HEINRICH HEINE
UNIVERSITÄT DÜSSELDORF

The State Government
of North Rhine-Westphalia

Scholarship Program
of the German State of North Rhine-Westphalia for students from the Palestinian Territories

Call 2014

Scholarship places at institutions of higher education in North Rhine-Westphalia

(current version, as of December 13th, 2014)

Please choose the scholarship place(s) you seek to apply for;
fill in the corresponding identification number (#) from the following list into the application form which you can download from
http://www.uni-duesseldorf.de/NRW-Nahost-Foerderprogramme

Disciplines (multiple entries possible)

Architecture / Art / Design / Spatial Planning / Civil Engineering	• FH BI 2 • DO 1
Biology / Life Sciences / Geography / Environmental Science / Agriculture	• BRS 2 • DS 5 • FZJ 2 • FZJ 4
Business (Administration) / Economics	• FH BI 1 • BC 5 • BC 6
Chemistry / Chemical Engineering / Biochemistry / Pharmacy	• BI 1 • BRS 1 • FZJ 2 • MS 1
Computer Science / Informatics / Information Sciences	• DS 5 • PB 1
Cultural Studies / Literature / Philology / Linguistics	• BC 4 • DS 1 • DS 2 • DS 4 • MS 3
Education	• DE 1 • WU 1
Electrical Engineering	• PB 1 • PB 2
History / Archaeology / Anthropology	• BI 2 • BC 1 • BC 4

	• DS 1 • KL 1 • MS 3
Law	• FH BI 1
Mathematics	• DS 3 • PB 3 • WU 2
Mechanical Engineering / Process Engineering / Civil Engineering / Material Engineering	• BC 5 • BC 6 • FZJ 1 • PB 2
Media Studies / Communication Science / Journalism / Film	• DS 2 • DE 1
Medicine / Health Sciences	• FZJ 4
Philosophy / Theology / Religious Studies	• BI 2 • BC 2
Physics / Geophysics / Nanotechnology / Astronomy / Laser science	• BI 1 • DS 5 • FZJ 1 • FZJ 2 • FZJ 3 • MS 1 • MS 2 • PB 3 • WU 2 • WU 3
Psychology / Cognitive Science / Neuroscience	• FH BI 1 • BC 3

	• FZJ 4
Social Sciences / Politics	• BI 2 • WU 1

Contacts and further information

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Bielefeld University (BI)

Bielefeld - the "university of short ways" and of "interdisciplinary intertwinement"! Whereas elsewhere the departments and institutes are spread all over the city, Bielefeld has its entire university in one building. This way, students may even utilize their lecture breaks and peek into other classes or lectures. In the library, the sections of related departments, e.g. physics and chemistry, are found right next to each other. Due to the compactness of the building, it could be equipped with a computer network, even traversing department boundaries, e.g., mathematics and physics, at an early stage. Nowhere else is interdisciplinarity practiced in this way; there's even a special-purpose Center for Interdisciplinary Research, "ZiF". In particular, the use of expensive equipment such as transmission electron microscopes is shared between the biology and physics departments, the math department's visualization lab is open to people of other disciplines, as well. Physicists and chemists closely collaborate in some laboratories. There is a joint study program called "Natural Sciences and Information Technology" in cooperation with the Technical Faculty. Young scientists come to Bielefeld from all parts of the globe to participate in our research activities. There exist close contacts with the research centers DESY at Hamburg and CERN (elementary particle physics) at Geneva as well as with BESSY (molecular and surface physics) at Berlin and ESRF at Grenoble, among others. There are a multitude of cooperations with research institutions and universities, domestic and foreign.

Bielefeld University offers the opportunity of taking a German language course at “PunktUm”.

www.uni-bielefeld.de

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 # BI 1

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars’ degree program** **(B = Bachelor; M = Master; P = PhD)**
Faculty of Physics	Prof. Dr. Armin Goelzhaeuser	2	Physics, Chemistry	M
Time frame:	April – December			
Institute’s focal research areas	Supramolecular Physics, Chemical Nanolithography, Carbon Nanomembranes			

BI 2

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Bursars' degree program** (B = Bachelor; M = Master; P= PhD)
Institute for Science and Technology Studies (IWT)	Prof. Dr. Martin Carrier	1	Sociology, Philosophy, History	M
Time frame:	June – December			
Institute's focal research areas	• Science and Technology Studies; Philosophy of Science, History of Science, Public Understanding of Science; • History, Philosophy and Social Studies of Science			

Bielefeld University of Applied Sciences (FH BI)

Faculties: Design, Architecture and Civil Engineering, Technics (new), Engineering and Mathematics, Social Sciences, Business and Health

Courses mainly in German as language of instruction

Winter semester 2013/2014: about 9.600 students enrolled, including 240 international students

All faculties offer language classes in German, either at the faculty itself or in cooperation with a private language institute for guest students

http://www.fh-bielefeld.de/

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 # FH BI 1

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program (M = Master; P = PhD)**
Faculty of Business and Health, Department of Business	Prof. Dr. Uwe Roessler	2	Business Administration, Business Information Systems, Business Law, Business Psychology, International Studies in Management	M Teaching language: German/English (depends on the course) Working language: German and English Personal consultation by professors and teachers in English Papers can be written in English
Time frame:	September 1st – December 20th			

Institute's focal research areas	There is not a specialization in one Research Field. The Faculty is Business with focus on General Business Administration, Information Systems, Law, Psychology, and International. The stipendiary should participate in our course programme and it is possible that he/she can work at a special subject in cooperation with one of our professors. In the Department of Nursing and Health there would also be the possibility to work in the field of healthcare, nursing (practice); Professional consulting and teaching in the instruction of health care professions; Management of pedagogic institutions in the health care sector.

