



Industrial University of Tyumen

UNIVERSITY REPORT (DRAFT VERSION)

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1. General Information about the University

Industrial University of Tyumen (IUT) is one of the largest research-educational university complexes in Russia, implementing the personnel training for the fuel-and-energy complex and for other spheres of economy.

In 2016 IUT was among winners of the Russian competition on formation of regional flagship universities. Mission of a flagship university consists in enhancement of human and scientific technical capacity of the corporations having production assets in the region for the purpose of successful development on the basis of integration of science, education and production.

The flagship university transfers emphasis on the large corporations determining an economic profile of the region and also on the small and medium businesses developing in the conditions of diversification and providing an import independence in the sphere of high-technology services and "smart economy".

Transformation of target model of university consists in transition from model only of "The training university" to the model of "The first higher education institution of corporations" promoting fundamental change in innovative development of the systemically important entities, to providing their an import independence.

Owing to historically developed relationship and communications of university with the partner entities and a region role in the international and national job specialization, the sphere of influence of university extends to:

- 1) strategic zones of managing of corporations, including the foreign and Arctic territories;
- 2) Tyumen region, Khanty-Mansi and Yamal-Nenets Autonomous Districts;
- 3) the Asian countries of the neighbor (Kazakhstan, Kyrgyzstan, Tajikistan) and foreign countries, and also developing countries (BRICS, etc.).

The strategic goal is to create "First university of corporations' of oil and gas and construction profile, high-tech enterprises of the regional sector of services and" smart economy "based on the transformation of the educational model, the modernization of research and innovation activities, the advanced development of human, institutional and infrastructural capacity.

Today IUT is the indisputable market leader in the training of engineers in Tyumen region. The proportion of students being trained at the university in the regional market of educational services is 36.9%.

IUT provides a wide range of opportunities for education. The structure of the university:

- 7 institutions:

Institute of Management and Business, Institute of Transport, Institute of Geology and Oil and Gas Extraction, Institute of Industrial Technology and Engineering, Construction Institute, Engineering and Economic Institute, Institute of Architecture and Design.

-2 Colleges:

Oil and Gas College, College of Informatics and Communications

- General Education High School

-library and publishing complex, which has the status of the first category scientific library.



Among the priorities within educational activity of the university there is the development of graduates with professionally based competence, oriented to the requirements of the local labor market. The main educational programs here are targeted to the high level of professional excellence of the students. Modules of disciplines are created regarding monitoring system and graduates assessment system. About 80% of implemented programs of higher education belong to the technical direction, training in 19 majors correspond to the priority areas of modernization and technological development of the Russian economy. Today there are more than 35 000 students from more than 30 countries. The university alumni are employed by the largest Russian and transnational companies: «Gazprom», «Rosneft», «LUKOIL», «Transneft», «Halliburton International», «Schlumberger», «KCA Deutag Drilling», «Weatherford», «Baker Hughes», and others.

The university implements 34 programs of Bachelor Degree and 21 programs of Master's Degree in the field of petroleum engineering, geology, mechanical engineering, chemical technology, technosphere safety, transportation processes, informatics, architecture and construction, hospitality, management, advertising and etc.

IUT successfully solves scientific and practical problems in the field of construction, oil and gas, refining, contributes to the implementation of sectoral programs for the development of the Tyumen Region, Khanty-Mansi District and Yamalo-Nenets District. Today university has gained considerable experience in the application of research results in the production of oil and gas industry enterprises.

IUT has more than 45 cooperation agreements with the universities and companies around the world. Strategically academic partners are: University of Houston(USA), French Institute of Petroleum (France), China university of petroleum (China), Technische Universität Bergakademie Freiberg (Germany), Hokkaido University (Japan), University of Stuttgart (Germany), Clausthal University of Technology (Germany), University of Maribor (Slovenia), Petroleum and gas University of Ploiesti (Romania), Kazakh-British Technical University (Kazakhstan) and others.

IUT is a member of different network societies of universities: University of the Arctic (UArctic), Association of universities of Russia and India, Russian-Kyrgyz Consortium of Technical Universities, etc. University is interested in development of network cooperation in these and other associations in the spheres of academic mobility, development and implementation of joint programs (including double degree programs) and realization of joint educational projects.

2. Employability at University

The structure of demand for basic educational programs

Despite the fact that the system of regional professional education is in the process of adaptation to the new structure of demand in the labor market, the demand for economic and legal areas of training remains high (34.4% of the total number of students at majors of higher education). Only taking into account regional-industry-specific demand for trained engineering specialists constitutes 30% (Fig. 1).

