational programmes under accreditation students are involved in active scientific innovation and design. Adequate conditions are created for the domestic and international mobility of students and graduate employment.
5. The qualification and competency of teachers participating in the implementation of the cluster of educational programmes being accredited are quite high. The teachers systematically improve their skills, participate in joint international projects. Mechanisms and criteria for evaluating competency of teachers are developed and stimulation system is approved.
6. The resources used for the organization of the educational process on the educational programmes under accreditation are adequate and meet the necessary requirements. This is confirmed by the provision of proper material and technical base, library and information resources enabling to effectively organize independent learning and research work of students.
7. To ensure access to quality education the necessary conditions are created for students of different abilities (through NSTU Institute of Social Rehabilitation) and age groups (via FB Institute of Further Professional Education and Training). There is a system of students' feedback to assess the conditions and organization of the educational process.
8. To effectively manage the educational process the relevant information is collected, analyzed and disseminated. The university has developed a unique information system providing integration of the intramural resources, availability and completeness of electronic textbooks, teaching and learning materials in the local area network.
9. The NSTU Faculty of Business regularly publishes the current, objective quantitative and qualitative information on the cluster of the educational programmes under accreditation. Information is complete and reliable, including data on employment and demand for graduates, quality and achievements of educational programmes.
10. The department administration and supervisors of the educational programmes under accreditation reasonably mark the areas requiring improvement, and are willing to work in this direction.

11. The educational programmes cluster for 38.03.01 "Economics", 38.04.01 "Economics", 38.06.01"Economics"; 38.03.02 "Management" (with skills profiles in "Management in Organizations" and "Marketing"), and 38.04.02 "Management" (with skills profiles in "Marketing", "Production Management", "Global Management of Innovations and Technologies", "Global Innovation Management", and "International Management") is ready for public accreditation.

ACHIEVEMENTS OF THE CLUSTER OF EDUCATIONAL PROGRAMMES

The quality of the educational programmes is provided by highly qualified teachers and systematical professional development; involvement of the students in research projects, conferences, Olympiads, contests of various levels; academic and student mobility; involvement of managers and specialists of enterprises and organizations into the educational process; widespread use of active teaching methods in the educational process; development and continuous improvement of teaching materials including electronic ones; development of material and technical base and information resources.

The educational programme me of the Faculty of Business of NSTU "Economy" was regularly ranked among the best educational programme mes of All-Russian project "Best Educational programme me of Innovative Russia" during 2012-2014.

The relevance of the content of education is provided by annual revision of curricula and programmes of disciplines, their coordination with partner companies, adjustment in accordance with changes in legislation, regulations, the economy, and new national and European trends in education. Stable relations with professional communities through the Chambers of Commerce of Novosibirsk and Novosibirsk oblast, the Interregional Association "Siberian Accord" are developed. Regular contacts with the research institutes of the Siberian Branch of the Russian Academy of Sciences are maintained. Students have the opportunity to gain additional competences in a wide range of further professional education programmes of economic and administrative profile. Active teaching methods, including training sessions and workshops, business simulators, cases of partner companies are widely used in the educational process.

The teaching staff competency is confirmed by the staff of the graduate departments: 19 doctors of sciences, professors, two members of the Academy of Higher Education of the Siberian Branch of Russian Academy of Sciences; 76% of teachers have degrees and titles (61% - Candidates of sciences, 15% - Doctors). Some of the teachers are holders of the honorary title "Honored Educator of Science and Education", "Honored Educator of Higher Professional Education System", "Founder of scientific school"; some are awarded with certificates of honor and gratitude from the Russian Ministry of Education and Science, the Ministry of Education, Science and Innovation Policy of the Novosibirsk oblast due to their significant results in scientific and pedagogical activity, lasting productive work, introduction of new forms and methods of teaching in the educational process. Practitioners, professors of leading Russian and foreign universities are engaged in the educational process.

Independent evaluation of the knowledge and competences of the students is provided by the final certification of the State Examination Commission composed of practitioners - employers. Their high qualification is confirmed by their academic degrees, titles and membership in professional associations.

The demand for graduates of the programmes cluster under accreditation is confirmed by the high level of their employment (not less than 90%).

Learning resources. The material and technical resources are modern and sufficient for the effective implementation of the educational process. Classroom resources include lecture halls (10 of them are multimedia rooms), rooms for workshops and trainings, 7 computer labs (total number of computers is accounted for 100 units). Each computer lab is connected to the Internet, Wi-Fi is provided in the educational building. Modern information and communication technologies are used in the educational process.

The cluster of educational programmes under accreditation is fully provided with textbooks and manuals, scientific publications, and periodicals. During years of 2010-2014 the teaching staff of graduate departments published 81 textbooks and manuals, including 22 textbooks with assurance of UMO (The Board of Educational Methodological Association). The scientific library of NSTU holds the first category and the status of scientific institution.

Scientific activity. During the years of 2010-2014 the professors of the graduate departments of the Faculty of Business participated in 38 R&D projects including 3 state assignments; 7 federal programmes ("Scientific and scientific-pedagogical personnel of innovative Russia", "Engineering and scientific personnel for the innovation economy"); 6 grants from RFBR, RHF; 21 industry research projects; one regional science and technology project. Fifty one monographs were published.

