

## **Institute of Natural and Applied Sciences**

Institute of Natural and Applied Sciences of the Kyrgyz-Turkish Manas University functions as a scientific institution; it has taken as its the main task to stimulate the discovery of new educational programs, taking into account international trends and social needs in the field of improving the quality of education and educational programs in order to prepare highly qualified specialists in the natural sciences and engineering, as well as human resources for the scientific and technical sphere.

### **Department of Chemical Engineering**

The Department of Chemical Engineering of the Kyrgyz-Turkish Manas University started education in the 2007-2008 academic year in order to prepare specialists in the field of chemical engineering. Chemical engineering is the branch of engineering that is concerned with the development and realization of processes in which chemical properties, the power contents and the physical condition of materials are subject to change. Training consists of acquainting students with the qualities necessary in the professional activities of an engineer, namely: design of chemical processes, an assessment of universal and social aspects of engineering decisions from the point of view of economy, work safety, quality, ecology and ethical values, solutions of problems of technological and industrial tasks which are faced in the course of production, and also in the development of social, communicative, enterprising and creative skills of the students and helping them to acquire the ability to work in team.

### **Department of Mathematics**

Mathematical education promotes the development analytical thinking skills of people, regardless of the area in which they work. The purpose of the Department of Mathematics is to prepare future mathematicians who will be in demand in the areas of education, research and technology. A four-year Bachelor's program at the Institute of Natural Sciences provides training for public education programs, both graduate and postgraduate. Subjects included in the graduate and postgraduate programs have been selected among those which are needed for students to conduct scientific research in the field of mathematics. In the classroom different scientific sources in Turkish, Russian and other languages are used. Our department provides the necessary scientific foundation for students wishing to pursue a career in education, research, or in areas related to science, technology, the business community or country where mathematics plays an important role.

### **Department of Computer Engineering**

Computer Engineering Department offers a high quality education in many fields of IT, starting with the methods and structure of computer systems, development and effective use of these systems, conducts research. Department's education and training plans are arranged to follow current developments in science and technology. Education plan includes basic

engineering knowledge in the program as well as specific training in certain subjects. The graduate program of the departments aims at deepening theoretical and practical knowledge of subjects learned in the undergraduate program to achieve the level of expertise required by the modern technology. Students who accepted to the graduate program are required to show sufficient level of knowledge in the field.

The graduates of the Department of Computer Engineering have plenty of job opportunities of IT sector of public and private organizations whose activities are related to governance, education, industry, trade and services, as well as banks, universities and any company which require knowledge in development, management and implementation of products and services in the IT industry.

### **Department of Biology.**

The Department of Biology in Faculty of Science of Kyrgyzstan Turkey Manas University was established in 2008-2009 academic year. At the moment the Biology department conduct research and offer teaching programs, preparing specialists of Bachelor and Master degree.

General Biology, Biochemistry, Histology research laboratories are equipped with modern devices in the department. Botanical (herbarium) and Zoology classes are completed. Biology department has a garden that is one hectare area to make internship and experiential job for students. Research interests include plant and animal systematics, physiology, molecular biology, genetics, cell biology, biochemistry, immunology, hydrobiology, microbiology; branch consists of macro- and micromorphology. Infrastructure works continue to be able to work in all areas of biology

### **Department of Food Engineering**

As the only institution of higher education in the field of food engineering, this department aims to become exemplary in the field of engineering education and research, in line with the core mission of the Kyrgyz-Turkish Manas University. The purpose of the department is to train engineers in the food industry who will be successful and in demand in this profession, who will be able to make contributions to the scientific, technological and economic development of mankind, who will be sensitive to the problems of mankind and at the same realize their professional duties, and whose research will promote the accumulation of encyclopedic knowledge in the field of food engineering.

### **Department of Environmental Engineering**

Environmental engineering is a profession that is developing dynamically in step with new technologies. The Department of Environmental Engineering of the Kyrgyz-Turkish Manas University was established in the 1997-1998 academic year in order to prepare environmental engineers who will be in demand in the environmental industry, and who will provide the necessary support in the development of the sector. In a four-year Bachelor's program, the Department provides training for public education programs, graduate and postgraduate.

Environmental Engineering is an engineering branch using the latest achievements of science and technology to solve environmental problems, make appropriate decisions and implement them. The main subjects of ecological engineering are sewage, air pollution, removal of solid wastes, harmful substances and other dangerous materials. The department does not lose its relevance from being directly related to pollution and environmental protection; it provides practical training through collaboration with local and foreign educational and industrial organizations and local authorities in order to prepare specialists and environmentalists in the field of environmental engineering.