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Czech Technical University (CTU)

The history of the Czech Technical University goes back to the beginning of the 18th century. It was then referred to as the Polytechnical Institute, being the first engineering institute in Central Europe.

Since 1920, the school has been known as České vysoké učení technické, still referred to in English as "The Czech Technical University", although to call the school Czech University of Technology would be more appropriate. Prague had also a German Technical University, the original German part of the Polytechnical Institute, made famous by, e.g., Ernst Mach, the short presence of Albert Einstein, and others.

Our Faculty of Nuclear Sciences and Physical Engineering was founded in 1955, followed later by the independent Faculty of Architecture, and Faculty of Transportation Sciences. So, at present the University consists of 8 faculties:
the Faculty of Mechanical Engineering,
of Electrical Engineering,
of Civil Engineering,
of Nuclear Sciences and Physical Engineering,
of Architecture,
of Transportation Sciences,
of Biomedical Engineering,
of Information Technology.

Faculty of Nuclear Sciences and Physical Engineering (FNSPE)

The Faculty was founded in 1955. Its main responsibility has been to offer both undergraduate and postgraduate courses. In addition, the Faculty is also responsible for fundamental and applied research in fields related to nuclear physics, nuclear chemistry, nuclear power engineering, materials science, mathematics, software engineering, and physical electronics. Therefore, it maintains close relations with various research institutions both at home and abroad.

While the head of the Czech Technical University is the Rector, assisted by several Vice-rectors, the academic administrative officer of each faculty is called the Dean, who chooses his Vice-deans. The Dean is responsible for the teaching and research (i.e., academic) conception of the school as a whole. Parts of the Vice-dean's responsibilties are the teaching programmes and students' matters. The Dean is also assisted by the Scientific Council. Each faculty also has an elected Academic Senate.

Non-academic matters are handled by the Dean's Office. It consists of several administrative departments, headed by their respective officers. The most important one for students taking the Bachelor´s or Master´s Degree Course is the Department for Student Affairs.

The current structure of FNSPE includes 10 academic Departments, namely of Mathematics, Physics, Languages, Nuclear Chemistry, Dosimetry and Application of Ionizing Radiation, Materials, Solid State Engineering, Physical Electronics, Nuclear Reactors, and Software Engineering in Economics, located either in Břehová Street (the main premises, housing also the Dean´s Office and the Central Faculty Library) or in Trojanova Street or in Troja.

Although the Faculty shares the same basic structure in its degree courses as the other member faculties of the CTU, it is unique in several respects, namely:
1. Most students have a grammar school background.
2. All undergraduates take full-time courses, i.e., no part-time programmes are offered.

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Admission to the Faculty

Admission to all courses offered by the Faculty is subject to certain guidelines established by the Faculty; they may change according to the current situation. More detailed up-to-date information may be obtained from the Department of Student Affairs.

Higher education is open to all who have successfully passed a secondary school-leaving examination or hold an equivalent certificate. There is no restriction as to the residence of the students; thus, also foreign students can be admitted. Education still continues to be free of charge, although repeated suggestions have been made that students should pay fees for tuition.

To be admitted, the applicant, i.e., the student applying for admission to a university, must send in his/her application by a given date, submitting also the secondary school record and later the results of the final school-leaving examination.

Applicants are supposed to take an entrance examination, and so those who have satisfied the entrance requirements can enter the university, enrol, matriculate, and register for courses. If a student is dropped from the faculty for unsatisfactory results, they can be re-admitted after submitting a new application and meeting the requirements. Undergraduates can also interrupt their studies for a limited period of time to study abroad.

Types of Courses

The enrolment figure, i.e., the number of undergraduates entering the Faculty each academic year, varies, but it can be as high as 500 undergraduates and 60 PhD students. There is a wide variety of academic degree programmes: six-semester Bachelor of Science courses, four-to-six-semester Master of Science degree courses and three-year PhD courses. To earn a higher degree of Master of Science, some students can continue their training for 2 or 3 more years after having been awarded the Bachelor Degree. The Master of Science Degree is equivalent to the traditional Central European Degree of Engineer (Ing.).

The Bachelor Degree programmes specialize more or less from the very beginning. Most courses are divided into a general course taken for 4 semesters (in the first and second year), comprising a core section of main subjects with certain options, and a specialized course beginning in the 5th semester (the third year). The programme for Nuclear Chemistry students specializes from the very start.

