MATHEMATICS

The brief description of a thematic direction (the purpose and a problems}

Now development of training programs on the mathematics is not new. The group (methodology) of Tuning investigated degrees, employment. In the same place the general and particular the competence was described. The role of mathematics in various training programs is certain.

We, by group bologna process of Jalalabat State University, investigated methodology of Tuning on the mathematics. Considering regional features, we give below the vision on the given question.

I. We carry to regional problems:

Disorder of former **attitudes between the CIS countries** (economic, social, etc.) and not **organize** new communications sufficiently.

- Absence of the normative and legal bases providing transition to a multilevel education system;
- Absence of uniform politics of the neighbors states in the field of education, absence of a transparency of borders
- Financial expenses for preparation of experts on multilevel system: (preparation is conducted due to financial assets of the student).

By development of the program on the **mathematics** we started with following principles:

- The mathematics by the nature is abstract also it enables her to describe the broad audience of the phenomena, the various nature, in the general regularity.
- The knowledge of bases of mathematics enables analytically to solve various problems (the analytical approach).
- Various fields of knowledge demand a different level of preparation in the **mathematics:** (deep demand (prevalence of the theory): physics, computer science, engineering, chemistry; a smaller level: ecology, economy, business, etc.)
- After end of educational programs of difficulty of employment of graduates that is employment

II. What does the developed program give?

The developed program (tab. 1) enables students to receive the knowledge necessary for successful activity in the field of education, information technologies, engineering, economy, ecology, etc.

III. The competences and results of training

1. **Intellectual:** skill to observe; to generalize; ability to criticism and self-criticism; the opinion is given reason to express; skill to listen to opinion of others; skill to work in collective; knowledge of the second (not less than one) language.

2. **Professional and academic:** computer literacy; purchase of professional flexibility through a spectrum of the scientific receptions offered by the curriculum, curriculums; knowledge of a basis of algebra, geometry, the theory of limits of the differential equations, bases of probability theory and mathematical statistics, bases of mathematical modelling; development of the basic knowledge and skills on the certain specialties through cycles of the general professional disciplines and disciplines of specialization.

3. **Practical:** skill to model and solve a problem, i.e. transfer of the various phenomena into language of mathematics; skill independently to extract, **process**, store the information with use of modern technological means; correctly to read and explain mathematical expressions and signs; knowledge of foreign language and skill to express knowledge on the mathematics in this language;

IV. The role of subjects in development of competences.

Above described the competences are realized through the curriculum and curriculums during training.

The basic role should belong to mathematics, but she up to the end cannot solve all of a problems in formation competences. Offered disciplines should supplement separate blanks. In the curriculum such subjects are not specified as the political science, cultural science, ethics and an aesthetics - which promote formation such competences as: public consciousness, knowledge of cultural values of different people; the general norms of behavior; feelings perfect and its estimations. Such or other subjects can be entered due to rates at the choice of.

For preparation of various experts under the given program the general professional disciplines, disciplines of specialization, course of choice are entered (selective course).

In the curriculum the special role belongs (to practical employment to passage an expert. Their quantity - 3. Each of practical employment should have the definite purpose. At the initial stages, she promotes students will familiarize with all spectrum of available (possible) kinds of activity. In the subsequent stages there is a deep and versatile acquaintance to one or several kinds of activity.

For studying the second language under the curriculum English language is offered. This subject is entered from the first training till the fourth year. It is possible to enter training of some subjects in English or students, at an opportunity, can study{investigate} some subjects with trip abroad

In the modern world there are fast changes in a science and technic. All this from the expert demands fast orientation in a situation, reception, processing and storage of the information. For rendering assistance to the future specialists in the given question in the curriculum the subject of computer science with 1-st year students till 4 –st year students is entered.

V. Academic load and ECTS

The first cycle. Considering 11 years model of the general secondary education in the Kirghiz Republic we had been developed the program based on 240 credits. Loading is not included in the curriculum on military training.

VI. Teaching, training and an evaluation

For teaching the components described in Tuning (lecture, practical training, homeworks, computer laboratories, academic year projects) are used. Quality of process of training will be reached on the basis of introduction of various forms current and total the control over a semester. In the Jalalabat state university special laboratories which are engaged in development and introduction of various forms of the current control, systems of an evaluation of knowledge, innovative technologies of training, by questioning of students and teachers, the organization of meetings of the academic public, students, employers and the public among themselves for an estimation of quality of education are created.

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Table 1

Mathematics
The scheme of the curriculum of the first cycle

Years of Training, semesters	The name of discipline	The credit on ECTS	Years of Training, semesters	The name of discipline	The credit on ECTS
1-th years, 2-nd semester	Kyrghiyz (Rus) language	5	1-th years, 2-nd semester	Kyrghiyz (Rus) language	5
	English language			English language	
	Domestic history	5		Philosophy	5
	Training courses at the choice of the student (the humanities)			Training courses at the choice of the student (the humanities)	
	Physical training			Physical training	
	Jurisprudence	5		КПВ (гум)	5
	Computer science			Computer science	
	Mathematics	5		Mathematics	5
	The concept of modern natural sciences	5		GPD	5
	The general professional. disciplines (GPD)	5		GPD	5
2 год 3 семестр	Kyrghiyz (Rus) language	5	2-nd years, 4-th semester	Kyrghiyz (Rus) language	5
	English language			English language	
	Physical training			Physical training	
	Mathematics	5		Mathematics	5
	Computer science	5		Computer science	5
	Training courses at the choice of the student (natural-scientific disciplines)			Training courses at the choice of the student (the humanities) (natural-scientific disciplines)	
	GPD	5		GPD	5
	GPD	5		GPD	5
	Training courses at the choice of the student (GPD)	5		Training courses at the choice of the student (GPD)	5
				Practice	
3-rd year, 5-th semester	English language	5	3-rd year, 6-th semester	English language	5
	Computer science			Computer science	
	Mathematics	5		The branch justice	5
	The branch justice	5		Training courses at the choice of the student (GPD)	
	Training courses at the choice of the students (GPD)			DS	5
	GPD			DS	5
	Disciplines of specialization (DS)	5		DS	5
	DS	5		Practice	5
				Course work	
	English language	5		English language	5
	Computer science			Computer science	
	DS	5		DS	5
	DS			DS	
	DS			Training courses at the choice of the student (DS)	5
	DS			Practice	5
	Training courses at the choice of the students (DS)	5		Graduation work	5