



© Shutterstock.com

# INFORMATION SYSTEMS

DOUBLE QUALIFICATION IN BUSINESS STUDIES AND COMPUTER SCIENCE

Master of Science

Faculty of Management, Economics and Social Sciences  
University of Cologne



---

# UNIVERSITY OF COLOGNE

## The Faculty of Management, Economics and Social Sciences

The **University of Cologne** is one of the oldest and most prestigious European universities. It has produced several Nobel and Leibniz Prize winners and is part of the only economic cluster of excellence in Germany. Founded in 1388, the University of Cologne is a leader in many disciplines and a member of many international networks as well as a founding member of the CEMS global alliance.

The **Faculty of Management, Economics and Social Sciences** (also known as "WiSo Faculty") is part of the University of Cologne and has over a century of experience in educating new generations of business professionals, economists, social analysts and political experts. As one of Germany's largest educational institutions, the WiSo Faculty regularly ranks among the top providers of management and business education.

As a student of the WiSo Faculty, you benefit from a teaching approach based on theory and methods in combination with research and applications.

The traditional diversity of subjects, top-level research, practical relevance and internationality allow the WiSo Faculty to stand up to national and international comparison and to achieve top positions in international research rankings. Through its interdisciplinary research approach, the Faculty's seminars and institutes make a major contribution to the excellent research at the University of Cologne.

The education provided at our Faculty has benefited from many years of experience in working with companies and visiting lecturers from different professional fields. Several faculty members are professionals and managers who bring important industry experience to the programmes, resulting in sector-specific, up-to-date programme content for our students. True to our motto "Today's ideas. Tomorrow's impact.", this ensures that our interdisciplinary programme reflects the real world and ideally combines practice and theory, while also promoting knowledge sharing.

Global markets have fundamentally changed the situation of economic and political action. It will only be possible to meet the global challenge of society through a change in attitudes and organisations. To achieve this, however, the underlying global interrelationships must be investigated, understood, and considered by decision makers.

By pursuing a degree through this programme at the WiSo Faculty, you will deal intensively with related core issues such as digital transformation, digital innovation, data analytics, technology solutions for a sustainable society, information management, integrated information systems, systems engineering, and IT-enabled innovative products, processes and business models. The programme enables you to become an information systems specialist with a highly sought-after double qualification rooted in business studies and computer science. Making it the ideal basis for a leading role as an expert within the field.



*"Our study programmes in Information Systems offer both theory and methods for dealing with key issues such as big data, digital transformation, and innovation in IT products, processes and business models. Our students will not only gain an understanding of these issues but also develop the skills to find and shape business solutions."*

Prof. Dr. Detlef Schoder, Director Cologne Institute for Information Systems (CIIS) and Academic Director of the M.Sc. Information Systems

# FACTS AND FIGURES ABOUT THE WISO-FACULTY

Studies at the WiSo Faculty of Cologne University help to establish an excellent basis for your further professional and personal career paths. With nearly 9,000 students and a host of departments and academic staff, the WiSo Faculty is one of the largest and most prestigious schools of management, economics and social sciences in Europe.

- ▶ **8,735** national and international students
- ▶ **149** partner universities worldwide\*
- ▶ **97** professors
- ▶ **200** research and teaching assistants
- ▶ more than **100** years in experience

Enrolling in a programme at the WiSo Faculty will give you everything you need to take the next step in furthering your career. One of Germany's largest educational institutions, the Faculty regularly ranks among the top providers of management and business education. The following is an overview of current rankings:

**1<sup>st</sup>**

SCM Journal List Ranking ranks the University of Cologne on the 1st place in Germany.

**1<sup>st</sup>**  
**Sociology**

Sociology is ranked #1 in Germany in the Academic Ranking of World Universities.

**2<sup>nd</sup>**

According to WirtschaftsWoche research ranking 2019, the University of Cologne is one of the most research-intensive German speaking universities. It ranks 2nd place within Germany in business administration.

**2<sup>nd</sup>**

AIS ranked University of Cologne as 2nd in Germany in the field of Information Systems.

