



JACOBS
UNIVERSITY



GET READY FOR YOUR FUTURE

STUDY PROGRAMS



TOP
RANKING

Consistently excellent: Over the last decade, Jacobs University has scored top marks in Germany's widely respected university ranking by the Centre for Higher Education (CHE) as well as in the international U-Multirank.

WELCOME TO JACOBS UNIVERSITY

— YOUR FUTURE STARTS HERE

Located in northern Germany, Jacobs University is **one of the country's most international universities**, characterized by a truly intercultural and close-knit community of students and faculty.

Founded in 2001 as a private English-speaking university, Jacobs attracts highly talented and open-minded students from all over the world, with **more than 1,200 students from over 100 countries** currently living on our residential campus.

— TEACHING AND LEARNING

A **transdisciplinary approach** is one of the core elements of a Jacobs University education. Study modules cover various aspects of academic fields, reflecting the complex

nature of interconnected topics and global challenges.

Students are introduced to numerous methodologies and are encouraged to apply a problem-based approach and a **global perspective** to their work.

Instructors support student learning in **small classes** where they can share the latest findings in their academic fields and by responding to students' particular needs through **personalized academic advising**.

The university's research-oriented approach engages students in the research process at an early stage in their academic career, while providing them access to modern facilities and **state-of-the-art technology**.



ACCOMMODATION

YOUR HOME AWAY FROM HOME

Jacobs University is a residential university, which means students do not only study on campus but also live and learn in a social setting. Our residential colleges are comprised of two-bedroom apartments with shared bathroom facilities. Each college has its own study areas, group meeting rooms, and a recreational lounge as well as its own cafeteria, where students can enjoy international cuisine together.



EVERYTHING WITHIN EASY REACH

The colleges are close to the lecture halls and research laboratories, the fitness center and indoor rowing tank, dance rooms, the campus interfaith house, the campus cinema, and the theater space. Outdoor and indoor playing fields allow students to engage in all kinds of sports activities, including soccer, basketball, volleyball, cricket, frisbee, and running to name a few.



A PLACE TO LIVE, LEARN, AND GROW

At Jacobs University, we are committed to making our campus and the colleges a comfortable and happy “Home away from home”. Dedicated resident mentors, who live on campus with their own families, support students in everyday life and create a familiar atmosphere. Every student has an academic advisor who ensures that they receive the best support possible when it comes to academic challenges.



HOST FAMILY PROGRAM

Jacobs University’s Host Family Program also helps international students feel at home. Every new student has the opportunity to sign up for this great program and be paired with a host family which provides support to adapt to the culture and life in Bremen.



CAMPUS LIFE

Jacobs University offers many social and cultural activities for students outside of the classroom. The variety of over 100 student-driven events during the year such as cultural festivals like the Deepavali Festival of Lights or Chinese New Year, and educational events like Country Information Days, are the hallmark of our vibrant campus community. Over 50 student clubs ranging from arts to sports and community groups provide further opportunities to foster our students' development of interpersonal and intercultural competencies.



COMMUNITY

Diversity is at the heart of the Jacobs community. Student clubs and societies engage in social, political, academic, and entrepreneurial activities like the Amnesty International club, the Logistic Chain Club and an annual Startup Competition to name a few.

Every day is different at Jacobs University, with countless events on offer to explore cultural diversity and foster mutual understanding between our campus and the local community.

SPORTS

Sports activities are organized into recreational clubs that are 'just for fun', or official university teams that compete in local leagues as well as in national and international tournaments. The most spirited events are on campus though – the Jacobs Games and the Intercontinental Football Tournament.



ARTS

The art scene is a vibrant part of student life at Jacobs University. From concerts by J-Cappella, the university choir, to theater plays and annual shows like the classical music event Piano to Forte, the oriental dance show, or the Spotlight talent show – there is something for everyone.



JACOBS CAMPUS TOUR³ – TAKE A VIRTUAL TOUR VIA:

WWW.JACOBS-UNIVERSITY.DE/CAMPUSTOUR

CAREER OPPORTUNITIES

The educational concept at Jacobs University aims at fostering employability, including the development of skills, capacities, and competencies that go beyond disciplinary knowledge.

CAREER SERVICE CENTER

The Jacobs University Career Services Center (CSC) accompanies students through all stages of their career development in order to enable them to become responsible leaders of tomorrow. Our services include individual counseling, support with applications, and mock interviews. Our internship program and professional skills seminars and workshops further enhance students' employability skills. Numerous events like the annual career fair offer networking opportunities for internships and employment. Global players such as Facebook, Microsoft, AB InBev, EON, or McKinsey specially conduct recruiting events directly on campus.



SUCCESS AFTER JACOBS

Graduates of Jacobs University follow a variety of career paths all over the world. Around two-thirds have directly gone into a professional career in fields such as IT and telecommunications, consulting, research, health, higher education, engineering, the finance sector, or logistics.

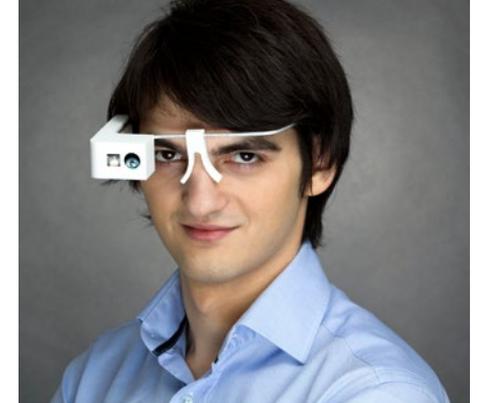
Some students have made a leap into entrepreneurship and launched their own businesses. Since 2001, Jacobs's alumni have founded around 40 start-ups worldwide. About one-third of our students pursue further graduate or professional studies at internationally renowned universities.

The top ten employers of Jacobs alumni:

Google, Microsoft, Daimler, Siemens, Accenture, Roche Diagnostics, Airbus/Astrium, KPMG, Volkswagen, E.ON.

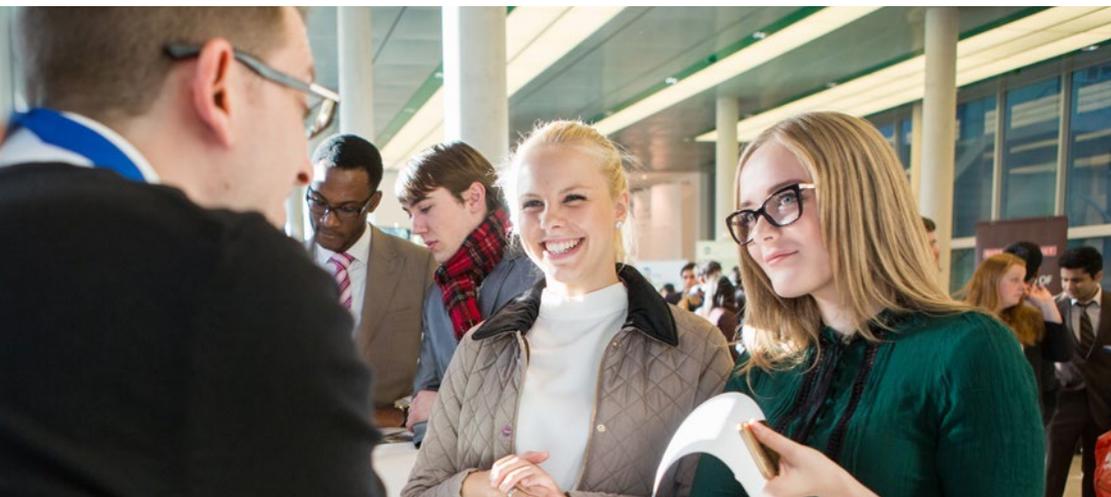
Top graduate study destinations for Jacobs alumni:

Columbia University, Harvard University, Humboldt Universität zu Berlin, Massachusetts Institute of Technology, Rotterdam School of Management, Stanford University.



