

CHARLES UNIVERSITY FACTS AND FIGURES





RECTOR'S FOREWORD



Dear friends of Charles University,

the publication you are reading – the Charles University Facts and Figures 2004 – 2008 – aims to present the development, the achievements and the budget of our university during the past five years.

The university has experienced a number of defining events and many changes that have helped it move along with the flow of modern history. As this report shows with great clarity, during the past five years Charles University has confirmed its position as a renowned international university and the most respected university in the Czech Republic. In The Times Higher Education World University Rankings, Charles University was the only Czech institution of higher education to rank among the top 500 universities. In 2008, it ranked 261st, while placing 252nd in the Shanghai ranking. This makes us one of the 1.5% of the world's best universities and one of Europe's top 100 universities. In the most recent Leiden Ranking, developed by the Centre for Science and Technology Studies (CWTS) at Leiden University based on research output tracked in the Web of Science database, Charles University ranked 71st in Europe.

Charles University's position in international rankings matches its excellent

reputation of a university which weaves together teaching and research to the greatest possible extent, not only in the Czech Republic, but also on a European and worldwide level. In recent years, Charles University has been acting in accord with the concepts of the Bologna Declaration, which promotes easier mobility of students, teachers and researchers, and it has become an important player in international higher education, especially in the European context. It has improved its ability to compete in international arena and established many new partnerships. Almost 70 new agreements have been signed with top universities, adding to the extensive portfolio of direct collaboration agreements, which span across 46 countries of the world. I would like to thank everyone who contributed to such positive development – including academic and technical staff, students and partners – for fulfilling the university's motto, which has been in use since its founding almost seven centuries ago: Quod bonum, felix, faustum, fortunatumque, eveniat – Let it bring forth goodness, happiness, prosperity, and success.

Prof. RNDr. Václav Hampl, DrSc.

Rector of Charles University in Prague





CHARLES UNIVERSITY THEN AND NOW

Growth and tradition

Founded in 1348 by the Holy Roman Emperor Charles IV, Charles University has a long-standing tradition. Originally, it had four faculties: the Faculty of Arts, Theology, Law and Medicine. Today, more than 660 years later, it has 17 faculties in three different cities, 3 collegiate institutes, 6 additional establishments for educational, scientific, research and development activities and other creative activities including information services, and 5 university-wide facilities. It remains one of the largest and oldest European universities.



388	Catholic Theological Faculty	www.ktf.cuni.cz
x\$ 8	Protestant Theological Faculty	www.etf.cuni.cz
x \$X	Hussite Theological Faculty	www.htf.cuni.cz
x \$X	Faculty of Law	www.prf.cuni.cz
x \$X	1 st Faculty of Medicine	www.lf1.cuni.cz
x \$8	$2^{ m nd}$ Faculty of Medicine	www.lf2.cuni.cz
x \$X	3 rd Faculty of Medicine	www.lf3.cuni.cz
3\$8	Faculty of Medicine in Plzeň	www.lfp.cuni.cz
3\$8	Faculty of Medicine in Hradec Králové	www.lfhk.cuni.cz
3\$8	Faculty of Pharmacy in Hradec Králové	www.faf.cuni.cz
3\$8	Faculty of Arts	www.ff.cuni.cz
3\$8	Faculty of Science	www.natur.cuni.cz
3\$8	Faculty of Mathematics and Physics	www.mff.cuni.cz
3\$8	Faculty of Education	www.pedf.cuni.cz
3 \$8	Faculty of Social Sciences	www.fsv.cuni.cz
3\$ 8	Faculty of Physical Education and Sport	www.ftvs.cuni.cz
3 \$8	Faculty of Humanities	www.fhs.cuni.cz



Some of the many famous students, alumni, and professors



Jan Hus (†1415) bachelor of theology, master and later dean of the Faculty of Arts, rector of the university, preacher and church reformer



Jan Jessenius (1566–1621) physician and philosopher, who performed the first public dissection of a human body in Bohemia, rector of the university between 1617–1620



Bernard Bolzano (1781–1848) German speaking Czech priest, philosopher and mathematician, studied and taught theology at the university



Jan Evangelista Purkyně (1787–1869) scientist and physiologist, co-creator of Czech scientific terminology



Karel Čapek (1890–1938) a renowned Czech writer, journalist, playwright, translator and photographer



Jaroslav Heyrovský (1890–1967) chemist and physicist, inventor of the polarographic method, professor at the Faculty of Science, Nobel Prize laureate



Jan Patočka (1907–1977) one of the most influential Czech philosophers, spokesman for Charter 77



Jan Palach (1947–1969) student at the Faculty of Arts, who committed suicide by self-immolation as a political protest against the Soviet-led invasion of Czechoslovakia



Tomáš Garrigue Masaryk (1850–1937) philosopher; politician, professor at the university, founding president of Czechoslovakia



Albert Einstein (1879–1955) one of the most important scientists of all time, Nobel prize laureate, in the years 1911–1912 professor and head of the theoretical physics department of the German part of the university



Franz Kafka (1883–1924) one of the most influential writers of the 20th century



Petr Eben (1929–2007) a distinguished composer of contemporary, classical and organ music



Antonín Holý (*1936) chemist involved in the creation of the so far most effective drug in the treatment of AIDS



Helena linerová (*1937) a renowned physiologist and biochemist, Faculty of Science graduate, former head of the Academy of Sciences of the Czech Republic



BUDGET

For many years, Charles University has had a balanced budget, with revenues consisting of three main items: research grants, income generated by the university, and a government grant for educational activities, which is calculated according to the number of students, graduates and researchers. On the other hand, the amount of investment money provided by the government, on the other hand, is not adjusted accordingly, leaving the university to look for additional sources of investment money. Net revenues of the university have gone up from CZK 5,210 million (EUR 208 million or USD 305 million) in 2004 to CZK 7,530 million (EUR 300 million or USD 440 million) in 2008. In terms of expenses, personnel costs are the biggest item, accounting for 51% of total expenses.