**Top**  
**3**  
**CEMS**

CEMS Master's in Management programme is ranked 3rd in Germany in the Financial Times Ranking "Masters in Management 2020"

**Top**  
**PhD**

According to INOMICS (Career Guide for Economists) the school's Cologne Graduate School in Management Economics and Social Sciences is the best place to do a PhD.

State of facts and figures: February 2021

\* The WiSo Faculty maintains excellent partnerships with over 140 leading institutions of higher education across the world on different levels of study, enabling its students to spend time abroad within a range of study and exchange programmes. Students can choose from an attractive range of partner universities, depending on their chosen path of study.

# INFORMATION SYSTEMS (M.SC.)

## Key Facts



**Degree:**  
Master of Science



**Duration:**  
4 Semesters



**Language:**  
English and  
German  
(in selected  
Courses)



**Credits:**  
120 ECTS



**Content:**  
Interdisciplinary discipline of business studies and computer science, which deals with the conception, development, and application of information systems in business, administration and increasingly in our private lives



**International:**  
1 Optional Semester Abroad

## This programme provides you with:

- theoretical and methodological basis for dealing with key issues such as data science, digital transformation and innovation, processes and business models as well as solutions for a sustainable society.
- education in the interdisciplinary field of information systems, which has its roots in computer science, economics, and business management.
- the key capability to bridge business management and computer science that is often required in the labour market.

## This programme is right for you if you:

- have a bachelor degree in computer science, information systems, economics, business administration or related areas.
- provide technical skills related to mathematics and statistics, computer science, especially programming and coding.
- are interested to study in an international and intercultural work environment.
- work as a team player, because working in groups is often practiced in seminars and is an important key factor for later work in companies.
- are ready to take the next step in your career as a broad-based information systems specialist in the corporate world.

Please consider the specific requirements under "Information" on p. 8 or on the website.

A close-up portrait of a young man with short brown hair, wearing a dark blue polo shirt with white stripes on the collar and sleeves. He is looking slightly to the right of the camera with a neutral expression. The background is a blurred green, suggesting an outdoor setting with trees.

*"The study of information system is characterised by a huge interdisciplinarity throughout economics, management, and information systems. What this programme makes unique is the combination between these two fields."*

**Patrick,**  
Student of Master Information Systems at the WiSo-Faculty

# PROGRAMME OVERVIEW

## Preparing you for future challenges

The programme is hosted by the Cologne Institute for Information Systems (CIIS). Members of the CIIS and the CIIS on an institutional level have achieved remarkable recognitions in most recent ranking surveys; e.g., according to WirtschaftsWoche (WIWO) Ranking, a leading German business magazine, professors Wolf Ketter, Christoph Rosenkranz, and Detlef Schoder all rank among the top 5 % of all business researchers in German-speaking countries. In addition, the CIIS is one of the best ranked information systems research institutions worldwide according to the recently released 2021 ranking by the Association of Information Systems (top 50 worldwide, top 10 in Europe and 2nd in Germany).

The CIIS is formed by the research teams at the chairs for:

- Digital Transformation and Analytics
- Information Systems and Information Management
- Information Systems and Integrated Information Systems
- Information Systems and Systems Development
- Information Systems for Sustainable Society

Through your direct contact with the institute's professors, you will receive an excellent education, as professors in the CIIS rank among the top scholars within their fields. Many of our graduates have developed business contacts even before completing their studies.

For detailed information please go to [ciis.uni-koeln.de](https://ciis.uni-koeln.de)

## Link to the practical world

Our faculty has benefited from many years of experience working with companies and with visiting lecturers from a variety of professional fields. These professionals and managers bring highly relevant industry experience to the programme, resulting in sector-specific, up-to-date programme content that combines practice and theory and reflects the real world.