FH BI 2

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program (M = Master; P = PhD)**
Faculty of Architecture and Civil Engineering	Prof. Dr.-Ing. Johannes Weinig	2 for English speaking students, 5 for German speaking students	Civil engineering or architecture	M
Time frame:	02.05.2014-11.07.2014 08.09.2014-19.12.2014			
Institute's focal research areas	- Surveying methods and skills - Construction of plain light buildings (e.g. sports halls or stadiums) - Water engineering and water management - Micro- and ultra-filtration methods			

Ruhr-University Bochum (BC)

At Ruhr-Universitaet Bochum (RUB) currently study 32,000 students; more than 4,500 are international students from abroad. RUB is a modern and innovative university that offers its students degree programmes in almost all academic areas and excellent research facilities.

German language courses start each October (winter term) and April (summer term) and are free of charge for all RUB students.

RUB homepage: http://www.rub.de/index_en.htm

International: http://international.rub.de/index.html.en

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 # BC 1

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** (M = Master, P = PhD)
Institute of Archaeological Science	Dr. Patric Kreuz	3	Archaeology of the Graeco-roman eastern Mediterranean / Near East; Phoenician archaeology	M; P
Time frame:	May – July			
Institute's focal research areas	The Decapolis in the Graeco-roman period; The Herodian kingdom; Archaeology of the Phoenician diaspora.			

BC 2

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M= Master; P= PhD)**
Institute for Philosophy II	Prof. Dr. Albert Newen; Prof. Dr. James Wilberding	2	Theoretical Philosophy; Ancient Philosophy	M
Time frame:	May – December			
Institute's focal research areas	The institute is specialized in Philosophy of Language, Mind and Science. It is also offering Logic and Epistemology and a program in Ancient Philosophy			

BC 3

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(M = Master; P = PhD)**
Dept. Of Neuropsychology	Prof. Dr. Boris Suchan	2	(Neuro-)Psychology, Cognitive Neuroscience	M, PhD
Time frame:	April – July; October - December			
Institute's focal research areas	We have many foci in research. We are interested in visual body and face perception, observational learning, working memory, long term memory and medial temporal lobe functions. More information: www.ruhr-uni-bochum.de/neuropsy.			

BC 4

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M= Master; P= PhD)**
Centre for Mediterranean Studies	Eleni Markakidou M.A.	1	Mediterranean Studies Archaeology Social and Cultural Antrophology Diaspora Studies	M, P

Time frame:	May – July or Oktober - December
Institute's focal research areas	At the heart of our research are the issues of resources, connectivity and translocation in the Mediterranean region from ancient times until the present. The networks and entanglements of the Mediterranean protagonist are examined with a historical focus as are conflicts and the processes of differentiation.

BC 5

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M= Master; P= PhD)**
Faculty for Mechanical Engineering Institute for Thermo- and Fluid Dynamics Chair for Fluid Process Engineering	Dennis Ferdinand	1	Mechanical-, Process-, or Industrial Engineering or Business/ Economics	B, M
Time frame:	Ongoing start but for at least 6 weeks.			

Institute's focal research areas	Modular Chemical Plant Modular plants consist of modules, which are standardized, autonomously operating parts of the plant. These modules are technically and organizationally limited areas of the plant, which fulfill defined tasks. Starting with these modules, companies can create capacity either by equaling-up modules from general structures or by numbering-up equipment. In the chemical industry, this approach has not been employed extensively hitherto, although this industry faces challenges similar to other industries. These are, in particular, increasing global competition, shorter product life cycles, and more volatile markets that are difficult to forecast. Therefore, more flexible production concepts, like modular plants, may help to meet such challenges. In the chemical industry a great number of reactions and thermal separations are realized in batch-processes. One main challenge is the development of continuous processes instead of batch-processes which fit in standardized modules. One example is the mixing of different fluids in a stirring vessel. In a continuous process the mixing could be realized in a static mixer with probably less energy use. The capacity of the stirring vessel can be reached by numbering up the modules of static mixers. Furthermore, there exist continuous processes, which are realized in big separation columns or reactors. One task is the characterization of those reactors and separation-units and to examine the possibility of process intensifications in modular-reactors and modular-separation-units. The use of modular-separation-units in particular, respectively the units itself, are not investigated extensively until now. The aim is the creation of standardized modules for modular plants with the result that every process can be realized in a modular plant. The student will participate in a research program dealing with „Modular Chemical Plants". The work contains modeling and computer simulation, as well as literature research and the evaluation of the data obtained with the help of modern software tools such as Microsoft®Excel and simulation software. The student will be instructed and guided through every step of the research project by the German PhD student.

BC 6

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M= Master; P= PhD)**
Faculty for Mechanical Engineering Institute for Thermo- and Fluid Dynamics Chair for Fluid Process Engineering	Sarah Paul	1	Mechanical-, Process-, or Industrial Engineering or Business/ Economics	M, P
Time frame:	Ongoing start but for at least 6 weeks.			