The volume of state budget, contractual R&D, off-budgetary operations (except R&D) for this period is accounted for more than 33 million rubles. 33 graduate students of the Faculty are engaged in scientific research projects for 38.06.01 "Economics". Within five years 12 candidate and 3 doctoral dissertations were defended, and 3 patents were received. Publication activity of the teaching staff is represented by 418 articles in the journals included in the list recommended by the State Commission for Academic Degrees and Titles, 28 articles in international journals and conference proceedings including those that are listed in the base of citations by Scopus, WoS.

Academic mobility of students. Foreign students are studying at the Faculty for the cluster of educational programmes being accredited: "Management" - 44 students (Kazakhstan, Vietnam), "Economics" - 66 students (Kazakhstan, Mongolia, Uzbekistan).

The students of the Faculty go for training, internships, and conferences to foreign partner universities under cooperation agreements:

- for 38.04.02 "Management" - to Lappeenranta University of Technology (Finland) in a joint master's dual degree programme "Global Management of Innovation and Technology (GMIT)»; to the University of Warsaw (Poland) in the framework of the master's inclusive education programme "International Management"; to East Kazakhstan State Technical University of D.Serikbaev (Kazakhstan) under the students' exchange programme ;

- for 38.04.01 "Economics" - to Lucian Blaga University (Romania) in the framework of the exchange programme of students and teachers; to Harbin University of Commerce (China), as in the joint project "North-East Asia Academic Forum";

- without partner agreements - to the universities of other countries.

In the 2010-2014 118 faculty, staff and students of the Faculty of Business were involved in the process of mobility.

International projects are presented by internships and participation of the teaching staff in scientific conferences and summer schools, lectures in foreign partner universities, joint grant applications. In the years of 2013-2014 the teaching staff of the Faculty working with the educational programmes under accreditation went to universities and research organizations of the USA, Romania, Bangladesh, Croatia, China, Indonesia, Finland, Germany (including the DAAD project). Joint applications were submitted for international projects: in "Economics" - ERA.Net RUS Plus with the University Lucian Blaga (Romania); in "Management" - ERA.Net RUS Plus together with the German Institute for Economic Research DIW-Berlin (Germany). The programme of the inclusive education in industrial management together with the University of Landshut (Germany) is under development.

The professors and students have opportunities to raise the knowledge of foreign languages in numerous language centers of NSTU.

Main indices of the graduate departments' activity in 2010-2014

Indices	2010	2011	2012	2013	2014	Total
1. Volume of state budget, contractual R&D, non-budgetary works (R&D excluded), thousand Roubles	8520	8467	5510	6745	3927	33169
2. Number of postgraduates and doctoral candidates	27	43	43	36	33	*
3. Number of candidate dissertations defended	3	5	1	2	1	12
4. Number of doctor dissertations defended	-	1	1		1	3
5. Number of patents	2	-			1	3
6. Number of articles in the magazines listed by the State Commission for Academic Degrees and Titles (RSCI)	75	86	78	58	121	418
7. Number of publications in the foreign magazines, incl. magazines listed in the citation index Scopus, WoS	-	-	-	-	18	18
8. Number of publications in the foreign conference proceedings included in the citation index Scopus, WoS	-	-	3	3	4	10

9. Number of other scientific publications			153	163	202	518
10. Number of monographs	9	11	9	17	5	51
11. Number of text books and study guides without labels	13	19	7	13	7	59
12. Number of text books and study guides with labels	4	4	5	5	4	22

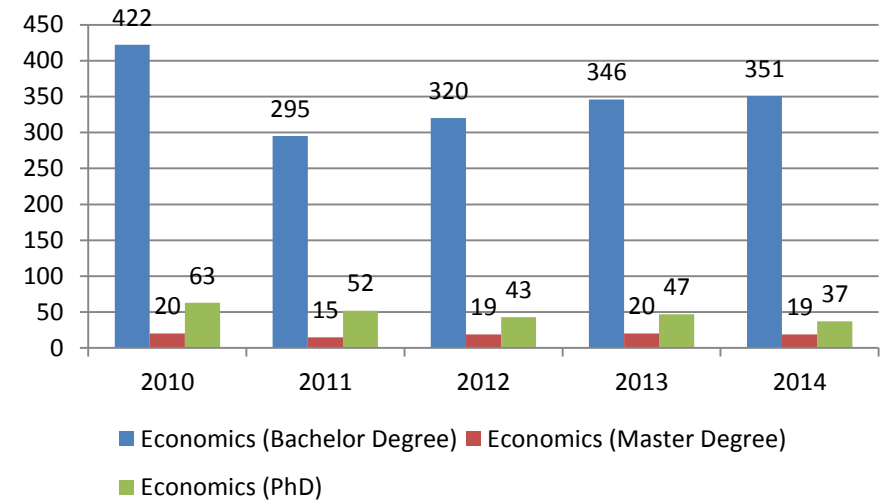
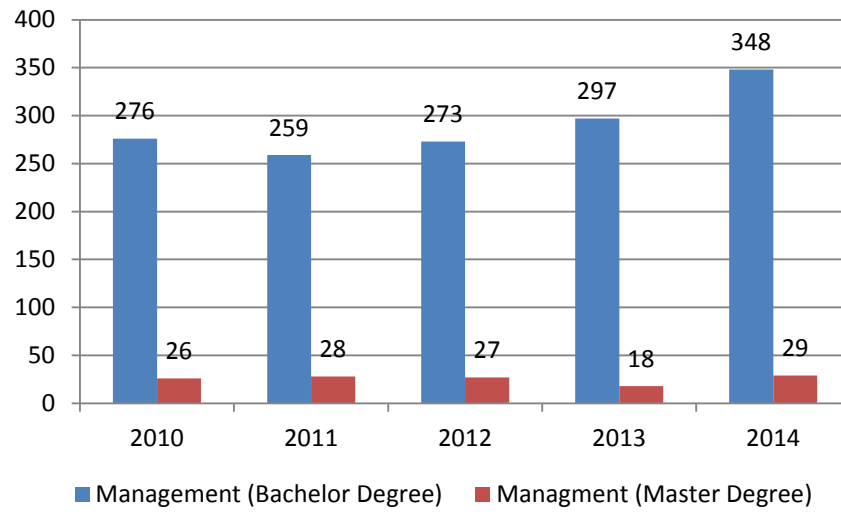
APPENDIX B