STAFF

When converted to full-time equivalent, the university has more than 7,500 employees, more than half of which are academics and researchers. The 1st Faculty of Medicine has the greatest number of academic staff, followed by the Faculty of Arts, Faculty of Mathematics and Physics and the Faculty of Science. As far as gender is concerned, there are more women than men in the total number of employees, whereas men outnumber women in academic staff.









EDUCATION AT CHARLES UNIVERSITY

Academic programmes and subjects

There are currently over 300 accredited academic programmes at Charles University, half of which are Bachelor's and Master's programmes, and the other half Doctoral programmes. Programmes are further divided into study subjects. Charles University offers over 500 subjects in Bachelor's and Master's degrees and over 180 subjects on the Doctoral level. Subjects in humanities, science and medicine attract the greatest interest. Charles University is an active participant in the Bologna Process. Based on its principles, the university has structured the programmes according to the standardized degrees of higher education and introduced the European Credit Transfer system to its faculties. The system has allowed for greater mobility among different degrees within faculties, among different faculties and, most importantly, greater international student mobility.

Charles University has also introduced new methods of education and training, such as e-learning, and it has extended the possibilities of lifelong learning, including its "University of the Third Age", which offers free of charge or very affordable semester-long courses for senior citizens, and a wide array of specific lectures and courses. By pursuing all of the above, Charles University fulfils the main ideas of the Bologna Declaration on easier access to mobility of students, teachers and researchers. The university is also a distinguished member of the European Higher Education Area. To comply with the ECTS rules for credit conversion, Charles University strives to make its programmes as open as possible, in order to support mobility both within the university and between Charles University and partner universities.

Interest in Charles University degrees

Interest in Charles University degrees is steadily increasing, both in post-secondary and lifelong learning programmes. Although most of the university is situated in Prague, it is not only a local, but also a national and an international institution. Only one third of applicants are from Prague, while 15% are foreigners, slightly over half of whom are from the Slovak Republic.















Students of Charles University

Almost 52,000 students are currently enrolled at Charles University, which is almost one sixth of all students in the Czech Republic. The figure has doubled since 1989, the year of the Velvet Revolution. Most students are enrolled in Master's degrees. However, lately the number of students in Bachelor's degrees has been rising due to restructuring under the Bologna Process. As for PhD students, Charles University boasts the highest number in the country, having a 30% share of all PhD students in the Czech Republic. Foreign students are also a significant group, whose number is steadily rising up to over 6,500 in 2008. Charles University offers more than 150 academic programmes taught in a foreign language – English, German or French. In 2008, almost 2,000 foreigners were enrolled in these programmes, an overwhelming majority of whom studied in English.



Number of students in degrees taught in English





Number of students enrolled at Charles University since 1991



Number of Doctoral students

Percentage of foreigners out of all Charles University students









Student life

Charles University offers its students a wide selection of leisure time activities, including sports, choirs and an orchestra. It has its own museums, an on-going film screening series, art shows, and community activities organized by the Student Club. Twice a week, student masses take place in a church in Prague's city centre. For those interested in visual arts, the historic building Karolinum hosts notable art exhibitions, such as the annual World Press Photo exhibition or the biennial National Geographic exhibition. Charles University boasts one of the oldest university botanical gardens with both outdoor and greenhouse exhibits.

The Student Club, recently opened in the newly reconstructed basement of Karolinum, is another contribution to the vibrant student life. Situated in Celetná Street in the very centre of Prague's Old Town, it hosts art exhibitions, concerts and meetings of all sorts.

Student Union

The first university-wide Student Union includes all student organisations at Charles University. Founded in 2008, it brings together Charles University's student organizations and helps to coordinate their activities. By doing so, it also promotes the identity of Charles University.

Residence halls

Charles University has 20 residence halls, 13 of which are situated in Prague, 3 in Plzeň, 2 in Hradec Králové and 2 in Brandýs nad Labem. The total capacity is 13,500 beds. Student dining halls are also available.

Graduation ceremonies

Since 2008, Bachelor's graduation ceremonies have been held in the newly reconstructed Profession House, a unique 17th century building in the historic neighbourhood of Malá Strana. Master's graduation ceremonies take place in the Great Hall of Karolinum, like the immatriculation ceremony, which in turn welcomes students at the university. Karolinum has belonged to Charles University since 1383, when Wenceslas IV, the son of Charles IV, donated the building to the university. Today, it is on the list of national historic monuments.



Graduates

The number of Charles University graduates is rising, as is the number of students enrolled, especially in Bachelor's programmes. By the time of graduation, at least 90% of all graduates have either jobs or further education secured, which makes Charles University an institution that guarantees personal growth of its students and prepares them responsibly for their future careers. As a result, the PhD programmes at Charles University, for example, have been repeatedly positively evaluated by 80% of their graduates.

Every year, the Education Policy Centre of the Charles University Faculty of Education releases a report on employment of all Czech college and university graduates. In the 2008 report, Charles University placed third, closely behind the Institute of Chemical Technology and the University of Economics. Unemployment rate among Charles University graduates in 2008 was about 1.9%, which is 0.7% less than the average unemployment rate of college and university graduates and 15% less the university with the highest unemployment rate.













Evaluation of PhD programmes by their graduates





Lifelonglearning

Besides training students for their future careers, lifelong learning is also a cornerstone of every modern university. Charles University offers all forms of lifelong learning, including e-learning, and keeps developing new learning materials. While maintaining its ongoing on-site courses, the university has recently focused on creating on-line courses and keeps expanding the selection of both e-learning resourses and multimedia educational projects provided on its main servers. The Moodle e-learning software platform is used in both on-site and distance on-line courses.