Institute's focal research areas	Modular Chemical Plant Modular plants consist of modules, which are standardized, autonomously operating parts of the plant. These modules are technically and organizationally limited areas of the plant, which fulfill defined tasks. Starting with these modules, companies can create capacity either by equaling-up modules from general structures or by numbering-up equipment. In the chemical industry, this approach has not been employed extensively hitherto, although this industry faces challenges similar to other industries. These are, in particular, increasing global competition, shorter product life cycles, and more volatile markets that are difficult to forecast. Therefore, more flexible production concepts, like modular plants, may help to meet such challenges. In the chemical industry a great number of reactions and thermal separations are realized in batch-processes. One main challenge is the development of continuous processes instead of batch-processes which fit in standardized modules. One example is the mixing of different fluids in a stirring vessel. In a continuous process the mixing could be realized in a static mixer with probably less energy use. The capacity of the stirring vessel can be reached by numbering up the modules of static mixers. Furthermore, there exist continuous processes, which are realized in big separation columns or reactors. One task is the characterization of those reactors and separation-units and to examine the possibility of process intensifications in modular-reactors and modular-separation-units. The use of modular-separation-units in particular, respectively the units itself, are not investigated extensively until now. The aim is the creation of standardized modules for modular plants with the result that every process can be realized in a modular plant. The student will participate in a research program dealing with „Modular Chemical Plants". The work contains modeling and computer simulation, as well as literature research and the evaluation of the data obtained with the help of modern software tools such as Microsoft®Excel and simulation software. The student will be instructed and guided through every step of the research project by the German PhD student.

Bonn-Rhein-Sieg University of Applied Sciences (BRS)

The Bonn-Rhine-Sieg University of Applied Sciences (BRS U) was established in 1995 as a national university funded by the government.

BRS U specializes in business administration, natural sciences, computer science, social security management, technical journalism and engineering. The focus areas for BRS U are applied research and development, technology transfer using international and interdisciplinary approaches. There is an emphasis on internships and practical applications in industry and research and joint research projects with numerous companies and institutions.

As English or another foreign language is a required subject for all students, the university has established a central Language Centre which designs, coordinates and carries out foreign language instruction on all three campuses. These specific-purpose courses are taught predominantly by native speakers, and state-of-the-art IC technologies are often implemented, primarily through the use of new language labs and self-access centres in both Rheinbach and Sankt Augustin. Especially for foreign students, “German as a foreign language” is offered including the TestDaf Exam.

The campuses in Sankt Augustin, Rheinbach and Hennef are well-equipped with modern laboratories, and technical equipment. BRS U has approximately 120 Professors of which many receive research grants and other 280 teaching staff. There are about 120 support staff including technical and administrative employees. BRS U currently has around 5500 students and the Department of Natural Sciences recruits about 200 undergraduate in Bachelor programs and about 30 students in a Master program each year in two study courses: Applied Biology (as an international study course), Chemistry with Material Sciences (as an German study course), and Forensic Sciences (taught in German and English).

www.h-bonn-rhein-sieg.de

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BRS 1

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
Department of Natural Sciences / Organic and Polymer Chemistry	Prof. Dr. Margit Schulze	2	Chemistry, Material Science	M. P
Time frame:	July 1st / August 1st - December 15th			
Institute's focal research areas	**The work deals with:** **a)** development of polymer scaffolds for stem cell differentiation and proliferation **b)** development of polymers used in dental medicine **c)** development of polymeric materials from renewable resources (biomass) **The work encompasses the following topics for potential scholarship holder:** • Synthesis of appropriate polymers (e.g. biopolymers such as microspheres and hydrogels) • Characterization of polymer structure • Surface modification / functionalization • Bioactivation of the scaffolds (e.g. via P2 ligands) Biocompatibility testing			

BRS 2

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
Department of Natural Sciences	Prof. Dr. Edda Tobiasch	2	Biology	M, P
Time frame:	July 1st / August 1st – November (any time period within this time frame is possible, but it must be at least 10 weeks)			
Institute's focal research areas	**The work deals with** stem cell differentiation and signal transduction. **Overview:** Recent progress in our understanding of stem cell differentiation and cell transplantation has opened new therapeutic avenues in the treatment of human diseases involving chronic or acute tissue-specific cell loss. Consequently, experimental cell replacement strategies have been attempted involving adult stem cells with the aim of developing therapies.			

	Human mesenchymal stem cells which are isolated from adipose tissue have the advantage of potential autologous transplantation ability. There is evidence that they can be differentiated in chondrogenic, osteogenic, adipogenic and myogenic lineages. Inductions of the cells into multiple mesenchymal lineages already resulted in the expression of several lineage-specific genes, proteins and specific metabolic activity. We aim at investigating fat-derived MSC, as potential donor cells, for their ability to differentiate in the osteogenic and beta cell direction for future treatment of diabetes and large bone defects and in the adipogenic direction to investigate the influence of the differentiating fat cell in the development of atheroclerosis. In another project ecto-mensenchymal stem cells derived from dental follicles of wisdom teeth are used to improve dental implant stability. The last study involves Hox genes for the characterization of stem cells derived from various human body parts during differentiation. More information on the subjects ca be found on the homepage: http://fb05.fh-bonn-rhein-sieg.de/tobiasch.html **The work encompasses the following topics for potential scholarship holder:** • Differentiation and characterisation of adult, human mesenchymal stem cells • Determination of the role of the differentiating adipocyte in the pathogenesis of diabetes mellitus type 2 • P2 and Hox signalling in human stem cells • Biocompatibility testing of nano-structured polymers as scaffolds for 3D tissue engineering • Stem cell interaction with natural and artificial scaffolds **The group is composed** of the lab leader, a scientist, two PhD students, and several Master- and Bachelor students working on their theses. One of the PhD students will take care for the guest student.