Dynamics of student population of Business Faculty in 2010-2014

Level	Specialty	Acceptance for the 1 st year					Student population as of October 1				
		2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Bachelor degree	Economics	86	84	144	117	145	422	295	320	346	351
	<i>Incl. budget</i>	8	10	10	-	-	79	56	44	28	20
	Management	67	70	125	101	136	276	259	273	297	348
	<i>Incl. budget</i>	8	12	8	-	-	69	57	43	27	20
	Business informatics	12	38	77	64	53	8	43	120	154	172
	<i>Incl. Budget</i>	-	4	4	-	-	-	4	8	8	8
	Applied informatics	39	40	47	42	82	157	161	162	150	190
	<i>Incl. budget</i>	10	25	22	25	54	61	68	71	79	123
	Service	-	12	25	23	20	-	12	34	54	60
	Tourism	-	11	22	24	41	-	11	37	57	89
	Total	204	255	440	371	477	863	781	946	1058	1210
	<i>Incl. budget</i>	26	51	44	25	54	209	185	166	142	171
Master degree	Economics	13	6	13	13	10	20	15	19	20	19
	<i>Incl. budget</i>	9	6	8	1	-	14	15	14	8	1
	Management	11	18	9	10	20	26	28	27	18	29
	- <i>budget</i>	8	10	7	-	-	13	18	17	7	-
	Finance and Credit	4	5	7	9	10	10	7	7	18	9
	- <i>budget</i>	2	4	-	-	-	8	6	-	-	-
	Applied informatics	7	12	21	28	39	19	19	26	43	40
	- <i>budget</i>	6	12	18	25	31	17	19	23	40	38
	State Auditing	-	-	-	3	1	-	-	-	3	1
	Total	35	41	50	63	80	75	69	79	102	98
	<i>Incl. budget</i>	25	32	33	26	31	52	58	54	55	39
Specialist degree	Economic security	-	-	38	51	135	-	-	38	79	200

	Others	71	-	-	-	-	486	416	321	97	40
	Incl. Budget	-	-	-	-	-	79	63	31	-	-
	Total	71		38	51	135	486	416	359	176	240
	<i>Incl. budget</i>	-	-	-	-	-	79	63	31	-	-
Total of the faculty (day time students)		310	296	528	485	692	1424	1266	1384	1336	1548
<i>Incl. budget</i>		51	83	77	51	85	340	306	251	197	210
Evening and distance education (bachelor degree)	Economics, Management	5	8	10	10	9	72	70	85	140	148
Evening and distance education (master degree)	Economics					9					8
	Management					13					12
	Applied informatics					4					4
Total of evening and distance education		5	8	10	10	35	72	70	85	140	172
PHD degree	Economics and management of the national economy; Finance, money supply and credit	5	5	10	7	10	63	52	43	47	37
Total of the faculty (incl. evening and distance education and PHD degree)		320	309	548	502	737	1559	1388	1512	1523	1757

Dynamics of student population of Economics, Management



APPENDIX C

Questionnaire for employers



The marketing department of NSTU monitors the level of employers' satisfaction with our graduates.

Please answer the following questions.

Full name, position _____

1. Have you employed any of NSTU graduates this year?
 - a. Yes
 - b. No (*pass on to question 3*)
2. At what degree are you satisfied with our graduates (five-point grading scale)?
(1- not satisfied, 5- highly satisfied)
12 3 4 5
3. Do you have any vacancies for the young professionals from NSTU?
 - a. Yes
 - b. No
 - c. May be in future

In March 26, 2011 NSTU holds the Career Fair. Last year about one thousand people attended the fair; about thirty companies proposed their vacancies and programmes for the graduates. Are you interested to participate? _____

If you want to take part in the Career Fair we can send a commercial offer to you...