AN OUTSTANDING ALUMNI STORY

Cornel Amariei, Electrical Engineering and Computer Sciences, Class of 2015: Forbes nominated him as one of the "30 under 30" – the most influential people in Europe. While still working on his degree, he designed the Lumen glasses, a device, which helps the visually impaired to navigate. He currently works as an Innovation Manager at Continental Automotive and continues to drive the Lumen project forward as CEO.



JACOBS UNIVERSITY GRADUATES

- 60% live in Europe (40% in Germany)
- 95% are in employment or pursuing graduates studies
- 80% join the Jacobs Alumni Association – a worldwide networking community
- 95% would again choose Jacobs University

STUDYING AT JACOBS UNIVERSITY

Jacobs University offers a broad spectrum of attractive study programs ranging from the natural sciences, mathematics and engineering, to the social sciences and economics. We divide these programs into three Focus Areas:



MOBILITY – OF PEOPLE, GOODS, AND INFORMATION

Understanding the worldwide flow of people, goods, and information is important in today's globalized world. Expertise in different disciplines, such as computer science, communication technology, logistics, and mathematics are brought together in the development of new solutions.

HEALTH – FOCUS ON BIOACTIVE SUBSTANCES

Designing solutions for a healthier world has always been one of the great challenges of science. Food, plants, and marine algae can have a positive effect on health similar to that of conventional medicine. However, scientists first have to identify and isolate bioactive substances and explore their safe application through transdisciplinary cooperation between geo science, life sciences, physics, and chemistry.

DIVERSITY – IN MODERN SOCIETIES

This area includes topics such as social cohesion, state systems, the preservation of social welfare, and the effects of regulatory systems on the individual, such as their impact on human rights. Diversity is thus regarded a driving force behind development and progress.

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“Jacobs University helps you to find yourself since you get in touch with people from all kinds of different cultures.”

FRANCESCA KLEIN, GERMANY

01

PRE-DEGREE PROGRAMS

AT A GLANCE

- Sharpen your academic skills and explore different fields of study
- Perfect your academic English and improve your math and science skills
- Prepare for university entrance examinations (SAT, TMS, HAM-Nat, MedAT)
- Earn ECTS credits that are transferable to future undergraduate studies



ACHIEVE YOUR FULL POTENTIAL

01

Planning and preparing for university studies is a challenge. Jacobs University has designed two pre-degree programs that provide students with the opportunity to boost their academic skills and to explore various fields of study before pursuing a university degree. Each program addresses a student's specific needs: for the aspiring engineer who strives to improve their math skills; for the future medical student who needs support in getting a study place; or for the student still in search of their ideal major. Students choose from various preparatory, orientation, and career modules to design an individual study plan that enables them to grow personally and academically.

Five reasons to enroll in a pre-degree study program at Jacobs University

— A PREMIUM EDUCATION

Academic advisors and experienced instructors provide professional guidance in the transition to undergraduate studies. Students benefit from small class sizes, individualized support, and state-of-the-art facilities, while gaining their first practical experience in a lab environment.

— A PERSONALIZED APPROACH

Students are able to select study modules according to their own needs and attend classes from those fields of study that interest them most. Students receive personal career counseling and benefit from a customized academic and professional skills workshop program.

— ADMISSION TO JACOBS UNIVERSITY

Students who successfully complete one of Jacobs University's pre-degree programs receive guaranteed admission to the university's renowned undergraduate programs. Those intending to continue their education at a medical school or university abroad will receive personal counseling and professional guidance during the application process.

— CERTIFIED KNOWLEDGE

Our certified programs enable students to collect ECTS credits which can be transferred to future university programs.

— CAMPUS LIFE

Students enrolled in a pre-degree program live and learn on campus. They become part of a vibrant international community and establish lifelong networks.



FOUNDATION YEAR

PROGRAM OVERVIEW

The Jacobs University's Foundation Year program allows students to explore different fields of study and equips them with academic skills before they embark on a degree. The program, which runs for two semesters, is tailored to students' individual academic interests and offers orientation possibilities in engineering, computer science, natural sciences, social sciences, economics, and management.

Students are introduced to scientific methods and can take preparatory courses in English, mathematics, science, and technology based on their preferences. Foundation Year students may also enroll in regular undergraduate classes and earn transferable ECTS credits that can be used towards the completion of a degree at Jacobs or at another recognized university. Interdisciplinary courses, which are designed especially for Foundation Year students, allow even more intensive orientation possibilities during the spring semester.

Triangular supervision offered through our experienced faculty and staff, a personal academic advisor, and a senior student mentor, ensure that Foundation Year students always know where they stand and that they have the necessary resources to succeed. The program fosters academic, social, and intercultural skills, and equips students with the academic prerequisites for pursuing successful careers in a wide range of fields.

The program is taught in English.

WHY FOUNDATION YEAR

- **GET READY FOR UNIVERSITY:** Sharpen your academic skills and explore different fields of study.
- **CAMPUS LIFE:** Spend a year on a campus in Germany that is home to students from over 100 countries.
- **ACADEMIC SKILLS:** Perfect your academic English, improve your math and science skills, and prepare for the SAT (students who are English native speakers or already took the SAT test may be exempted from these courses).
- **ORIENTATION:** Choose between orientation opportunities in economics and management, social sciences and history, natural and life sciences, and engineering and computer sciences.
- **TRANSFERABLE KNOWLEDGE:** Earn transferable ECTS credits and, upon successful completion of the Foundation Year, receive guaranteed admission to all our undergraduate programs.

For more information, see:

www.jacobs-university.de/foundation-year

or contact us:

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MEDICAL PREPARATORY YEAR (BILINGUAL)

PROGRAM OVERVIEW

The Medical Preparatory (MedPrep) Year is designed for students who are passionate about medicine and wish to improve their prospects of getting into medical school.

In two semesters, MedPrep students acquire and reinforce fundamental knowledge in medical and natural sciences, gain hands-on experience in laboratory courses, and prepare for university entrance exams. The curriculum includes individual application counseling and training as well as professional preparation for medical school entry test formats, such as TMS, HAM-Nat, MedAT. Internships and practical seminars provide an insight into the practical aspects of the medical profession: MedPrep students are familiarized with medical care, everyday medical routines, and patient communication. Furthermore, students benefit from our network of medical institutions and universities in Germany, Austria, and other European destinations.

Program participants are able to take full advantage of the many learning opportunities inside and outside the classroom at Jacobs University: In addition to challenging undergraduate classes in the natural sciences, MedPrep students can gain an interdisciplinary perspective by attending courses from other fields of study such as psychology, business, or the humanities. Participation in professional skills courses and living on an international campus further sharpens their academic and intercultural abilities.

WHY MEDPREP

- **CAREER COUNSELING:** We determine an individual application strategy and accompany your application process.
- **MEDICAL NATURAL SCIENCES:** You acquire or deepen theoretical and practical knowledge in biology, chemistry, physics, anatomy, and physiology while earning transferable ECTS Credits.
- **TEST PREPARATION:** We prepare you for medical school entry tests, especially TMS, HAM-Nat, MedAT.
- **MEDICAL UNIVERSITY NETWORK:** Various medical schools in Europe consider MedPrep equivalent to certain entry requirements, such as high school biology and proof of English language proficiency. You can take some medical school entry tests on our campus.
- **PRACTICAL EXPERIENCE:** You get to know the profession of an MD through hands-on experience in internships and practical seminars.
- **INTERCULTURAL SKILLS:** Studying in German and English while living on an international campus prepares you for medical studies in Germany and abroad.

