



ADVANCE THROUGH NETWORKS

**Friedrich-Alexander-Universität
Erlangen-Nürnberg**



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Editorial

Welcome to the Friedrich-Alexander-Universität Erlangen-Nürnberg, a university both steeped in history and tradition while yet modern, comprehensive, international and interdisciplinary in its focus and research areas. The University, with its 26,000 students and more than 500 professors, is not only a major national and international player in academia but also a decisive economic force in the region.

Founded in 1743, the University has undergone continuous and successful development since then. Following a major recent restructuring process, the University is now organized in five schools with more than 20 departments covering the major disciplines in Medicine, Natural Sciences, Engineering, Humanities including Theology, Business, Economics and Law. A unique feature in Germany is the fact that a School of Engineering (founded in 1966) has been integrated into a traditional university, thus creating a close-knit network of interdisciplinary collaboration at the very highest level.

By cooperating intensively with non-university research centres and industry, the University has come to play a leading role in the development of new technologies and innovative ideas which will shape the future. Excellent profiles are medical technology (in cooperation with Siemens Healthcare), advanced materials (with a Cluster of Excellence from the German Excellence Initiative), optics (in cooperation with the Max Planck Institute for the Science of Light), micro- and nanoelectronics (in cooperation with the biggest Fraunhofer Institute in Germany, the inventor of the world-famous mp3-Standard), but also area studies and essential fields of knowledge and science in humanities, economics and law.

While we, the Friedrich-Alexander-Universität Erlangen-Nürnberg, may sport the longest name of any German university, our organisational structure is clear-cut and decision-making processes are short, facilitating a dynamic and innovative approach to meeting our challenges. The best evidence of this is our position in renowned academic rankings and league tables as one of the Top-Eight universities in Germany, our recent achievements in the German Excellence Initiative of the federal and state governments and an outstanding international network of researchers and students from 500 selected partner universities in 64 countries.

We promote and support academic exchange around the world and warmly welcome the best students and scholars from Germany and abroad. I therefore encourage students, teachers and researchers to come to the Friedrich-Alexander-Universität Erlangen-Nürnberg to experience “Advance through Networks” – our university’s motto – at first hand.



Prof. Dr. Karl-Dieter Gröske
Rector



University Profile





The University of Erlangen-Nürnberg is one of Germany's leading universities offering a comprehensive range of subjects. The main focus in research and teaching is to be found in interdisciplinary collaboration between Natural Sciences, Engineering and Medicine in close cooperation with the classical university disciplines, Law, Theology and the Humanities. Economics and Social and Educational Sciences complete the range of subjects offered. The lively dialogue between 5 schools, 22 departments and numerous subjects is the University's hallmark and inspired its slogan "Advance through Networks". Interdisciplinary cooperation, internationality and the highest standards of teaching and research are the sights the Friedrich-Alexander-Universität Erlangen-Nürnberg has set itself.

As a dynamic institution the University of Erlangen-Nürnberg is at the forefront of innovative teaching, and e-learning resources are an integral and fundamental part of university life. The Friedrich-Alexander-Universität is proud of its leading position in research rankings (e.g. among the top eight of the DFG-ranking), of its excellent learning resources, IT and sporting facilities as well as of a huge range of international contacts, cultural events and leisure facilities.

The University attracts about 26,000 students to study one or more of over 130 subjects in all disciplines in two closely connected cities in Northern Bavaria: Erlangen and the historical city of Nürnberg, both in the center of a prospering European Metropolitan Region with a population of 3,5 million. This Metropolitan Region is amongst Germany's top-performers both with regard to the economy and science. It is centrally located, offers a high standard of living, and yet has quiet, residential areas, an outstanding infrastructure, lovely countryside in close proximity and tremendous local Franconian hospitality. Here it is possible to combine working hard and playing hard in a congenial environment.

Study

A complete range of internationally comparable and compatible Bachelor and Master programs offers students a wide range of choice. The main language of these courses is German, but there are also programs in English, such as in Advanced Materials and Processes, Chemical and Bioengineering, Computational Engineering, Systems of Information and Multimedia Technology, Physical Activity and Health, Advanced Optical Technol-

ogies or International Information Systems. All the courses are designed to provide a balance of work-related and academic skills to give students a real advantage in today's competitive job market.

Elite graduate programs in cooperation with other universities have been designed to qualify exceptionally talented and committed students for prominent positions in academia, business and society through an innovative and highly competitive course of study with a strong international focus and extensive individual supervision. Choices include Master programs such as Ethics of Textual Cultures, Art and Visual Culture Discourses from a Historical Perspective, Physics with an Integrated Doctorate Program, Advanced Materials and Processes, Advanced Optical Technologies or Systems of Information and Multimedia Technology.

To complete their outstanding education, excellent students have opportunities to meet prominent leading figures in research, society or culture within the Leonardo-Kolleg. The Leonardo-Kolleg is a unique institution in Germany, initiated and financed by the students in part through tuition fees. The tuition is generally 500 € per semester but can be waived in some cases.

The University Career Service provides a wide range of facilities to improve students' education and potential career options. Continuing education facilities are also available to ensure further professional development. Alumni of the University of Erlangen-Nürnberg have proved their worth in leading positions in Germany and worldwide. Many of them are active members of our alumni organizations.

Research

Within a framework consisting of different research associations and clusters, young academics and established research staff cooperate closely to form a research elite.

For outstanding young academics we offer international doctorate programs such as Incentives, the Bavarian Graduate Program in Economics or Lead Structures of Cell Function. These options combine a demanding study and research program and involve extensive tutoring and supervision provided by distinguished university staff and professors.

Excellent support for young researchers and top quality doctoral research and supervision are main priorities at our university. By founding the University Graduate

School, the University aims to offer an ideal environment for doctoral students with a strong focus on international and interdisciplinary research. Transferable skills, language classes and intercultural offers complement the academic program, while the provision of personal support and a social network ensure that the graduate's well-being plays a central role.

Research staff at the Friedrich-Alexander-Universität have received numerous honors such as memberships in different academies of sciences, and awards such as the Gottfried Wilhelm Leibniz Prize of the German Research Foundation (DFG), the most prestigious award in German research, the Körber European Science Award, or the European Descartes Prize, all of which illustrate their outstanding reputation in the academic world. Our researchers are the driving force behind the University's success in the German Excellence Initiative, which aims to promote top-level research and improve the quality of German universities and research institutions. The results of this competition prove that the University of Erlangen-Nürnberg is to be found amongst the top performers in academia and research.

Transfer of Knowledge

The University not only creates knowledge but also transfers it, as is illustrated by its institutes (e.g. Central Institute for Regional and Area Studies, Institute of Advanced Materials and Processes, Institute of Applied Ethics and Scientific Communication, Institute of Medical Physics, Institute of European Commercial Law, Institute of Assurance Sciences) and cooperations with non-university research centers (e.g. Fraunhofer Institute for Integrated Circuits, Fraunhofer Institute of Integrated Systems and Device Technology, Bavarian Laser Center) as well as industry (Adidas, Audi, Bosch, INA-Schaeffler, Nestlé-Schöller, Puma, Rödl & Partner, Siemens, Trumpf). Innovative technologies are developed in interdisciplinary cooperations, often with different national and international partners. The University is renowned for its success in the field of medical technology, which is partially explained by its proximity to the Siemens Headquarters in Healthcare located in Erlangen

International Contacts

The University of Erlangen-Nürnberg is part of a huge international network exchanging researchers and students. It maintains close ties with 500 partner univer-

sities in 64 countries with a regional focus on Asia and South and Latin America. The Chinese Confucius Institute of Nürnberg-Erlangen is the second to be founded in Germany and serves to promote both the Chinese language and its culture. BayLAT, the Bavarian University Center for Latin America at the University of Erlangen-Nürnberg, whose 77 cooperations with Latin American universities and research institutions make it the largest of its kind, is a service center for strengthening contacts between universities in these two regions.

A further service center is the KEUCC, the Korean-European International Cooperation Center, which is also indicative of our close connection with South Korea.

Fundraising

With an annual budget of about 770 million Euros, the Friedrich-Alexander-Universität and its hospitals are a very substantial economic factor in the region, where it is the second largest employer. But this also works in the other direction. We have reached Cooperation Agreements and set up different Sponsorship and Support Programs (e.g. Foundation Chairs and Endowment Professorships) with regional enterprises. The Friedrich-Alexander-Universität has been highly successful at raising outside funding from trade and industry. We ranked amongst the top five German universities in fundraising in 2004–2006.

Sport, Culture and Leisure

Our students have won championships in inter-university competitions in soccer, handball, volleyball, riding and cycling.

The countryside around Erlangen and Nürnberg offers a lot of outdoor sport facilities: Franconian Switzerland provides ideal conditions on the doorstep for canoeing, walking and climbing and the Franconian lakes offer facilities for all kinds of water sports. The University's water sports center is a temptation water sports enthusiasts cannot resist.

For aficionados of music the University offers a lot of choices: There is an academic choir, a symphony orchestra, a big band, a brass wind ensemble and more besides—something for every taste. Every year students at the Friedrich-Alexander-Universität organize an International Festival of Young Contemporary Theatre. And the University offers an elegant ambience for both the summer and winter balls, too.

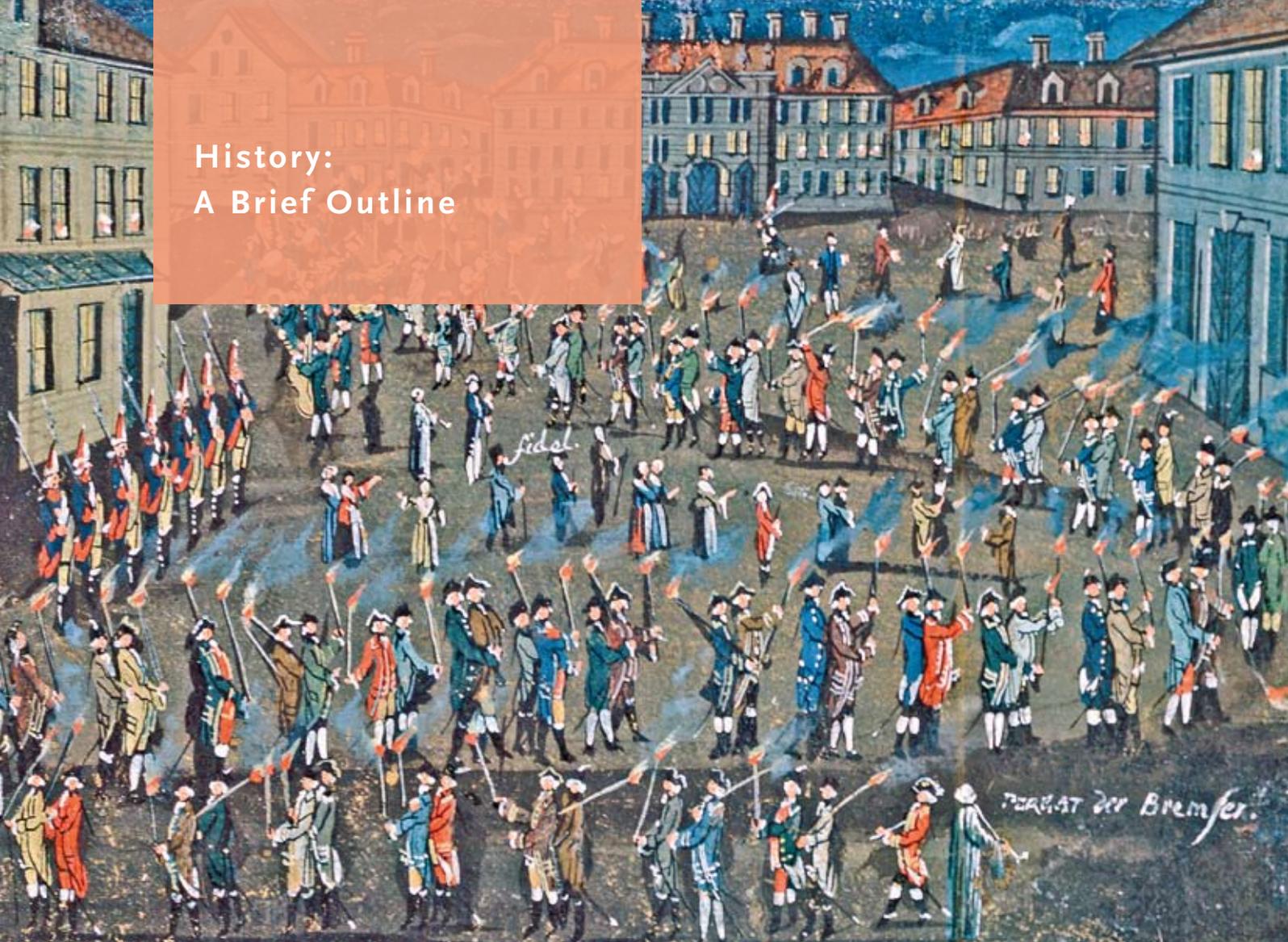
Friedrich-Alexander-Universität Erlangen-Nürnberg

- 2 Cities: Nürnberg (population 500,000) and Erlangen (population 104,000)
- 5 Schools
- 22 Departments
- 25 Hospitals and
- 11 Independent Divisions
- 265 Chairs
- 478 Professorships
- 26,000 Students
- 12,000 Staff
- Over 130 subjects in numerous combinations
- Top rankings in teaching and research
- Elite graduate programs
- International doctorate programs
- Career service center
- Outstanding reputation of professors and academic staff
- Excellent IT, sporting and leisure facilities
- Student clubs for music, theatre and other cultural events

Research (extract)

- 1 Cluster within the German Excellence Initiative
- 1 Graduate School within the German Excellence Initiative
- 7 DFG Collaborative Research Centers
- 1 Transfer Unit, 1 Transregio
- 8 DFG funded Research Units
- 6 DFG Research Training Groups
- 1 Max Planck Institute
- 1 Max Planck Research School
- 2 Fraunhofer Institutes
- 4 Central Institutes
- 26 Interdisciplinary Centers
- 12 Centers of Research and Competence
- 13 Bavarian Collaborative Research Programs
- 14 Endowed Chairs and Professorships

History: A Brief Outline



Erlangen University was founded by Friedrich, Margrave of Brandenburg-Bayreuth, assisted by his wife, Margravine Wilhelmine, and the first chancellor of the University, Daniel de Superville. The official opening of the University took place on November 4th, 1743, a day which is still celebrated as the 'dies academicus'. In honour of a later Margrave, Alexander, who was also to become the University's first great patron, the University was renamed the Friedrich-Alexander-Universität in 1769. In 1818 the University acquired a significant number of fine buildings.