- a. Yes
 - b. No
4. Are there any special programmes for graduates in your company?
 - a. Work practice
 - b. Internship
 - c. Other _____
 - d. No

If you can provide work practice or internship please send the information to our e-mail address: OM@ADM.NSTU.RU or wait till our specialist contacts you.

There is a portal "Career. NSTU" that is organized as usual sites for job search but with more attention to young professionals. Portal address:

<http://om.nstu.ru/>

After registration you can work with your personal page, add events and vacancies, get access to the data base of young professionals' resumes. Students and graduates can find your vacancy and learn more about your company. Thank you for your time and cooperation!

Questionnaire for students

«Satisfaction with the quality of the organization of the educational process»

1. Have you been afforded ground to get acquainted with the study programme of the subject?

1. Yes
2. No (pass on to question 3)
3. Cannot answer (pass on to question 3)

2. How have you been briefed on the study programme of the subject?

1. Presentation (Power Point)
2. Printed copy of the study programme of the subject
3. Extracts of the study programme as hand-outs
4. Read out loud the themes of lessons
5. Sent to the group mail in e-form
6. Posted in the "Student personal account" in e-form
7. Other _____

3. Was the point rating system used in the study process to evaluate the students' results?

1. Yes
2. No (pass on to question 7)
3. Cannot answer (pass on to question 7)
4. Other _____

4. When were you briefed on the rules of the point rating system of the students' results?

1. Introductory lesson
2. Middle of the term
3. Final lesson
4. At the pass/exam
5. Never
6. Other _____

5. Have you got information about number of points received in academic discipline?

1. Yes, on regular basis during the term
2. In the end of term when summing up the work in the term
3. No
4. Right at the exam
5. Never

6. Other

6. Was the point-rating system used to evaluate the result of the exam/test (max. 20 points for a test; max. 40 points for an exam)?

1. Yes
2. No
3. Hard to answer

7. Was it possible to pass test/exam in the academic discipline automatically?

1. No
2. Yes, any positive mark (3, 4, 5)
3. **For academic discipline with exam:** Yes, but only "excellent mark" with the condition to fulfill extra work (taking part in a conference, Olympiads, etc.)

For a discipline with test: Yes, but only "excellent or good mark" with the condition to fulfill extra work (taking part in a conference, Olympiads, etc.)

4. Other _____

8. Rate by 10 point scale if your expectations of the studied discipline proved true.

1 – not proved, 10 – fully proved

1 2 3 4 5 6 7 8 9 10

Hard to answer

9. Which of the factors presented below influenced the general impression of the discipline studied? (the number of factors is not limited)

Indicate your choice of this or that factor on the scale presented according to the degree of its importance, where 0 – difficult to estimate, 1 – more agree than disagree, 2 – fully agree.

1	Uninteresting presentation of the discipline material	2	1	0	1	2	Interesting presentation of the discipline material
2	Cancellation and adjournment of classes	2	1	0	1	2	Regular conducting classes
3	Uninteresting forms of conducting classes	2	1	0	1	2	Interesting forms of conducting classes

4	Unobvious links of the knowledge gained with future professional activity	2	1	0	1	2	Obvious links of the knowledge gained with future professional activity
5	Monologue form of conducting classes (only a teacher speaks)	2	1	0	1	2	Dialogue between a teacher and students
6	Too much volume of home assignments, I cannot cope with it	2	1	0	1	2	I cope with the volume of home assignments
7	Too little material to be done	2	1	0	1	2	Volume of home assignment is sufficient for mastering the discipline
8	Unclear requirements necessary to prepare for classes	2	1	0	1	2	Clear and understandable requirements necessary to prepare for Classes
9	Unclear and/or changing rules and criteria of assessing student's work in the process of training	2	1	0	1	2	Clear rules and criteria of assessing student's work
10	Disrespectful teacher's attitude to a student	2	1	0	1	2	Benevolent and respectful teacher's attitude to a student

10. Special opinion on the discipline*

*** this box is not obligatory to fill in**

Points 11 - 16 are filled only for disciplines chosen

11. Did you have the possibility of choosing the discipline(s) independently?

1. yes
2. no
3. others

12. Were oral presentations of the chosen disciplines made?

1. yes
2. no

3. others

13. Who made the presentations of the disciplines chosen?

1. tutor
2. the teacher conducting the course chosen
3. others

14. Which became the main reason for choosing the course?

1. the presentation content
2. the teacher
3. the course name
4. the opinion of senior students on the discipline
5. advice or recommendations of the tutor
6. others

15. Were the presentations of the chosen discipline shown in "The Student's Profile" before making a decision concerning the choice?