In 2008, over 4,400 senior citizens attended courses of Charles University's University of the Third Age.



Graduation ceremony of the "University of the Third Age"







RESEARCH

Charles University is a distinguished research institution in both European and worldwide context, which is a fact proven by recent rankings that compare universities from all over the world. Charles University is the only Czech university to repeatedly achieve competitive rankings and confirms its solid position among European universities. Apart from The Times Higher Education and the Shanghai rankings, Charles University was very successful in the last instalment of the Leiden rankings, developed by the Centre for Science and Technology Studies (CWTS) of Leiden University. The methodology of this ranking is based exclusively on research output, calculated from the Web of Science publication database, among other bibliometric indicators. In the ranking by number of publications, Charles University ranked 71st in Europe and 165th in the world. In the ranking according to the size-independent, field-normalized average impact (the so-called CPP/FCSm ranking), which is widely regarded as the most relevant indicator of a university to place in the published top 250.

Publication output

Publication of research findings is an important indicator of the quality of the university, confirming its priorities and future goals. In addition to high quality teaching, research is another cornerstone of Charles University's future growth. This is proven by the figures of research output, which are steadily rising. PhD candidates and graduate students have also contributed to this success, with their part in research at Charles University becoming more and more significant.

One of the most important indicators by which research activities can be measured is the number of publications tracked by the international Web of Science database, which has also been increasing – it has almost doubled during the past six years.



Number of publications in the Web of Science database



Number of publications in WoS per 100 students











Research plans, grants and the Framework Programmes

The research plan framework is one of the most essential tools according to which the government of the Czech Republic supports research. Research plans are undertaken at particular faculties, while important inter-faculty cooperation is also encouraged. Periodically these plans are evaluated by the state that serves as the investor. The success of the plans at Charles University is evident both from the fact that most of them received category A on the A to D scale, and from their number, which is on the rise. In 2007, 19 out of 29 projects launched in 2005 were in category A, while only one was in category C and none slipped into the worst category D. Since 2007, the university has been involved in eight new research plans. The Czech Science Foundation (GAČR), the largest source of public funding for basic research in the Czech Republic, has provided 506 grants to Charles University in the years 2004–2008. Additional funding sources include the Grant Agency of the Academy of Sciences of the Czech Republic and ministries of the Czech government. Particular faculties are involved in many international research programmes and projects, such as LA INGO, Barrande, Eureka and others. Research collaboration at Charles University takes place not only at individual faculties, but also in the broader context of the European Research Area, as Charles University has joined the EU's Sixth and Seventh Framework Programmes. In 2007, Charles University took part in 64 projects in the Cooperation and People specific programmes and 10 projects in the Ideas specific programme of the EU's Seventh Framework Programme.

Grant Agency of Charles University

The Grant Agency of Charles University serves as a system of internal funding, primarily supporting those research projects that are conducted by graduate and PhD students. It was launched in 1993, and since then, the number of applications submitted has been rising. In 2004, 543 applications were submitted in the fields of science, medicine and social sciences, 184 of which received a grant. In 2007, there were 809 applications, 211 of which received funding. In 2004, CZK 35.25 million (EUR 1.4 million or USD 2.1 million) were distributed by the agency, whereas CZK 99.5 million (EUR 3.97 milion or USD 5.82 million) were spent in 2008.





Czech Science Foundation grants according to university







CHARLES UNIVERSITY Facts and Figures 2004 - 2008





Application of research

Charles University stresses the need for practical application of research conducted at Charles University faculties and research centres.

BIOCEV

In 2007, Charles University and the Academy of Sciences of the Czech Republic founded the BIOCEV consortium, whose goal is to build a centre for research in state-of-the-art methods of molecular biology and their application in medicine and industry. The project for setting up the centre, the costs of which have been approximated at CZK 2,500 million (EUR 99.8 million or USD 146.1 million), will be partially funded by EU structural funds. The centre will facilitate practical application of research findings.

Charles University Knowledge and Technology Transfer Centre

The Knowledge and Technology Transfer Centre of Charles University in Prague was established during the course of a project funded by the SPD 2 programme of EU Structural Funds that took place in the years 2005–2007. The centre systematically tracks all those new findings and technologies in development at the faculties and in the research centres of Charles University that have a potential of commercial application, and tries to facilitate industry contacts.

Among the greatest achievements of the Knowledge and Technology Transfer Centre are four international patent submissions, all of which have resulted in licensing deals. The industry showed great interest in the patents for photodisinfecting nanofabrics and pseudoceramides. A spin-off company AB Pharma was founded to pursue activities in the field of pharmacology and drug testing. Two more joint development projects have been launched in the field of biomedicinal technology, one with a small, the other with a medium-sized business. Findings and methods devised by Charles University's psychologists and kinanthropologists have been transformed into commercial services of employee and applicant evaluation, and healthy lifestyle and obesity prevention programmes. Ten strategic partnerships have been established with key industry players, such as Siemens, Olympus, Zentiva and the Confederation of Industry of the Czech Republic, aiming at future cooperation in the commercial application of research and development at Charles University.



Design visualization of the BIOCEV complex to be built in the Central Bohemia region

The beginnings of cooperation between the Charles University Faculty of Mathematics and Physics and CERN date back to before November 1989. Physicists, engineers, students and technicians of the Charles University Faculty of Mathematics and Physics have been participating and collaborating with the staff of the Institute of Physics at the Academy of Sciences of the Czech Republic and the Czech Technical University on the design, construction, development, testing and calibration of several sub-detectors of the ATLAS system. The graduates and junior researchers from the Charles University Faculty of Mathematics and Physics have been working at CERN regularly and there is no doubt that this cooperation will continue.