After the death of Sophie Caroline, the second wife of the founder of the University, the Bavarian King donated the Schloss, the margraves' former Erlangen residence, the Schloss-park, the Orangery and further buildings previously owned by the margraves to the University. In the second half of the 19th century the rapid development towards increasing differentiation between the subjects, and the new research areas in medicine and the natural sciences necessitated the construction of numerous new buildings. The expansion in student numbers went hand

in hand with the inception of numerous new institutes. Since its foundation the University had had the four faculties of Protestant Theology, Jurisprudence, Medicine and Philosophy.

In 1928 the natural sciences were separated off and given faculty status of their own. In 1961 the University expanded further by incorporating the municipally-funded College of Economics and Social Sciences in Nürnberg, founded in 1919, into the existing University as a new faculty. From then on the University adopted the name 'Erlangen-Nürnberg'. The establishment of the Faculty of Engineering took place in 1966. What was unique at the time was that the various departments of Engineering were integrated to form a new faculty in the main university with full university status. In 1972 the Nürnberg College of Education became part of the University. Student numbers had increased markedly since the 19th century, so that in the winter term of 2006/07 the number of students reached 26,600.

Partners, Sponsors,
Friends of
the University

Seine Hochfürstliche Durchleucht. Unser gnädig-
ster Fürst und Herzog haben von dem Zinnsbau, der von
dem vormaligen Herzoglichen Hofmeisteren Raths Buirotte
von Oehlfeld zum Hofmeisterlichen Friedrich Alexander
Universität verordnet, durch seinen nachfolgenden Hof-
meisteren verordnet und zum Wirklichkeit gedienten
Richtung, Fünzig Gulden jährlich als einen Betrag,
zum akademischen Naturhistorischen Seminar, nach
der eigenen Bestimmung des Fundatoris gnädigst ver-
willigt, worauf sich bey dem Hofmeister zu verstehen ist.
Signatum unter Seiner Hochfürstlichen Durchleucht.
Friedrich Alexander Hofmeister. Inolbachs den 29. Jul. 1782.

The University receives valuable support in its teaching and research from generous endowments and donations as well as from close cooperation with partners in industry and the economy.

Institutions at the University of Erlangen-Nürnberg benefit from returns from 40 endowments. They support students with scholarships, award prizes to senior and junior research staff, further international relations, and support innovative research projects and interdisciplinary institutes and research units.

The oldest endowment was set up in the year in which the University was founded to provide support for students in need. The subsequent growth and development of the University was dependent on endowments and donations, too. They also gave the University valuable collections which still serve a purpose in research and teaching today. In addition to the very varied range of endowments serving a multiplicity of needs, there are numerous endowed chairs and professorships which play an essential role in furthering special areas of research and in teaching students in these fields. They enable the Uni-

versity to place new emphases and to enhance existing specialisations and strengths.

Sponsor associations at the University, such as the Universitätsbund, the alumni network and the faculty and subject alumni associations also support and sponsor the University. The University maintains close ties with former students and sponsors and hopes, too, that they will profit from one another through contacts as members of this network.

The University also welcomes its partnerships with numerous business firms with which it collaborates in applications-related research. They provide much of the funding needed for this research work, placing the University in the top group of German universities with regard to third-party funding ranking. Close cooperations exist with Siemens AG or with AUDI AG, which led to the foundation of INI.FAU, the Ingolstadt Institute of the Friedrich-Alexander-Universität Erlangen-Nürnberg. Rapid transfer of research results is also guaranteed by collaboration between the University and many other firms.

A photograph of two young women with dark hair, looking towards the right. They appear to be in a museum or gallery setting, as a piece of light-colored fabric or clothing is visible on the right side of the frame. The woman in the foreground is wearing a dark jacket and a pearl earring. The woman behind her is wearing a black top and a pearl earring. The background is a soft, out-of-focus blue.

The University and International Relations

The University of Erlangen-Nürnberg cooperates with numerous institutions of higher education around the globe. For more than a decade now, the University has been networking throughout Europe, successfully participating in the European Higher Education program ERASMUS. Within this framework, more than 350 active bilateral contracts have been signed in which activities have focused primarily on student and staff exchanges. In addition to day-to-day collaboration with European institutions of higher education, the University of Erlangen-Nürnberg cooperates closely with more than 60 universities worldwide. Some of the partnerships were established in the 60s and were generated by the twin-town partnerships Nürnberg had instigated. A number of double or joint-degree programs have emanated from these contacts.

In addition to Europe, another target area for internationalization is Asia. The Department of Japanese Studies, as well as the School of Engineering, maintain close relationships with important Japanese universities, such as those in Kyoto and Osaka. Activities include not only student exchanges, but also joint research projects. A number of the best Chinese universities have decided to establish close contacts with the University of Erlangen-Nürnberg, such as, for example, Peking University, Jiao Tong University, Tongji University and Fudan University. One of the results of working closely with partners in China has been the foundation of a Confucius Institute, established in the metropolitan region of Nürnberg to encourage the teaching of the Chinese language and culture. Furthermore, a Korean-EU-International Cooperation Center has been founded to promote economic and

academic relations between South Korea and the European Union. In addition the School of Engineering has established strong relationships with all Indian Institutes of Technology. Not only do student exchanges take place, but PhD-research work and annual joint workshops are also part of the program.

With regard to the American continent, strong links exist in the field of economic, social and political sciences, with several partner universities in Latin America (Argentina, Mexico, Costa Rica, Chile, Colombia, Uruguay and Paraguay), and to reward the University for its commitment to this continent, the Bavarian State Chancellery has decided to establish a Bavarian University Competence Center for Latin America in Erlangen in order to pool the strengths of all Bavarian universities. The University has strong traditional links in the United States with Duke University, Alfred University as well as the Universities of Georgia and Kansas. A Bavarian Californian Technology Center was established a few years ago and is continuing to support projects between different Bavarian and Californian research groups. Based on a cooperation between the states of Bavaria and Quebec, the University of Erlangen-Nürnberg has established a direct student exchange program with the Conference of Rectors and Principals of Quebec Universities.

Some 550 professors and more than 2,500 additional academic staff are responsible for the quality of research and teaching. Numerous research rankings place the University among the top 10 universities in Germany and in some fields of engineering the University has been awarded the attribute of excellence. The University's scientists have demonstrated their excellent scientific qualities time and again by winning numerous awards e.g. by receiving several Leibniz Awards, Germany's highest academic honor. Quality in research has, for example, resulted in the Max Planck Research Group for Optics, Information and Photonics, the International Max Planck Research School for Optics and Imaging, the Fraunhofer Institute for Integrated Circuits and partnerships with Siemens Medical Solutions. Nine DFG research training groups, six research training groups for outstanding young scholars, an international doctoral program within the "Elite Network of Bavaria" and participation in several national and international support programs illustrate the University's strength in these fields.



About 160 doctoral students from all over the world and up to 320 international scholars have chosen the University of Erlangen-Nürnberg as the place to spend several months or even a number of years on research. In fact around 12 % of the students hail from other countries. The Central Office for International Affairs offers a wide variety of support to welcome the international students and scholars, to help them to meet colleagues and strike up friendships as soon as possible and to enable them to succeed in their training and research. This service consists of orientation weeks, personal assistance with visas and residency permits, children and schooling, health insurance, social security, money and banking and other everyday matters as well as in establishing contact to the local community. The Office for International Affairs organizes a varied program of cultural and leisure activities every term. Newcomers obtain personal assistance from more advanced students who are working as tutors or in special mentoring programs. This helps to ensure they will successfully complete their study programs.



School of Humanities and Social Sciences, School of Theology

One of the aims when restructuring the University of Erlangen-Nürnberg in 2007, was to integrate all the humanities, the social sciences, and even theology into one comprehensive unit: the School of Humanities and Social Sciences, School of Theology. It consists of the ten following departments: Department of the Classical World and Asian Cultures, Department of English, American and Romance Studies, Department of Didactics, Department of German and Comparative Studies, Department of History, Department of Media Studies and Art History, Department of Education, Department of Psychology and Sport Science, Department of Social Sciences and Philosophy, School of Theology. It has more than 120 professorships and over 9,000 students, a third of the total student population, which makes it the biggest school at our university.

Our central idea is the conviction that integrating the various disciplines into departments defined by close relationships between different fields of research will further the development of new types of collaboration within the framework of scholarly work. Today it is a truism to say that fruitful, productive work in the humanities, the social sciences and even in theology requires a pluralistic and multi-faceted approach. This, however, presupposes an organizational structure that furthers and facilitates the integration of scholars from various disciplines into research groups. The internal subdivision of our School of Humanities and Social Sciences, School of Theology into the present ten departments offers an ideal framework for such collaboration between members of different disciplines.

The School of Humanities and Social Sciences, School of Theology comprises a huge range of different academic disciplines. Beginning with Prehistory, there are on the one hand Ancient European Studies (Archaeology and the Archaeology of Early Christianity, Classical Languages and Literature, History of European Antiquity) followed on the other hand by studies relating to non-European cultures such as the Near and Far East (Semitic Languages and Litera-