1. yes
2. yes, but not in time
3. no
4. others

16. Did you use the presentations of the chosen disciplines presented in "The Student's Profile"?

1. yes
2. no

Appendix E

Scientific events, in which the students of the cluster of educational programmes under accreditation took part

Event	Place Team / member	Venue
2010		
All-Russian Olympiad "Innovative Management" in the V National Forum of students, graduate students and young scientists "Innovation in economics"	1 (team)	TSU Graduate School of Business Faculty of Economics, Tomsk
International Olympiad in managing of a commercial bank - Banks Battle (semi-finals)	1 (team)	Sberbank, Novosibirsk
International Olympiad in managing of a commercial bank - Banks Battle (final)	1 (team)	Sberbank, Novosibirsk
City competition "Strong Entrepreneur"		Novosibirsk
The innovative online business game «B-Revealed» by L'Oreal Company (Russian final)	1(team) in the category "Business Development" 1(team) in the category "Finance"	Moscow
All-Russian Olympiad on management	1(team)	Siberian state industrial university, Novokuznetsk
All-Russian Olympiad "Planning for the Enterprise"	3(team) 4(team)	Tyumen State Oil and Gas University Tyumen
All-Russian Olympiad "Financial management of corporations in a competitive market"	2(team)	Novosibirsk State University of Economics and Management, Novosibirsk
All-Russian Olympiad "Financial management of corporations in a competitive market"	4 (team)	Novosibirsk State University of Economics and Management,

		Novosibirsk
City competition of advertising campaigns "Idea! Next 2010"	3(team)	Novosibirsk
Interregional Olympiad "Enterprise Management in Competitive Environment "	3 (team)	East Siberia State University of Technology and Management, Ulan-Ude
Interuniversity Student Scientific Conference "Intellectual potential of Siberia"	2, 3 (team)	Novosibirsk
The best young accountant of Novosibirsk oblast	2 (team), 3 individual),	Novosibirsk
Interuniversity Scientific Conference of students and graduate students "Modern trends of the theory and practice of economic analysis and audit"	1, 3 (individual)	Novosibirsk
Annual Interuniversity Olympiad in economic analysis	3 (team)	Novosibirsk
2011		
International Open Internet Competition "Talented managers: from the classroom to the director's chair"	1(individual)	Ulan-Ude
Interuniversity Student Scientific Conference "Intellectual potential of Siberia"	1, 3 (individual)	Novosibirsk
City competition "Strong Entrepreneur"	1 (team)	Siberian Institute of Management - branch of the Russian Presidential Academy of National Economy and Public Administration Novosibirsk
Interregional Olympiad "Enterprise Management in	1 (team)	East Siberia State University of

Competitive Environment"		Technology and Management, Ulan-Ude
All-Russian Olympiad in Marketing	1 (team) 1(individual) in categories "The most competent opponent" and "The most original solution of problems"	Khabarovsk State Academy of Economics and Law, Khabarovsk
All-Russian Student Conference on Marketing	1 (team)	Khabarovsk State Academy of Economics and Law, Khabarovsk
Competition "Master of sales" in the national student championship "Effective Manager 2011"	1 (team)	Siberian State Technological University, Krasnoyarsk
Open Regional Olympiad "Economics and financial management of the enterprise"	1 (individual) 2 (team)	Volga State University of Technology, Yoshkar-Ola
City championship on solving cases	1 (team)	Novosibirsk State University of Economics and Management, Новосибирск
City business game "Youth innovative creative environment"	3(team)	NSU, Novosibirsk
All-Russian Olympiad on marketing "Market Research and Marketing Management"	1, 2, 3(individual)	TSU, Tomsk
All-Russian Olympiad "Innovation Management"	3 (team)	TSU, Tomsk
All-Russian Conference of Students and Young Scientists "Innovative Economy"	1 (individual)	Tomsk TSU, Tomsk
City competition of advertising campaigns "Idea! Next 2011""	2(team)	Novosibirsk
City competition "Strong Entrepreneur 2011»	1(team)	Novosibirsk
Moscow Interuniversity	2(team)	MSU,

Student Olympiad "Enterprise Management"	1 degree diploma in the category "Best production strategy" 1 degree diploma in the category "Best Asset Management"	Moscow
Regional Case championship MARS 99 Seconds	2(team)	Novosibirsk
All-Russian Olympiad "Enterprise Management in a competitive environment"	2(team)	NSTU, Novosibirsk
International competition of managers "Global marketing competition"	6(team)	Madrid, Spain
The best young accountant of Novosibirsk oblast	1 (individual), 3 (team)	Novosibirsk
Interuniversity Scientific Conference of students and graduate students "Modern trends of the theory and practice of economic analysis and audit"	1, 3 (team)	Novosibirsk
Annual Interuniversity Olympiad in economic analysis	1 (team)	Novosibirsk
2012		
All-Russian Olympiad "Financial management of corporations in a competitive market"	1, 2(team)	Novosibirsk State University of Economics and Management, Novosibirsk
1st Regional Competition "The strategy and tactics of business management"	1,2,3 (individual)	Tomsk Polytechnic University, Tomsk
Regional (Asian) world tour event managers "Global marketing competition"	1 (team)	
Региональный кейс-чемпионат "MARS-99"	2(team)	NSU, Novosibirsk
Regional round of the competition managers "Challenge cup"	The award "High Award"	NSU, Novosibirsk
International competition of managers "Global marketing"	1 (team)	Madrid, Spain