For more information, see:

www.jacobs-university.de/medprep

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“I chose Jacobs University because it is international but small at the same time. Coming to Germany from abroad, the family atmosphere and close proximity to professors and fellow students was so welcoming and made me feel right at home.”

HE XU, CHINA

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**UNDER-
GRADUATE
PROGRAMS**

PURSUE YOUR CALLING

STUDY PROGRAM STRUCTURE

An undergraduate degree program at Jacobs University equips students with the necessary qualifications for a successful academic and professional career. Our programs' **modularized 3C structure** allows students to choose from several course electives, in effect tailoring their degree to best suit their interests. The unique **Jacobs Track** runs parallel to all of our three-year bachelor programs.

This provides students with a broad range of tailor-made courses designed to foster career competencies. These include courses that promote communication, technology, business, (German) language, and management skills.

The **World Track**, offered in the fifth semester, provides students with the opportunity to complete an extended internship, to found a start-up, or to study abroad. Thus, students are able to get on-the-job training and prepare for their professional career or gain additional intercultural experience.

All undergraduate programs offer students a flexible and broad choice of core curriculum and electives to help them fulfill their academic goals.



AT A GLANCE

- Declare your major after your first year of studies
- Study abroad or complete an internship as part of our integrated World Track
- Take advantage of the Jacobs Track, which includes valuable modules in methods, languages, and skills.



THE 3C PROGRAM STRUCTURE

Jacobs University study programs are based on European Higher Education Area regulations. All study programs adhere to the European Credit Transfer System (ECTS), which facilitates credit transfer between academic institutions. The three-year undergraduate program involves six semesters of study worth a total of 180 ECTS credits. The curricular structure follows an innovative and student-centered module scheme – the 3C Model – which groups the curriculum into three overarching themes:

— YEAR 1 – CHOICE

As part of the first year, students select three CHOICE modules from the various degree programs offered. The combination of CHOICE modules is flexible and allows students to decide on their major after the first year of study.

— YEAR 2 – CORE

Students take three in-depth, discipline-specific CORE modules in their second year of study. One of these three modules can also be replaced by a CORE module from a different discipline, which allows students to incorporate a minor study track into their undergraduate education.

— YEAR 3 – CAREER

The World Track, which is offered in the fifth semester, provides students with either an extended internship or an opportunity to study abroad at a partner university. Students may also opt to remain at Jacobs to continue their undergraduate education. In addition, students choose specialization courses within their study program and pursue a project/research module that includes their bachelor thesis.



Decide on your major after the first year. Study a major and a minor.

JACOBS TRACK YEARS 1–3



THE JACOBS TRACK

An integral part of all study programs, the Jacobs Track runs parallel to the disciplinary **CHOICE – CORE – CAREER** modules. All students are required to take modules offered within this track as they foster employability as well as a transdisciplinary and international outlook.

The Transdisciplinary Triangle module transcends the boundaries of traditional disciplines by offering courses in business, technology, and societal contexts.

Mathematics and statistics courses are offered within the Methods module, providing students with the general foundations and methods that are relevant for their studies.

Foreign languages are taught as part of the Language module, with an emphasis on German language skills for international students, in order to support their successful integration into a new culture.

The Skills module equips students with academic and professional competencies, including self-management, applying for jobs, giving presentations, and written communication.

BIOCHEMISTRY AND CELL BIOLOGY (BSc)



“I can’t thank the BCCB faculty enough for the great preparation they gave me for my scientific career! I am currently in a molecular and cell biology PhD program and all of my professors have been thoroughly impressed with my background and experience; I have twice been asked to bring more students from Jacobs here.” **GENO VILLAFANO, UNITED STATES**

PROGRAM OVERVIEW

Biochemistry is the study of molecules and chemical processes in living organisms, while cell biology covers the structure and physiology of cells, their components, and the interactions with their environment. The two fields are combined in one comprehensive degree program to give students a broad understanding of the molecular and cellular mechanisms that form the basis of life. Students not only become familiar with the theoretical background of these core areas, but are also involved in hands-on research right from the start of their studies.

CAREER OPTIONS

BCCB graduates have joined international companies in the pharmaceutical, biochemical, and biomedical industries. They hold positions as toxicologists, forensic scientists, consultants operating in the public sector, and as university lecturers or professors. After graduating, BCCB students have also been admitted to excellent universities worldwide for graduate studies (MSc or PhD) such as the universities of Oxford and Cambridge, Harvard University, ETH Zurich, European Molecular Laboratories (EMBL), and International Max-Planck Research Schools (IMPRS).

YEAR 1 — CHOICE

- Biochemistry and Molecular Biology
- Cell Biology

YEAR 2 — CORE

- Biomedicine
- Infection and Immunity
- Molecular Biology

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Experimental Strategy Design
- Research Approaches in Molecular Life Science I/II
- Current Topics in Molecular Life Sciences
- Ribogenetics

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CHEMISTRY (BSc)

“Germany for me is the country of chemistry, and therefore the great companies and brands that involve chemistry – it seems like pharmaceutical products, cosmetics, and chemical equipment are all made in Germany. So, why not study chemistry where it’s most advanced?”

ELIAS HALABI, VENEZUELA

PROGRAM OVERVIEW

Chemistry relates to nearly every aspect of our lives. It lies at the heart of some of the world’s most advanced industries, for example those focusing on pharmaceuticals, sustainable energy development, and even the food and beverage industry. The transdisciplinary bachelor degree in chemistry offers modules that include courses in organic, inorganic, analytical, and physical chemistry, as well as chemical biotechnology. Students are also taught the relevant aspects of mathematics, engineering, and industrial priorities. Over the course of the three-year study program, you will take extensive laboratory courses and carry out research projects independently during your third year of study. Undergraduate students are also strongly encouraged to engage in research projects with graduate students as early as their first or second semester.

CAREER OPTIONS

Chemistry graduates undertake careers in the areas of pharmaceuticals, nanotechnology, materials, and energy in environmental monitoring and in forensic science. Most students continue their education with a Master of Science or enter medical school. This leads to careers not just as chemists but also, for example, as production managers, business consultants, medical doctors, patent attorneys, marketers, and even as politicians.

YEAR 1 — CHOICE

- Organic Chemistry
- Inorganic Chemistry and Environmental Systems

YEAR 2 — CORE

- Physical and Analytical Chemistry
- Inorganic and Supramolecular Chemistry
- Chemical Biotechnology

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Advanced Synthesis
- Organometallic Chemistry
- Methods for Bioconjugation
- Structure Elucidation of Biomolecules

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COMPUTER SCIENCE (BSc)



“I chose Jacobs University because it is international but small at the same time. It is easy to get in touch with the professors here. I meet with my academic advisor once a week, and I very much appreciate the help and support I get from him.”

HE XU, CHINA

PROGRAM OVERVIEW

Computer science lies at the core of all modern industries, as computer systems and information technology are the basis for almost all of today's production processes. Computer technology changes constantly but there are a number of fundamental principles underlying these technologies. The Computer Science program at Jacobs University focuses on understanding these principles and their application in practice. In addition to courses dealing with core competencies (programming, software engineering, and the foundations of computer science), students will take courses in mathematics (calculus, linear algebra, and statistics) and engineering and sciences, while also carrying out guided research.