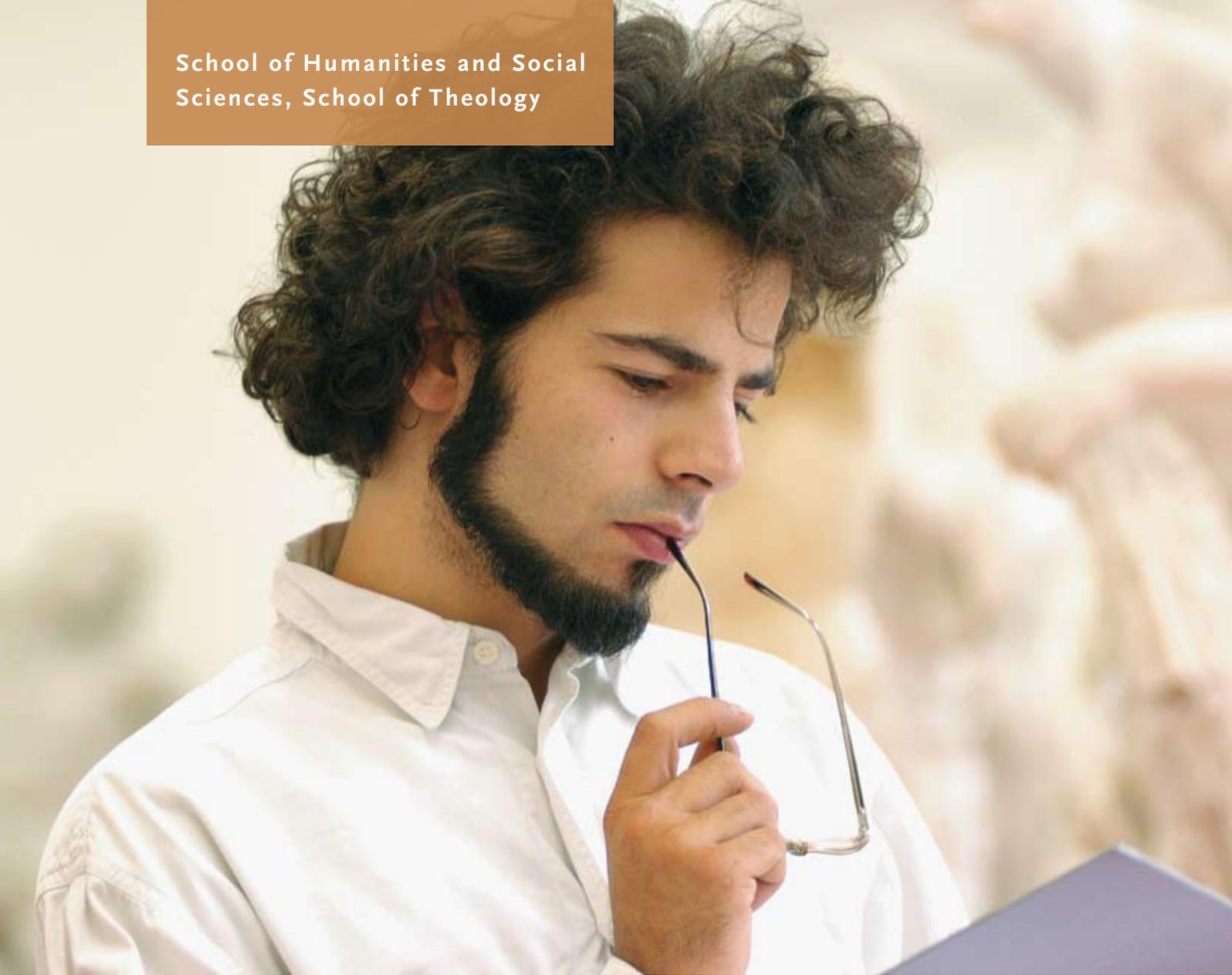




tures in Ancient and Modern Times, Islamic Studies, Politics and Economics of the Near East, Japanese Studies, Chinese Studies). Next, again within the framework of European cultures, come Studies of the Middle Ages (Medieval History, Medieval German Language and Literature), then the various disciplines that deal with early modern times, with the Age of Enlightenment, with the 19th and 20th centuries, and with the present day (Modern History, German Linguistics and Literature, English Language, English and American Literature, Romance Languages and Literatures, Comparative Literature, Linguistics). Parallel to these are the Social Sciences (Political Science, (including the History of Ideas), Sociology and Economics). Media Studies (Theatre, TV, Film, the Science of Print-Media) and the History of Art comprise another family of disciplines. One of our most important tasks is the education and training of future school teachers, which is why the related didactic fields, Sport Science and the Science of Education, have been grouped together to form another important branch. Psychology, a discipline in its own right, impinges on and interconnects with nearly all these subjects. Last but not least, Philosophy, with its historical as well as systematic dimensions and with its numerous relations to nearly every other science, completes and complements the range of subjects offered.



The inclusion of Theology as one of the ten departments of the School of Humanities and Social Sciences, School of Theology is a unique feature of the University of Erlangen-Nürnberg. For several reasons, over the course of the long history of European universities, a School of Theology (besides a School of Medicine, a School of Law, and a School of Philosophy) was traditionally one of the four constitutive units of a university. Yet, in the course of the rapid process of differentiation among the sciences during the last two centuries a very wide range of new affiliations and connections between the various disciplines has evolved, necessitating organizational adjustment to do justice to new needs and em-



phases. The structural reform of the University of Erlangen-Nürnberg is our response to these changes in academic disciplines: Special historical agreements between the Bavarian State and the Protestant Church of Bavaria mean that certain academic rights pertain to the School of Theology only, but nonetheless this department is now considered an integral part of the humanities and the social sciences. And this in turn is of overwhelming value for these disciplines since it enables them to gain easy access to the linguistic, historical, cultural, archaeological, and ethical knowledge inherent in the School of Theology, while the scholars of the School of Theology, in turn, stand to profit greatly from the humanities and the social sciences.

Comparative research on cultures and societies, as well as the scientific interpretation of cultural artefacts and the translation of manifestations of culture, are based on wide experience in interdisciplinary work in the humanities and the social sciences.

How fruitful such scholarly exchange may be, is proven, for example, by the Master degree course Ethics of Textual Cultures (a component of the Elite Network of Bavaria). This Master course specializes in ethical dimensions of texts as cultural products as well as as constituents of culture and comprises lectures and seminars from Theology, German Linguistics, German Literature, and Philosophy. Participation in this truly interdisciplinary program enables students to acquire the complex skill of arguing in a subtle and nuanced way in ethical contexts.

The School is involved in various other such combined teaching and research units, some of which are collaborations based on special postgraduate programs (such as, for instance, the DFG Research Training Group for Cultural Exchange during the Middle Ages or the DFG-RTG for the Cultural Hermeneutics of Difference and Trans-difference). Furthermore, the School runs a great number of individual research projects financed by

the DFG and other foundations that have led to a steady flow of high profile publications. The comparative study of cultures in different regions of the world has a thirty-year-old tradition at the Center for Area Studies, which has developed special profiles in Middle Eastern, Latin American and North American Studies. Recently a great number of Centers for Interdisciplinary Work have been initiated which bring together, for example, research in Renaissance Studies, the Middle Ages and Ancient History, Contemporary Literature, Media Studies, and Aesthetic Education. Intensive cooperation between Art History and Media Studies on the one hand and the German National Museum in Nürnberg (Germanisches Nationalmuseum Nürnberg) is another feature of the School. This is only one example of the many types of relationships between the School of Humanities and Social Sciences, School of Theology and many different institutions in the surrounding Metropolitan Region of Nürnberg, Fürth, Erlangen, such as, for instance, the local governments and the federal office for migration and refugees, the churches, the theatres and NGOs of various kinds.

The School is entitled to confer a range of academic degrees: These range from the Bachelor of Science (BSc) in Psychology and various other programs to the Bachelor of Arts (BA), both of which can pave the way to various higher level MA and MSc programs. Usually on the basis of an MA or MSc degree, graduates can enrol in different postgraduate programs which lead to the Dr. phil.-degree and which are organized by our Graduate School. In addition to these academic degrees, some of our programs lead to State examinations which are the first step towards a teaching career at a state school. Students of Theology take a special examination under the aegis of the Protestant Church which can lead to ordination and entry to the clergy. The right to confer the academic degree of Dr. theol. is reserved to the School of Theology.

Though a lot has already been achieved in integrating this wide range of different disciplines and various fields of research, much work still remains to be done in order to complete what was initiated by the structural reform in 2007. Probably the most important long-term vision is that one day all the ten departments of the School of Humanities and Social Sciences, School of Theology will be gathered together on one campus and will no longer be scattered over the two cities of Erlangen and Nürnberg. Integrating knowledge is our aim; integrating knowledge by growing together is our slogan.



School of Humanities and Social Sciences, School of Theology

Founded 1743

www.phil.uni-erlangen.de

The School of Humanities and Social Sciences, School of Theology consists of ten Departments

- Department of Classical World and Asian Cultures
 - Department of English, American and Romance Studies
 - Department of Didactics
 - Department of German and Comparative Studies
 - Department of History
 - Department of Media Studies and Art History
 - Department of Didactics
 - Department of Psychology and Sport Science
 - Department of Social Sciences and Philosophy
 - School of Theology
-
- 69 Chairs
 - 120 Professorships
 - 8,839 Students

Law School, School of
Business and Economics



The Law School, School of Business and Economics comprises the Law School in Erlangen and the School of Business and Economics in Nürnberg. The School is the focus of Law, Business and Social-Economics at the Friedrich-Alexander-Universität Erlangen-Nürnberg.

Law School

Law has been taught in Erlangen since the University was founded in 1743. The Law School comprises 18 Chairs and one Professorship. The law component of the courses for students at the School of Business and Economics in Nürnberg comes under the auspices of two of the Chairs and one Professorship, while in Erlangen the 16 Chairs provide the courses for 1,400 students studying Law alone. In addition, the Chairs offer courses for students with a minor in Law and for foreign Master program students, and since the winter semester of 2007/2008, an integrated course of studies in cooperation with the University of Rennes which is supported by the Deutsch-Französische Hochschule. A BA joint course in Law and Politics is planned to commence in the winter semester of 2008/09. The Law School will offer the Law component of this course. The International Law and Economics course involves all the Chairs at the Law School and the School of Business and Economics.

Teaching

Teaching at the School combines both a strong academic basis as well as practical relevance and training in key qualifications such as rhetoric, trial management and communication. The Law course cultivates an active link between the teaching of basic principles and in-depth study with practical relevance. In part one of the course

the lectures in Civil Law, Public Law and Criminal Law are complemented by teaching in small groups and intensive tutorials. In the third and fourth years of the course students can choose to major in Commercial Law, International and European Law, Company and Labor Law, the Foundations of Law, State and Administration, as well as Criminology. The courses are accompanied by language courses, practically oriented lectures and workshops with lawyers and company lawyers as well as a wide range of courses in key qualifications. An eleven month course to prepare students for the state exams is constantly on offer. This special exam course, dovetailing revision in all the subjects, is the so-called Erlangen Examination Course. It is complemented by a mock written exam course, mock oral examinations and individual tutoring. The Institut für Anwaltsrecht provides further professional training.

Research

Networks determine the research profile of the Law School. Some of these are: Law in the Humanities, Law in the international and European context, Law in relation to technology and the economy as well as Law and its practical application. Particularly distinctive areas of Law research in Erlangen are the Center for Law and Islam in Europe, which was approved within the framework of the Excellence Initiative, the Hans-Kelsen Research Center, the Center for Academic and University Law, the Hans-Liermann Institute for Ecclesiastical Law, which has a long-standing tradition, the Institute for Law and Technology as well as the Research Center for Sport Law. Institutional networking takes place in the Legal Psychology Colloquium, the Interdisciplinary Forum Franken, in EIPraxis (European and International Law in practice), the





Central Institute for Applied Ethics and Knowledge Communication or the Interdisciplinary Center of the Old World. The intensive contacts with legal practice are arranged by the Institut für Anwaltsrecht und Anwaltspraxis.

International

The School is part of a global academic network consisting of student and lecturer exchanges, integrated working groups with foreign students and cross-border projects which everyone at the School profits from.

The School of Business and Economics

The School of Business and Economics dates back to the Nürnberg Handelshochschule (College of Business and Commerce) which was founded in 1918. In 1961 the School was integrated into the Friedrich-Alexander-Universität Erlangen-Nürnberg as the Faculty of Business,

Economics and Social Science (WiSo). Since 2007 the WiSo has been part of the Law School, School of Business and Economics.

The School of Business and Economics has a very good reputation and ranks highly among similar institutions. It comprises 5,000 students, 16 Chairs in business, 7 in economics, 7 in social economics and 2 Professorships, world wide contacts and one of the most diverse range of courses and subjects in the German-speaking world. Originally founded as a practice-oriented college, the School of Business and Economics is today a university think-tank which is highly sought after as a partner in the Metropolitan Region of Nürnberg.

International

Whether Asia, America, Africa or Europe, with more than 100 partner universities, the School offers numerous opportunities for research and study worldwide.

These contacts are coordinated by the International Dean of Studies. The International Relations Office organizes the student exchanges.

Research Profile

The School of Business and Economics is committed to scholarship with strong local roots and global impact. Research activities carried out by over 150 senior and junior research staff focus on the following key subject areas and research centers:

- CentIS – Center for Information Systems Research
- CeVET – Center for Research in Vocational Education & Training
- FACT – Finance, Accounting, Controlling & Taxes
- LASER – The Labor and Socio-Economic Research Center
- MARKETING – The Nürnberg Marketing Research Group
- NUMAG – The Nürnberg Management Studies & Education Group

Research results from the School are published widely in top academic journals, research monographs and executive briefing notes for our partners in academia and business. These clearly match the strong research profile of the Friedrich-Alexander-Universität Erlangen-Nürnberg as an institution and give us a distinctive presence in the increasingly competitive research environment.

Courses

At the beginning of the winter semester 2006/07 the School of Business and Economics changed from its previous system of diploma courses to offering Bachelor and Master courses with an international and practice-oriented focus. The emphasis of the Bachelor course Economics is on Business Administration, Economics, Business Information Systems and on Economics and Business Education. The Bachelor course in Social Economics offers a focus on behavioral sciences and on international issues. The School also offers a Bachelor course in International Business Studies. As part of this course, students study at one of our partner universities abroad. The Bachelor course is a six-semester course which focuses on promoting independent study and initiative-taking, problem-solving thinking, entrepreneurial risk-taking, risk assessment, decision-making and international experience. Graduates from the Bachelor course

can go directly into the job market or seek further qualifications in a Master course. The Master courses at the School are based on our research profile. The School also offers a two-year Masters course in Business Administration designed for working graduates.

Practical Training Orientation

The School of Business and Economics has many contacts with regional and international companies. Intensive cooperation with these companies has led to the creation of two new Chairs: the GfK Chair of Marketing Intelligence and the first Chair of Insurance Marketing in Germany. Our sponsorship program is a further important element in the practice-related focus of the courses. It provides the best students at the School with the practical component of their course. Representatives of national and international companies sponsor a student for a year and offer them the opportunity to gain experience in diverse fields of work and to become acquainted with company issues and policies.

Law School, School of Business and Economics

Founded 1743

www.rw.uni-erlangen.de

The Law School, School of Business and Economics consists of two Departments

Law School

Founded 1743

— Location: Erlangen

— 17 Chairs

— 17 Professorships

— 1,400 Students

— 20 Partner universities

School of Business and Economics

Founded 1918

— Location: Nürnberg

— 34 Chairs

— 37 Professorships

— 5,000 Students

— 100 Partner universities

School of Medicine



From a contest of ideas to new procedures in diagnostics and therapy

The objective of medical research is the continuous improvement of our understanding of the causes of illness, through diagnostics, therapy and prevention. It lives from an international contest of ideas and research results and also from a close relationship between clinic and laboratory. This presupposes sound institutional structures which facilitate innovative research. International comparisons show that medical research can move quickly from development to implementation where translational efforts and synergies are sustained, barriers between research institutes and clinics are removed and transparent organisational structures are created. Growing competitive pressure, increasing internationalisation and the introduction of expensive technically complex methods are currently posing a major challenge for university clinics and institutes. The School of Medicine in Erlangen has faced this challenge boldly and has been raising its profile in defined fields of research while also setting up an efficient program to support research and encouraging young talent internally in interdisciplinary research facilities.