competition		
All-Russian Olympiad "Enterprise Management in a competitive environment"	1 (team)	NSTU, Novosibirsk
Regional case-championship "Henkel Innovation Challenge"	1 (team)	NSU, Novosibirsk
Interuniversity Student Scientific Conference "Intellectual potential of Siberia"	3 (individual)	Novosibirsk
The best young accountant of Novosibirsk oblast	3 (team) 2 (individual)	Novosibirsk
Interuniversity Scientific Conference of students and graduate students "Modern trends of the theory and practice of economic analysis and audit"	1 (team) 1(individual)	Novosibirsk
2013		
All-Russian Olympiad in Marketing	The first degree Diploma	Kazan (Volga) Federal University, Kazan
II Regional Competition "The strategy and tactics of business management"	1,3 (team)	Tomsk Polytechnic University, Tomsk
All-Russian Olympiad on discipline "Planning for the Enterprise"	3 (team)	Tyumen State Oil and Gas University, Tyumen
All-Russian Olympiad "Financial management of corporations in a competitive market"	1,3 (team)	Novosibirsk State University of Economics and Management, Novosibirsk
All-Russian Student Olympiad "Corporation management"	3 (team)	East Siberia State University of Technology and Management, Ulan-Ude
All-Russian student competition "effectively managed" Round II	2 (team)	Samara State Technical University, Samara
City Olympiad "Solving cases@	2 (team)	Novosibirsk State University of

		Economics and Management, Novosibirsk
Championship on strategy and business management "Global Management Challenge "	Cup of Novosibirsk Oblast	On-line
"Global management challenge"	Cup of Regions	Moscow Exchange, Moscow
Interuniversity Student Scientific Conference "Intellectual potential of Siberia"	3 winners	Novosibirsk
The best young Russian financier	1 winner	Novosibirsk
Interuniversity Scientific Conference of students and graduate students "Modern trends of the theory and practice of economic analysis and audit"	2 (team)	Novosibirsk
2014		
All Russian competition in breeding "Superlabelman"	3(team), 1, 2 (individual)	St. Petersburg State University of Economics, St.Petersburg
Regional Olympiad on management disciplines	1 (team) 1, 3 (individual)	Krasnoyarsk
All-Russian Olympiad on management "Enterprise Management in a competitive environment"	3 (team)	Nstu, Novosibirsk
The best young Russian financier	6 winners	Novosibirsk
All-Russian competition for 3-5-years students of economic specialties "Personnel Reserve"	2 finalists	NP "Russian Audit Chamber"
XXVI International Olympiad "Entrepreneurship and Management" 2014	7, 18 и 30 (individual)	St. Petersburg

Continued Appendix E

Main research projects performed by students for "Economics" and "Management"

-Justification of the resources required to ensure the success of the university performance (student grants competition NSTU, 2013)

-Study of accounting and analytical aspects of intellectual property management of Technical University (NSTU Strategic Development Programme, 2014);

-Evaluation of possibilities to improve financial independence of Siberian regions based on a comparative analysis of the conditions to mobilize regional tax capacity (Strategic Development Programme NSTU, 2014);

- Assessment of the potential commercialization of the product "Software package" KorSet "" (2013);

- Development of a communication strategy of innovative product - "cloud" software computer system power (2013);

- Assessment of the potential commercialization of the product "Functional materials based on polymers and carbon nanotubes" (2013);

- Analysis of the product market opportunities - innovative water purification system (2013);

- Research and development of multi-level information and analysis system to assess the status and prospects of the formation of effective economic relations on the basis of innovation development of in higher education institutions included in multidisciplinary integrated structure;

-Assessment of the potential commercialization of the product "Modeling, analysis and calculation of compression and depreciation processes in landing gear when landing" (2012);

- Development and execution of scientific and methodological support for monitoring and adjusting the development strategies of universities based on the implementation of innovation and integration approach and principles of competency orientation (RF Ministry programme "Development of Scientific Potential of Higher Education", 2011);

- Impact of macroeconomic policy with monetary and foreign exchange controls on the dynamics and structure of the national economy in terms raw materials export and imperfect markets;

- Economic decision-making in terms of dominance of behavioral model of opportunism;

- Evaluation of the economic effects of non-discriminatory public procurement policies;

