

Dear Applicants

We would like to inform you about the activities of Faculty of Chemical Technology (FChT). The faculty has more than a fifty-year tradition in teaching technological chemistry, and in its study programs it continues its traditional lines that are being modified to meet European standards; however, also new study specialisations are being introduced. One of the main changes is transition to three-step system of study: bachelor degree courses (BSc.), master degree courses (MSc., Ing.) and in selected fields postgraduate doctoral courses (PhD.).

The Faculty of Chemical Technology offers four bachelor degree courses and six master degree courses.

Study programmes

The three-year bachelor study program **CHEMISTRY AND TECHNICAL CHEMISTRY** in its study line **Chemistry and Technical Chemistry** has two main objectives:

1. to prepare the student for subsequent study in master level programs, particularly in the lines of chemistry, materials, and chemical technology
2. to provide such a level of education as to enable the BSc graduate to find job in the area of medium management and technological staff in plants of chemical, pharmaceutical and food industries.

The preparation involves education in the following areas:

Basics of general and inorganic chemistry, organic chemistry, physical chemistry and analytical chemistry; processes and equipment of chemical, pharmaceutical and food industries; running and control of technological processes; economics and management of plants and production processes in chemical and cognate areas; computer literacy in the field of text and table editors, working with databases and Internet.

Which of the above-mentioned objectives will be dominant is decided by the students themselves after finishing the first year of study: they choose from an offer of obligatory optional subjects, and they either select those developing the basics of chemical disciplines or those more oriented to applications in practice (if they want to find a job immediately after the bachelorship), or those dealing with economic management, as the case may be.

These study programs can be attended either as full-time study or combined forms (partly distance learning). It is finished by bachelorship examinations and successful students get a degree of bachelor (BSc.). The graduates from this study program are offered a continuation in studies in subsequent study programmes at the master level.

- ★ **CHEMISTRY**, in specialisations of **Analytical Chemistry, Inorganic and Bio-inorganic Chemistry, Technical Physical Chemistry and Organic Chemistry**,

- ★ **CHEMICAL AND PROCESS ENGINEERING**, in specialisations of **Technological Process Control, Economy and Management of Chemical and Food Industry, Chemical Engineering, Environment Engineering and Environmental Protection**,

- ★ **CHEMISTRY AND TECHNOLOGY OF MATERIALS**, in specialisations of **Inorganic Technology, Theory and Technology of Explosives, Technology of Polymer Manufacturing and Processing, Fibres and Textile Chemistry, Chemistry and Technology of Paper and Pulp, Material Engineering and Technology of Organic Specialities**.

These subsequent master-level study programmes are terminated by state examination and defence of Thesis; the graduates get the degree of engineer (Ing.).

After successfully finishing these master-level studies, the graduates can be accepted for three-year postgraduate studies terminated by doctor examination and defence of dissertation Thesis; they obtain the degree of PhD.

The three-year bachelor study program **CHEMISTRY AND TECHNOLOGY OF FOODSTUFFS** specialisation **Evaluation and Analysis of Foodstuffs** represents a preparation training for middle management level and technological staff members in foodstuff production/ processing plants; this means interdisciplinary preparation with emphasis put on practical aspects of the education. Besides knowledge in mathematics, general and inorganic chemistry, organic chemistry, physical chemistry, analytical chemistry, biology, general microbiology, and biochemistry, the courses provide teaching and training in computer techniques, chemical engineering, economics and management of chemical and food industry plants.

This study program can be attended in full-time form, and it is terminated by the respective bachelorship examination; successful students graduate with the degree of bachelor (BSc.). The graduates can continue in subsequent master-level study program **CHEMISTRY AND TECHNOLOGY OF FOODSTUFFS** specialisation **Evaluation and analysis of foodstuffs**. There, the students become acquainted with analysis of foodstuffs, valid standards for evaluation of foodstuffs, principles of trace analysis of toxicologically significant substances in foodstuff chain with emphasis put on modern analytical instrumental methods and computer techniques. This master-level study is terminated by a state examination and defence of Thesis. The successful students graduate obtaining the degree of Ing. They can find jobs in a wide variety of foodstuff production plants, hygienic and veterinary services, inspection organs and even agriculture.

In the three-year bachelor study program **Special Chemical and Biological Programmes**, specialisation **Clinical Biology and Chemistry**, the students become acquainted with mathematics, physics, general and inorganic chemistry, organic chemistry, analytical chemistry, physical chemistry, computer techniques, instrumental analysis, general and clinical biochemistry, biology, anatomy, histology, physiology, general microbiology, genetics, immunology, toxicology, medical information systems and a foreign language, besides the recommended subjects, from which the students can select in accordance with their interests to complete and extend their study. The study is terminated by a bachelorship examination (the

degree obtained is BSc.). Graduates from this study program can find jobs as co-workers of physicians in ensuring the routine of laboratory examinations and control, being also responsible for operation of medical expert computer systems and implementation of new diagnostic procedures.

The students who have successfully finished this study program in the full-time form can continue by enrolling in the two-year subsequent master-level study program **Special Chemical and Biological Programmes specialisation Analysis of Biological Materials**, terminated by a state examination and defence of Thesis (they get the degree of Mgr.).

In the three-year bachelor study program **GRAPHIC ARTS AND PRINTING TECHNOLOGY** specialisation **Graphic Arts and Printing Technology**, the students are acquainted with basics of this branch with emphasis put on technology of printing processes in full range (offset, silk-screen printing, gravure printing, pressure free printing and digital printing), production technology of printing inks and lacquers and printed substrates. In the area of pre-print operations and informatics, the student will be working with modern program products for image and text processing for printing, electronic publishing and multimedia communication. Within this program, he also becomes acquainted with economy of production plants, financial management and marketing.

The attendance of this study program is offered in full-time and combined versions. It is terminated by a bachelorship examination; the graduate gets the degree of BSc.

The graduates from this program can continue their studies in a two-year subsequent study program **GRAPHIC ARTS AND PRINTING TECHNOLOGY** specialisation **Graphic Arts and Printing Technology**, which is realised as full-time study.

Entrance examination

The deadline for submitting application forms is **March 31, 2006**. The entrance examinations will take place in **June 26-30, 2006**.

The entrance examination in all the study programs consists of 2 written tests covering the scope of content of the curricula in the respective subjects at secondary schools and grammar schools. The entrance examinations also take into account the students' successful participation in contests ("Olympics") in mathematics, chemistry and biology. Detailed information about entrance examinations together with a model assignment of written tests will be given to the applicants together with the invitation for entrance examinations.

If you need further information, you can contact Study Department (Studijní oddělení) of FChT or directly individual Departments (Mathematics, Chemistry) whose staff members will be glad to help you. You can also find information about FChT under the Internet address: <http://www.upce.cz>.

INFORMATION FOR STUDENTS

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