Scientific focusing and choosing main areas

Growing requirements around methodology and increasing competitive pressure are forcing the School of Medicine to hone its scientific profile and to define the development of high-performance fields of research more clearly. Fields of research develop synergies and promote cooperation. Defining a focal area in research demands clear performance criteria and external peer-reviewed third-party funding, particularly for special areas of research or DFG research units as well as for clusters of individual DFG procedures, or similar grants. The School encourages several non-overlapping focal areas, which are not intended to develop into thematic monopolies. Following the criteria of strength of research, originality of the research trials and the structural network, the School has defined four nationally important fields of research:

Molecular Medicine	Medical Technology	Clinical Studies
1. Infection Research and Immunology		
2. Renal and Vascular Research		
3. Neurosciences (including Glaucoma)		
4. Tumour Research		

Figure 1: As well as identifying four thematically defined fields of research, the School of Medicine encourages methodical focusing on processes of Molecular Medicine, Medical Technology, particularly imaging, as well as Clinical Studies. The content levels are closely networked through the methods.

Field of research: Infection Research and Immunology. The research into Infection Biology, Immunological Resistance and Inflammation Mechanisms are the flagships of the School, as is the field of Autoimmunity and Transplantation Immunology. The Interdisciplinary Center for Clinical Research, which has played a major role in clinical research in Erlangen, was originally generated by research in the areas of infection and immunology.

Interdisciplinary research units

- CRC 643 – Strategies of Cellular Immune Intervention
- CRC 466 – Lymphoproliferation and Viral Immunodeficiency
- RTG 592 – Lymphocytes: Differentiation, Activation and Deviation
- RTG 1071 – Viruses of the Immune System
- RU 832 – Regulation of the humoral Immune Response
- Bavarian Genome Research Network – Experimental Immunology and Immune Therapy

Field of research: Renal and Vascular Research. Due to their multiplex and chronic nature, renal and vascular diseases affect large numbers of patients and result in enormous socio-economic consequences. Early diagnosis of the risk factors offers the best chance of effective prevention. Clarification of the regeneration mechanisms offers the best chance of early rehabilitation after the illness. Setting up a clinical research station with experimental research trials, using a particularly fine network of patient problems, is the most effective way of focusing on the requirements of a translational research project.



Interdisciplinary research groups

- CRC 423 – Renal Injury – Pathogenesis and Regenerative Mechanisms
- CRU 106 – Target Organ Damage in Hypertension

Field of Research: Neurosciences (including Glaucoma). Experimental and clinical neurosciences are distinguished by their unusual content and methodical breadth. Thematically this band extends from mechanisms of neural signal transduction through the sensory system, represented in Erlangen by glaucoma research, to stimulus processing and perception in pain research as well as the question of neural signal transduction.

Interdisciplinary research groups

- CRC 539 – Glaucomas including Pseudoexfoliation Syndrome
- CRC 473 – Switch Processes of Transcription
- CRU 130 – Pathobiology of Initiation, Processing and Handling of Pain
- DFG Priority Focus Program 1026 – Molecular Physiology of Synaptic Interaction
- RTG – Protein-Protein-Interactions in Signalling
- EU Excellence Network and German-Israel Project – Pre-m
- RNA-Splicing of Ion Channels

Field of Research: Tumour Research. Erlangen is part of a national genome research network involved in researching the origin, diagnosis and treatment of colorectal cancer. Research also focuses on the origins of renal cell carcinoma and of tumours of the haematogenic and lymphatic systems. Epidemiological data on tumours is stored in the Bavarian Epidemiological Cancer Register in Erlangen. Through the University Clinic and the University Research Institutes, the Erlangen-Nürnberg Tumour Center liaises with the regional hospitals and clinics in the field of Tumour Research. A study to compare pre- and post-operative chemotherapy in carcinoma of the rectum has recently been well-received internationally.

Interdisciplinary research groups

- CRC 466 – Lymphoproliferation and Viral Immunodeficiency
- CRC 643 – Strategies of Cellular Immune Intervention
- CRC 423 – Renal Injury – Pathogenesis and Regenerative Mechanisms

Linking the four main fields of research. The unique feature of these four main research fields is the fact that both clinical and experimental work is close-knit and involves cooperation between both national and interna-

tional research organisations. Even though these main fields of research emanate from the School of Medicine, they rely to a high degree on interdisciplinary cooperation with other faculties associated with their special fields. The basic feature of this interdisciplinary approach is the joint degree policy shared with the School of Sciences and the School of Engineering.

Method Area: Molecular Medicine. Procedures in Molecular Medicine, Medical Technology, in particular imaging and Clinical Studies are a further main focus at the School of Medicine. By focusing on methods that finely cross-link the content level, changes in scientific structures create greater transparency within research medicine: instead of a single institute which has all the methods required for its own area of expertise, we now have an interdisciplinary research unit or “core unit” whose technical services are closely networked and extensively used.

Method Area: Medical Technology. The experimental developments and clinical applications in imaging radiate not only from the School of Medicine to the Schools of Natural Sciences and Engineering but are also linked with the medical technology industry, which is well represented in the Erlangen area. Translational trials that aim to shorten the transition phase from pre-clinical development to clinical use are characteristic of Imaging Research.

Associated implements for group facilitation

- CRC 603 – Model-based Analysis and Visualization of Complex Scenes and Sensor Data
- CRU 661 – Multimodal Imaging in Preclinical Research
- CRU 894 – Human Vocalization

Method Area: Clinical Studies. In addition, the School of Medicine recently decided to present the method area of Clinical Studies as a third and independent section.

Comprehensive concepts of research. Excellent research exists even beyond the main fields of research. To remain open to new challenges and subject areas, the School encourages scientific creativity and flexibility in all medical fields. The encouragement of projects involving young talents is thematically broadly arranged by the ELAN-fund (Performance-related start-up financing and the promotion of young researchers in Erlangen).

Internationalisation. The influence of European and industrial support programs has led to international cooperation and networking becoming increasingly important. The School of Medicine has recently appointed staff from outside the country and is involved in many European networks on the Network of Excellence level and Strategic Targeted Research Projects.

Medical School

Founded 1743

www.dekanat.med.uni-erlangen.de

Dates and Facts

- 47 Chairs
- 120 Professorships
- 926 Research and Teaching Staff
- 30,2 Funding (in Mio. €)
- 13 Non-Clinical and Clinical-Theoretical Institutes
- 24 University Hospital Departments
- 12 University Hospital Divisions
- 6 University Hospital Institutes
- 2,835 Students
- Courses of Study:
 - Human Medicine
 - Dentistry
 - Molecular Medicine
 - Medical Process Management

New and established interdisciplinary centers

- Translational Research Center
- Center for Clinical Studies
- Center for Application of Medical Technology
- Interdisciplinary Center for Clinical Research
- Imaging Science Institute (Cooperation with Siemens)
- Medical Center for Studies and Teaching
- University Cancer Center
- Palliative Center

School of Sciences

The School of Sciences consists of the Departments of Biology, Chemistry and Pharmacy, Geography and Geoscience, Mathematics and Physics. In total around 110 research professors hold positions in the School. In addition, external research grants help to finance further posts for research staff. The research activity covers a wide spectrum that ranges from basic to applied research in all departments and there is a strong link between the departments, in particular with regard to interdisciplinary research projects. These projects are often linked to the School of Medicine, the School of Engineering and other national and international institutions. A wide variety of these basic and interdisciplinary research projects are externally funded by, for example, the Cluster of Excellence, Special research fields, Collaborative Research Centers, DFG research units, the European Union, BMBF, DAAD, Volkswagenstiftung, Humboldt-Stiftung, and the Bavarian research funding.

The Department of Biology

The Department of Biology consists of nine Chairs devoted to the molecular and cell biological study of animals, plants and micro-organisms. Major research objectives are to study molecular regulatory networks and signal transduction pathways essential for biological processes, including the control of gene expression (Chair of Microbiology), the development and functional organization of chemical synapses in the central nervous system (Chair of Animal Physiology), molecular control of early embryogenesis and organ development (Chair of Developmental Biology), the formation of blood cellular components (hematopoiesis) in mice and humans (Chair of Genetics), short and long distance intercellular communication in plants (Chair of Molecular Plant Physiology) and the regulation of metabolic networks and interorganismic communication (Chair of Biochemistry). These activities are complemented by structural and functional studies of genes and enzymes involved in plant secondary metabo-



lism (Chair of Pharmacognosy), structural biology (Chair of Bioengineering) and ecophysiological studies on the consequences of global climate changes on primary producers in aquatic ecosystems (Chair of Ecophysiology). Furthermore, biotechnological approaches in our research work include the molecular farming of therapeutic antibodies, metabolic engineering in plants and bacteria, improved biomass production of plants and the design of hypoallergenic food. To facilitate research and education, technology platforms (i.e. transcriptome and metabolome analysis) have been established.

The Department of Chemistry and Pharmacy

The Department of Chemistry and Pharmacy consists of the separate research and teaching units Chemistry and Pharmacy. Both of them cooperate closely with other Schools within the University, especially with the schools of Medicine and Engineering as well as with other departments within the School of Sciences. This cooperation ranges from joint research projects and interdisciplinary research centers, to an extensive exchange of undergraduate and graduate courses.

Altogether 23 research and teaching professors hold appointments in the Department—covering the areas of chemistry / molecular science and pharmacy/food chemistry. Further support comes from 24 permanent and 55 non-permanent members of the academic staff. In addition, externally funded research grants amount, on average, to approximately 4,5 million Euros per year, which help in financing 75 additional researchers. In total, the members of the institutes publish more than 200 articles per year in well-established, prestigious international journals.

The Department's research activities cover a wide spectrum that ranges from basic to applied research in the areas of Chemistry, Biology, Pharmacy and Pharmaceutical Science. These are closely linked to each other and are involved in close collaboration and numerous interdisciplinary research projects within the University (Cluster of Excellence, Collaborative Research Centers, Research Training Groups) and with other national and international institu-

tions (DFG Research Programs, EU, BMBF, Volkswagenstiftung, DAAD, Humboldt-Stiftung, Bavarian Research Program, etc.). Consequently, the Department of Chemistry and Pharmacy creates the molecular bridge between the Schools of Medicine and Engineering.

Current research objectives concentrate on two major areas:

MOLECULAR MATERIALS – metal complexes, electron transfer, nanostructures, modeling and catalysis.

The synthesis and characterization of molecular materials are of paramount interest to the research activities in the various Chairs of Chemistry. Redox-active metal complexes constitute the important class of materials that play a central role in Collaborative Research Center (CRC) 583. These are used, for example, to catalyze chemical reactions. In addition, carbon-rich conjugated π -systems, which exhibit unprecedented materials properties such as mechanical strength, molecular magnetism and electrical conductivity, are also proving to be of interest. Further incentives to study metal complexes and alternative molecular architectures include their supramolecular assembly and integration into hierarchically ordered nanostructures. Many of these tailored materials undergo photo-induced charge separation processes between redox-active subunits. As a result of this, new systems are being developed which will help to solve fundamental challenges of the future, challenges such as the shortage of energy and other resources. A specific strength of chemical research in Erlangen is the computer assisted determination and modeling of molecular architectures, their properties and their transitions.

BIOACTIVE MOLECULES – Neurotropic Agents, Biologicals and Protein Conjugates.

Within the context of the subject Bioactive Molecules, novel neurotropic agents are being designed, synthesized and examined for their activity towards signalling proteins. The main target proteins being focused upon in this research are G-protein coupled neuroreceptors, tetrapeptides (CRC 473) as well as prion proteins. To examine target protein modifications occurring during food treatment and also in vivo under pathological conditions, chemical changes are detected and functional consequences are analyzed by means of biological tests. In order to understand the effects of large-scale processes during the preparation of therapeutic proteins on protein folding and aggregation, stabilization, particle formation and drying rates of biotechnologically obtained proteins are currently being investigated.

The Department of Geography and Geosciences

Understanding social and ecological change, human interaction with the world's environments and the functioning of the Earth as a system is one of the biggest challenges of our time. The Department of Geography and Geosciences is dedicated to meeting this challenge. Our research activities and academic programs reflect the multi- and transdisciplinary nature of both Geography and Earth Sciences. Our Department represents an extremely diverse range of research interests all of which are, however, closely associated with "Man and his environment", one of the four research priorities defined by the School of Sciences.

The Department is characterised by, and strongly committed to, a dynamic and innovative research culture, organised into two main clusters: Geography (with Human Geography and Physical Geography as its two cornerstones) and Geosciences (comprising Geology, Palaeontology and Applied Earth Sciences). Both sections aim to foster outstanding, internationally recognized teaching and research in an academic environment that allows for collaboration, synergies and supportive collegiality amongst the Department and its students.