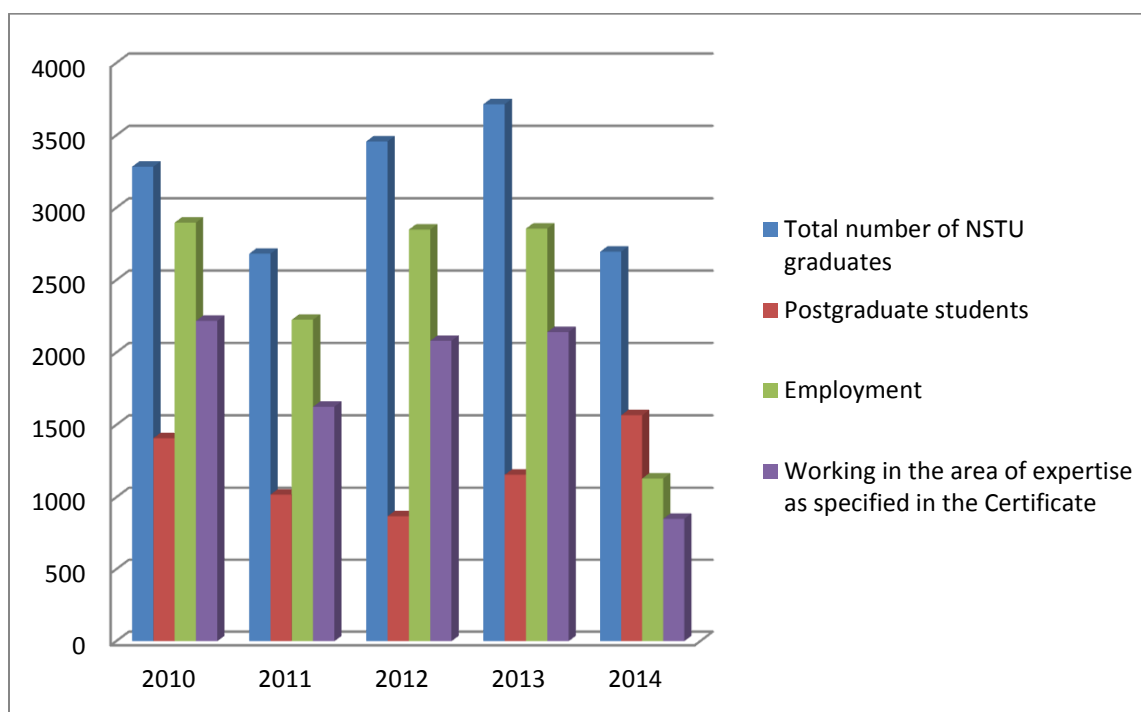
- Grounds for benefits granting to domestic enterprises within the state order in the Russian Federation;

- Effectiveness as a criterion for the legislation evaluating;

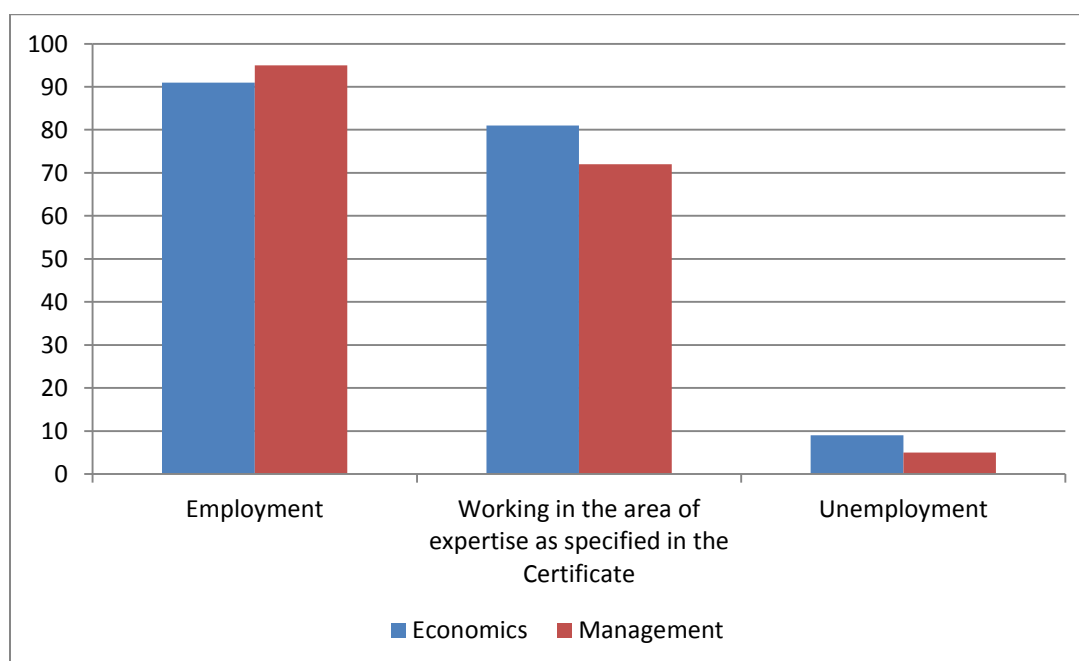
- Assessing of the social and political institutions impact on the economic development of the region;
- The impact of administrative barriers on the housing construction cost in the Russian Federation;
- Economic and legal aspects of poverty as an object of economic analysis.

Appendix F

Dynamics of NSTU graduates employment indicators in 2010/14.



Employment Rate of graduates in "Economics" and "Management" in 2014



Appendix G

Professional development of graduate departments' teaching staff
in educational programmes for "Economics" and "Management"
in 2010-2014

Department	Number of teachers improved their professional skills				
	2010	2011	2012	2013	2014
Management	2	7	5	11	7
Economic Theory and Applied Economics	10	8	16	7	16
- <i>including internships</i>				1	
Theory of Market	7	6	2	4	3
- <i>including internships</i>		1		1	
Accounting and Statistics	7	5	6	8	9
- <i>including Summer School</i>					1
Finance and Tax Policy	5	6	5	9	4
Total	31	32	34	39	39

Appendix H

Participation of Business Faculty teaching staff in conferences and seminars in foreign universities and organizations in 2014 ("Economics", "Management")

- XXII International Conference INFORUM, University of Maryland, Alexandria, United States;
- 21st International Economic Conference (IECS 2014), Sibiu, Romania;
- 48th International Universities' Power Engineering Conference (UPEC 2013), Dublin Institute of Technology, Dublin, Ireland;
- 49th International Universities' Power Engineering Conference (UPEC 2014), Cluj-Napoca, Romania;
- IX International Forum on Strategic Technology (IFOST-2014), the Cox's Bazar, Bangladesh;
- 15th International Symposium on Quality growth and development, Zagreb, Croatia;
- International Conference on Advanced Management Science and Information Engineering (AMSIE 2014), Hong Kong, China;
- 2nd Gadjah Mada International Conference on Economics and Business (GAMAICEB 2014), Gadjah Mada University, Jakarta, Indonesia;
- International Seminar BRIDGE through joint educational programmes with the support of the European Commission in Russia, Lappeenranta University of Technology, Finland.