CAREER OPTIONS

The job market for computer scientists has been very good in the last few years, and there is no indication that this will change soon. Graduates can consider careers in a wide range of industries such as Internet and mobile technology, software and classic IT consultancy services, as a games developer, multimedia programmer, computer graphics designer, software engineer, or systems analyst. Graduates have started successful careers in both academia and with global industrial players such as Google, Microsoft, and Facebook.

YEAR 1 — CHOICE

- General Computer Science

YEAR 2 — CORE

- Applied Computer Science
- Technical Computer Science
- Theoretical Computer Science

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Programming in Java
- Distributed Algorithms
- Data Technologies

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EARTH AND ENVIRONMENTAL SCIENCES (BSc)



UNDERGRADUATE PROGRAMS

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“I can say that there is no other university that I would have preferred to have studied at. Jacobs is a fantastic project – a real gateway to the world.”

SEINAB BOHSUNG, GERMANY

PROGRAM OVERVIEW

The Earth and Environmental Sciences (EES) program is an interdisciplinary science major which provides a holistic understanding of the natural functioning of planet Earth and the consequences of human impact. The program is ranked as Germany's No. 1 Geoscience BSc program. Based on a sound introduction to fundamental chemistry and physics, it combines disciplines such as geology, geochemistry, geophysics, and oceanography with environmental sciences and social sciences (optional). EES prepares students for topical challenges and research questions such as the management and sustainable exploration of natural resources (including freshwater) and the study of the Earth's climate and oceans. Participation in excursions and laboratory work as well as teamwork in multidisciplinary and multicultural groups are an important part of the studies. Students may participate in ongoing research projects as early as the second semester.

CAREER OPTIONS

EES graduates have a broad range of career opportunities in the private sector, with government institutions, and nongovernmental organizations that focus on the environment, resources, development, or energy. Graduates can also pursue academic careers in the areas of geosciences, ocean sciences, environmental sciences, and resource exploration.

YEAR 1 — CHOICE

- Inorganic Chemistry & Earth and Environmental Systems
- Physics of Natural Systems

YEAR 2 — CORE

- Fundamental Earth and Environmental Sciences
- Earth, Ocean and Environmental Geochemistry
- Earth, Ocean and Environmental Geophysics

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- 7- to 12-day Ocean and Field Labs in Europe
- Resources and Environmental Behaviour of Critical High-Technology Metals
- Current Topics in Earth and Marine Sciences
- Current Topics in Resource and Environmental Sciences

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ELECTRICAL AND COMPUTER ENGINEERING (BSc)

“Smaller classes and the interactive teaching style keep students focused throughout the lecture. We have tutorials, which help a lot to go into depth if for some reason there was not enough time in class.”

NAZIA SARAH ISLAM, BANGLADESH

PROGRAM OVERVIEW

The extensive developments in microelectronics over recent decades have triggered a digital revolution with computers as the driving force. While we still think of a computer as a desktop or a laptop, digital computing and digital signal processing have become vital for many of the products in our everyday lives, such as cars, mobile phones, tablets, cameras, and household appliances. The Electrical and Computer Engineering program focuses on the areas of communications and digital signal processing, including the enabling of digital processing elements and their programming.

CAREER OPTIONS

Electrical and Computer Engineering graduates start their careers in very diverse companies, successfully continue at renowned universities, or stay with Jacobs University for graduate education. Potential career fields include the aerospace industry, telecommunications, the automotive and energy sector, information technology, and in academia, management, and consultancy.

YEAR 1 — CHOICE

- Introduction to Electrical Engineering

YEAR 2 — CORE

- Communications
- Electronics and Noise
- Signal Processing

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Coding Theory
- Wireless Communications II
- Advanced Digital Design

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GLOBAL ECONOMICS AND MANAGEMENT (BA)



UNDERGRADUATE PROGRAMS

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“A degree from Jacobs University opens doors to many different opportunities and really prepares us well for our future. The fact that I am studying in English was also important to me, because I can choose to go to any English-speaking institution in the world.”

JESSICA GEIGER, GERMANY

PROGRAM OVERVIEW

A multitude of political, social, and cultural forces drive economic decisions in our globalized world. To understand these forces, students need to learn about the many challenges facing today's companies and economies. These include resource depletion, financial crises, ethical questions, and social exclusion. The Global Economics and Management program explores the classical studies of business administration and economics within a global context, and combines them with knowledge from fields such as political science, psychology, communication, and engineering – depending on the specializations and minors the students choose. The program teaches a transdisciplinary understanding of global economic challenges with an emphasis on sustainable development and responsible leadership.

CAREER OPTIONS

Completion of a BA in Global Economics and Management allows graduates to seek employment in the private sector, government, international organizations, business associations, the media, diplomatic services, and consulting.

YEAR 1 — CHOICE

- General Economics
- General Management

YEAR 2 — CORE

- Economic Policy Challenges
- Economic Institutions and Organization
- Managing Diversity

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Country Lab I
- Country Lab II
- Econometrics Lab
- Development Lab
- Environment and Resource Lab
- Innovation Lab

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INDUSTRIAL ENGINEERING AND MANAGEMENT (BSc)



“Due to the transdisciplinarity of the program, the knowledge gained can be applied in production, consulting, humanitarian aid, etc. The biggest advantage was learning directly from the leaders in the industry, who created an environment which was always challenging us to aspire for more and better!” **ELENA ISAC, MOLDOVA**

PROGRAM OVERVIEW

Industrial engineering is one of the most versatile and flexible branches of engineering. It has been said that engineers make things, whereas industrial engineers make things better. The Industrial Engineering and Management (IEM) program deals with both the creation and the management of systems that integrate people, materials, and energy in productive ways. It covers topics such as process engineering, operations research, supply chain management, engineering design, logistics, and project management. Students are equipped with the essentials of both the management and the engineering business functions and are thus prepared for successful careers in industry.

CAREER OPTIONS

IEM prepares graduates for a career at the interface between management and engineering. This can be the start of a career in industrial and trade enterprises from different industries, as well as in research and education. The wide range of career paths that open up for graduates include specializations in production and logistics areas, project management, and strategic and corporate management. Close cooperation and contacts are established with companies such as Airbus, Daimler, Porsche, Mondelez, ArcelorMittal, Barry Callebaut, Deutsche Bahn, KPMG, and more.

YEAR 1 — CHOICE

- General Industrial Engineering and Management

YEAR 2 — CORE

- Production and Engineering
- Process Engineering

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Modelling Dynamics in Industrial Systems
- IT Applications in Production and Logistics
- Ethics and Sustainability in Production and Logistics
- Procurement & Purchasing
- Quality & Risk Management
- Distribution & E-Commerce

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INTEGRATED SOCIAL SCIENCES (BA)

“Instructors in ISS not only taught me extensive research skills, but they also instilled a passion to look beyond disciplinary boundaries. The problem-solving approach in ISS has also led me to work with partners outside of academia.”

JAN EICHHORN, GERMANY

PROGRAM OVERVIEW

The Integrated Social Sciences (ISS) program provides a unique integrated approach to the social sciences, including three disciplines and their interfaces: media / communication science, political science, and sociology. They focus on highly relevant and very current issues, topics, and problems that need to be solved.

The range of problems addressed is broad and includes war and conflict, environmental concerns, and the role of the state. A special feature is the intensive methods training – both quantitative and qualitative approaches are taught in advanced methods labs and integrated into the program structure. Students are trained in the analysis of pressing problems, as well as developing potential solutions. The program is research-based and familiarizes students with the development of empirical research questions and research designs.