On the basis of these two clusters, the Department comprises two institutes:

The Institute of Geography focuses on development studies, urban and metropolitan studies, high mountain geography, biogeography and paleoclimatology as well as climate impact research. By emphasizing these major topics in both research and teaching, the Institute is committed to contributing to the interdisciplinary understanding of environmental and social processes—especially natural hazards, social conflicts and crises, ecological change and cultural and economic transformation. Current regional emphasis is being placed on the Alps, the Andes and the Himalayas, Southern Africa, the Middle East and—last but not least—Northern Bavaria.

The second Institute, the Geo-Center Northern Bavaria, has a dynamic research community concentrating on three cognate fields: crustal dynamics (with isotope geology, sedimentology, structural geology and trace elements chemistry as domains within this field), paleo-environment (covering marine geoecosystems, cold water carbonates, marine geobiology, paleo-climate research and diagenesis) and applied geosciences (focusing on

materials and building materials research, hydrogeology, georisks and soil sciences).

The Department is distinctive with regard to the scale and diversity of its research and sustains numerous collaborative links nationally and abroad. It offers a broad scope of academic programs for its approximately 1,000 undergraduate and graduate students.

The Department of Mathematics

The Department of Mathematics is composed of nine Chairs spanning a wide range from Algebra to Scientific Computing. There is a large and coherent cluster aiming at continuum and stochastic modelling of natural and technical systems and a center for algebra which is in its formation phase. The Department cooperates strongly with other research and teaching units within Erlangen and outside the city, here in particular with the School of Engineering and within the School of Sciences.

The Department of Mathematics offers Bachelor and Master degree programs in Mathematics, Technical Mathematics and Economic Mathematics and trains students for all levels of school teaching. It provides all the mathematics courses for the School of Sciences and in particular for the School of Engineering, thus providing one of the largest teaching services within the University.

The nine Chairs of the Department are grouped into the following areas:

- Algebra (Emmy-Noether-Center)
- Mathematics in the Sciences
- Modelling, Numerics and Optimization

A total of 20 professors are supported by 10 permanent and 18 non-permanent research staff. Externally funded research grants finance 48 additional researchers.

The Department is building up the Emmy-Noether-Center for Algebra to create a focal point for research into Algebra and its applications.

The research area Mathematics in the Sciences comprises geometric analysis (regularity theory of partial differential equations and geometric measure theory), probability theory and statistics (stochastic analysis and ergodic theory) and mathematical physics ((quantum) mechanics and operator theory). The analysis of nonlinear pdes and of (stochastic) dynamic systems provide a

School of Sciences

Founded 1928

www.uni-erlangen.de

The School of Sciences consists of five
Departments

- Biology
- Chemistry and Pharmacy
- Geography and Geosciences
- Mathematics
- Physics

- 51 Chairs
- 110 Professorships
- 3,864 Students



strong link with the research area of modelling, numerics and optimization.

The scope of research activities here comprise the modelling of thermo-elastohydrodynamical processes (with phase change), their (finite element) discretization, efficient solution algorithms and the (numerical) optimization of such processes.

Research groups from the Department of Mathematics coordinate DFG priority research program 1253 and participate, among many other DFG or industry funded projects, in the DFG Cluster of Excellence and the BMBF program KORA.

The Department of Physics

Research in the Department of Physics is performed in optics and in the following priority research areas.

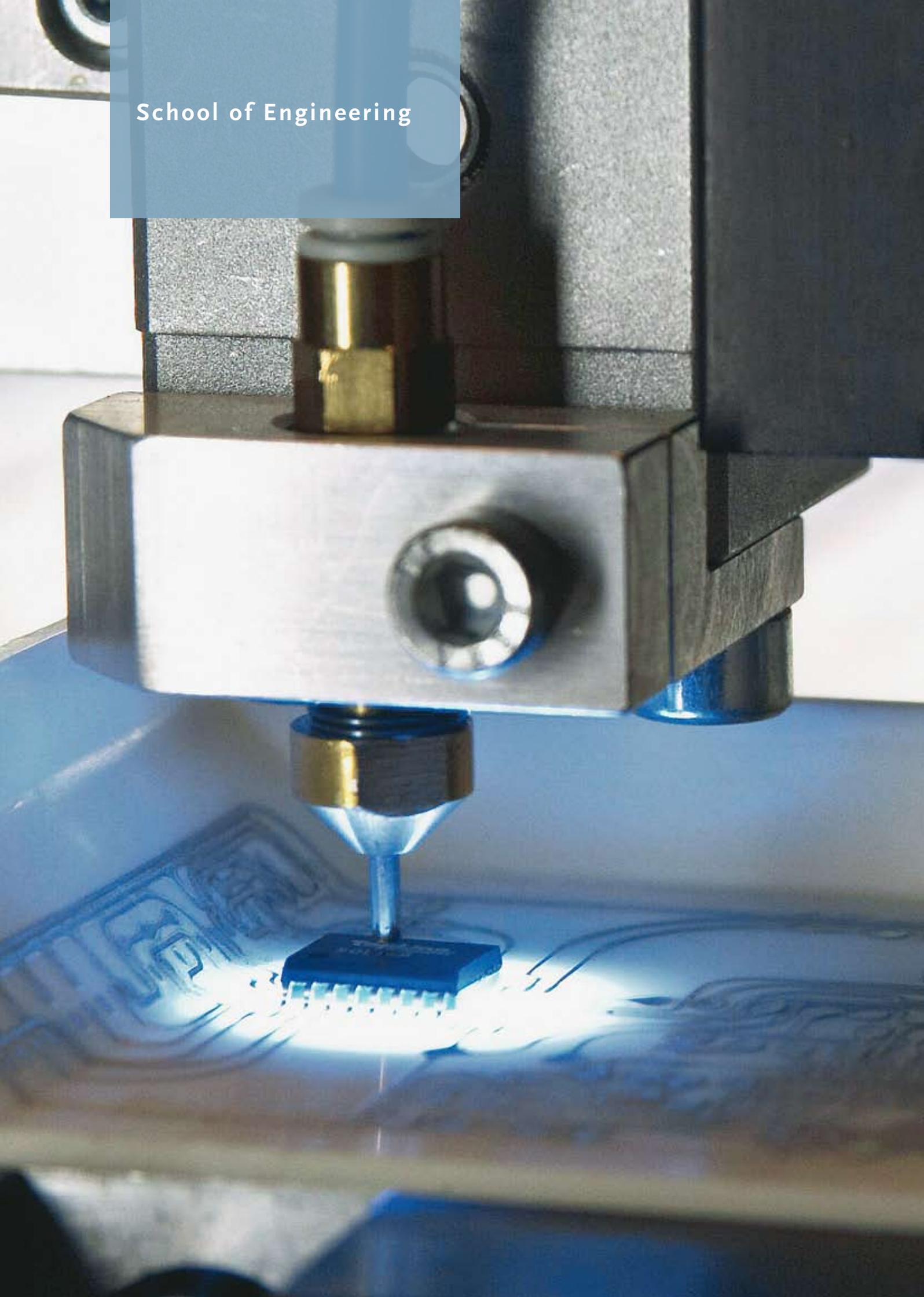
Condensed Matter Physics lies at the heart of research into the key topic of Materials Science at the University and forms a tight network with other sciences including Engineering and Medicine. Crystalline materials play a central role, particularly the structural and electronic characteristics of semiconductors, superconductors and surfaces. The physics of soft matter such as cells and polymer films is an emerging field of study and nano-

structured or molecular materials could well lead to molecular electronics.

Astroparticle physics, right on the borderline between astro- and particle physics with cosmology, has been allocated to the new Erlangen Center for Astroparticle Physics whose central activities focus on cosmic neutrinos with the ANTARES experiment, the preparation of the next-generation neutrino telescope KM₃NeT, TeV-gamma astronomy with H.E.S.S. and the future Cherenkov Telescope Array, X-ray astronomy with the XMM-Newton and the future eRosita and SIMBOL-X satellite missions as well as optical astronomy with international telescope facilities.

Research at the Institute for Theoretical Physics ranges from fundamental quantum physics to applied material science. The activities are focused on: (I) biological materials, disordered systems and fundamentals of quantum mechanics; (II) the dynamics of nanoclusters in laser fields and properties of exotic nuclei; (III) the theory of strong interactions within non-perturbative quantum chromodynamics; and (IV) the quantum theory of solids, particularly the development and applications of a density functional theory.

School of Engineering



The School of Engineering at the Friedrich-Alexander-Universität Erlangen-Nürnberg was established in 1966. It is one of the most important institutions of higher education and research in Engineering Sciences in Bavaria and ranks among the top addresses in these fields in Germany. The excellent range of study programs, the high level research projects, the student exchange programs with universities worldwide as well as partnerships with numerous companies are distinctive characteristics of the School. Further features of the School of Engineering are its interdisciplinary study courses and its research projects with intensive cooperation among the five departments and the other Schools of the University of Erlangen-Nürnberg, in particular the Schools of Sciences, Economics and Medicine.

The outstanding position held by the School of Engineering in national and international research communities is well documented by numerous special research fields and research units established with funds from the German Research Foundation (DFG). The “Erlangen Graduate School in Advanced Optical Technologies” and the Excellence Cluster “Engineering of Advanced Materials” are funded by the German Excellence Initiative.

The Department of Chemical and Bioengineering

The Department of Chemical and Bioengineering undertakes high caliber research in chemical reaction engineering, separation technology, process technology, particle technology, fluid mechanics, thermodynamics, biotechnology and (as from 2008) biomedical technology. The wide-ranging activities focus on catalysis, ionic liquids, porous materials, chemical vapour deposition, pharmaceutical thermodynamics, membrane technology, crystallization, climate protection, dosing and process machinery, high pressure equipment and processes, machine diagnosis and plant vibration. Other fields include the formation and characterization of particles, multiphase flows, aerodynamics and turbulence, capillary hydrodynamics, crystal growth, combustion, evaporation and condensation, thermophysical properties and applied spectroscopy. Research within biotechnology focuses on cell-culture techniques as well as marine and plant biotechnology with applications for pharmacology and pharmaceuticals.

The Department of Chemical and Bioengineering runs the Bachelor / Master courses “Chemical and Bioengineering” and “Life Science Engineering” to train en-

gineers for the chemical, biological, automotive and pharmaceutical industries as well as in Medical Biotechnology. It also contributes to the elite Master courses “Advanced Materials and Processes” and “Advanced Optical Technologies”.

Research scientists from the Department act as coordinators and principal investigators within the Excellence Cluster “Engineering of Advanced Materials” and in the “Erlangen Graduate School in Advanced Optical Technologies”. Two members of the Department have won the prestigious Leibniz prize: Prof. Wolfgang Peukert (2005) and Prof. Peter Wasserscheid (2006).

The Department of Electrical, Electronic and Communication Engineering

The Department of Electrical, Electronic and Communication Engineering consists of 13 Chairs dealing with the investigation and utilization of electricity as a medium for the transmission and processing of energy and information. The research work focuses on the six fields of micro- and nanoelectronics, power electronics, information and communication technology, electromagnetic fields and waves, mechatronics and energy technology. The methods and procedures developed are employed in numerous applications and industrial collaborations. Special areas of expertise are vehicle and traffic technology, medical technology, navigation, the production and transmission of energy and communication systems and their consumer products.

The Department has a close relationship with both “Fraunhofer Institutes” located in Erlangen, and is equipped with numerous facilities for application-oriented research projects such as, for instance, Germany’s largest non-industrial clean room.

The Department is responsible for the study course Electrical, Electronic and Communication Engineering and coordinates the interdisciplinary study course Mechatronics in cooperation with the Department of Mechanical Engineering as well as the interdisciplinary study course Information and Communication Technology together with the Department of Computer Science. The Department also organizes the elite study course on Systems of Information and Multimedia technology in conjunction with the Technical University of Munich.



The Department of Mechanical Engineering

The Department of Mechanical Engineering was established in 1982 as the Institute for Production Engineering and now consists of seven Chairs with around 200 employees focusing on the main fields of manufacturing technology, applied mechanics, manufacturing automation and production systems as well as engineering design, polymer technology, quality management and manufacturing metrology and photonic technology. Over the past 25 years, having been affected by various technical and social changes, the Department of Mechanical Engineering has developed not only into a nationally and internationally renowned research institute and an important base for technical study courses at the University but also into a qualified partner for industry with regard to technology and knowledge transfer.

Key activities and major research contributions and results have been produced in the fields of automotive technology (lightweight construction), electronic production, mechatronics and laser technology. In interdisciplinary teamwork with companies and departments from the School of Engineering and other universities, projects for sustainable product and process development have been realized. The department has established three DFG-funded collaborative research centers, is responsible for the Bachelor and Master study program Mechanical Engineering and shares the responsibility for the study programs Mechatronics and Industrial Engineering. It participates in the Bavarian Elite Study Program and in the graduate school “Advanced Optical Technologies” as well as in the Excellence Cluster “Engineering of Advanced

Materials”, both funded in conjunction with the German Excellence Initiative. The department is responsible for approximately 1,800 students in three study programs.