TU Dortmund University (DO)

The TU Dortmund University was established in 1968 and comprises 16 Faculties, Collaborative Research Centres, Graduate Schools & Graduate Colleges, and a number of affiliated institutes as well as other associated and science institutes like Fraunhofer Institutes-and the Max Planck Institute for Molecular Physiology (MPI). The number of students in the fall term WS 13/14 amounted to almost 32.000. The staff consists of 350 professors, 1.900 academics and about 1.300 non academic staff.

The TU Dortmund University supports interdisciplinary cooperation between its fields of study. To combine and analyze the strengths and activities a programme of thematic "research bands" has been developed. The “bands” allow cross-referencing beyond the bounds of single departments, faculties and disciplines.

The TU Dortmund University has set itself an ambitious goal: research, teaching and courses of study are to be given an even more consistently international orientation over the coming years. In addition to its integration within the region, with all its structural changes, the university is deliberately focusing on a second aspect: Within the scope of a comprehensive network of international university partnerships and research co-operations, the TU Dortmund University will strengthen its position among the global players in the field of science.

The university already offers extensive support measures for foreign students. With the regular orientation programme "Come2Campus", the Office for International Relations helps international “freshmen” to cope with the new living and learning conditions. Together with the city of Dortmund, the university strives to improve the services provided for foreign students.

A further way of improving the general conditions for successful completion of courses of study for international students is to increase the number of lectures held in English.

Building the network connecting the TU Dortmund University with partner institutions in Europe and all over the world has been a priority for decades. A huge number of co-operations among students, academics, institutes and departments, as well as world-wide university partnerships, opens up global thinking for the region and makes the university's achievements and competence available to the scientific community worldwide.

www.tu-dortmund.de

TU Dortmund University offers a 4-week intensive German class prior to each semester, i.e. in the months of March and September. During the semester students can take part in German as a foreign language classes offered by our Language Center. More information: http://www.aaa.uni-dortmund.de/cms/en/International_Students/Exchange_Students__ERASMUS_/German_Language_Course/index.html

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DO 1

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program (M = Master; P = PhD)**
Faculty of Spatial Planning, Department of Urban Design and Landscape Planning	Prof. Christa Reicher; Claudia Becker	1	Urban Design/ Spatial Planning[1]	P
Time frame:	July 15 – December 15			
Institute's focal research areas	Sustainable regional development; Urban reconstruction and environment; Urban design and housing; Reconstruction of historical sites.			

[1] with specification in sustainable regional and urban development, water and environment management, renewal of ancient sites, housing and social development (e.g. MSc of UPLD Master programme at Birzeit,University or MSc of GJU's Master programme in Spatial Planning)

Heinrich-Heine-University Duesseldorf (DS)

Even though the French emperor Napoleon I planned to found a university in Duesseldorf in 1811, with the Rhine area being thought of as an intellectual buffer zone between France and Prussia, Duesseldorf had to wait one more century. In 1907 the Duesseldorf Academy for Applied Medicine was founded and opened together with the newly-built Municipal Hospital, which was at that time the most modern clinical complex in the German Empire. Since the Academy had no university constitution, it was only allowed to instruct medical trainees, not students. The academy itself and part of the population launched several initiatives to change the status of the institution. In 1923 they finally succeeded when a university constitution including the right to train students was given to the Medical Academy of Duesseldorf. The study of dental medicine was subsequently incorporated, and by 1935 even doctoral degrees could be awarded in Duesseldorf.

After World War II the federal state of North Rhine-Westphalia and the City of Duesseldorf signed a contract which stated that the federal state would take over the Medical Academy, while the hospitals remained municipally owned. The Medical Academy became the University of Duesseldorf in November 1965, and in January 1966 it became a university with a medical faculty and a combined faculty of arts and natural sciences. In December 1988 the university senate decided to change the institution's name to Heinrich-Heine University Duesseldorf, in commemoration of one of the city's most renowned sons whose critical and inquisitive, poetic mind reached out across national borders and fought against small-mindedness.

Today the university forms the backbone of Duesseldorf's academic reputation. Faced with nation-wide cuts in university spending, the University of Duesseldorf has continued to thrive. Despite its recent foundation it has gained the reputation usually associated only with universities rich in age and tradition. The university's continuous development has made it home to a distinguished range of subjects, including medical science, natural sciences, economics, law, and the humanities. The degree requirements allow for numerous combinations of subjects, and study programs can be tailored to fit individual needs. Some subjects, such as Literary Translation, Yiddish Culture, Language and Literature, and Media Science, are unique features of our curriculum. Further specialties in the Faculty of Arts include Modern Japan Studies, and German as a Foreign Language which address the needs of the international business community. The Faculty of Economics focuses particularly on International Management. European and International Law enjoy an elevated position at the Faculty of Law, which is also a renowned center of commercial law. Duesseldorf has also become a hub of Biotechnology. The focal points of research within the Faculty of Mathematics and Natural Sciences are Genetics and Molecular Biology.

The Faculty of Medicine has gained a reputation for its research in Cardiology; Cell and Gene Therapy form the backbone of clinical research. The Center of Biomedical Research (BMFZ) stands out as a center of excellence. Several institutions devoted to special fields are attached to the university, for example the Institute of Diabetic Research, and the Medical Institute for Environmental Hygiene. The Institute for International Communication is also located on campus.

Ample proof of the confidence that sponsors place in the research conducted at HHUD can be seen in the number of collaborative research centers and research training programs. The University of Duesseldorf ranks 18th among the top 45 universities (113 in total), which together receive 90% of all project funds granted in Germany.

