Introduction to the Master’s program

*Information Systems Management (Wirtschaftsinformatik)*

Prof. Dr. Stefan Tai
Welcome

„Information Systems“ – today and tomorrow

The ISM Master's program

Organizational information

Q&A with student counselors
A Connected World

Source: IDC Government Insights
Disruptive innovations and game changers
5 Reasons Businesses Use the Cloud

Every year, more and more businesses are adopting cloud. While traditionally thought of as an IT decision, cloud is increasingly being considered a business decision to enable company functions. Take a look at five reasons why more businesses are adding the cloud to their technology arsenals.

1. It offers better insight and visibility
   Businesses are using cloud technology to support their analytics efforts. Of leading organizations:
   - 54% use analytics extensively to derive insights from big data
   - 59% use cloud to share data seamlessly across applications
   - 59% intend to use cloud to access and manage big data in the future

2. It makes collaboration easy
   Cloud allows work to be accessed from anywhere on multiple devices, making cross-functional collaboration much easier. Here’s what leading organizations—those that are gaining competitive advantage through cloud—cited as popular uses:
   - 58% collaborate across the organization and ecosystem
   - 59% improve integration between development and operations

3. It can support a variety of business needs
   Companies are forging a tighter link between technology and business outcomes. Take a look at the business functions companies have migrated to the cloud:
   - 18% messaging
   - 15% storage
   - 13% office/productivity suites

4. It allows for rapid development of new products and services
   The cloud offers businesses valuable capabilities. Here’s what leading organizations say it enables them to do:
   - 52% use it to innovate products & services rapidly
   - 24% are able to offer additional products & services

5. The results are proven
   From business growth to increased efficiency, businesses using cloud are realizing benefits across the company:
   - 25% of businesses saw a reduction in IT costs
   - 55% saw an increase in efficiency
   - 49% saw improvement in employee mobility

Sources: CDW, IBM Center for Applied Insights
Emerging Ecosystems

The Sharing Universe

Companies that facilitate sharing have grown widely across many industries—shown here by amount of money raised by investors.

Source: Time magazine
# The Digital Enterprise

## Device Connectivity & Management
- Gain visibility, access and control to devices and processes
  - Azure Event Hub, etc.

## Data Management & Insights
- Manage KPIs to improve operational performance and decision making
  - SQL (IE & Azure)
  - PDW & Power BI

## Advanced Analytics
- Anticipate problems and deliver new value added services
  - HD Insights
  - Azure ML

## Business Productivity & Process Optimization
- Enable Business Process Automation, Operators and Service Engineers
  - Hardware - Phone, Tablet, PC
  - CRM, O365, App

## Source: Microsoft
“Information Systems [Engineering/Management]”

...has traditionally been about:
“practical and theoretical problems of collecting and analyzing information in a business function area including business productivity tools, applications programming and implementation, electronic commerce, digital media production, data mining, and decision support” [Wikipedia]

...today is increasingly about:

„Decisions in computer science of [corporate] strategic relevance“:

*Without a profound knowledge in computer science strategic decision making is no longer possible*

➢ „Computer Science + Management“
IT Transformation: Connecting penthouse and engine room

Many large enterprises are feeling pressure from digital disruptors who attack with brand-new business models and aren’t held back by legacy or infrastructure assets. Transforming successful enterprises that are built around traditional technology and organizational structures to compete in the digital world requires a direct connection between the penthouse, where the business strategy is set, and the engine room, where the enabling technology is implemented. I call this connection the Architect Elevator.

Gregor Hohpe, https://architectelevator.com/
# The Information Systems Management Master’s Program

## Key Information

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<thead>
<tr>
<th><strong>Title</strong></th>
<th>Information Systems Management (Wirtschaftsinformatik)</th>
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</table>
| **Starting dates** | April (*summer semester*)  
October (*winter semester*) |
| **Credit points** | 120 |
| **Duration** | 4 semesters |
| **Degree** | Master of Science (M.Sc.) |
| **Languages** | English, German |

## Main Website

- [Main Website](http://www.eecs.tu-berlin.de/menue/studium_und_lehre/studiengaenge/wirtschaftsinformatik/master/)

## Study guide

- [Study guide](http://www.eecs.tu-berlin.de/menue/studium_und_lehre/informationsmaterial/)
# Organization of the Master’s program