The Bolzano Award ceremony at the Small Hall of Karolinum – it is awarded for outstanding student work



Laboratory of the Biology of Tumorous Cells (1ª Faculty of Medicine Charles University and Physiology Institute of the Czech Academy of Sciences)



CHARLES UNIVERSITY Facts and Figures 2004 - 2008





Awards and achievements

Important discoveries

Charles University boasts many outstanding achievements of its research teams that contribute to its reputation of a top research institution. Here is a selection of recent breakthroughs:

A team of Egyptologists led by professor Miroslav Verner have concluded their decades-long research in the pyramid fields of Abusir by **uncovering a large pyra-mid complex of Reneferef**, a 5th dynasty ruler from 25th century BC. The complex includes a pyramid, an adjoining temple, and additional buildings, all of which share unique architecture. The research has yielded further findings of great value, such as the second most extensive set of royal statues hailing from the Old Kingdom, a temple archive of papyrus parchments, or rare faience tablets adorned with inscriptions.

Scientists from the Institute of Astronomy of Charles University have proved that during collisions of asteroids in the asteroid belt between Mars and Jupiter, large amounts of dust emerge, which then move through the interplanetary space and reach the Earth's orbit in about 100,000 years. A collision of an asteroid 160 million years ago is therefore most likely to be responsible for the Cretaceous/ Tertiary mass extinction of species 65 million years ago (Bottke et al. 2007, Nature 449, 48). They have also discovered another catastrophic disruption of an asteroid in the main belt, which is now manifested as a cluster of a number of asteroids. They used **a brand new method of calculating trajectories** and found that the disruption took place 450,000 years ago (Farley et al., 2006, Nature 439, 295, Nesvorný et al. 2006, Science 312, 1490).

★ A new statistical method developed by the experts from the Department of Probability and Statistics of Charles University enabled superior evaluation of experimental data gained by the DNA microarrays method. A suitable statistical test removed the drawbacks of earlier methods, improved the reproducibility of DNA microarrays data and contributed to the development of this state-of-the-art method of gene expression analysis, used for example in the research of serious human diseases (Klebanov et al., 2007, Nature Biotechnology 25, 25). Professor Klebanov has also introduced new statistical methods for description of the cooperation of multiplied cancer genes in the malignant transformation of cells (McMurray et al., 2008, Nature 453, 1112).

A study the molecular evolution of enzymes responsible for protein imports into mitochondria, conducted by Pavel Doležal from the Department of Parasitology and his colleagues, has proven the protein translocases that drive protein import into mitochondria have no obvious counterparts in bacteria, making it likely that these machines were created de novo. The presence of similar translocase subunits in all eukaryotic genomes sequenced to date suggests that all eukaryotes can be considered descendants of a single ancestor species that carried an ancestral "protomitochondria" (Doležal et al. 2006, Science 313, 314). Sciencists from the Department of Zoology of the Charles University Faculty of Science have presented **findings that change our perception of the evolution of teeth in vertebrates**. They presented reliable evidence that oral teeth derived from both the ectoderm and endoderm and, moreover, demonstrated teeth with a mixed ecto/endodermal origin. This suggests a dominant role for the neural crest mesenchyme over epithelia in tooth initiation and, from an evolutionary point of view, that an essential factor in teeth evolution was the odontogenic capacity of neural crest cells (Soukup et al. 2008, Nature 455, 795).

A group of scientists, led by Jiří Mosinger of Charles University in Prague, have developed **a new nanofiber for medical use**. They attached porphyrin molecules to polymeric nanofibres. When activated by ultraviolet light porphyrins convert oxygen from its usual unreactive state into a highly reactive form called singlet oxygen, which is a very strong oxidising agent. The resulting nanofabric is a disinfecting and sterile material that has many potential medicinal applications, for example in burn treatment (Mosinger et al. 2007, J. Mater. Chem. 17, 164).

A team that included neurologists from the Charles University 1st Faculty of Medicine has revealed **one of the causes of the restless legs syndrome**, which creates a burning and itching sensation in the legs or arms, resulting in an irresistible urge to move one's body. The scientists reported that a receptor-like protein tyrosine phosphatase, previously implicated in axon guidance and motor neuron development, is associated with the syndrome (Schormair et al. 2008, Nature Genetics 2008, 40, 946).

★ A team of scientists led by Eva Seemanová and Pavel Seeman from the Charles University 2nd Faculty of Medicine have confirmed that a **mutation of a NBN gene implies elevated cancer risk**. Whereas patients homozygous for NBN suffer from Nijmegen breakage syndrome, heterozygous patients do not show symptoms. The research has shown that even NBN heterozygotes have an increased cancer risk. The team introduced diagnostics for this mutation, which can contribute to prevention of malignant tumours (Seemanová et al. 2007, J Natl Cancer Inst. 99, 1875).

Researchers at the Charles University Faculty of Pharmacy in Hradec Králové have developed a **transdermal permeation enhancer with excellent activity**, **low toxicity**, **and no dermal irritation**, which enables administering a wide range of drugs without damaging the skin. (Hrabálek et al. 2006, Pharmaceutical Research, 23, 912-919)

Scientists at the Faculty of Medicine in Hradec Králové have made a valuable contribution to **the research of stem cells of human bone marrow and dental pulp**. The highlight of the research is the new way of cultivating mesenchymal stem cells that can be used primarily in the treatment of slowly healing fractures.







Important awards

One of the three winners of the prestigious Descartes Prize for Science and Research in 2007 was the international HESS Project, in which Prof. Ladislav Rob of the Institute of Particle and Nuclear Physics at the Charles University Mathematics and Physics Faculty was involved. The project strives to identify the sources of gamma radiation using a system of special telescopes. The European Union established the Descartes Prize in 2000 for scientific projects that have achieved outstanding results in international research.