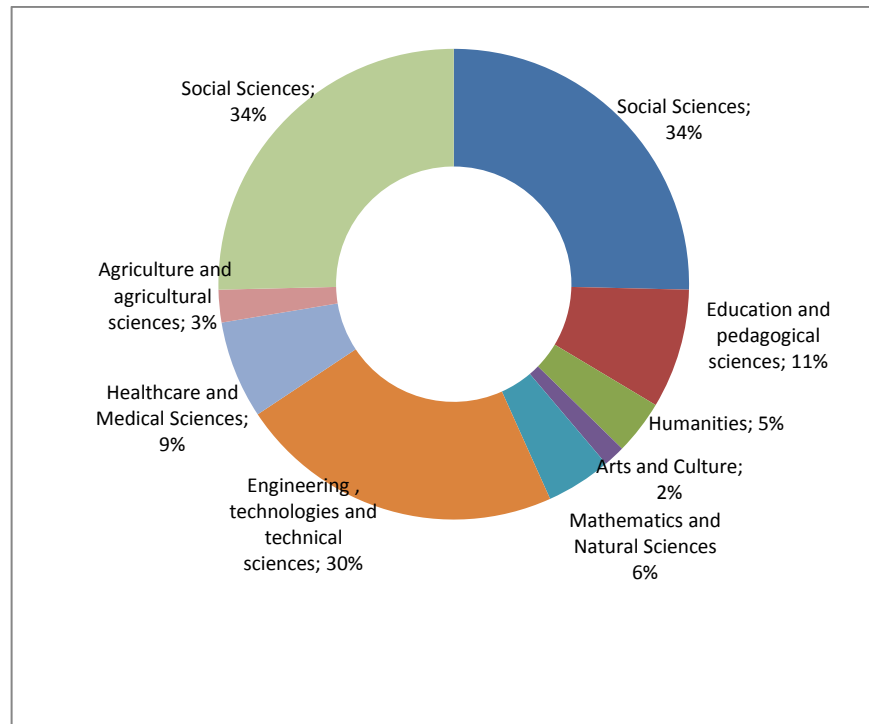


Fig. 1. The structure of the contingent enrolled in higher education programs in educational organizations of Tyumen region, implementing the technical areas of training, in the context of branches of science

The structure of the demand for additional professional education

Today, the region is implementing a large number of professional training and retraining programs. UIT provides highly specialized programs in the field of construction and oil and gas business, in addition, in the field of management and economics, UIT is also a leader in the engineering specialization programs and implements the basic directions of training in the field of housing and communal services, management, economics, psychology, life and labor safety and environmental protection.

The deep interviews with representatives of key employers of our University showed:

1.Requirements of Employers

All requirements by employers can be divided into two groups:

Professional Requirements

First of all, higher education degree(Bachelor or Master). In organizations involved in specific activities (e.g., oil and gas industry), there is a constant demand of professionals with a diploma of a particular speciality. In some organizations, the value has only a diploma of higher education, as organizations are actively working on training of all staff and each young professional in particular.

The professional requirements of almost all organizations is the ability to work on a computer (often referred to MS Office) and knowledge of special programs and software. Often employers say that you need to be able to use the



resources of the Internet – and in some cases this is absolutely necessary, for example, to study the range of products, features of operation and technical characteristics of the equipment. In some cases, a graduate may need the ability to communicate in social networks or forums. Another requirement to training: knowledge of a foreign language. This is especially true for organizations that have branches abroad or working with foreign partners. Employers say that good knowledge of the language in many cases opens up greater opportunities for career and personal growth.

Personal Requirements

According to almost all respondents, an important quality for any employee is **good communication skills**. This quality is necessary not only to those who work directly with the client but also to the employees in the shops", "in the field". The success of the entire organization depends on their ability to build effective communication with colleagues. Coordinated teamwork on the project implies the ability of every member to listen and hear colleagues.

Resilience, the willingness to perform simple and boring work, especially at first. This feature is particularly relevant for young specialists without experience. It is difficult to assume that they will be offered creative responsible work immediately on a new place. Rather, it will be routine, boring and time consuming tasks "on the newcomer". The ability to adequately perform such tasks, "not to break" promise and prospects and respect.

Design thinking – the ability to build in the head logical chain of actions and imagine the outcomes of their activities. Not necessarily it will be an independent project. It is important to understand its place in the long chain of process, to understand the objectives, results and milestones.

The ability to quickly perceive new information

It is also a quality called "readiness for learning", "innovative thinking". This is the main quality that university should teach a young professional, he/she should continuously be ready to learn, to acquire new knowledge and skills. A large percentage of graduates work in these professions, which did not exist at the time of their admission to the first year. This means that many things they must learn on their own. So, the University should prepare them to do.

To private requirements for personal qualities of graduates respondents also refer stress commitment; self-confidence, the ability to conduct business negotiations and so on.