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<tr>
<th>120 CP</th>
<th>Information Systems Management (Wirtschaftsinformatik)</th>
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<tr>
<td>1st semester 30 CP</td>
<td><strong>Studies in Information Systems</strong>&lt;br&gt;(Fachstudium Wirtschaftsinformatik)&lt;br&gt;24 to 30 CP</td>
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<tr>
<td>2nd semester 30 CP</td>
<td><strong>Studies in Computer Science</strong>&lt;br&gt;(Fachstudium Informatik)&lt;br&gt;18 to 24 CP</td>
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<tr>
<td>3rd semester 30 CP</td>
<td><strong>Studies in Economics &amp; Management</strong>&lt;br&gt;(Fachstudium Wirtschaft &amp; Management)&lt;br&gt;18 to 24 CP</td>
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<tr>
<td>4th semester 30 CP</td>
<td><strong>Electives</strong>&lt;br&gt;(Wahlbereich)&lt;br&gt;12 to 18 CP</td>
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"Study Areas"

ET
- Electrical Power Engineering
- Electronics, Photonics und Integrated Systems
- Communication Systems
- Automation Control

CE
- Digital Media and Human-Computer-Interaction
- Embedded Systems and Computer Architectures

ISM (WI)
- Information Systems
- Distributed Systems and Networks
- Cognitive Systems
- Data and Software Engineering
- Foundations of Computing

CS (I)
What is a Study Area?

- ... accumulates modules of different chairs (Fachgebiete) under a specific focus to provide a professional deepening and profiling
- ... offers a better orientation within the module offering of Faculty IV

Quick Access: 184947
Program Structure

Core Studies (Fachstudium)

**Studies in Information Systems (Fachstudium Wirtschaftsinformatik)**
Compulsory elective modules worth 24 to 30 CP from the study area

- Information Systems (Informationssysteme)

**Studies Computer Science (Fachstudium Informatik)**
Compulsory elective modules worth 18 to 24 CP from one of the study areas

- Distributed Systems and Networks (Verteilte Systeme und Netze)
- Data and Software Engineering
Program Structure

Core Studies (Fachstudium)

Studies in Economics & Management (Fachstudium Wirtschaft und Management)
Compulsory elective modules worth 18 to 24 CP from the catalog

• Business, Economics and Management
Program Structure

Core Studies (Fachstudium)

Classes at TU Berlin are categorized as

- Lectures (VL – Vorlesungen)
- Exercises (UE – Übungen)
- Seminars (SE – Seminare)
- Integrated lectures consisting of lectures and exercises (IV – Integrierte Veranstaltung)
- Projects (P – Projekte)

**Important:**
Modules of >=12 CP must belong to the Project category
Program Structure

Electives & Master's Thesis

Electives
Students may choose *any modules* worth **12 to 18 CP** from the entire range of courses offered at scientific institutions of higher education in the Berlin-Brandenburg region.

Master's thesis
worth **30 CP**, see next slide for main research areas

*After successfully completing the Master's program you will receive the academic degree 'Master of Science' (M.Sc.)*
Support

Student Counseling
Room MAR 6.021
Tel. 314 - 2 10 05 | studienberatung-cs@eecs.tu-berlin.de
Consultation hours: online (Quick Access 147510)

Examination Board Information Systems Management (Prüfungsausschuss Wirtschaftsinformatik)
The Examination Board is responsible for all issues related to examinations, including:

• Designating examiners and co-examiners
• Recognition of grades or credits earned outside Faculty IV
• Granting approvals of non-required courses
• Granting approvals for deadline extensions and exceptions
Chair: Prof. Dr. Sabine Glesner

Office of the Examination Boards of Faculty IV
Office: Room MAR 6.023 | eb-ism@eecs.tu-berlin.de
Consultation hours: Mon 2 - 4pm (pre-registration necessary)
Website: Quick Access 35561
Academic Coordinator  
Prof. Dr.-Ing. Stefan Tai | tai@tu-berlin.de  
Office: Anita Hummel | Room EN-247a  
Tel. 314 - 7 32 60 | anita.hummel@tu-berlin.de  
Consultation by arrangement

„Freitagsrunde“ – Student Initiative of Faculty IV  
http://wiki.freitagsrunde.org/Hauptseite  
Office: Room MAR 0.005  
Tel. 314 - 2 13 86/- 7 57 69 | info@freitagsrunde.org
Thank You

and

Best wishes for your studies!