In the last few years, a number of researchers from Charles University were awarded the Medal of Merit of the Czech Republic for notable achievements in science and research in the fields of linear algebra, physiotherapy, transplantation medicine and others.

Original science and non-fiction books published by Charles University have won the Josef Hlávka Award multiple times. It is awarded by the Czech Literary Fund Foundation in cooperation with the Josef Hlávka and Marie and Zdeňka Hlávková Talent foundation.

Members of the Charles University academic staff have also received awards of the Ministry of Education for outstanding achievements in science and research.

In 2005, Prof. MUDr. Radana Königová, professor of plastic surgery and burn medicine, received the honorary title of Knight of Czech Medicine, awarded since 1996 by the Czech Medical Chamber to people who have made outstanding contributions to Czech medicine and humanism.

To celebrate its 660th anniversary in 2008, Charles University introduced a series of new annual awards. The award for Representation of Charles University is granted for achievements and activities that have contributed to the reputation of Charles University among the general public. The Czech Institute of Egyptology was the first recipient of the award, followed by the team at the Faculty of Arts that organized the events to commemorate the 40th anniversary of Jan Palach's protest against Soviet occupation.

In April 2008, doc. RNDr. David Vokrouhlický, DrSc., assistant professor at the Institute of Astronomy of the Charles University Faculty of Mathematics and Physics, received the first ever Creativity Award, granted by Charles University for a realised patent, an excellent exhibition, an outstanding book or journal publication or a work of art. The following year, the Department of Zoology of the Charles University Faculty of Science team, consisting of Mgr. Robert Černý, PhD, Mgr. Vladimír Soukup and prof. RNDr. Ivan Horáček, Csc., received the award for their discovery of evolutionary mechanisms in the development of teeth, published in Nature, one of the most prestigious scientific journals.

Numerous Charles University researchers hold honorary doctorates from other universities and are members of The Learned Society of the Czech Republic.



Prof. MUDr. Radana Königová, recipient of the honorary title of Knight of Czech Medicine



Prof. Ladislav Rob, recipient of the 2007 Descartes Prize



The Charles University Faculty of Science team awarded for their breakthrough article in Nature



The HESS joint project telescope in Namibia, used to identify the sources of gamma radiation







Government-funded research plans launched since 2005

Programme title	Faculty or research centre
The Hermeneutics of the Christian, and in Particular the Czech Protestant, Tradition in the Cultural History of Europe	Protestant Theological Faculty
The Churches in Bohemia, Moravia, and Silesia and the Issue of Nationalism: Historical Problems, Solutions and Prospects for a Multinational and Multicultural European society	Hussite Theological Faculty
Quantitative and Qualitative Changes to the Legal Order at the Beginning of the 3rd Millennium: Roots, Starting Points and	d Perspectives Faculty of Law
Molecular Cell Biology and Pathology of Normal and Selected Clinically Serious Pathological Processes	I st Faculty of Medicine
Metabolic, Endocrine and Genetic Aspects in the Prevention, Diagnostics and Therapy of Cardiovascular, Cerebrovascular	and Renovascular Diseases Ist Faculty of Medicine
Molecular-biological, Genetic and Epigenetic Aspects of the Creation and Development of Model Tumours in Adults: The Significance for Epidemiology, Early Diagnostics and Treatment	Ist Faculty of Medicine
Neuropsychiatric Aspects of Neurodegenerative Diseases	I st Faculty of Medicine
Chronic Diseases Originated from Inappropriate Reactivity of Immune System, Their Pathogenesis and Possibilities of Their Early Diagnosis and Treatment	2 nd Faculty of Medicine
Molecular Bases of Children Tumorous Diseases and the Treatment Applications	2 nd Faculty of Medicine
Prevention, Diagnostics and Therapy of Diabetes Mellitus, Metabolic and Endocrine Damage of Organism	3 rd Faculty of Medicine
Pathophysiology of Neuropsychiatric Diseases and its Clinical Application	3 rd Faculty of Medicine
Invasive Approaches to Rescue and Regenerate Jeopardized Myocardium	3 rd Faculty of Medicine
Replacement of and Support to Some Vital Organs	Faculty of Medicine in Plzeň
The Use of Experimental and Clinical Models of Metabolic Processes, Nutrition and Pharmacotherapy for the Advancement of Knowledge, Clinical Practice and Quality of Life Improvement	Faculty of Medicine in Hradec Králové
Research of New Drug Structures	Faculty of Pharmacy in Hradec Králové
Czech National Corpus and Corpora of Other Languages	Faculty of Arts
The Foundations of the Modern World in the Mirror of Literature and Philosophy	Faculty of Arts
Language as Human Activity, as its Product and Factor	Faculty of Arts
Exploration of the Civilization of Ancient Egypt	Faculty of Arts
The Czech Lands in the Midst of Europe in the Past and Today	Faculty of Arts
Ecological Processes in the Evolution of Selected Model Taxa	Faculty of Science
Geographical Systems and Risk Processes in the Context of Global Changes and European Integration	Faculty of Science
Material Flow Mechanisms in the Upper Spheres of the Earth	Faculty of Science
New Molecular Systems for Advanced Environment-friendly Applications Beneficial for Human Health	Faculty of Science
Signaling and Cellular Response Mechanisms	Faculty of Science
Condensed Matter Physics – New Materials and Technologies	Faculty of Mathematics and Physics
Physics of Molecular, Macromolecular and Biological Systems	Faculty of Mathematics and Physics
Modern Methods, Structures and Systems of Computer Science	Faculty of Mathematics and Physics
Methods of Modern Mathematics and Their Applications	Faculty of Mathematics and Physics
Physical study of Objects and Processes in the Solar System and in Astrophysics	Faculty of Mathematics and Physics
The Investigation of Properties of Nuclei and Subnuclear Particles and their Interactions	Faculty of Mathematics and Physics
Teaching Profession in Changing Educational Demands	Faculty of Education
Development of the Czech Society in the EU: Challenges and Risks	Faculty of Social Sciences
Active Lifestyle in a Biosocial Context	Faculty of Physical Education and Sport
The Anthropology of Communication and Human Adaptation	Faculty of Humanities
Theoretical Study of Complex Phenomena in Physics, Biology and Social Sciences	Center for Theoretical Study
Economic Impact of European Integration on the Czech Republic	Center for Economic Research and Graduate Education