CAREER OPTIONS

Graduates will be in an excellent position to pursue careers in governmental and nongovernmental organizations, public administration, international organizations, private and public media, as well as in private-sector enterprises with strategic planning and public relations components. Alumni have been very successful in securing funded graduate positions at prestigious universities such as Oxford, Harvard, Columbia University, and MIT.

YEAR 1 — CHOICE

- Introduction to the Social Sciences

YEAR 2 — CORE

- International Politics and Policy
- Communication, Culture and Consumption
- Crisis and Conflict Management

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Cooperation and Conflict: Russo-European Social, Economic and Political Relations
- From theory to Practice: Sociological Theory and its Application to Reality
- Between Respect and Rebellion – The Sociology of Generations across Times and Cultures
- The Adventure of Sociology: Old and New Classics of Participating Observation
- Advanced Methods in the Social Sciences
- Current Issues in the Social Sciences

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INTELLIGENT MOBILE SYSTEMS (BSc)

“I chose Jacobs University because of its flexible course selection policy. Although IMS is similar to mechatronics programs available in other universities, it is unique due to its emphasis on intelligence and the autonomy of mobile systems.”

RUI CAO, CHINA

PROGRAM OVERVIEW

This program covers engineering methods and technologies relevant in making artificial mobile systems independent of permanent human supervision, i.e. that enable mobile systems to carry out autonomous intelligent operations. Study areas include the automotive and transportation industries, robotics and automation, communication technologies, marine technology, and logistics. Hands-on experience with technical systems and methods in state-of-the-art labs are part of the program.

CAREER OPTIONS

Graduates pursue careers in research and development, or management tracks in automotive and transportation, robotics and automation, communication technologies, marine technology and logistics industries. Given the increasing need for the automation of daily tasks using intelligent mobile systems, there are a significant number of career options in addition to the core options covered in the program.

YEAR 1 — CHOICE

- Introduction to Intelligent Mobile Systems

YEAR 2 — CORE

- Intelligent Systems
- Automation and Control
- Planning and Optimization

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Marine Robotics
- Dynamical Systems and Control
- Applied Nonlinear Control

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INTERNATIONAL BUSINESS ADMINISTRATION (BA)



UNDERGRADUATE PROGRAMS

02

“Classes at Jacobs are very transdisciplinary and diverse. It’s interesting to see how the students all have different perspectives on the subject and approaches to learning.”

PATIENCE VIMBAYI MUSHAMIRI, ZIMBABWE

PROGRAM OVERVIEW

The International Business Administration program covers all the essential areas of business and management with an international outlook. Students will develop strategic and practical perspectives on value creation in a globalized, culturally diverse, and technology-driven world. Topics that are emphasized include the management of international firms, the integration of information technology in all business areas, and the influence of the economic and cultural context on business activities. The program teaches an informed, comparative, and critical understanding of common business practices, problems, and values in a diverse and international context. Students will develop the analytical and social skills required to succeed as effective and responsible managers.

CAREER OPTIONS

Graduates pursue careers in a broad range of businesses, especially international and internationalizing firms with a focus on future-oriented industries, e.g. renewable energy, health, information technology, automotive, and aerospace industries.

YEAR 1 — CHOICE

- General Management
- General Economics

YEAR 2 — CORE

- Strategy and Management
- Finance and Project Management
- Managing Diversity

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Contemporary Research Issues in Marketing
- Contemporary Issues in Accounting
- Contemporary Finance Issues
- Current Issues of International Organizations
- China: Politics, Economy, Society

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INTERNATIONAL RELATIONS: POLITICS AND HISTORY (BA)



“I chose International Politics and History because I am really interested in both disciplines, and I think it’s going to give me good background knowledge to go into a career related to law or mediation. I find the issues of human rights and mediation particularly interesting.”

SAVANNAH CARR-WILSON, CANADA

PROGRAM OVERVIEW

The program International Relations: Politics and History offers an analytical approach to past and current international problems. It introduces students to the evolution of international politics, international economics, and domestic political systems. Students gain knowledge of international law, diplomacy, governance, globalization processes, security issues, and intercultural exchange. They acquire a critical understanding of present issues, and learn about the political and social developments that have shaped today’s world over the past two centuries.

CAREER OPTIONS

By acquiring an in-depth understanding of international relations and history from both an empirical and theoretical perspective, students gain the knowledge and the analytical tools needed in fields such as politics and diplomacy, private-sector management, public administration, governmental organizations, and nongovernmental organizations. They also acquire the skills to continue in graduate and postgraduate research. IRPH has an excellent track record of placing students in top graduate schools.

YEAR 1 — CHOICE

- Introduction to International Relations

YEAR 2 — CORE

- International Politics and Policy
- Global Dynamics in Historical Perspective
- Arenas of Political Life

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Women in History and International Politics
- Oppression, Conformity and Resistance under Dictatorships
- China: Politics, Economy, Society
- The Problem of Power: An Introduction to Modern Political Philosophy
- Political Science and Employment

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MATHEMATICS (BSc)



UNDERGRADUATE PROGRAMS

02

“The Mathematics major at Jacobs allows you to choose courses which are suitable for you individually. Students are optimally supported in challenging courses with small classes and close collaboration with professors.”

MARVIN SECKER, GERMANY

PROGRAM OVERVIEW

Mathematics as a fundamental science ranges from algebra, analysis, geometry, and topology to applications of immediate practical importance, for example modeling fluids using partial differential equations. Mathematics often finds intriguing practical applications in surprising areas: number theory is used in cryptography, dynamic systems and wavelets are successfully employed in engineering, and mathematical game theory was the basis for research in economics that has been awarded a Nobel Prize.

The Bachelor of Mathematics program at Jacobs University offers a strong foundation in pure mathematics and flexible study options to combine the study of mathematics with solid training in one or more fields of application. Math students participate in research groups together with graduate students and faculty, and many have even written research articles. One key element in our education is that we do not just teach courses to students, but accompany them as individuals throughout their education.

CAREER OPTIONS

There are few undergraduate degrees which rival mathematics in the diversity of rewarding job options, including careers in research, finance, banking, management, biomedical technology, IT, engineering, and consulting.

YEAR 1 — CHOICE

- Fundamental Mathematics

YEAR 2 — CORE

- Core Mathematics
- Core Pure Mathematics
- Core Applied Mathematics

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Foundations of Mathematical Physics
- Differential Equations
- Number Theory

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MEDICINAL CHEMISTRY AND CHEMICAL BIOLOGY (BSc)

“The faculty not only instilled in us a passion for science, but also guided us through the beginning of our professional lives. After only one year, I was accepted to an internship at an Ivy League university – I realized then how well the program prepares us for work in world-class research facilities.” **JOSEPH MCINNES, UNITED STATES**

PROGRAM OVERVIEW

Human life expectancy and quality of life has dramatically increased over the last hundred years and this is directly connected to the rise of modern medicine. The Medicinal Chemistry and Chemical Biology (MCCB) program places the student at the forefront of the revolutionary efforts now underway to understand and treat disease. The program provides a fundamental understanding of the drug-body interaction from the molecular to the macromolecular level, thus enabling identification and exploitation of bio-active molecules. The topics covered range from drug discovery, molecular docking and drug delivery and resistance to the intricacies of refining our knowledge of drug target and function within molecular biology. This program is based on an innovative, multidisciplinary approach which encompasses life scientists, chemists, biophysicists, and biotechnologists.

CAREER OPTIONS

MCCB graduates have a wide variety of career choices. They are naturally to be found in pharmaceutical companies, but also in the pharmaceutical, chemical and bio-technology industries, analytical food testing laboratories, quality management, academic careers, regulatory affairs or even as patent attorneys.