Appendix I

List of Optional Charged Services Provided by R&D Library, NSTU

№	Types and services description	Contractor	Location
1	Providing services for outside users in reference rooms	Main reading hall Reference room for humanitarian literature Reference room for economics and legal literature	TB.I, r. 104–106 TB VI, r. 302 TB VI, r. 305
2	Granting temporary library cards for outside users	Readers' registration department	TB.I,r. 8
3	Interlibrary loan service for outside users	Department of electronic resources	TB.I,r. 104a TB VI 6,r. 301
4	Making and granting of laminated library cards	Readers' registration department	TB.I,r. 8
5	E-mailing of documents (from stocks of other libraries)	Department of electronic resources	TB.I,r. 104a TB VI,r. 301
6	Multi company machine time application	Department of electronic resources Reference room for foreign literature Research Communications Centre	TB.I,r. 104a TB VI,r. 301 TB VI, r. 107 TB V, r. 221
7	Providing excursions for outside users and organizations	R&D Methodical department	конт. 1, ком. 108
8	Copying (limited number of copies)	Department of humanitarian literature Main reading hall	TB.I, r. 104–106
9	Scanning	Department of electronic resources	TB.I, r. 104a
10	laminating	Readers' registration department	TB.I, r. 8
11	Printout of search results	Department of electronic resources Research Communications Centre	TB.I, r. 104a TB V, r. 221
12	Data recording on information carriers (CDs, flashcards)	Department of electronic resources Research Communications Centre	TB.I, r. 104a TB V, r. 221
13	Typing	Department of electronic	TB.I, 104a

		resources Research Communications Centre	TB V, r. 221
14	Machine translation from foreign languages	Department of electronic resources Research Communications Centre	TB.I,r. 104a TB V, r. 221
15	Search for viruses on removable data carriers	Department of electronic resources	TB.I,r. 104a
16	Hiring of video-tapes	Department of electronic resources	TB.I,r. 104a
17	Extended information search on reader's request including periodicals	Research Communications Centre	TB V, r. 221
18	Making unscheduled reference lists on topic declared (without abstracts & editing)	Research Communications Centre	TB V, r. 221
19	Making unscheduled annotated reference lists on declared topic	Research Communications Centre	TB V, r. 221
20	Bibliographic editing of R&D literature	Research Communications Centre	TB V, r. 221
21	Bibliographer's advice for outside users	Research Communications Centre	TB V, r. 221
22	Making unscheduled custom-reference lists (on author's or department request)	Research Communications Centre	TB V, r. 221
23	Subject specified information search through the Internet	Research Communications Centre	TB V, r. 221
24	Creating search-oriented unscheduled data	Research Communications Centre	TB V, r. 221
25	Defining LBC, UDC, GRNTI indices for R&D	Department of Handling & Literature Registration	TB.I,r. 101
26	Defining SNIP index	Research Communications Centre	кoпн. 5, кoм. 221
27	Individual service for outside customers via Iri system	Department of electronic resources	TB.I,r. 104a
28	Provision of guidance documents on methodology & technology by R&D Library, NSTU	R&D Methodical department	TB.I, r.. 108
29	Arrangement of lectures, seminars workshops on bibliography, and etc.	Library Director Deputy on R&D	TB.I,r. 110

APPENDIX J

List of Additional Professional Training Programs run by the Additional Professional Training Institute (APTI), Faculty of Business Administration

Nº	Additional Professional Retraining Programmes	Workload, hrs
1	Personnel Management	520
2	Financial and Tax Management	520
3	Economy and Management: Effective Solutions for Business	520
4	Accounting and Financing	520
5	Management-Marketing	520
6	Economy and Enterprise Management	520
7	Management Training Programme for Organisations and Institutions of National Economy of RF. Direction: "Management". Specialisations: "Enterprise Management", "HR Management". Type: B	574
8	Management Training Programme for Organisations and Institutions of National Economy of RF. Direction: "Management". Specialisation: "Economy and Enterprise Management". Type: A	1062
9	MBA: Strategic Management and Entrepreneurship; Marketing; Financial Management	1500

Nº	Additional Professional Retraining Programmes	Workload, hrs
1	Small Business: Organisation and Management	72
2	International Accounting Standards: In Simple Terms	72
3	Operational Management of Production Activities	72
4	Advertising and Sales via the Internet	72
5	Services: Client-oriented Technologies	72
6	Critical Chain Project Management	72
7	Production Systems Management: Strategies and Tactics	72
8	Securities: In Simple Terms	72
9	Accountancy	72