INTERNATIONAL COOPERATION

Charles University Mobility Fund

The Mobility Fund was set up in 2001 in order to help Charles University fulfil its major goal in terms of international relations, according to which each of its students, and doctoral students in particular, should spend one or two semesters studying abroad. It also facilitates long-term stays of foreign professors and researchers at Charles University and support for foreign students at Charles University. In the past five years, a total of 1,020 applications have received support from the fund, 40% of which were for one- or two- semester stays at universities abroad.

Inter-university agreements

Direct collaboration between universities helps introduce new joint doctoral programmes with partner universities. In the past five years, 35 new agreements on inter-university cooperation have been signed, and many existing agreements have been extended. At the end of 2008, 201 agreements with renowned universities on five continents were established. At the same time, the number of courses taught in foreign languages is rising.

International projects and programmes

Charles University takes part in the international programmes that have become components of the newly implemented EU Lifelong Learning Programme (LLP). In 2007, the European Commission granted Charles University the Erasmus University Charter (EUC) for the 2007–2013 period. This way, Charles University has become a full-fledged partner of LLP and its Erasmus, Comenius and Grundvig programmes. Besides these, Charles University is also involved in the Minerva programme and the Central European CEEPUS collaboration scheme. According to the official reports of the European Commission, Charles University ranks among the top 25 most active universities in the Erasmus Mundus programme. Over the past 9 semesters, Charles University has signed more than 1,500 bilateral agreements. During that period, 6,200 students have studied abroad under Erasmus, while 3,846 foreign students came to Prague to study at Charles University.

Soon, Charles University will boast more than 1,000 outgoing and incoming students in the course of an academic year. The rise in numbers of bilateral agreements is just as extensive, confirming that our partner institutions are interested in establishing and extending collaboration with Charles University under the Erasmus scheme. Since the introduction of new activities included in the Lifelong Learning Programme, mobility figures have grown to include students taking part in practical training, both outgoing and incoming.

Membership in international and professional organisations

Charles University has the privilege of being a member of notable organisations such as the EUA (European University Association), the IFPU (International Forum of Public Universities), the UNICA (Network of Universities from the Capitals of Europe), the Coimbra Group (the association of 38 long-established European multidisciplinary universities), the IAU (International Association of Universities), the DRC (Danube Rectors' Conference), the EAIE (European Association for International Education) and Europaeum.

In 2008, to coincide with its 660th anniversary, Charles University hosted the General Assembly of UNICA, welcoming distinguished guests from the UNICA network, which brings together 41 universities based in European capitals. 70 participants of the assembly came to Prague from all over Europe to discuss key issues of European higher education.

In March 2009, Charles University had the privilege of hosting the 5th EUA Convention of European Higher Education Institutions, titled Facing Global Challenges – European strategies for Europe's universities. In 2010, the creation of a European Higher Education Area (EHEA) is expected, which will set out future priorities and lay the groundwork for the next phase of integration. For leaders of European universities, The Prague Convention was an opportunity to define their priorities in research and education in order to influence the future orientation and development of European education policies. Around 600 delegates took part in the convention.

Charles University is also a member of the CESNET association, founded in 1996 by Czech institutions of higher education and the Academy of Sciences of the Czech Republic. Its main goal is to maintain and expand the central academic computer network in the Czech Republic. The present generation of the network enables transfer speeds of Gigabits per second.











GROWTH AND EXPANSION

Reconstruction, renovation and mini-campuses

Over the years, Charles University has been growing together with the city of Prague. Its buildings are therefore an integral part of Prague's neighbourhoods and do not form a single campus. Given that some of its faculties are based in other cities, such as Plzeň and Hradec Králové, even their buildings and facilities are organically embedded into the particular city, or even its historic centre. Charles University has a total of 160 buildings, used for teaching, research, offices, residence halls, accommodation, dining halls and sports and training facilities. Charles University's strategy is not to abandon its historical locations, but to renovate and extend existing complexes and to build so-called mini-campuses in Plzeň, Prague and Hradec Králové.

Renovation of existing buildings, including faculties, libraries and other facilities, is an ongoing process. One of the most extensive undertakings of the past few years is the complete renovation of the Profession House, a unique 17th century building in the neighbourhood of Malá Strana. It was completed in 2006 and since then, it has been used by the computer sciences branch of the Faculty of Mathematics and Physics. Since 2008, Bachelor's graduation ceremonies have taken place in the building's exquisite refectory, which is of great historical value.

Charles University's capacity has been significantly extended by large-scale renovation of the Faculty of Science's chemistry building and the 1st Faculty of Medicine's stomatology building, by the acquisition of the extensive Krystal complex, which will be used by humanities, and by the construction of the building of the Faculty of Pharmacy in Hradec Králové. A new building for the 2nd Faculty of Medicine's theoretical subjects is currently under construction.

Some of the large investment projects to be realised at the Plzeň and Hradec Králové faculties will be eligible for funding from the EU under the Research and Development for Innovation Operational Programme. Charles University is taking all the necessary steps to ensure the funding will be secured. Even though European funds cannot be used in Prague, Charles University has investment projects worth CZK 4,200 million (EUR 167.7 million or USD 245.5 million) laid out for the upcoming five-year period.