YEAR 1 — CHOICE

- Biochemistry and Molecular Biology
- Organic Chemistry

YEAR 2 — CORE

- Chemical Biology
- Drug Action and Production
- Drug Development

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Introduction to Biophysical Chemistry
- Binding and Enzyme Assays
- Concepts and Applications of Metabolism
- Pharmaceutical Formulation and Targeting Technology
- Structure Elucidation of Biomolecules

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MEDICAL NATURAL SCIENCES (BSc)

“What really makes this program special is the close connections that are fostered between students and faculty. We learn from the knowledge and real-life industry experiences of our professors, and we students support and encourage each other. Together we explore our subject, together we are pioneers.” **ZEJUN CHEN, CHINA**

PROGRAM OVERVIEW

The Medical Natural Sciences (MedNat) program specifically prepares students for later studies in medicine at a German state university. This preparatory program combines modules in natural sciences, life sciences, and medicine with intensive German language courses. Students are taught the foundations of the natural sciences and modules are comprised of a series of lectures in disciplines such as organic chemistry and physics with corresponding lab courses. Students will also become familiar with the basic concepts of life sciences and medicine in specialized modules. The three intensive German modules not only consist of language classes, but also of seminars on Germany and its regions, the German healthcare system, and the transition to German medical schools.

CAREER OPTIONS

MedNat prepares students to continue their studies at medical schools in Germany and to become medical doctors, or to start a scientific research career in biomedicine, molecular medicine or medical technology. The program has been designed for students from non-European Union countries, and provides the basis for successful study at renowned German medical schools. A Bachelor of Science (BSc) will be awarded after successful completion of the three-year program.

PREPARATORY PROGRAM

for later studies in medicine at a German state university

YEAR 1

- Foundations in Medicine I
- Foundations in Natural Sciences
- Intensive German I

YEAR 2

- Foundations in Medicine II
- Cellular Biology
- Intensive German II

YEAR 3

- Foundations in Medicine III
- Intensive German III

An internship in the Medical Center Hamburg-Eppendorf (UKE), one of Europe's leading hospitals, over the course of one semester is included in the program.

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PHYSICS (BSc)



“The academic standard at Jacobs University is really high. The classes are small and I study with many incredibly talented people. This is something I find motivating and inspiring. We work closely together and support each other.”

GAUTAM RAI, INDIA

PROGRAM OVERVIEW

Physics has shaped our view of the world through its quest to understand the fundamental concepts of space, time, and matter. It not only lays the foundation for other natural sciences, but physics is also a fundamental part of modern technology as it can be found in solar cells, computers and airplanes. The program covers an introduction to classical and modern physics followed by advanced courses in electrodynamics, relativity, quantum physics, and solid state physics, to name just a few. It also includes a thorough mathematical education. Lectures are complemented by teaching labs. Students can participate in faculty research projects from early on in their studies.

CAREER OPTIONS

Graduates will find ample career opportunities: research positions in academia or engineering positions in research and development departments, for example in information technology, renewable energies, aerospace engineering, or medical technology. These positions are in the interdisciplinary fields of biophysics, nanotechnology, and geoscience. In addition, physicists work in the financial sector, consultancy, or software development.

YEAR 1 — CHOICE

- Physics of Natural Systems
- Physics and Applied Mathematics

YEAR 2 — CORE

- Statistical Physics and Fields
- Applied Physics
- Classical and Quantum Dynamics

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Solid-State Electronic Devices
- Condensed Matter and Devices
- Advanced Optics
- Advanced Quantum Physics
- Particles and Fields

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PSYCHOLOGY (BA)



UNDERGRADUATE PROGRAMS

02

“One of the best things is that from the first day on, you not only get a theoretical foundation but also gain practical skills. It feels good to know that I would be able to apply my knowledge anytime.”

ANNA KUZNETSOVA, UKRAINE

PROGRAM OVERVIEW

The study program Psychology deals with the general principles of human behavior, feeling, and thought, their empirical investigation, and the implications of research findings for theoretical questions in a variety of applied settings. At the center of this program is the role of human cognition and feelings in interactions and communications across multiple dimensions of diversity, with respect to the individual, dyads, groups, and within and between societies. Understanding and explaining related phenomena, such as conflict and cooperation, involves an interdisciplinary view of the interaction between biological, psychological, and cultural processes. The program includes training in analytic and research methods, but also in a range of applied (interpersonal and intercultural) skills.

CAREER OPTIONS

Graduates pursue careers in fields related to human interaction and communication, including intercultural relations, diversity management, human resources, information and media, sales and advertising, politics, and nongovernmental organizations. The program is a good preparation for advanced graduate studies in a variety of psychological disciplines.

YEAR 1 — CHOICE

- Introduction to Psychology

YEAR 2 — CORE

- Biology, Brain and Cognition
- Humans in Social Context
- Applied Psychology

YEAR 3 — CAREER

(Exemplary course offerings for program-specific Specialization Module)

- Managing Demographic Change in Organisations
- Neuroscience of Aging
- Psychology of Food
- Psychology of Happiness
- Human Neuroscience Advanced Lab

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“A degree from
Jacobs University
opens doors to
many different
opportunities and
really prepares us
well for our future.”

JESSICA GEIGER, GERMANY

03

GRADUATE PROGRAMS

MASTER YOUR TALENTS

Graduate education at Jacobs University encompasses programs from the natural sciences and engineering to psychology, the social sciences, and economics. Completion of one of these programs leads to a Master of Science (MSc) degree or a Doctor of Philosophy (PhD) degree.

At the graduate level, students deepen their knowledge on a given subject, extend their academic qualifications, and further specialize in an area of their choice. At the same time, Jacobs University's graduate programs are guided by transdisciplinarity. Students are trained and encouraged to investigate and analyze issues from multiple perspectives and without clear-cut disciplinary boundaries.

Graduate programs at Jacobs University maintain the highest standards of teaching and learning. All MSc curricula are based on three pillars: Core, Career, and Research. In the Core pillar, students become acquainted with the foundational and advanced aspects of their program. In the Career pillar, students acquire skills and tools to get prepared for their professional future. In the Research pillar, students engage themselves in scientific and industry projects and write their thesis.

All MSc programs comprise diverse learning platforms including lectures, seminars, workshops, laboratory training, and excursions.



For students interested in moving on to a PhD, institutes such as the Bremen International Graduate School of Social Sciences provide excellent opportunities for research. There is also the possibility to obtain individual research PhD degrees in various fields.

Jacobs University offers its students accommodation on campus. Many students find that this option truly rounds off their university experience.

AT A GLANCE

- Pursue graduate programs based on Core, Career, and Research pillars
- Enhance your personal expertise
- Specialize in an area of your choice
- Launch your professional career
- Join our worldwide network of Jacobs Alumni

COMPUTATIONAL LIFE SCIENCE (MSc)

PROGRAM OVERVIEW

The Computational Life Science program combines mathematics and data processing with the life sciences. It prepares students for new challenges in biomedical research and provides them with the theoretical background and the computational tools for modeling biological systems and analyzing biological data. Applying mathematical methods and the latest computer technology, students of Computational Life Science dedicate themselves to finding solutions to complex problems in medicine, biotechnology and pharmacy. The interdisciplinary learning environment with small class sizes, application-oriented programming labs and an early involvement in research is ideal for students from diverse backgrounds – e.g. mathematics, computer science, physics, biology, bioinformatics, biotechnology, genetics – who intend to develop their skills towards becoming an expert in using computational methods in the life sciences.