# CURRICULUM

<p style="text-align: center;"><b>Core and Advanced Section</b></p> <ul style="list-style-type: none"> <li>■ Information Systems I</li> <li>■ Information Systems II</li> <li>■ Digital Transformation</li> </ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> <li>■ Information Systems and Environmental Sustainability</li> <li>■ Analytics and Applications</li> <li>■ Digital Transformation and Innovation</li> </ul> <p style="text-align: center;">18 ECTS</p>	
<p><b>Specialisation Section</b> Information Systems 48 ECTS</p>	<p>(Choice of 1) <b>Supplementary Section</b> 18 ECTS</p>
<p><b>Computer Science</b></p>	<p><b>Accounting and Taxation</b></p>
	<p><b>Business Research</b></p>
<p>(Choice of) 3 Seminars, e.g.</p> <ul style="list-style-type: none"> <li>■ Information Systems and Environmental Sustainability</li> <li>■ Analytics and Applications</li> <li>■ Digital Transformation and Innovation</li> </ul>	<p><b>Corporate Development</b></p>
	<p><b>Design &amp; Behavior</b></p>
	<p><b>Markets &amp; Institutions</b></p>
	<p><b>Media Management</b></p>
	<p><b>Growth, Labor and Inequality in the Global Economy</b></p>
	<p><b>Energy Economics</b></p>
	<p><b>Statistics &amp; Econometrics</b></p>
	<p><b>Supply Chain Management</b></p>
	<p><b>Economic Geography</b></p>
	<p><b>Optional Semester abroad</b></p>
<p><b>Master Thesis</b> 30 ECTS</p>	

## From basic knowledge to your personal expert know-how

- Within this programme, the **Core and Advanced Sections** cover the theoretical and methodological basis. You can select between two major groups by choosing the modules *Information Systems I & II and Digital Transformation* or *Information Systems and Environmental Sustainability, Analytics and Applications, and Digital Transformation and Innovation*.
- The **Specialisation Section** teaches major-specific basics and, in addition, advanced skills within the same area. While Computer Science is compulsory, you can also choose another from three areas.
- The **Supplementary Section** serves as an additional section for developing a more specific profile—either by deepening and specialising or by diversifying knowledge. According to our interdisciplinary approach further modules from business administration as well as from social sciences or economics are available to students.
- With the **Master's Thesis** required for the successful completion of your studies, you underline the knowledge and skills you have personally acquired throughout the programme and are ready to continue your career as an expert in your field.

---

# INTERNATIONAL

## English-taught programme

As Information Systems is an international and interdisciplinary subject, an open and international mind is required; courses are taught and literature is almost exclusively in English.

Students from numerous countries apply for admission to our Master of Science in Information Systems programme, so you can be sure of an international and intercultural work and study environment. For instance, within our *Advanced Seminar Information Systems*, you can choose a course in collaboration with students from several countries as China, Norway, Finland, the U.S., etc. and work on international projects.

## Optional semester abroad

Our cooperation agreements with an extensive number of excellent partner universities worldwide provide you with attractive options for your term abroad. In addition, you may enrich your studies through our short programmes in New York and Hong Kong or through a summer school. For more information, offers and advice please contact our International Relations Center (ZIB WiSo).

## Broad international network

This internationally-focused master's programme prepares you with its balanced theory and practice approach to start your career in international-related jobs and enables you to work for internationalised companies.

Additionally, the WiSo Faculty has a broad Alumni network of former students who work across all business segments around the globe.



---

# CAREER OPPORTUNITIES

As a graduate in the interdisciplinary field of information systems, you will find attractive positions that call for your skills as a broad-based specialist. Many of our graduates have developed good business contacts even before completing their studies. Because of their broad-based, specialised education, you as a graduate will be able to work in any field and in any position related to IT and economics, including IT consultancies.

Exemplary job opportunities are:

- IS Project Management and Systems Engineering
- Data Analytics and Data Science
- Digital Transformation and Innovation
- Green IS, Smart Energy and Sustainability
- Trainee Programmes
- Consulting
- Academic Research
- Start-ups and Entrepreneurs

Some of our graduates choose to specialise further and work as, for instance, data analysts, data scientists, or entrepreneurs. Our leading partners in industry, ranging from large insurance companies to mid-sized software-development companies, value our graduates as they are ready for action. Our graduates are also involved in start-ups, so if you are interested in setting up your own enterprise, you can count on the university's support.

For all those who are interested in academic research after finishing their master studies, the CIIS and the University of Cologne Graduate School (CGS) provides students with competitive master results the possibility for a postgraduate programme (Ph.D.).