The university's international profile is the result of the active exchange programs it maintains with partner universities in regions as diverse as California and Peking, Reading and Naples. In any given year, about 3000 foreign students come from more than 110 nations, and over 120 guest academics conduct their research here. The total number of students amounts to approximately 25000. The number of faculty exceeds 1500.

Last but not least, the university has the advantage of occupying a pleasant site. After long hours of study it is tempting to take a stroll through the Botanical Garden located right on campus....

www.uni-duesseldorf.de

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DS 1

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
Institute for Jewish Studies	Prof. Dr. Stefan Rohrbacher	2	Jewish Studies; History (English language)	M, P
Time frame:	Summer term 2014 (May – July)			
Institute's focal research areas	Jewish history of the early modern period, 19th century German-Jewish History, History of Antisemitism			

DS 2

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
Institute for Media and Cultural Studies	Prof. Dr. Reinhold Goerling	2	Media and cultural studies Film and televison studies Media philosophy	M, P
Time frame:	May – Mid of July; October - December			

Institute's focal research areas	Ecology of Media Mediaphilosophy Film, trauma, violence Expanded cinema Television studies Aesthetic theory Intercultural studies

DS 3

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
Mathematisches Institut	Prof. Dr. Benjamin Klopsch	1	Algebra /Number Theory, in particular Group Theory	M, P
Time frame:	01.05.2014 – 30.09.2014			
Institute's focal research areas	Profinite groups, p-adic Lie groups, arithmetic groups and their representations			

DS 4

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
Department for Yiddish Culture, Language, and Literature	Prof. Dr. Marion Aptroot	3	Yiddish (including interdisciplinary studies)	M, P
Time frame:	April – July or September - December			
Institute's focal research areas	Yiddish: Yiddish Language, Yiddish Literature and Culture, Yiddish Historical Linguistics			

 # DS 5

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
Bioinformatics	Prof. Lercher	2	Informatics, Biology, Physics	M, P
Time frame:	May - December			
Institute's focal research areas	Bioinformatics, especially evolutionary genomics and simulations of metabolic network function			

University of Duisburg-Essen (DE)

Creative inspiration between the Rhine and Ruhr: the University of Duisburg-Essen (UDE) is located in the European region with the highest density of institutions of higher learning. Created in 2003 by the merger of the universities of Duisburg and Essen, the UDE is the youngest university in North Rhine-Westphalia and one of the ten largest universities in Germany. Both campuses are easy to reach and offer some 31,000 students a broad academic spectrum with an international orientation – ranging from the humanities and social sciences to economics and the engineering and natural sciences, including medicine. Students from 130 countries are currently enrolled at the UDE.

In many disciplines the UDE ranks amongst the TOP 10 of German research universities. Over the past three years, research income has risen by 150 percent, a development which is also thanks to the five main research areas: Nanosciences, Biomedical Sciences, Urban Systems, Empirical Research in Education, and Change of Contemporary Societies.

Free German classes in preparation for one's studies see:
http://www.uni-due.de/international/en_germancourses.shtml

www.uni-duisburg-essen.de

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petra.guenther@uni-due.de

 # DE 1

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
Chair of Educational Media and Knowledge Management, Learning Lab	Prof. Dr. Michael Kerres	2	Educational Technology, Instructional Design	M, P
Time frame:	12 weeks May - December			

Institute's focal research areas	Open Education and Open Educational Resources Impacts of MOOCS for Education Implications of BYOD in school settings Social media for informal learning and in formal learning contexts Sustainable implementation of learning innovations Instructional design for problem based approaches in online learning Game based learning and gamification, mobile learning

Research Center Juelich (FZJ)

Research Centre Juelich, member of the Helmholtz Association, is one of the major research institutions in Europe. An interdisciplinary staff of 4300 members, including 1500 scientists from disciplines like physics, chemistry, biology, medicine and the engineering sciences, focus their work on two of the „*Grand Challenges*" of society: For Juelich, this is on the one hand the field of **Health**, where Juelich scientists are trying to decipher the mechanisms of neurodegenerative diseases like Alzheimer and Parkinson and to find therapies for these diseases. On the other hand, Juelich is addressing the field of **Energy&Environment**. With research on renewable energies like photovoltaics, new technologies and materials like fuel cells and work on nuclear fusion, Juelich delivers a significant contribution for a sustainable and holistic energy supply. Combined with a strong expertise in environmental research, Juelich helps to understand the mechanisms of climate change and to develop directives for climate protection.

Research Centre Juelich is tackling these two *Grand Challenges* by using existing and developing new key technologies like **biotechnology, nanoelectronic materials, and simulation sciences** using supercomputers. Juelich's new supercomputer JUGENE is the fastest computer used for civil purposes worldwide and is second in the TOP 500 list.

The Research Centre is located near the town of Juelich, **close to the university cities** Aachen, Bonn, Cologne and Duesseldorf. The proximity of Juelich to the Netherlands, Belgium and Luxemburg as well as about 700 international guest scientists per year add to an excellent and inspiring training environment.