CAREER OPTIONS

Students of the Computational Life Science program acquire a wide range of skills in bioinformatics, data analysis, systems biology and biomedical process modeling. They are prepared for a career in biotechnology, biomedicine, medical technology, laboratory diagnostics, and related areas. They usually work in pharmaceutical companies or other areas such as the healthcare or food industry. Graduates of the program are also qualified to move on to a PhD and to a career in academia and research institutions.

CORE 1 – FOUNDATIONS OF COMPUTATIONAL LIFE SCIENCE

- Introduction to Computational Life Science
- Introduction to Computational Life Science: Methods and Applications
- Introduction to Systems Biology
- Computational Life Science Colloquium

CORE 2 – ELECTIVES AND REMEDIAL COURSES

- Introduction to Bioinformatics
- Partial Differential Equations
- Applied Dynamical Systems

CORE 3 – ADVANCED TOPICS, METHODS, AND APPLICATIONS

- Complex Networks – Theory and Analysis
- Theoretical Biology
- Models of Metabolism
- Bioinformatics Applications
- Theoretical and Computational Biophysics

CAREER – SKILLS AND LANGUAGES

- Language courses
- Further skills courses

RESEARCH 1 – LAB ROTATIONS

- Lab Rotation 1
- Lab Rotation 2

RESEARCH 2 – MASTER'S THESIS

- Thesis and Colloquium

For more information, see:

www.jacobs-university.de/complife

Or contact us:

complife@jacobs-university.de

DATA ENGINEERING (MSc)

PROGRAM OVERVIEW

Big data has turned out to have tremendous potential, but poses major challenges at the same time. On the one hand, big data is driving the next stage of technological innovation and scientific discovery. On the other hand, the global volume of data is growing at a pace that seems to be hard to control. Faced with these prospects and risks, the world requires a new generation of data specialists. The Data Engineering program offers a fascinating and profound insight into the methods and technologies of big data. It deals with foundational and advanced approaches to data acquisition, data management, and data analysis. Students take a tailor-made curriculum consisting of lectures, tutorials, laboratory training, and hands-on projects. In addition, students have an excellent chance of working in paid industry and research projects during the program.

CAREER OPTIONS

Demand for Data Engineers is massive. Typical fields of work encompass the finance sector, the automotive and health industry as well as retail and telecommunications. Companies and institutions in almost every domain need experts for data acquisition who know how to collect the relevant data; experts for data management who know how to make the optimum use of the obtained data; experts for data analysis who evaluate and interpret the collected data correctly and are able to visualize the findings clearly. Graduates of the program work as data analysts, data managers, data architects, business consultants, software and web developers, or system administrators. An MSc degree in Data Engineering also allows students to move on to a PhD and a career in academia and research institutions.

CORE 1 – FOUNDATIONS OF DATA ENGINEERING

- The Big Data Challenge: Topics, Applications, Perspectives
- Data Analytics

CORE 2 – ELECTIVES AND REMEDIAL COURSES

- Calculus & Linear Algebra
- Data Management
- Probabilities
- Econometrics

CORE 3 – ADVANCED METHODS AND APPLICATIONS

- Big Data Bases and Cloud Services
- Principles of Statistical Modeling
- Internet of Things
- Web Analytics
- Big Data Management

CAREER – SKILLS AND LANGUAGES

- Ethics in Science and Technology
- Legal Foundations of Data Engineering
- Language courses
- Further skills courses

RESEARCH-IRP – INDUSTRY AND RESEARCH PROJECTS

- Advanced Project 1
- Advanced Project 2

RESEARCH – MASTER'S THESIS

For more information, see:

www.jacobs-university.de/data-engineering

Or contact us:

dataengineering@jacobs-university.de

PSYCHOLOGIE (MSc)

PROGRAMMÜBERSICHT

Die Globalisierung und der demographische Wandel sind die großen Herausforderungen für das Zusammenleben im 21. Jahrhundert. Der MSc in Psychologie bereitet darauf vor, diese Aufgaben in einer zunehmend vielfältigen Gesellschaft verantwortungsvoll wahrzunehmen. Inhaltlich umfasst der MSc in Psychologie drei Schwerpunkte: Die **Klinische Psychologie** befasst sich mit der Entstehung, Diagnose, Therapie und Prävention psychischer Erkrankungen. Die **Arbeits-, Organisations- und Wirtschaftspsychologie** analysiert, wie moderne Arbeit für den Menschen optimal gestaltet und die Work-Life-Balance verbessert werden kann. In der **Interkulturellen Psychologie** wird untersucht, wie das Zusammenleben von Menschen mit unterschiedlichem kulturellen Hintergrund ermöglicht und erleichtert werden kann. Etwa zwei Drittel der Kurse werden auf Deutsch und ein Drittel auf Englisch unterrichtet.

BERUFLICHE PERSPEKTIVEN

Die im Studium erworbenen Qualifikationen finden ihre praktische Anwendung in Bereichen wie psychologischer Diagnostik, Beratung, Training und Psychotherapie. Typische Berufsfelder umfassen neben einer Tätigkeit als Psychologin/Psychologe eine Beschäftigung im Gesundheits-, Sozial-, Personal- und Bildungswesen, in Wissenschaft, Verwaltung oder in der Industrie. Der MSc in Psychologie qualifiziert darüber hinaus für vielfältige Aufgaben in leitenden Positionen in Unternehmen und anderen Institutionen.

MODUL – KLINISCHE PSYCHOLOGIE

- Einführung in die klinische Psychologie
- Health Promotion and Counseling in a Diverse Society
- Klinisch-psychologische Forschung

MODUL – ARBEITS- ORGANISATIONS-, UND WIRTSCHAFTSPSYCHOLOGIE

- Einführung in die Arbeits-, Organisations- und Wirtschaftspsychologie
- Entscheidungen (Decision Making) in Organisationen
- Organizational Behavior Across Cultures

MODUL – INTERKULTURELLE PSYCHOLOGIE

- Einführung in die kulturvergleichende Psychologie
- Intercultural Competence and Conflict Management
- Spezielle Probleme der angewandten Sozialpsychologie

MODUL – FORSCHUNGSMETHODEN UND PSYCHOLOGISCHE DIAGNOSTIK

- Advanced Quantitative Methods
- Testtheorie und Testkonstruktion
- Evaluationsmethoden
- Gutachtentechnik

MODUL – KOMMUNIKATION WISSENSCHAFTLICHER ERGEBNISSE

- Techniken wissenschaftlichen Arbeitens
- Kolloquium: Präsentation eigener Forschungsergebnisse

NEBENFACH / PRAKTIKUM / MASTERARBEIT

For more information, see:

www.jacobs-university.de/msc-psychologie

Or contact us:

msc-psychologie@jacobs-university.de

SUPPLY CHAIN ENGINEERING AND MANAGEMENT (MSc)

PROGRAM OVERVIEW

A broad range of industries require professionals who are trained in designing, organizing, and managing complex supply chain networks. Understanding your suppliers and supply chain risks is critical since their performance has a direct impact on a company's ability to produce and deliver. The ability to manage supply chains is therefore fundamental to success in global economy. Students of Supply Chain Engineering and Management learn how to initiate, maintain, and restructure business processes, understand market dynamics, and acquire modern leadership skills. The program offers a tailor-made curriculum consisting of seminars, workshops, excursions, tutorials, interactive case studies, exercises, and online lectures using both group and self-study.

CAREER OPTIONS

Graduates of the program find a wide range of attractive career options in the dynamic field of supply chain management and beyond. They are qualified to opt for a career in industry, academia, governmental institutions, international organizations, business associations, the media, and non-profit organizations. With respect to industry, our alumni work in the logistics, production, and procurement departments of car manufacturers, the food industry, and the aerospace industry. Others get hired by internationally operating railway transportation companies or business consultancies.