At the same time, the M.Sc. degree is, of course, an excellent base for applying for graduate degree programmes at other national and international universities.

---

*"Professors were always happy to provide feedback and offered their support when needed. During my studies, I could see how elements such as coursework, research, and impact worked together to guide my personal development and to improve the overall experience of the students."*

Prof. Dr. Julian Lehmann, Assistant Professor of Digital Innovation and Entrepreneurship at KIN Center for Digital Innovation and Alumnus of the Faculty of Management, Economics and Social Sciences, University of Cologne



# COLOGNE

## An open minded and science-centred city!

Cologne is located within a metropolitan area of about 13 million people in the heart of Germany's economy which makes it easy for students and faculty to collaborate with great companies. It is one of Germany's most attractive locations and offers a vibrant student life.

With around 100,000 students and a lively start-up culture, Cologne is the economic and scientific centre of the Rhineland region. In addition to 17 universities and business schools, the area is also home to numerous internationally renowned research institutions as ESA European Space Agency or Gesis – Leibniz Institute for Social Sciences, with knowledge transfer to industry and society playing a key role. Successful transfer structures include the university's Excellence Start-Up Center GATEWAY start-up service, the start-up network cologne e.V. and the Digital Hub Cologne.

Cologne is also proud of its reputation as a vibrant and tolerant city and at the same time being both multicultural – with 18% non-German residents – and strong in its local identity. Karneval, Cologne's famous carnival season every February, and the popular local beer "Kölsch", brewed exclusively in Cologne, are only two examples of the vivid cultivation of the city's traditions.

- ▶ Over **1 million** inhabitants in the city of Cologne
- ▶ **13 million** inhabitants in the metropolitan area of Cologne
- ▶ More than **100,000** students in Cologne
- ▶ Over **one third** of Cologne's total area is covered by public parks, sports grounds and nature areas
- ▶ **1** famous Gothic cathedral, the "Kölner Dom"
- ▶ **Unlimited** opportunities to fall in love with the city

Latest issue official Cologne Facts & Figures 2017



*Liebe deine Stadt*



# INFORMATION

## Application information and requirements

Application process and deadline:

- Applicants with a German bachelor degree apply via the WiSo Faculty's master application portal
- Applicants with a non-German bachelor degree apply via the WiSo Faculty's master application portal and additionally via uni-assist
- Application deadline is **June 15th**

Requirements and selection procedure:

A Bachelor degree or equivalent in the respective field (worth at least 180 ECTS credits) and an overall grade point average of at least 2.7 (German grade). Applicants must meet the following requirements:

- At least 20 ECTS credits in Information Systems
- At least 30 ECTS credits in Business Administration and Economics
- At least 30 ECTS credits in Informatics and/or Mathematics and/or Statistics
- English language skills level B2 CEFR
- German language skills level C1 CEFR

The Admissions Board will communicate its decision by the end of July. Enrolment usually takes place in August.

## Detailed information and contact

We are happy to support you in your ambitions: for students the WiSo Student Service Point offers not only advice on studying but also support on all aspects of career choice, career planning and the application process:



WiSo Student Service Point  
Phone: +49 (0) 221/470-8818  
[wiso-studentservice.uni-koeln.de](https://wiso-studentservice.uni-koeln.de)





*"Being one of the largest Faculties of Business, Economics, and Social Sciences worldwide, we bring together excellent researchers, students, alumni, and organisations in a friendly and stimulating environment to jointly address today's challenges. Our Faculty is part of an outstanding network of universities. Furthermore, we have a truly international campus, that attracts many international students and partners. All this leads to a great reputation in teaching and research, which is reflected in our excellent rankings."*

Prof. Ulrich W. Thonemann, PhD  
Dean



Today's ideas.  
Tomorrow's impact.

Faculty of Management, Economics and Social Sciences  
University of Cologne  
Albertus Magnus Platz  
50923 Cologne  
[www.wiso.uni-koeln.de](http://www.wiso.uni-koeln.de)



**PRME**

an initiative of the  
United Nations Global Compact