

Викладачі інженерних кафедр Харківського державного університету харчування та торгівлі активно впроваджують зазначені принципи модернізації інженерної освіти у свою професійну діяльність. Це є стратегією організації та здійснення освітнього процесу, запорукою високого рівня професійної майстерності, яку отримують майбутні інженери в нашому університеті.

PROSPECTS OF ENGINEERING AND TECHNOLOGICAL EDUCATION IN UZBEKISTAN

Atahanov S., PhD in Tech. Sc., Assoc. Prof.
NIET, Namangan, Uzbekistan

The rate of economic development of Uzbekistan largely depends on the level of training of engineering and technical specialists.

The quality of engineering education depends on many factors. This includes the presence in the republic of high-level industry enterprises or the possibility of passing production and other practices abroad, physical and mathematical training at school and the work of children's technical clubs in their interests, the qualitative composition of applicants, the content of course programs in higher educational institutions, the compliance with the list and content of educational plans for industry requirements. Equally important are the qualifications of the faculty, the material and technical base of universities, their laboratories, as well as the socio-cultural environment and mentality.

Rapid changes in production based on the latest information technologies are also an incentive to accelerate the transformations of engineering and technology. Innovative results in science require a certain structure of higher education institutions. Innovations are developed primarily in the community of basic and applied sciences. That is, in the structure of the corresponding university there should be a serious block of basic sciences. Secondly, engineering education belongs directly to the economic-forming area, and therefore its condition directly depends on the state of the relevant industry. It is known that an education system that is not related to production cannot train specialists for practical work. In a number of industries, the economic component has weakened, the engineering staff has been scanty, the need for new personnel has been negligible. All this does not encourage the employer to cooperate with educational institutions. The presence of high-tech, highly profitable production motivates their owners to demand from the educational system high quality educational and scientific intelligence. And what is primary and what is secondary? The classic answer is: education is the key to highly efficient production. However, the difference between the technological and

economic potential of the past socio-political system (from which we exit) and that into which we want to enter is enormous, and the current growth rates of the global economy based on high-tech, rapidly renewing engineering and technology are not compatible with the current higher educational institutions. I think that the educational system of many developing countries is in such a situation. It will take some more time and import of modern technology and technology, so that our economic structures can assess the quality and how much they need specialists with higher education, and become interested in the development of this educational system. The holder of an engineering degree will be more competent if he owns the working professions of the relevant profile. In a number of foreign countries, the qualification of an engineer is assigned by a special commission after working off a certain period in production and performing qualification work. Probably, admission to a higher educational institution from a college of the relevant profile could enrich such practical baggage of a future specialist. The career guidance work of the university here would play a positive role. The main task of the subjects of the natural science block is to arm the future engineer with the basics of mathematics, physics, chemistry, etc., to promote better mastering of special disciplines in the long term to improve the ability to solve problems arising in labor activity. Only on practical classes in these disciplines in the process of accomplishing and solving purposefully composed tasks or laboratory work, the student begins to consciously study and perceive them.

Different areas of engineering education should have professionally directed programs of mathematics, physics, chemistry, etc. They provide for the introduction of professionally significant material showing the connection of auxiliary subjects with future professional activities.

An important factor in ensuring the quality of engineering education could be the presence of an appropriate production base at universities.

A graduate of an engineering university should be able to freely communicate with the equipment to receive and transmit the necessary information, work in the office mode, solve engineering problems using a computer, carry out drawings, build at least simple models of the problem to be solved. It is probably necessary to restructure the entire educational process in the course of computer science, using the so-called problem-oriented approach to learning. The quickest ascent of all or most of the higher educational institutions of the engineering and technological field is difficult, if only because this type of education is expensive. Starting with the priority industries, it will be possible to work out their own model of technical education in the republic.