CORE 1 – SUPPLY CHAIN FOUNDATIONS

- Introduction to Transportation, Logistics, and Supply Chain Management
- International Purchasing and Business
- Advanced Business Mathematics
- Econometrics
- Law for Logistics
- Ethics and Sustainable Business

CORE 2 – SUPPLY CHAIN MANAGEMENT

- Strategic and Innovation Management
- Supply Chain Management
- Management of Logistics Service Providers
- Advanced Quality and Risk Management
- Project Management Concepts

CORE 3 – SUPPLY CHAIN ENGINEERING

- Modeling and Simulation in Supply Chain Management
- Supply Chain Engineering
- The Big Data Challenge

CAREER – LEADERSHIP, SKILLS, AND LANGUAGES

- Communication and Presentation Skills
- Leading Teams and Groups
- Intercultural Competence and Management
- Decision Making
- Orientation courses
- Language courses

RESEARCH 1 – METHODS AND PROJECTS

- Introduction to Academic Writing
- Research Project
- Industrial Project

RESEARCH 2 – MASTER'S THESIS

For more information, see:

www.jacobs-university.de/scem

Or contact us:

scem@jacobs-university.de



SCHOLARSHIPS & FINANCIAL SUPPORT

Both undergraduate and graduate applicants will automatically be considered for a merit-based scholarship during the admissions process, taking into account their talent and academic potential without regard to their material wealth or resources.

Applicants for regular bachelor programs can apply for additional need-based financial support. Individualized financial aid packages, involving grants, scholarships, tuition deferrals with individual repayment plans make it possible for all qualified students to study at our university.

If you have any questions regarding the financing of your studies at Jacobs University, don't hesitate to contact us.

Our Student Financial Services Team will be glad to help.

**ANY
QUESTIONS?
PLEASE CONTACT:**
sfs@jacobs-university.de
+49 421 200-4210

HOW TO APPLY

Admission to Jacobs University is based on a candidate's motivation, school and/or university achievements, personal references, and performance on required standardized tests. **There is no application fee.**

APPLICATION DEADLINES

FOR PRE-DEGREE STUDY PROGRAMS	DEADLINE I	June 15 for students who require a visa to enter and study in Germany
	DEADLINE II	August 15 for students who do not require a visa
FOR UNDER-GRADUATE STUDY PROGRAMS	EARLY DECISION	Due by November 1
	EARLY ACTION	Due by December 1
	EARLY ACTION II	Due by February 1
	ROLLING ADMISSION	Due by June 1 for students who require a visa to enter and study in Germany and July 20 for EU students
FOR GRADUATE STUDY PROGRAMS	DEADLINE I	June 1 for students who require a visa to enter and study in Germany
	DEADLINE II	July 15 for students who do not require a visa
	DEADLINE III	August 15 only for applicants to the MSc in Psychologie program who do not require a visa

1:13

OPTIMAL TEACHER/
STUDENT RATIO

GRADUATION QUOTA

96/97%

BACHELOR / MASTER

51

PARTNER UNIVERSITIES

For more information on the application process and a full list of requirements, please visit our website:
www.jacobs-university.de/apply-now

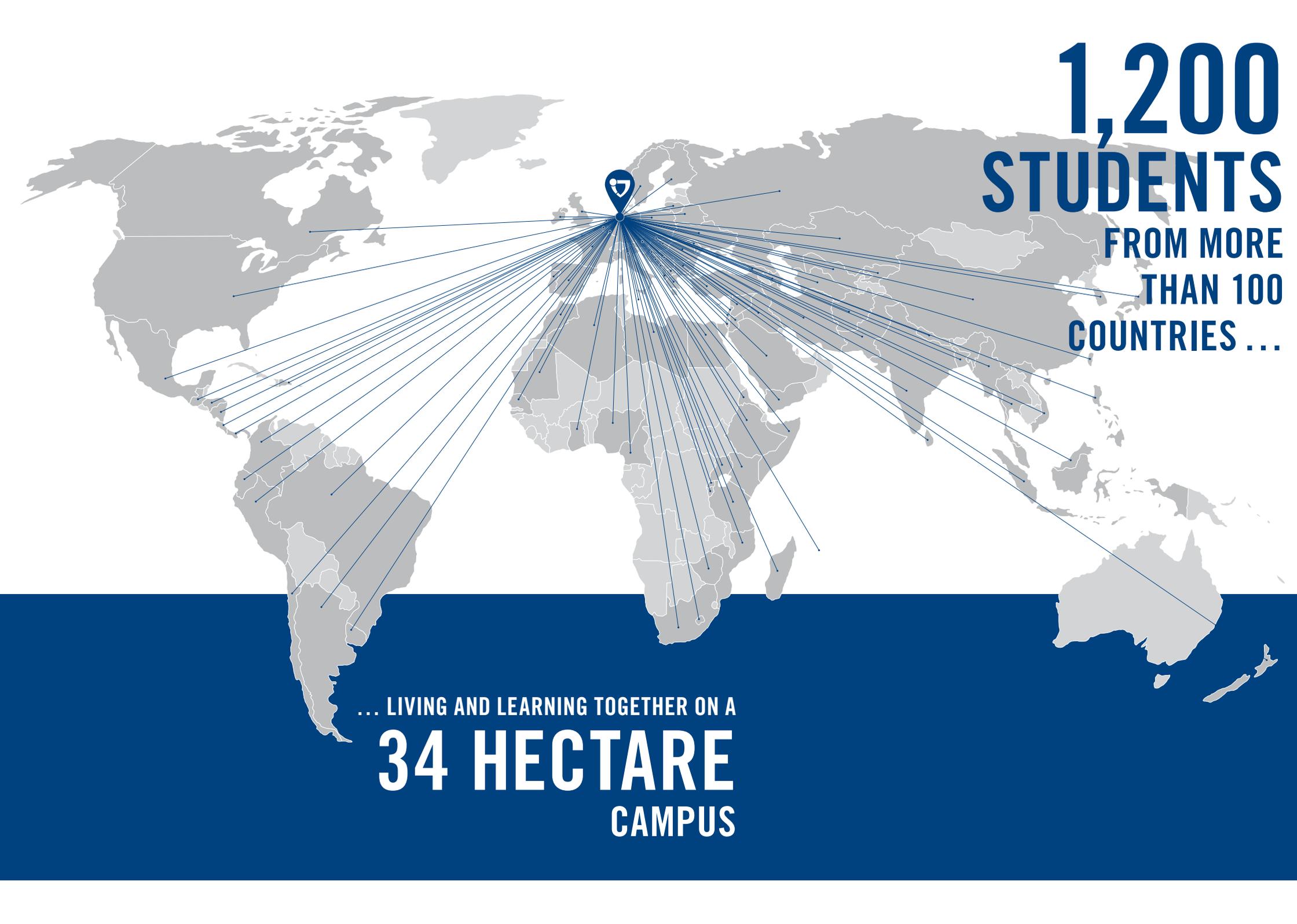
Or contact our Admission Teams:
admission@jacobs-university.de
graduateadmission@jacobs-university.de

APPLY
NOW!

MORE THAN

1,000

RESEARCH COOPERATIONS

A world map in shades of gray with a central blue location pin in Europe. Numerous thin blue lines radiate from this pin to various points across all continents, representing a global network of students. The map is set against a white background, with a dark blue horizontal bar at the bottom.

**1,200
STUDENTS**
FROM MORE
THAN 100
COUNTRIES ...

... LIVING AND LEARNING TOGETHER ON A
34 HECTARE
CAMPUS

YOUR FUTURE STARTS HERE

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