The core course may include lectures on, e.g., Calculus, Linear Algebra, Numerical Analysis, Physical Chemistry, Electricity and Magnetism, Mechanics, Special Relativity, Optics and Waves, Atomic Physics, Theoretical Physics, Thermodynamics, Statistical Physics, Information Technology, Languages (English and a second language, i.e., French/German/Russian/Spanish), etc. The chemistry students will take Mathematics, Physics, General /Organic /Inorganic /Analytical /Physical, and Nuclear Chemistry.

In the advanced courses, i.e., in the 5th – 12th semester of the degree programmes students specialize in their chosen branch of study, and therefore join research teams of the respective department. During the 5th and 6th semester students work on their Bachelor´s Degree project on a given topic. They will stay with the department until they have completed, presented, and defended their project, and graduated. Then, from the following semester, students who have satisfied the requirements for admission to a Master degree course can begin research for their Master of Science thesis (i.e., degree project). Programmes in the more advanced courses are flexible and adjust easily to new developments in science and technology.

The programme of instruction is very orthodox and traditional: students attend formal lectures, seminars, practicals, and laboratory sessions. Of course, the teaching and research staff are ready to offer consultations and discuss problems with the students any time they may need it.

The Faculty also offers PhD (i.e., Doctor of Philosophy) programmes. After completing research on a given topic, the PhD student is expected to submit a dissertation, defend it, and pass a rigorous examination. Then they are awarded a Doctor´s Degree (PhD).

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The Academic Year

The academic year begins in October or late September and ends in September of the following year. The semester system which is used in our country divides the academic year into 2 equal semesters of about 14 weeks each. Some universities abroad have a quarter system, dividing the academic year into 3 terms of about 11 weeks each, plus a fourth "summer quarter", or a trimester system of 3 terms. Each semester in our school is followed by an examination period of 6 to 8 weeks each. Most students take the summer off to work or travel, so July, August, and often even September, are traditional long vacation months.

In order to receive a "zápočet" and take examinations, and thus accumulate the required number of credits, undergraduates (i.e., students studying for their first degree – the Bachelor´s Degree) and postgraduates (i.e., students studying for a higher qualification – the Master´s Degree) must be properly registered for each academic year. This includes both registering, or signing up, in the Department of Student Affairs for each course offered and chosen from the list in the faculty prospectus in the respective year or semester, and having the registration confirmed in the course record. The prospectus (in the US referred to as "the catalog") also informs about the number of credits and the examinations to be taken at the end of the winter and summer semester.

Instructors give a "zápočet" for each course to undergraduates who have qualified for it by the academic performance through the semester (i.e., who have satisfied the requirements: participated in class discussions, in due time handed in the assignments and papers, performed well in the tests and quizzes, gave a presentation, etc. In some courses, a search must be carried out on a given topic). The assessment is continuous. Only after obtaining the "zápočet" are the students eligible to sit for an examination in the respective subject. Thus the "zápočet" in our system of higher education is a kind of screening before the formal examination. The credit system of points attached to each course has been introduced quite recently.

The quizzes, tests, the “zápočet”, the credits, and examinations are a measure for both the student and the teacher of how much and how well the student is learning. The quality is measured by marks (grades in the US), namely the passing marks:
A - excellent
B - very good
C - good
D - satisfactory
E - sufficient
Mark F is a failing mark (F=failed). In the case of failure, the student can retake, or resit, the examination two more times. The quantity of the student´s work is measured by the number of class hours per week and number of examinations and other academic work per semester.

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Student and Staff Services

The University and its Faculties have special support facilities offering services to their students and staff. They are provided by, e.g., the Libraries, the Halls of Residence, (Dormitories in American English), the University Publishing House, and the Medical Centre.

Library

The brand-new Technical Library has been opened in Dejvice, but our Central Faculty Library is still located on the main premises in Břehová Street. It contains an extensive collection of books and periodicals covering the study programmes and research projects of the school. It also shelves reference books, journals, newspapers, lecture notes, proceedings, dictionaries, degree projects, PhD dissertations, etc. Lecture notes and many books may be taken out on loan, but dictionaries and some textbooks are available for reference use only.

Computer Rooms

Accommodation and Meals

Full-time non-residential students who live too far to commute can apply for accommodation in the university halls (of residence). The room charge can vary according to the quality of housing. Most halls provide shared study-bedrooms, usually doubles. Cheap private housing is difficult to find.

Meals at reduced prices are available in the Refectory (dining room) of the halls, or they may be taken in the university cafeterias (“menzas”). Most halls provide all daily meals except weekday lunches. Meal tickets (vouchers) for the whole month can be obtained from the respective cafeteria office.