German language courses are organised in the context of our in-house training programme and are free of charge..

www.fz-juelich.de

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 # FZJ 1

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
Central Institute of Engineering, Electronics and Analytics (ZEA) ZEA-1- Engineering and Technology	Dr. Ghaleb Natour	1	Mechanical engineering; Material Science; Physics	M, P
Time frame:	End of August - end of November			
Institute's focal research	Modern research requires technically sophisticated experimental			

areas	facilities, expensive laboratory instruments and complicated measuring techniques. The institute part “Engineering and Technology | ZEA-1 of the Central Institute for Engineering, Electronics and Analytics| ZEA develops and builds technical equipment, instruments, setups and processes on a high level as an important contribution to successful scientific cutting-edge research. More than 150 people, mainly engineers, scientists and technicians are working closely together with the researchers of our scientific partner institutes, and with the other institute parts “Electronic Systems” and “Analytics” of ZEA. For the participants of the NRW Scholarship Program for students from Israel, Palestine, and Jordan ZEA-1 offers the following internships: **Welding of special metals with the laser beam under vacuum conditions** First studies about laser beam welding in vacuum have shown that significantly different interaction of the laser beam with the treated materials can be generated by the reduction of ambient pressure. Previous works with the aim of achieving high weld depth in aluminum and steel alloys show very beneficial results. The potential of laser beam welding in vacuum of refractory metals, such as titanium, niobium, molybdenum and tungsten, but also of copper were so far still not or only superficially investigated. To determine the potential of laser beam welding in vacuum as a manufacturing process for scientific apparatus engineering, the limits of pressure-reduced laser application shall be scientifically investigated. The pressure dependency of beam/material interaction and the material properties after laser beam treatment in vacuum shall be examined. **Strength evaluation of glass-ceramic joints for high temperature applications** Solid oxide fuel cells (SOFC) are energy conversion devices for an efficient and clean production of electricity. The aggregates need to be sealed gas-tight and electrically insulating by a glass-ceramic sealant. Unfortunately the insufficient strength often is a problem for the operation of SOFC stacks. Latest investigations of ZEA-1 have shown that tensile strength measurements can be improved by an adaptation of component geometry of the glass-ceramic joints. The preparation of samples and evaluation of the improved toughness method is the main focus of the scholarship. In further experiments, the influence of different operation conditions like increased temperatures, cyclic and long term ageing of the joints have to be investigated. **Setting up a black body with temperature control for the calibration of an interferometer** A black *body* is an idealized physical body that absorbs all incident electromagnetic radiation, regardless of frequency or angle of incidence. A blackbody at a constant temperature also emits electromagnetic radiation; the so called black-body radiation. The radiation is emitted according to Planck's law, meaning that it has a spectrum that is determined only by the temperature and not by the body's shape or composition. In the internship the following tasks has to be done: Determine a cooling concept using Peltier elements. Performing Temperature measurement and evaluation of the black body radiator surface. Development of a remote control system using LabView to control and readout the temperature. Testing of the black body system.

FZJ 2

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
Institute of Complex Systems	Dr. Thorsten Auth	1	Physics, Chemistry, Biology	M, P
Time frame:	1 May to 31 August			
Institute's focal research areas	The student will perform numerical calculations to study interface-mediated interactions between particles: this can either be interactions of particles at liquid-gas interfaces or interactions of particles that are attached to lipid-bilayer membranes. Our main interest are membrane-mediated interactions that are particularly important from a biological point of view. Examples are viral budding, the entry of parasites into a cell, and the interaction of nanoparticles bound to cell membranes. From a technical point of view, both systems are closely related and can be investigated using triangulated surfaces. We will employ the program package „Surface Evolver", therefore knowledge of a programming language is not required, but can be helpful. However, basic knowledge of Linux, bash scripting, as well as of a plotting program such as gnuplot are necessary prerequisites. The details of the project and the work plan for the student will be adjusted according to the area of study of the applicant. http://www.fz-juelich.de/portal/EN/AboutUs/organizational_structure/Institutes/InstituteComplexSystems/_node.html			

FZJ 3

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
Jülich Centre for Neutron Science, JCNS-2 & PGI-4	Dr. B. Klobes	1	Physics, Materials Science programming basics are an asset	M, P
Time frame:	May – 14th December			

Institute's focal research areas	Energy related materials such as thermoelectrics and fuel cell or battery related materials are among the main topics of the young investigator research group „Lattice Dynamics in Emerging Functional Materials" headed by Prof. Dr. R. Hermann. Both standard and advanced characterisation techniques, e.g. Mössbauer spectroscopy (MS), resonant ultrasound spectroscopy (RUS) and transport measurements are used to characterize energy related materials. In particular, MS and RUS can be used to gain complementary insight into structural and dynamical properties. Since both techniques are very well suited for a temporary scholarship, several projects could be envisaged: - Elastic properties of Si nanocomposites at high temperatures - Measurement of the speed of sound in thermoelectric PbTe based alloys from 10 to 700 K - Analytical characterisation on (Fe,Co)Sb3 based thin films using MS - Characterisation of fuel cell related calcium iron oxides or sodium antimonides However, applicants with a strong interest in Fe, Eu or Sb based Mössbauer spectroscopy or in the determination of elastic moduli related to the topic of their respective Master- or PhD-thesis are also welcome. http://www.fz-juelich.de/pgi/pgi-4/EN/Home/home_node.html