Aerial photograph of the Charles University faculties in Hradec Králové



The Budeč student dining hall



The periodontology department of the Stomatology Clinic of the 1st Faculty of Medicine







PUBLISHING EFFORTS

Charles University runs three publishing houses: Karolinum, Matfyzpress, which is the Faculty of Mathematics and Physics publishing house, and the Faculty of Education publishing house.

Founded in 1990, Karolinum specialises in textbooks and science and humanities monographs, which not only promote Charles University's research, but are also often used in particular courses at Charles University. Annually, Karolinum publishes around 250 new titles. In 2008, 259 publications made up for a total of 157,374 copies. In the last five years, Karolinum has released 1,308 publications.

A selection of notable publications published by Karolinum



Jiří Šerých **Michael Rentz fecit** 2007

(awarded at the Havlíčkův Brod Autumn Book Fair)

One of the notable Karolinum projects is the publication of a "hybrid" monograph, entitled Michael Rentz fecit, by J. Šerých, which includes a CD with the foreign language version as a part of the book



Jiří Horák, Aleš Raidl **Hydrodynamic Stability of the Atmosphere and Non-linear Issues in Geophysical Thermodynamics** 2007 (winner of the Rector of Charles University Award)



Marie Vágnerová Developmental Psychology, part II. Adulthood and Old Age 2008 (winner of the Rector of Charles University Award)



Kateřina Bobková Valentová **A Day in the Life of a Pupil of a Jesuit Gymnasium** 2006 (winner of the Rector of Charles University Award)



Bohumil Hrabal **Pirouettes on a Postage Stamp** 2008 (winner of the Bohumil Hrabal Readers' Club Award)



Karel Šiktanc **Overwinter** 2004 (a book of poetry, winner of the prestigious

Magnesia Litera Prize)



Jan Royt Dictionary of Biblical Iconography 2006

(winner of the Rector of Charles University Award)



Lubomír Košnar, Miroslav Buchvaldek, Andreas Lippert **Archeological Atlas of Prehistoric Europe** 2007

(winner of the Rector of Charles University Award, a unique project based on many years of research, released both in book and digital form)



Petr Wittlich

Karel Poláček **We were a handful** 2007

Art Noveau Prague: The Variations in Style

Miloslav Petrusek Setting the Table 2008







Mireia Ryšková **The Age of Jesus of Nazareth: An Introduction to the Historical and Theological Context of the New Testament** 2008

(winner of the Rector of Charles University Award)



Jan Pirk, Ivan Málek et al. **Heart Transplantation** 2008



Benedict Anderson Imagined Communities: Reflections on the Origin and Spread of Nationalism 2008



Pavel Pafko Introduction to Special Surgery 2008



Karel Kaplan **The Second Trial: The Rehabilitation of Milada Horáková and other Victims of Communist Purges of 1950** 2008



Jan Halada (ed.) Erwin Kisch Exposed: Proceedings of the Symposium on the Life and Work of Egon Erwin Kisch, Czech Journalist 2005



Marek Skovajsa Political Culture: Approaches and Criticisms in Political Science 2006



Jan Županič Austria-Hungary and the Polish Question during the First World War 2006



Petr Pitha **Memory and Hope** 2004 (awarded at the Havlíčkův Brod Autumn Book Fair)



Rajendra A. Chitnis Vladislav Vančura: The heart of the Czech avant-garde 2007



Daniel Boušek **The Jewish Pilgrimage and Sacred Places** of the Middle East in Hebrew **Travel Books of 12th to 16th Century** 2008



John Bossy Christianity in the West 1400-1700 2008



the Teaching Texts of Charles University series (awarded 1st prize in the Category of Textbooks for All Levels of the Most Beautiful Book of the Year Award)

For more details visit: www.cupress.cuni.cz http://userweb.pedf.cuni.cz/publish/ http://www.mff.cuni.cz/fakulta/mfp/



LIBRARIES

Charles University has 20 specialised libraries at 17 faculties, connected to a single central database, which now includes over one million items. Since the interconnecting of individual libraries, the quality of services has improved significantly. The libraries also offer on-line resources, which have become essential for both research and teaching at Charles University. Training in effective use of the libraries is conducted as a part of courses or as individual sessions organised by the libraries.

Charles University libraries cooperate with institutions and organisations and take part in numerous projects both in the Czech Republic and abroad. Charles University librarians collaborate with the National Library of the Czech Republic on an extensive database of Czech authors.







Samples from the university's map collection





CHARLES UNIVERSITY Facts and Figures 2004 - 2008





PUBLIC RELATIONS

Internal and external communication of Charles University incorporate contact with the academic community, the media and the general public including statements on current affairs, presentations and promotion of university events.

Among the topics promoted in the media are those concerning students and student life, as well as long-term strategies and positions of the university. Among these are for example the system of scholarships (including accommodation grants and scholarships for socially disadvantaged students), the credit system, issues of growth and expansion (especially regarding the mini-campus projects), application submission details, lifelong learning, fees, foreign students etc.

Charles University uses a wide variety of tools for internal and external communication, including magazines for students, academic staff and the general public, open house sessions, public lectures and individual cooperation with targeted media.

The i-Forum on-line magazine has been operating for more than five years, becoming a widely used source of information. In 2005, 689 articles were published, whereas in 2008, it was already 1,763 articles. The number of hits on the i-Forum website is rising, as is evident from the table.

The Forum magazine is targeted at the academic community and the general public. It focuses on research achievements in an international context and on topics such as research output and impacted journals. It offers its readers a perspective on the position of Charles University in both national and international contexts.