The Department of Materials Science and Engineering

The Department of Materials Science and Engineering was established in 1966 and consists of seven Chairs. As one of the largest materials departments in Europe, with approximately 200 employees, it covers a wide spectrum of materials science and bridges the gap between natural sciences and technology. The current major areas of research include advanced materials in energy, the environment, transportation, medicine and nanotechnology as well as the interdependence of microstructure and properties, modelling and simulation, the processing of materials, functionalized surfaces and interfaces and single crystal growth.

The Department cooperates with two research transfer centers in Fürth, the Center for Medical Physics and Technology and the Bavarian Center for Applied Energy Research. With regard to the research programs of the German Research Foundation, the Department was closely involved in the priority programs “Cellular Materials” and “Nanoscale Materials”. Moreover, it is the nucleus of a German Excellence Initiative program “Engineering of Advanced Materials—Hierarchical Structure Formation for Functional Devices”.

International scientific collaborations and student exchange agreements have been established at universities worldwide, including leading establishments in the USA, Japan, Korea, China, Brasil and in the European Union.

In the field of education, the department also participates in the DFG-RTG “Study of Stable and Metastable Multiphase Systems for High Temperature Applications” as well as in the Bavarian Elite Graduate Program “Advanced Materials and Processes”.

The Department of Computer Science

The Department of Computer Science was established in 1966 as one of the first in Germany. Since then it has undergone constant development and it now consists of 12 Chairs and seven additional Professorships that cover a broad range of basic principles as well as many specialized subjects in the field of Computer Science.

The Department cooperates with the Fraunhofer IIS as well as the automotive, telecommunications, medical engineering, sports and IT industries, and works nationally and internationally at the cutting edge of Computer Science. It holds an outstanding position in research and teaching. Major trend-setting research areas are embedded systems, medical information technology, modeling and simulation, and data and knowledge management.

Recent achievements have included its leadership role in founding and running the “Embedded Systems Institute” and being the major partner and coordinator of the “Ingolstadt Institute of the FAU” (INI.FAU) together with AUDI AG and the City of Ingolstadt. Furthermore, the Department is a member of the DFG-funded collaborative research center “Model Based Analysis and Visualization of Complex Scenes and Sensor Data”.

The Department offers Bachelor and Master degree programs in Computer Science, Computational Engineering and Teacher Education and shares the responsibility for the Information and Communication Technology and the Mechatronics degree programs. Cooperating intensely with other departments of the School of Engineering, all programs focus on engineering aspects of Computer Science and therefore particularly meet the needs of Industry. Moreover, the Department offers the elite Master study courses “Systems of Information and Multimedia Technology” and “Computational Science and Engineering”.

As is currently the case – and the future will be no different – computer science is and will continue to be one of the most powerful forces in innovation. Graduates in computer science have excellent job prospects in highly interdisciplinary and innovative markets.

School of Engineering

Founded 1966

www.techfak.uni-erlangen.de

The School of Engineering in Erlangen consists of five Departments

- Chemical and Bioengineering
- Electrical, Electronic and Communication Engineering
- Mechanical Engineering
- Materials Science and Engineering
- Computer Science

- 28,5 million Euros of third-party funding
- 44 Chairs
- 72 Professorships
- 4,492 Students (WS 2007/08)
- 13 % International Students

They offer 11 degree courses

- Chemical and Bioengineering
- Computational Engineering
- Electrical, Electronic and Communication Engineering
- Computer Science
- Information and Communication Technology
- Mechanical Engineering
- Mechatronics
- Materials Science
- Industrial Engineering
- Teacher Training for Computer Science (for all types of schools)
- Teacher Training for Electrical, Electronic and Communication Engineering
- 4 Degree courses within the Elite Network of Bavaria
- Advanced Materials and Processes
- Advanced Optical Technologies
- Bavarian Graduate School of Computational Engineering
- Systems of Information- and Multimedia Technology

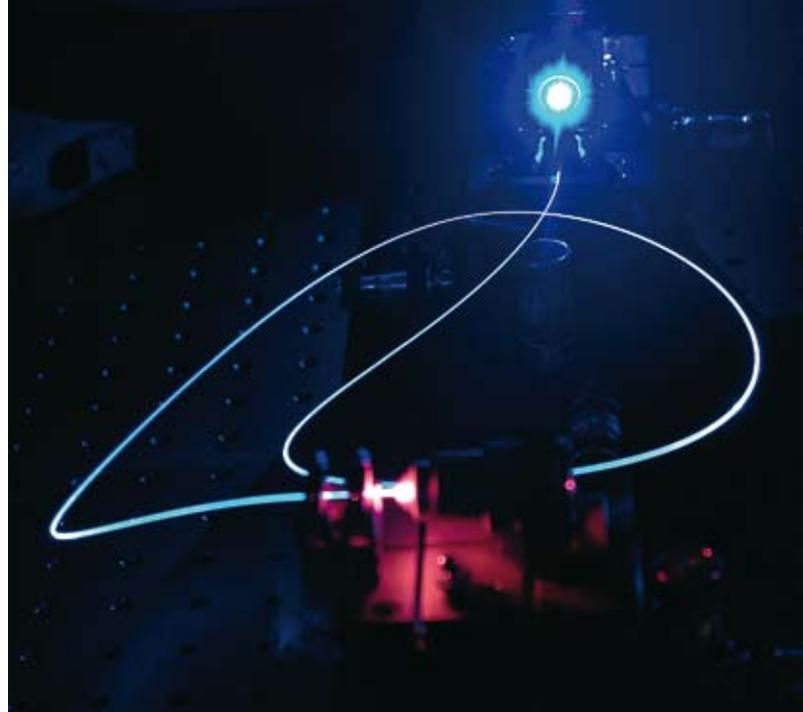


Cluster of Excellence Engineering of Advanced Materials

Based on the unique combination of Engineering and Natural Sciences at the University, the Cluster of Excellence Engineering of Advanced Materials—Hierarchical Structure Formation for Functional Devices focuses on the science and technology of hierarchical materials organised from the molecular to the macroscopic levels. Based on a coherent methodological approach selected priority areas of research are explored, including

- cross-sectional topics particle technology, nanomaterials characterization and multiscale modelling and simulation
- engineering of nanoelectronic materials,
- engineering of photonic and optic materials,
- engineering of catalytic materials,
- engineering of lightweight materials.

Demonstrators are developed in these research areas in close cooperation with external academic and industrial partners integrated in the cluster. The vision of the cluster is to bridge the gap between fundamental re-



search and real-world applications of modern high-performance materials in key scientific and engineering areas. The funding by DFG amounts to 40 million Euro for five years (incl. overhead) with additional substantial support by the University and the state of Bavaria.

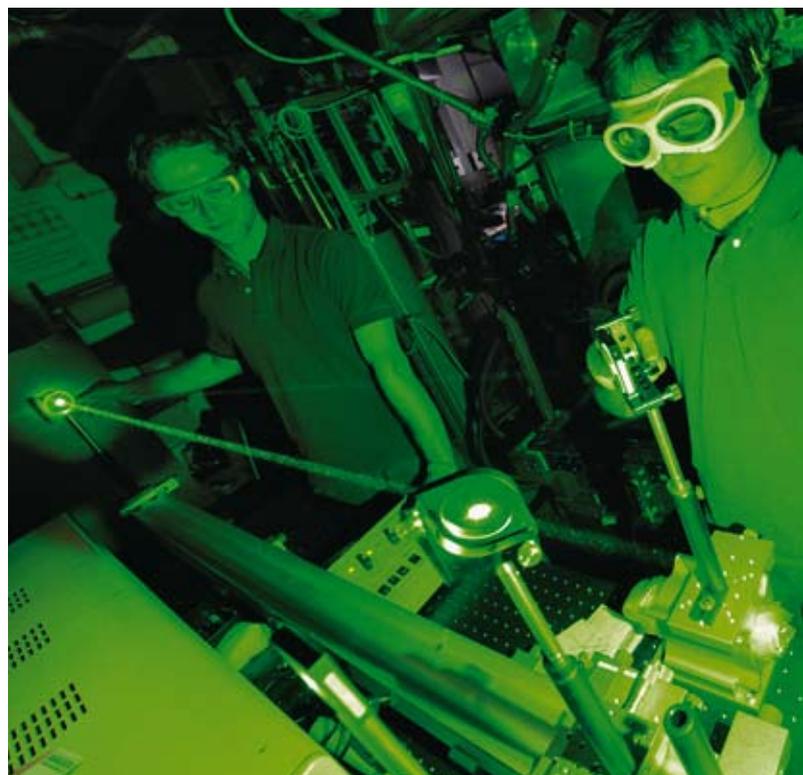
Graduate School in Advanced Optical Technologies

The Erlangen Graduate School in Advanced Optical Technologies (SAOT) was established at the University of Erlangen-Nürnberg in November 2006 within the framework of the Excellence Initiative of the German federal and state governments to promote science and research at German universities.

The scientific focus is placed on optics and optical technologies which are key technologies of the 21st century. Applications of optical technologies in science and industry are found, for example, in information and communication technology, in process engineering, in production engineering, in energy and environmental technology and in medicine. Optical technologies form an interdisciplinary framework for scientific enterprise with important scope for innovation at the interfaces between the disciplines of Physics, Engineering and Medicine.

SAOT is

- Excellence
 - Internationality
 - Interdisciplinarity
- in research and education.



Interdisciplinary
Centers



Interdisciplinary Centers, although not permanent, are long-term, voluntary associations established by the university teaching staff of several academic disciplines from at least two Schools. Whilst these centers focus on cooperation across the disciplines, external partners from outside the university are welcome participants.

Since 2001 the following Interdisciplinary Centers have been established at the University of Erlangen-Nürnberg:

Media Studies

The Interdisciplinary Center for Media Studies combines all media-related subjects and courses of study offered at the University of Erlangen-Nürnberg. Work within this group facilitates exchange from comparative media perspectives and promotes both the planning and implementing of cooperative research projects and events, and also collaboration on courses offered to students.

Islamic Religious Education

The Interdisciplinary Center for Islamic Religious Education offers multi-layered and differentiated insights into the contemporary religious cultures of Islam and promotes the change in perspective that is essential for engaging in purposeful discourse. A concept of humankind such as found in the Koran is developed from the point of view of classical Islamic commentaries on the Koran, as well from the perspectives of philosophy, theology and pedagogical anthropology.

Dialect Research

The aim of the Interdisciplinary Center for Dialect Research is the continuing realization of important goals within the field of dialect research through appropriate cooperation across the range of linguistic disciplines. This provides a common forum for regular exchange with departments and disciplines in other areas.

Old World

The aim of the umbrella group, the Interdisciplinary Center Old World, is to combine the various competencies of the participating departments from the field of Classics and Ancient History and other closely related

disciplines. By means of a co-operation between the subject areas, some of which focus on textual sources and others on material remains, the aim is to gain new impulses for both teaching and research.

Lexicography, Valency and Collocation Research

The Interdisciplinary Center for Lexicography, Valency and Collocation Research coordinates research from and provides a network for various disciplines based at the University of Erlangen-Nürnberg that deal with the word usage within larger units of language and with a description of this word usage.

European Mediaeval and Renaissance Studies

The Interdisciplinary Center for European Mediaeval and Renaissance Studies is responsible for the coordination and organization of interdisciplinary research, teaching and continuing education in all areas relating to studies of the European Middle Ages and the Renaissance at the University of Erlangen-Nürnberg. It promotes cooperation between the respective institutions in the region as well as with international and German-wide researchers working on the Middle Ages and the Renaissance period.

Aesthetic Education

The aim of the Interdisciplinary Center for Aesthetic Education is to conduct research into the possibilities aesthetic education offers with regard to providing specific modes of perception, encountering others and developing the personality. It also seeks to promote practical applications of aesthetic education.

Contemporary Literature and Culture

Literature and art provide points of access to an understanding of the present, open up critical perspectives on current developments in science and, not least of all, accompany the political plans of the future. This interdisciplinary center combines and concentrates the activities of a range of disciplines so that the field of Literature and Cultural Studies can offer a corrective to a world that, now and then, allows itself to be too narrowly directed by commercial and technological models.

Research in the History of Education and Anthropology

The work of this interdisciplinary center is to reflect educational processes from an interdisciplinary perspective. It focuses in particular on reception and critical discussion of scientific approaches to educational issues, such as, for example, in brain research or behavioural research, which the humanities have tended all too often in the past to neglect. Our work examines the paradigm of evolution with regard to its ability to synthesize different disciplines with a view to optimizing their critical application in educational theory.

Publishing Sciences

The Interdisciplinary Center for Publishing Sciences is currently designing a Masters course and a clearly structured doctoral degree course. The main concept focuses on a variety of cooperation agreements between universities, libraries and academies involving staff exchanges and traineeships. Since almost all modern publishing is now digital, the Center will work closely and extensively with the Erlangen chairs in Computer Science.

Taxation Studies

The task of the Nürnberg Institute of Tax is to conduct research into national, European and international taxation issues from the perspectives of Business Studies, Law and Economics. The aim is to develop Nürnberg as one of the leading centers of research in taxation in Germany.

Labor and Socio-Economic Research Center

The Labor and Socio-Economic Research Center is an interdisciplinary center at the University of Erlangen-Nürnberg constituted from a variety of departments as well as from research institutions outside the University. Its mission is the promotion of common research, teaching and consulting projects. The center is a joint initiative of the University and the Institute for Employment Research at Nürnberg.