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THE UNIVERSITY OF SALFORD

The University stands in the City of Salford, some two miles to the west of the centre of Manchester, which is easily reached by car, public transport or on foot. The University is fortunate in having the facilities of two cities so close at hand. Salford caters for the day-to-day needs of most students and Manchester, England's third largest city, provides excellent cultural, leisure and sporting facilities. The University occupies an attractive 34-acre single-site campus on the banks of the River Irwell, with most of its buildings surrounding Peel Park. The layout of the central campus is shown below. The Peel, Tower and Maxwell Buildings are grouped around the lawns in front of the Salford City Art Gallery, Museum and Library, which face the main A6 motorway. Behind these buildings are the Cockcroft Building, the University Library and University House, the latter accommodating the Students' Union, a sports hall, and dining, lounge and bar facilities for staff and students. The Chapman lecture theatre suite stands at the edge of the campus and near to the Newton Building, which houses the Department of Aeronautical and Mechanical Engineering. The Telford, Smeaton and Brindley Buildings lie on the east bank of the River Irwell and house the Department of Civil Engineering and the Departments of Economics and Geography. An elegant modern footbridge provides access to the main campus through Peel Park which forms a surprisingly pleasant and quiet haven at the core of the University. The Departments of Modern Languages and Sociological and Political Studies now occupy Crescent House, situated on the far side of the A6. Away from the campus, temporary premises in Meadow Road accommodate the Department of Applied Acoustics. Some of the work of the Department of Biology is undertaken at Gardner Street. The University can provide places for a high percentage of its students in university-owned or controlled Halls of Residence, self-catering flats or student houses and most of the accommodation is within walking distance of the campus. The University has three faculties covering the areas of engineering, science and social sciences and arts. In 1988/89 there were 3,816 full-time students, of whom 508 were postgraduates, and there were 698 part-time postgraduates. The University attaches particular value to part-time study for higher degrees, and the majority of programmes and research opportunities are open both to full-time and part-time students. It has strong links with industry, commerce and the public sector and a significant percentage of its research work is funded from these sources. *From the University of Salford Undergraduate and Postgraduate Prospectus*

HOMEWORK

I After reading the above text carefully, divide it into paragraphs.

II. Pay special attention to the words and phrases describing location, esp. the words: *to house, to accommodate, to occupy*

The building	*houses* *accommodates*	*the office*
The office	*occupies*	*the building*

III. The following description is correct, but the style is too simple. Instead of *There is / There are,* try to improve on the style by using more descriptive verbs such as

consist of	contain
occupy	accommodate
house	provide

(Leave the first and last sentence unchanged.)

The Institute for Great Discoveries is situated within easy reach of public transport. There are three buildings set in a beautiful park. There is the director's office and the rooms for the administrative staff in the smallest building. There are two lecture halls and the library in the large circular building. There are 200 seats in the large lecture hall

and 30 seats in the small one. There are laboratories and study rooms for scientists and researchers in the third building. There are also dining and bar facilities for the staff in the Institute. There are excellent shopping facilities within walking distance of the Institute.

IV. Find suitable words to fill in the gaps in the following text:

STUDYING AT IMPERIAL COLLEGE, LONDON

Imperial College is a School of the University of London. This means that it is _____ an independent college, but the degrees awarded _____ a course of study are University of London degrees. In addition, the College _____ awards diplomas to its graduates, or Associates, as we _____ call them. Thus, if for example you are studying Chemistry at Imperial in the Royal College of Science, you will _____ a University of London BSc degree, _____ a Diploma of Associateship of the Royal College of Science (or ARCS) when you _____.

Science courses are offered primarily in one _____ subject, but there is flexibility provided by the possibility of _____ at the end of the first year and by the choice of _____ subjects in the later years of the course. _____ on your course, the options you choose can be taught _____ by your own department or by another in the College. Science courses are normally three years _____. The Applied Biology course _____ four years and incorporates two periods of extramural _____, each lasting six rnonths during which students undertake a _____ in industry or at a research institute. Joint Honours courses which _____ students to combine two disciplines are _____ in certain subjects.

Most of the engineering courses are of three years' _____ and lead to the BEng degree. There are also _____ four-year courses leading to the MEng degree. Transfers _____ certain courses are possible at the end of the first year. Some of the four-year science and engineering degree courses incorporate a year _____ at a university or industrial establishment elsewhere in Europe.