 # FZJ 4

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
Institute of Neurosciences and Medicine (INM-2)	Prof. Andreas Bauer D. Elmenhorst Kroll	2	Medicine / Health Sciences; Biology Psychology	M, P
Time frame:	May - December.			
Institute's focal research areas	Why do we need to sleep and what are the regulating mechanisms behind the sleep-wakefulness cycle? Which factors influence synaptic plasticity and how is neuroreceptor expression affected in neuropsychiatric diseases? These questions describe the main research interests of the hosting institute. The putative scholar will participate in a preclinical or clinical imaging project addressing varying (e.g. within the 24 hrs day-night cycle) or altered (e.g. in states of disease) neuroreceptor expression. In technical terms we use radioactive labeled tracers and positron emission tomography (PET) to visualize distinct molecules and			

	molecular mechanisms in a living organism. Modeling of pharmacokinetic processes and quantitative analysis of data ascertain an optimal usage of PET in preclinical and clinical research. PET is multi-disciplinary, so that the scholar has the opportunity to experience collaborative research and teamwork among various disciplines from chemistry, physics, engineering and mathematics to biology and (pre)clinical research. The hosting group “Molecular Neuroimaging” comprises a physicist, a biologist, four physicians and several technicians. Currently, the working group operates a combined PET, CT and SPECT scanner for small animal imaging as well as laboratory facilities for in vitro techniques (e.g. autoradiography) and extensive analytical processes as parts of PET imaging studies. Clinical PET and MRI scanners are available as well. Depending on the duration of the scholarship, the student will be involved in PET imaging procedures and concomitant experiments (e.g. electro-encephalography or in vitro experiments) as well as data analysis. More information is available at the institute’s webpage (http://www.fz-juelich.de/inm/inm-2/EN/Home/home_node.html) or via email to d.elmenhorst@fz-juelich.de or t.kroll@fz-juelich.de.

University of Cologne (KL)

The University of Cologne was founded in 1388 and is one of the oldest and largest universities in Germany. The six faculties offer students a wide range of subjects as well as a great variety in choice and combination of courses and disciplines. The University of Cologne is popular not only due to the diversity of academic opportunities but also to the unique atmosphere of Cologne itself. Also by tradition, the university is internationally oriented and cooperates closely with people and institutions worldwide. The internationalization of teaching and research can be seen through joint programs with universities and colleges from abroad, double degree programmes, graduate schools, summer schools, short-time programmes, the binding of the (German and international) alumni. An important aspect of the strong international position of our university is the recruitment of qualified international students. Students who expect and fulfil high standards at the university, will find best studying conditions here.

In 2012, the University of Cologne was distinguished by the German Excellence Initiative, and now belongs to the small group of elite universities in Germany.

The University of Cologne offers German language courses for international students. They are taught by our Language as a Foreign Language Department. For the target group of this programme we would recommend the participation in the pre-semester intensive language courses which take place in March respectively September. These courses are offered also for beginners' level, their duration is of 3 to 4 weeks; in case of successful completion participants can obtain credit points.The registration for the course takes place through the International Office of the University.

www.uni-koeln.de

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 # KL 1

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** **(B = Bachelor; M = Master; P = PhD)**
History Seminar	Prof. Dr. Werner Eck	2	Classics; Ancient History; Classical Archaeology	B, M, P
Time frame:	Juli – October			
Institute's focal research areas	Ancient History - Roman Empire - History of the Roman Provinces - Epigraphy			

University of Muenster (MS)

The University of Muenster (WWU Muenster) has developed a strong research profile in natural sciences, the humanities, medicine, law and business administration. The WWU Muenster is one of the biggest universities in Germany and has 15 Departments in 7 Faculties. Founded in 1780, the WWU is also a university with a long tradition in teaching and research

http://www.uni-muenster.de/en/

The WWU offers intensive German language courses at the language center of the university. These courses are open to exchange students and scholars, (fee covered by program) (http://spzwww.uni-muenster.de/index.php).

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 # MS 1

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program (M = Master; P = PhD)**
Institute of Physics	Prof. Dr. Helmut Zacharias	1	Physical chemistry, nanoscience	M
Time frame:	open			
Institute's focal research areas	Self-organization, functional organic films.			

MS 2

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program (M = Master; P = PhD)**
Institute of Physics	Prof. Dr. Helmut Zacharias	1	Laser science	M
Time frame:	open			
Institute's focal research areas	Femtosecond coherent soft x-ray radiation; two-photon photoemission spectroscopy.			

MS 3

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program (B = Bachelor; M = Master; P = PhD)**
Center for Eastern Mediterranean Studies	Dr. Nikola Moustakis	3	Religious Studies, Jewish Studies, Coptic Studies, Ancient History; Archaeology; Oriental Studies	M, P
Time frame:	May - December			
Institute's focal research areas	The focus of research is on religious, historical, cultural, social and economic themes concerning the ancient Eastern Mediterranean region.			

University of Paderborn (PB)

The University of Paderborn is a fully accredited state university offering all types of academic degrees including PhD and postdoctoral lecture qualification.

The university is “The University for the Information Society”. Corporate image, mission statement and the university’s action are led by this guiding principle. So Paderborn concentrates on computer science and its application, and especially on IT-related aspects of interdisciplinary collobaration involving all the academic departments of the university. Together they all contribute to developing and critically exploring the information scociety, with the arts and humanities taking on a major, independent role.

The university has an academic staff of about 1.000 and offers a wide range of subjects in five faculties: Faculty of Arts and Humanities, Faculty of Business Administration and Economics, Faculty of Science, Faculty of Mechanical Engineering, Faculty of Computer Science, Electrical Engineering and Mathematics.

There are about 14 000 students studying at the university, among them about 1500 international students.

German Language courses: A four week course of 20 hours per week starts before the semester begins in March and in September. Another course of 10 hours per week runs during the semester.

The city of Paderborn can look back on 1,200 years of history It is also home to some of the world’s leading industrial corporations, such as Siemens, Wincor Nixdorf, Benteler, Hella und Stute. Located in the heart of Germany, Paderborn is an ideal base for getting to know the country and its people.