With respect to such quality as active position, the views of employers differ: some say that this is a very important and necessary quality as the employee will not always be under the "wing" of a mentor and eventually will independently realize the projects. Others need simple performers, prepared to follow orders strictly.

2. The claims of employers to higher education and to graduates

The study revealed that the main problem of young professionals – lack of practical skills. This claim was named as employees of small businesses and large, regardless of the specifics of the activities undertaken. Even if a person comes with a knowledge, but he doesn't know what he will do and how he would do it, and is not ready for it. The graduate has just the perfect picture of how it should be.



Added to this problem is another – a discrepancy of theoretical knowledge obtained in University with practice. It concerns, mainly, the organizations of scientific-industrial sphere. A fleet of modern equipment is changing very rapidly. Among the common complaints: lack of knowledge of the English language.

The claims of employers to personal qualities of graduates:

Not wanting to work, the graduate comes for the entry in the workbook, and wants to do nothing. Employers in this regard, note that people are not serious about applying for a job might consider working as a temporary or at least not as the subject of dreams... the stereotype of the successful manager immediately after graduation, does not make them think about work as a gradual way to success.

Lack of communication skills include the inability to conduct business negotiations, or just the inability to properly and logically construct/compose phrases and sentences. In general, the employers approach to selecting their employees - young professionals is very demanding. The employers say that if the employee does not meet the requirements, he/she after the trial period, simply does not get the job. Either he/she is eliminated at the stage of interviews and testing.

Their expectations are more than reality.

This point stays separately. Starting with the entrance exams to the University, many students, especially the "elite" professions, are told that they will be in demand and will not have problems with employment. For many graduates these illusions become a real obstacle to obtaining decent work. The same can be said about the expectation of future wages. Young professionals expect a salary that should be enough for a comfortable life and are not willing to work for less. In turn, the labor market is ready to offer them much less, given the fact that they will become useful workers not very soon .

3. Recommendations of the employers.

The main recommendations of employers aimed at solving such problems as the lack of practical skills. However, every employer puts in their understanding. All of the recommendations can be divided into several groups:

1. Providing opportunities for organizations and companies to teach at University, practice-oriented courses.
2. Conducting lectures and workshops on the basis of enterprises with the use of their production capacity and resources
3. The introduction of production practices in the early course, and not at the end of training. For their part, employers, in direction of the organization of work act in the following way: the system of mentoring, "coaching", helping the young specialist adaptation in collective and professional activities is a general practice. Mentors – the most experienced staff with extensive knowledge in the field of functioning of the organization help the new-comers.

Organizations are willing to "do about" young professionals, if they see the potential in them and wish to work. In addition, there is a system of tests and comprehensive assessments to verify employees in various fields

With regard to recruitment, of course, the method of practice in organizations and subsequent job placement is at the first place.



Using the opinion of employers, we can offer our students practical advice for effective search of their future work: as early as possible to get into the field of view of the HR managers of the companies, send out resumes, apply for practice in the the company where they dream to work, to develop the necessary personal qualities. And of course, to try along with the theoretical also practical knowledge and skills required to work in the chosen specialty.

3.Key directions of the activities concerning employability that engage academic staff and students at university

Promoting the employment of graduates is one of the priority directions of activity of the UIT.University for many years cooperates with large domestic and foreign oil and gas, transportation and service companies.

UIT cooperation with enterprises in the framework of the collaboration contracts regulates the interaction not only in organization of students practice, internships, placement and employment of young specialists, but also involves the training of specialists and workers, retraining of specialists of the enterprises, organization of internships for university teachers at enterprises, conducting of research and workshops, development of material and technical base, premises and laboratories of the university, joint activities in the socio-cultural sphere, and others.

UIT uses the following system to facilitate the organization of the employment of graduates:

1. Pre-employment of graduates (November);
2. The final employment of graduates/ Fair of Vacancies (April);
3. The days of companies (during the year);
4. Acceptance of enterprise application for employment of graduates (during the year).

To improve the quality of the organization of graduate employment work is conducted within the framework of the signed agreements and cooperation agreements with the following institutions and the Organization: GU "Department of Employment of the Tyumen region ," GAU "Employment Center of Tyumen and Tyumen District", NGO "Youth Labor Exchange .

In order to increase the competitiveness of graduates in the labor market University carries out additional training of students to meet the individual requirements of enterprises ,i.e. customer requirements for a particular specialist, his/her basic education, required period and forms of education. Individual training programs, educational plans, syllabi, curricular and reporting forms are agreed with the organization concerned.

In April 2013 at Tyumen State Oil and Gas University the Public Council was created. The purpose of this Council is to assist university in improving the quality of scientific and educational activities.