Interdisciplinary Center for Public Health

Health promotion, preventive health care and the health care system are the research subjects of this unit. As opposed to clinical research, which centers on the individual patient, this research unit primarily focuses on entire populations or on significant population groups.

Gerontology

The tasks of the Interdisciplinary Center for Gerontology are the dissemination of knowledge relating to Gerontology, the promotion of research and teaching in Gerontology at the University of Erlangen-Nürnberg, the development of new research areas, the practical application of relevant research results and the establishment of cooperative ventures with appropriate organizations.

Functional Genomics

The molecular geneticists and biochemists working at the University of Erlangen-Nürnberg have focused their attention on the analysis of the protein complexes of the cell membrane using a new and highly sensitive method. The changes in protein in the cell membrane that can be observed in cases of infection, cancer and also disorders of the nervous system are of particular interest.

Clinical Research

The Interdisciplinary Center for Clinical Research was established under the main topic of “The Inflammation Process—Genesis, Diagnosis and Therapy”. This framework for research was developed based on the specialist research areas and postgraduate research units that existed at the time the Interdisciplinary Center for Clinical Research was initially established.

Ocular Preventive Medicine and Imaging

The Interdisciplinary Center for Ocular Preventive Medicine and Imaging has been set up to research and develop diagnostic methods using computerized analysis of morphological, functional and optical imaging of medical data in the prevention of illness. The diagnostic methods focus in particular on the use of imaging and image analysis in recognizing risk factors or early signs of illness.

Ecosystem Research

This Research Center combines the recognized expertise of the departments of Biology, Geography, Geology, History and Technology in the field of pure and applied research. In terms of the environment, the practical relevance of the problems dealt with by this group place it at the very center of both national and international issues.

Interface-controlled Processes

The Interdisciplinary Center for Interface-controlled Processes at the University of Erlangen-Nürnberg is a joint collaboration of research groups from Physics, Chemistry and Material Science focusing on fundamental material properties that can be manipulated via the interface between different materials.

Computational Science and Engineering

The Interdisciplinary Center for Computational Science and Engineering focuses on all activities within Engineering that use computers as their main tool. Typical tasks in Computational Engineering are the solution of differential equations that model certain physical phenomena, the optimization of processes in Engineering, or the stochastic simulation of a complex system.

Emmy-Noether Center for Algebra with a Focus on Representation Theory

The mathematical focal point of the Emmy-Noether Center is the area of representation theories which continues to have an innovative impact both within mathematical theory and in application. The Emmy-Noether Center was founded by mathematicians, theoretical physicists and representatives from the field of information technology.

Erlangen Center of Plant Science

Central research topics at the Center of Plant Science are the molecular and evolutionary studies of complex metabolic processes and their developmental and environmental regulation. The application of genomic and postgenomic technologies allows a systems-oriented approach. This approach will attract other fields of research

and will allow interdisciplinary links and larger research networks within and beyond the University of Erlangen-Nürnberg.

Molecular Materials

Leading world experts work together at the Interdisciplinary Center for Molecular Materials on the development of technologies of the future in fields such as molecular electronics, energy saving technology and molecular imaging.

The Erlangen Catalysis Resource Center

This interdisciplinary center has set up a close network of Erlangen experts active in the field of catalysis research. The center involves scientists from both the Department of Chemical and Biological Engineering and the chemically oriented chairs of the Department of Chemical and Biological Engineering. The center aims to build on and develop its existing capacity and expertise, enhance its experimental methods and promote partnerships with industry. Furthermore, the ECRC is currently developing an innovative and interdisciplinary curriculum for teaching “catalysis”.

The institution contributes to the University’s research focus “Materials and Processes” and is closely associated with the Cluster of Excellence “Engineering of Advanced Materials” in general and its research area “Engineering of Catalytic materials” in particular.

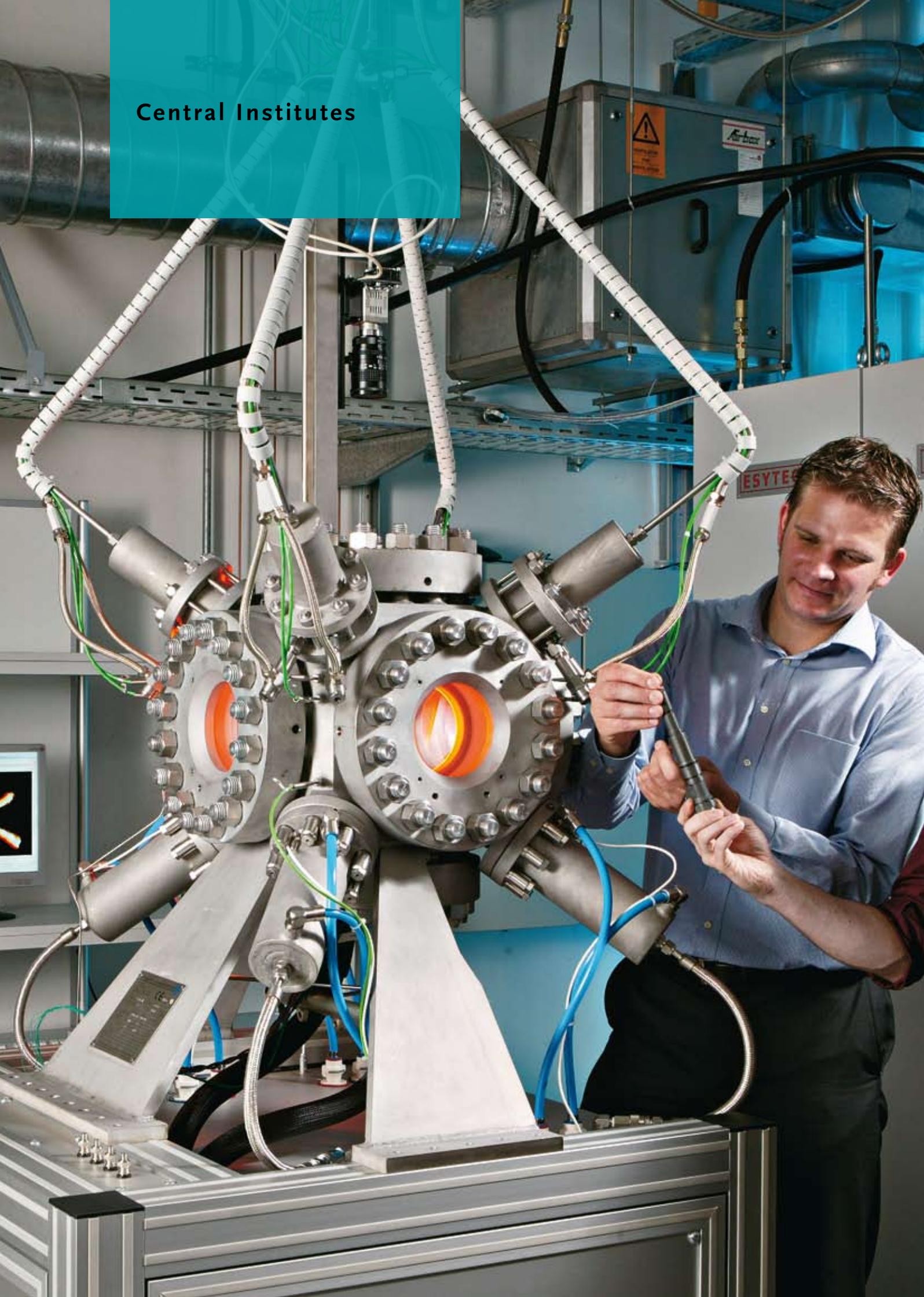
Erlangen Center for Astroparticle Physics

The ECAP combines expertise in the fields of neutrino, X-ray and very-high-energy gamma-ray astronomy. The ECAP constitutes an outstanding framework for scientists at the University of Erlangen-Nürnberg to participate in major astroparticle physics projects. The ECAP also integrates research in optical astronomy and the development of new detectors.

Embedded Systems Institute

The Embedded Systems Institute is a central information and advice service for companies interested in cooperating with university chairs working on embedded systems. The main areas concerned are: Transport Technology, Medical Technology, Communications Technology and Automation Technology. Each area has its own coordinator.

Central Institutes





Central institutes at the Universität Erlangen-Nürnberg have the function of combining and coordinating interdisciplinary and inter-school activities and presenting these to an external audience.

The following central institutes are based at the Universität Erlangen-Nürnberg:

New Materials and Process Technologies

The Central Institute for New Materials and Process Technologies conducts interdisciplinary research in the field of lightweight construction. The Institute works closely together with the existing institutions at the Technikum Fürth (Neue Materialien Fürth GmbH, Fraunhofer Center for ultra fine focus X-ray computer tomography).

Research into Teaching and Learning

Projects run by the Central Institute for Research into Teaching and Learning analyze the processes and conditions of teaching and learning in a lifelong context. The Institute takes a multi-criteria perspective and, alongside the cognitive output of teaching and learning processes, also investigates non-cognitive influences, such as motivational orientation and social behaviour.

Applied Ethics and Science Communication

The Center for Applied Ethics and Science Communication has set itself the task of compiling and coordinating the various activities in the fields of applied ethics, philosophy of science and scientific communication that are undertaken by different schools and departments with a view to presenting them to a wider public.

Area Studies

The Central Institute for Area Studies has existed since 1974 as a central organization at the Friedrich Alexander University of Erlangen-Nürnberg. The Central Institute for Area Studies was established as an interdisciplinary and interregional entity. It comprises, both in terms of content as well as in organization, four sections: Franconia, Latin America, North America, and the Near East.

University Library



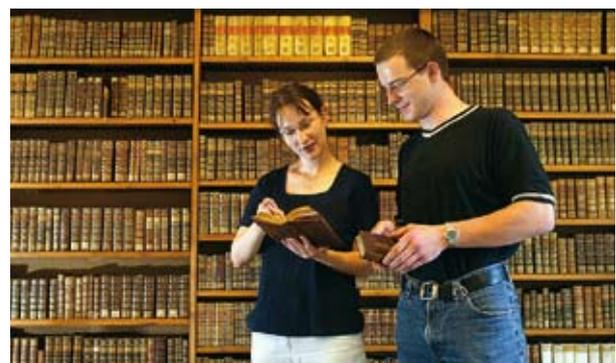
The University Library was established along with the University of Erlangen in 1743.

The unique characteristics of the University Library are its collections of internationally renowned drawings, woodcuts and copperplate engravings dating from the Middle Ages through the Baroque era, as well as drawings and prints from the 19th century. Since 1840 the library has been the copyright library for Central Franconia, thus making it entitled to a copy of any printed work published in the area.

Within the German cooperative collection project financially supported by the German Research Foundation (DFG), the library has, for over 50 years, been responsible for building up and cataloguing a comprehensive collection of German and foreign literature in the fields of philosophy and educational science, with the objective of making this literature available nationwide. At present, it holds over 5,400,000 books and media items, 2,600,000 of which are kept in the Main Library and 2,800,000 in independent, departmental libraries. As a result of the University's decentralised structure, there are numerous library sites. Apart from the Main Library in Erlangen city center, the Library for the Schools of Sciences and Engineering on the South Campus, the Economics and Social Sciences Departmental Library and the Educational Sci-

ence Departmental Library, both of which are in Nürnberg, there are 15 further departmental libraries with over 100 locations, all of them aiming to provide information services for the students as well as the schools and university staff. The library will be closer to the goal it has set itself of introducing a functionally integrated library system when the conversion of the Main Library's card-catalogue is completed and the individual departmental collections are listed in their entirety in the online catalogue. This is due to be completed in 2010.

In 2006 there were 29,783 full-text electronic journals as well as 1,578 databases available. For electronic publishing, members of the university can make use of the library's archiving server OPUS.



Regional Computing Center of Erlangen



As a center of excellence for computer technology, the Regional Computing Center of Erlangen (RRZE) bridges the gap between research, science and technology within North Bavaria's institutions of higher education. For several decades now, the RRZE has been implementing and maintaining the University's IT infrastructure and has also supported other universities in the region as well. The administration and coordination of campus-wide IT processes are the two main focuses at the RRZE.

Standard services include, for example, expert consultation and professional support, the maintenance of servers, an e-mail system with up-to-date spam analysis, steadily expanding WLAN provision, a center for plotting and printing and the administration of several hundred websites with a special focus on web accessibility guidelines. Additional services comprise the central software distribution with optimized custom-tailored solutions, licenses and support offered at several decentralized IT-centers.

The network infrastructure at the RRZE is considered to be the most widely extended campus network in Germany because of the numerous university sites the University is spread over. This leads to a number of special technical requirements: the RRZE operates its own fiber

network within the city of Erlangen, but more distant campus areas in Erlangen and Nürnberg are connected via radio links. Very isolated locations in the cities of Fürth, Bamberg and Ingolstadt are connected via DSL lines.

The highest network requirements, however, come from the video transmissions and interactively distributed TV productions of the RRZE multimedia center with the Bayerischer Rundfunk. The key focus areas of RRZE projects sponsored by the DFN, BMBF, EC and University are Quality of Service (QoS), QoS monitoring and its realization within new network technologies.

The processing of complex numeric problems often requires the use of high-performance computing. The RRZE operates high-performance computers and provides competent customer service to HPC clients.