With a population of around 140,000 people, Paderborn is a lively cultural centre– among others the world’s largest computer museum –and a generous range of sports and recreational activities, and of course, Paderborn has loads of city fetes and festivals.

www.uni-paderborn.de

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PB 1

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program (M = Master; P= PhD)**
GET Lab – Cognitive Systems Engineering	Prof. Dr. Baerbel Mertsching	3	Computer Science, Electrical Engineering and related fields	M, P
Time frame:	open, preferably from October on			
Institute's focal research areas	- autonomous and teleoperated mobile robot systems, - computer vision - virtual and augmented reality/ simulation - (low power) microelectronics			

PB 2

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program (M = Master; P= PhD)**
Chair of Mechatronics and Dynamics	Dr. Tobias Hemsel	2	Mechanical or Electrical Engineering; Mechatronics	M. P
Time frame:	open (12 weeks)			
Institute's focal research areas	Theoretical and experimental work in following fields: Sensors and Actuators, Dynamics of Mechatronic Systems, Reliability, Nonlinear Dynamic Systems more info at http://mb.uni-paderborn.de/en/mud			

 # PB 3

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** (B= Bachelor; M= Master; P= PhD)
Department of Physics	Prof. Dr. Arno Schindlmayr	1	Theoretical Physics, Applied Mathematics	M, P
Time frame:	12 Weeks between 1 September and 31 December 2014			
Institute's focal research areas	Within the field of theoretical solid-state physics, the focus of our research is the development and application of ab initio methods to investigate the electronic structure and excitation spectra of solids without adjustable parameters. Our principal techniques are density-functional theory and many-body perturbation theory, which is based on Green functions. With these methods, the electronic, optical and magnetic properties of a material can be predicted using only fundamental quantum mechanics and the chemical composition of the material in question. We are particularly interested in the effects of correlation on the electronic band structure and in the accurate description of collective excitations, such as plasmons, excitons and magnons. Within a research project, candidates could make use of these techniques and the available computer codes for quantitative simulations of technologically interesting materials. Another important activity is the formal theory development with the aims of analysing the influence of common approximations and of improving the internal consistency of practical implementations as well as the conformance with known exact relations. For this purpose the methods are applied to model systems that can be studied either analytically or with the support of standard numerical computer software. This offers a variety of possible short-term projects for candidates with a background of theoretical solid-state or molecular physics, many-body quantum mechanics or applied mathematics.			

University of Wuppertal (WU)

Bergische Universität Wuppertal / The University of Wuppertal, Germany

The University of Wuppertal, founded in 1972, is one of the state universities in North Rhine-Westphalia (NRW), which is economically the most significant German state with an outstanding educational and cultural landscape. The city of Wuppertal, situated close to Düsseldorf and Cologne in a particularly delightful region with wooded hills, meadows, orchards and fields, called the "Bergisches Land", is an interesting mixture of outgoing metropolis and cosy village with a lot of leisure facilities. From any part of the city it is only a 10 minute walk to the nearest park or shady woodland path.

https://www.wuppertal.de/microsite/en/index.php

The University of Wuppertal towers over the city. The main campus enjoys a panoramic view across the town – a perfect environment for developing inspiring ideas and academic projects that will shape the future. Some 18.000 students from more than 100 countries benefit from our high-level academic approaches in teaching, and the university's commitment to research and international collaboration. Wuppertal University offers a diverse range of programs in science, engineering economics and the humanities, as well as educational science, design and architecture. Our academic culture is marked by diversity, experience and innovation.

Study in Germany – Join us in Wuppertal!

http://www.internationales.uni-wuppertal.de/en/incoming/international-students.html

www.uni-wuppertal.de

Our Language Center (SLI – www.sli.uni-wuppertal.de) offers the following courses of German as a foreign language:

- **Intensive German Courses**
  Levels: A1(beginners) to C1b (advanced).Weekdays daily
- **Lecture course „German Grammar"**
  (Level: B2 upward), 2 hours per week
- **German for Business and Economics**
  (Level: advanced), 2 hours per week
- **German for Humanities and Social Sciences**
  (Level: advanced), 2 hours per week
- **German for Science and Technology**
  (Level: advanced), 2 hours per week

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WU 1

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** (B= Bachelor; M= Master; P= PhD)
Center for International Studies in Social Policy and Social Services	Prof. Dr. Heinz Suenker	4	Social Sciences, Education, Social Policy, Social Work	M, P
Time frame:	May to July or October to December			
Institute's focal research areas	The center deals with theory, politics and practices in political and welfare institutions, in education and social services. We offer a broad range of topics with respect to comparative questions.			

WU 2

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** (B= Bachelor; M= Master; P= PhD)
Faculty of Mathematics and Natural Science – Section Physics	Martin Kaufmann	2	Physics, Mathematics	M, P
Time frame:	May - December			
Institute's focal research areas	Modeling of airglow phenomena Specification and characterization of a spectrometer for the observation of nightglow in Earth atmosphere. This spectrometer should operate from the ground and on a nano satellite built by students.			

 # WU 3

Institute	**Contact at the institute**	**Number of places**	**Discipline or subject area**	**Scholars' degree program** (B= Bachelor; M= Master; P= PhD)
Research group Experimental Particle Physics	Prof. Dr. Wolfgang Wagner	1	Physics	M
Time frame:	May 1 to July 31 or September 1 to November 30			
Institute's focal research areas	Elementary particle physics research with the ATLAS detector at the LHC (CERN); choose from 2 projects: a) data analysis in top quark physics, b) work on detector control system of the ATLAS pixel detector (digital electronics or embedded programing).			