The Council includes representatives of the university partner companies interested in the quality of training, support and improvement of the activities, they are employers for UIT graduates, and on the basis of these partners university managed to establish its branch- departments, among them are "Transneft-Siberia", "SurgutNIPIneft" "Gazturboservis", "TyumenNIIgiprogaz", "Lukoil", "Rosneft", "Zapsibcombank" and others.

Also UIT created successfully functioning Alumni Association. Association solves different tasks to ensure the continuity of experience, preservation and augmentation of the traditions existing in the University. One of the aims of the Association is to promote the professional guidance of youth and employment of graduates.



Endowment fund; A promising area of formation of the strategic partnership of university in terms of attracting additional financial resources in the education sector is the development of charitable aid mechanism - endowment, which has for many years successfully operating in the industrialized countries, and is an effective instrument of co-financing of the educational sphere.

The whole complex of measures implemented allows the university to provide consistently high percentage of graduate employment.

More than 80% of graduates are employed by employers request.

4. Challenges and problems faced by the university as regard of employability; ways of solving them; aims and objectives pursued by the university

One of the most important conditions for the implementation of requirements of Federal state educational standards is the formation of partnerships between the University and the employer. This condition, of course, complicates the organization of the educational process, as the involvement of the employers is significantly expanding the boundaries of process, and in connection with this, responsibility of departments for the results of their activities has increased.

The requirements of representatives of the enterprises to the level of training of the student is regulated by the Federal state educational standard. The education process should be held with not less than 5% of teachers from among the existing managers and workers of relevant organizations, enterprises and institutions. The employer in the current situation is not a simple user of the intellectual potential of the graduate, but a full participant in the educational process. In connection with this circumstance the problem of the revision of the existing relationship between the subjects of educational process i.e.: the University, a student and an employer is becoming increasingly important. One of the communicative difficulties of interaction between these entities is the fact that most of today's managers do not fully have the information and, therefore, do not fully understand the peculiarities of training of bachelors and masters. Significant differences in the understanding of new educational terminology also impede their interaction.

Experts believe that the involvement of employers to development of requirements for the training of professionals may lead to the following results for the organizations:

- compliance of knowledge and skills of graduates to the production tasks;
- reduction in time for training within the organization;
- reduction in time for adoption of the employee;
- performance by the employee of specific tasks set by the manager/boss;
- training of experts according to certain specific standards;
- possibility of training of specialists taking into account the specific character of the work and activities of the organization;
- the possibility of targeted training.

According to interviewed experts from the cooperation of the University and representatives of the organization, both parties can obtain real practical benefit.

An enterprise can get:



- an employee who possesses all required competencies;
- the knowledge and skills to the real production process in the organization;
- obtaining a specialist in a particular field (lectures, development of training programs, internal audit, process development, etc.);
- recruitment;
- the possibility of obtaining from the teacher of new knowledge, the conduct of training seminars.

Our University can get (specifically by organizing cooperation through Center of Career Development and Employability) the following outcomes:

- conduct comprehensive lectures;
- training of teachers in the organization;
- graduates choose to work according to their major;
- updating of the programs of educational disciplines;
- improving the competence of teachers.

Now our University is striving for training and development of not only students, but also of the employers, in order to create among employers of our graduates the understanding that to cooperate with the University for the company is prestigious and valuable.

To change the situation with the involvement of the employer to improve the educational process and improve the competitiveness of graduates will help information (development) for industry and business about the features and technologies of training in accordance with modern standards. Teachers from industry and business, become a bridge between the business and the Department. The employer gets the opportunity to form accessible and understandable, reflecting the real situation requirements for the competence of the future specialist. Requirements are included in the programs of educational disciplines. The process of identification of requirements of the employer can greatly increase their effectiveness through active forms of interaction. The initiator of these events should be the University, as a starting point for the development and capitalization of human resources.

A question to be discussed. The Career center can remain formal structure within the University that does not affect the contents of University life, the relationship of the University with employers. To avoid such a situation and to use the institutional capacity of the career center, it is important to consider the possibility of switching students from self-employment on use of the career center. It is obvious that these forms will always coexist, but their ratio is an important characteristic of the position of the University in collaboration with employers. Employers are not interested directly in providing General advice on the state of the labor market, the available types of career, general career guidance materials required by the students for planning their careers. However, recruitment agencies can consider performing a similar role as one of its functions. Thus, the center can be integrated into the University and to work as external to it, the agent, depending on the mutual initiative of the University and employers.



references

1. Tatyanchenko, D. The organization of university quality monitoring: system and process / D. Tatyanchenko, I. Tkachev // Higher education in Russia. – 2007. – №8.
2. Tatur, Yu.G. The competency in the structure of quality model of specialists' training / Yu.G. Tatur // Higher education today. – 2004. – №3.
3. Davydova, L.O. On indicators of education quality / L.O. Davydova // Higher education in Russia. – 2004. – №11.