The European Discussion Forum was conceived as an independent platform for exchanging opinions on European issues. Its goal is to introduce the process of European integration to the Czech general public and to promote the discussion of European issues in Czech society. The project, run in collaboration with the Ministry of Foreign Affairs, the Czech Senate, the European Commission Delegation to the Czech Republic, EU member states' embassies and other institutions, was launched in 2002 and has mostly focused on organising lectures by European luminaries. In 2008, the topics of the discussion were directed at preparations for the Czech EU presidency in the first half of 2009. The emphasis was on research, education and the role of universities in European Higher Education and Research Areas. Among the guests of EDF were Günter Verheugen, Member of the European Commission, Margot Wallström, Vice-President of the Humanitarian Aid Relief Trust, or Jan Peter Balkenende, Prime Minister of the Netherlands.

There are also more informal ways of promotion, such as selling promotional items both on-line on the Karolinum press' website and in its retail space in 18 Celetná Street. In 2008, additional promotional items were introduced, such as sweatshirts, T-shirts, bags, laptop bags, glasses etc. All of these can be purchased in the Charles University Point shop in 14 Celetná Street in Prague 1 – Old Town. For more details, visit http://point.cuni.cz.











LIST OF CZECH PUBLIC UNIVERSITIES AND ACADEMIC INSTITUTIONS

	Full name of university	Founded in	Number of students	Number of doctoral students	Publications in WoS
UK	Charles University in Prague	1348	48,054	7,435	3,138
VŠE	University of Economics, Prague	1953	18,397	667	88
MU	Masaryk University, Brno	1919	36,252	3,165	843
ČVUT	Czech Technical University in Prague	1707	20,806	1,995	884
UHK	University of Hradec Králové	1992	8,291	127	43
VŠCHT	Institute of Chemical Technology, Prague	1920	3,817	824	448
AMU	Academy of Performing Arts in Prague	1945	1,332	128	-
UPOL	Palacký University, Olomouc	1573	20,250	1,400	507
VUT	Brno University of Technology	1849	21,176	1,959	494
všb-tuo	Technical University of Ostrava	1849	22,308	1,655	272
TUL	Technical University of Liberec	1953	9,415	429	107
ČZU	Czech University of Life Sciences, Prague	1906	18,712	1,026	236
JČU	University of South Bohemia in České Budějovice	1991	11,728	577	390
UJEP	Jan Evangelista Purkyně University in Ústí nad Labem	1991	9,584		39
OU	University of Ostrava	1991	9,143	272	40
SU	Silesian University in Opava	1991	7,750	221	48
ZČU	University of West Bohemia in Plzeň	1991	17,990	1,034	207
UTB	Tomáš Baťa University in Zlín	2000	12,205	432	117
MZLU	Mendel University of Agriculture and Forestry in Brno	1919	10,352	479	200
JAMU	Janáček Academy of Music and Performing Arts, Brno	1947	652	49	-
VFU	University of Veterinary and Pharmaceutical Sciences Brno	1918	2,816	236	216
AVU	Academy of Fine Arts in Prague	1799	317	18	-
VŠUP	Academy of Arts, Architecture and Design, Prague	1885	476	15	-
UPCE	Pardubice University	1950	9,424	474	247
VŠTE	University of Engineering and Economics, České Budějovice	2006	529	0	-
VŠPJI	College of Polytechnics Jihlava	2004	2,205	0	_
AV	Academy of Sciences of the Czech Republic	1890	-	-	_

Charles University is the oldest and largest Czech university and counts among the oldest and largest universities in Europe. Today, the university is attended by one sixth of all college and university students in the Czech Republic and has a 30% share of all doctoral students in the country.

It is also the only Czech institution of higher education to repeatedly rank among the top 500 universities in the prestigious university rankings, such as The Times Higher Education ranking, Shanghai ranking and the Leiden ranking.



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AFTERWORD

All the figures and data presented above confirm that Charles University is a notable international research and educational institution. Despite long-term isolation under the Communist regime, it has shown impressive growth in both education and research in the past two decades. With more than 50,000 students and over 3,000 publications in the Web of Science database per year, it fulfils the wishes of its founder, King Charles IV, to "let those gifted with innate brightness become in sciences learned, so that they are no more forced to, and useless can they deem, wandering the world in search of science, pleading to other nations or begging for it in foreign lands, but to hold it as an honour they can invite foreigners into their own."

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www.cuni.cz

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- 2 Marble memorial plaque dedicated to Matouš Kolin of Chotěřina from 1568–1569 in the Great Hall of Karolinum (detail)
- 7 Honorary degree ceremony taking place in the Great Hall of Karolinum
- 9 Tapestry in the Great Hall of Karolinum, weaved by Maria Teinitzerová based on a design by Vladimír Sychra (detail)
- II Rector's sceptre from 1883 made by the goldsmith Jan Tengler of Prague
- 19 The historic building of Karolinum
- 21 Students and professors from Charles University take part in CERN (European Organization for Nuclear Research) projects. Photo © CERN, taken from www.atlas.ch
- 23 Archeological research of the Czech Institute of Egyptology in Abusir. Photo © Czech Institute of Egyptology, Charles University Faculty of Arts
- 25 Entrance to Karolinum (detail)
- 27 Ceremonial assembly of the academic community in the Great Hall of Karolinum
- 31 a/ Institute of Physics of the Charles University Faculty of Mathematics and Physics after reconstruction
 - b/ The anatomy auditorium of the $I^{\,\rm st}$ Faculty of Medicine after reconstruction
 - c/ Visualization of the Globcentrum project in Prague Albertov
 - ${\rm d}/{\rm \ The\ television\ and\ radio\ laboratory\ of\ the\ Faculty\ of\ Social\ Sciences\ after\ recent\ reconstruction$
 - e/ Visualization of the Biocentrum project in Prague Albertov
 f/ Visualization of the project of the new building of the Faculty of Medicine in Plzeň
- 36 Forum, the official magazine of Charles University
- 41 Bronze statue of Charles IV by Karel Pokorný in the Great Hall of Karolinum (detail)





Quod bonum, felix, faustum, fortunatumque, eveniat.



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