In cooperation with other Bavarian Universities, the RRZE also conducts public hardware bids in order to be able to guarantee cost-effective IT supply and repair.

Members of the University and public service organizations in Bavaria can participate in the extensive IT course program offered by the RRZE. Since 1998 the RRZE has also offered apprenticeship programs for IT specialists for system integration.

Language Center



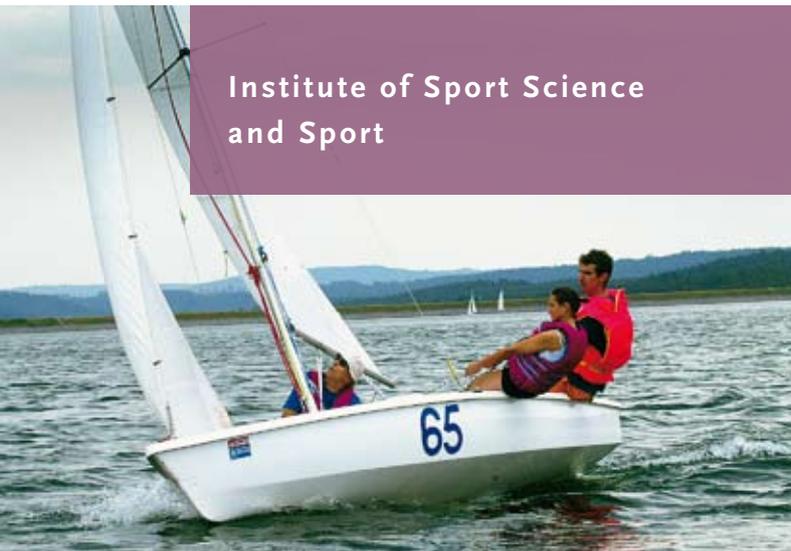
Founded in 1969, the Language Center was the first of its kind in Germany and is responsible for teaching the language and cultural components for all BA and MA degree courses as well as language courses for subject-specific purposes.

Consisting of nine departments—German as a Foreign Language; English and American Language; English for Specific Purposes; French; Italian; Spanish; North- and East-European, Oriental and Asian Languages; the Media Department; and one for Language Education at the Nürnberg site of the University—the Center provides over 1,000 hours of courses per week in approximately 20 different languages for around 6,000 students. These courses are taught by over 100 full- and part-time members of staff, more than 60 % of whom are native-speakers of the languages they teach.

The Center's Media Department is well-equipped with two analogue and four digital language labs as well as satellite provision to receive radio and television stations from around the globe.

The Center has its own series of teaching publications and is continually in the process of developing new online courses across a range of languages, whilst also providing preparatory courses for German language entry examinations.

Institute of Sport Science and Sport



The Institute of Sport Science and Sport (ISS) is an international, scientific center of competence for health and physical activity with a specific focus on issues related to public health and aging. Serving as a consultant for and receiving research grants from institutions such as the WHO, the EU and the German Federal Ministry of Education and Research (BMBF), the ISS has, in recent years, dramatically increased the number of grants it receives as well as the number of publications it publishes. As a result of such efforts, the ISS has been awarded an additional professorship in Sport Medicine funded by the Bavarian Fund for Elite Research.

Teaching at the ISS is being progressively adapted to the Institute's research profile. The ISS offers Germany's only Diploma in "Exercise for Older People" and an international MA in "Physical Activity and Health" is being launched in 2008. The ISS also offers a variety of consultant services for individual health diagnostics, coaching and biomechanical analyses. In addition to this, it organizes sport for the University, both for students and employees, offering more than 300 classes to over 4,000 participants per semester.





Collecting both natural objects and human artefacts can be traced back to the beginnings of modern science. The scholars of the Renaissance were the first to collect animals, plants, stones and artefacts and to arrange them systematically, thus developing the art of classification. Scientific collections also formed an integral part of early modern universities, providing the material basis for research and teaching. In this way, knowledge was generated and passed on to following generations. Academic collections still form a significant part of our cultural heritage today.

The University of Erlangen-Nürnberg houses about 17 collections which cover a broad range of subjects and serve different didactic and scientific purposes. Their variety is best explained by examining their history.

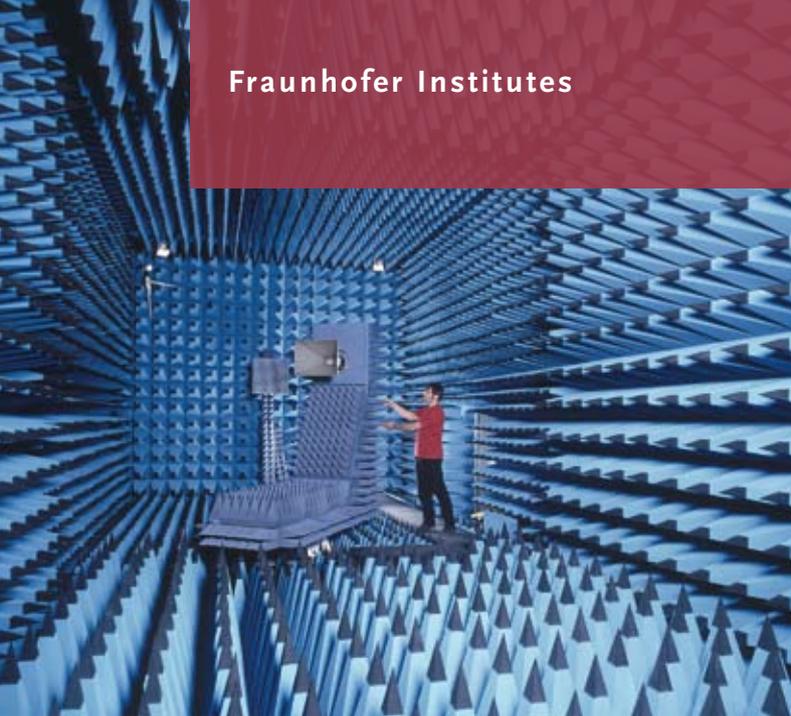
When Erlangen University was founded in 1743, three collections were donated to it: the Anatomy Collection, the Library and the Archive. Several decades later, Margrave Friedrich left his Natural History Cabinet to the University of Erlangen, a collection which, until then, had been housed in his residence in Bayreuth. Thus the Collections of Botany, Geosciences and Zoology were established.

In the course of the 19th century, the first special collections were founded: the Martius-Collection of Pharmacognosy, the Collection of Pathological Anatomy, the Collection of Antique Plaster Casts and the Observatory in Bamberg with its astronomical instruments.

In the 20th Century private collectors provided the impetus for the collections of Ethnography, Prehistory and Musical Instruments. The newly established Dermatological Clinic was enriched by a Moulages collection. The three most recent collections were assembled by members of the Department of Education, the School of Medicine and the Department of Computer Science.

Two collections are regularly open to the public: the Collection of Archaeology in Erlangen and the Collection of School History in the Schulmuseum Nürnberg. Most of the other collections can be visited by appointment.

For more information see:
www.sammlungen.uni-erlangen.de



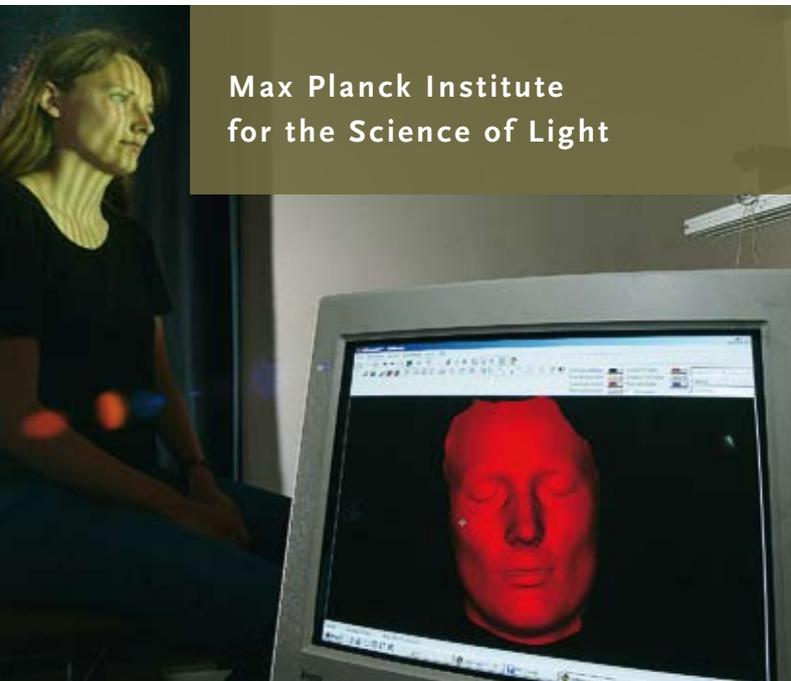
The University cooperates closely with the two institutes of the Fraunhofer-Gesellschaft in Erlangen – the Fraunhofer Institute for Integrated Circuits and the Fraunhofer Institute of Integrated Systems and Device Technology. Both institutes work successfully in the field of microelectronics.

R&D at the Fraunhofer Institute for Integrated Circuits focuses on the application of microelectronics in the field of audiocoding, broadcasting, digital cinema, medical technologies, image acquisition and recognition and RFIDs in logistics including IC-design and system design. The institute is known throughout the world for its development of mp3 and its successors.

The Fraunhofer Institute of Integrated Systems and Device Technology deals with new materials, electron devices and equipment for semiconductor processing technology, including crystal growth. Furthermore, it is a competence center for power electronic systems with a strong focus on automotive electronics and power conversion.

Cooperation between the University and the Fraunhofer Institutes—which is facilitated by a common infrastructure—extends beyond research, also encompassing the fields of teaching and education. In their dual roles, the directors of the Institutes each hold a Chair at the University.

Max Planck Institute for the Science of Light



The Institute of Optics, Information and Photonics was established in 2003 and operated as a Max Planck Research Group for 5 years, i.e. with additional funding from and following the appointment and evaluation procedures of the Max Planck Society. In June 2008 the Max

Planck Society decided to establish a permanent Max Planck Institute for the Science of Light based on the scientific achievements of the Research Group.

Optics is one of the important research areas at the University with activities in the Schools of Engineering, Medicine and Natural Sciences. The new Max Planck Institute will cooperate closely with the University and thus strengthen this thematic focus. In turn it will benefit from the stimulating local environment in optical technologies.

The Max Planck Institute for the Science of Light will work on the science, technology and applications of light and its interaction with matter. It will consist of 4 divisions, 3 experimental and 1 theoretical one. The founding directors will be Prof. Gerd Leuchs and Prof. Philip Russell.

Since 2006 there has been an International Max Planck Research School for Optics and Imaging offering a structured doctoral programme.



As a public university, the Friedrich-Alexander-Universität Erlangen-Nürnberg is governed in accordance with the regulations of the Bavarian State law on Universities (Bayerisches Hochschulgesetz) and its own by-laws (Grundordnung). Its governance structure combines the tenets of both academic self-governance and public control:

The University's managing body (Hochschulleitung) consists of

- the Rector, who is elected for a six-year term to represent the University and who supervises the University's academic staff,
- three Vice-Presidents, elected from the ranks of the University's professors for a three-year term,
- and the Chancellor (Kanzler), a civil servant who supervises the University's non-academic staff, heads the University's central administration and has the responsibility for executing budgetary affairs.

As a whole, the Hochschulleitung oversees the University's day-to-day operations, including monetary decisions and appointments of professors, as well as strategic and structural decisions. It also supervises the activities of the University's central units (library, computing center, language center, interdisciplinary centers, etc.) and appoints their respective heads.

Elected representatives of the University's five Schools, its students, scientific staff and non-scientific staff form the University's Senate. Its primary responsibility is the discussion and enactment of University statutes, which regulate various aspects of academic life, from admission requirements for students to procedures of qualification for an academic career (Habilitation).

Recent amendments of state law have established a supervisory body, the University Board (Hochschulrat), which consists of the members of the Senate plus an equal number of external members. These external members, usually renowned personalities with a scientific, cultural or entrepreneurial background, are appointed by the State upon the University's suggestion. Their purpose is to introduce aspects of public interest into the University's governance. The Board's responsibilities include the election of the Rector and the Vice-Presidents, proposals for the appointment of the Chancellor and the enactment of the University's by-laws.

Each of the University's five schools is headed by a Dean (elected from the ranks of the School's professors) and a Faculty Board, which consists of elected representatives of professors, students, scientific and non-scientific staff. Most schools are subdivided into departments, each of them with its individual internal governance structure.

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Central Institute for Research into Teaching and Learning

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The Center for Applied Ethics and Science Communication

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List of abbreviations

CRG

Collaborative Research Center

CRU

Clinical Research Unit

BMBF

Bundesministerium für Bildung und Forschung
(Federal Ministry of Education and Research)

DAAD

Deutscher Akademischer Austauschdienst
(German Academic Exchange Service)

RTG

Research Training Group
(Graduierten-Kolleg)

DFG

Deutsche Forschungsgemeinschaft
(German Research Foundation)

ISS

Institute of Sport Science and Sport

RU

Research Unit

RRZE

Regionales Rechenzentrum Erlangen
(Regional Computing Center of Erlangen)

DFN

Deutsches Forschungsnetz
(German Research Network)

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