



Universität
Zürich^{UZH}

Department of Informatics IfI



Master Program in Informatics: Software Systems

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IfI: The Department of Informatics

- Founded in 1970 (IfI = Institut für Informatik)
- Part of the Faculty of Business, Economics and Informatics
- Focus on human-centered informatics
- 21 Professors, 130 PhD students and Post-Docs
- 550 Bachelor's students
- 650 Master's students
- Campus Oerlikon



You!



IfI Professors

	Alberto Bacchelli Zurich Empirical Software Engineering Team		Jürgen Bernard Interactive Visual Data Analysis Group		Abraham Bernstein Dynamic and Distributed Information Systems Group		Eva Bittner Human-centered Information Systems Engineering		Michael Böhlen Data- Base Technology Group		Ivan De Oliveira Nunes Security and Privacy of Information, Networks, and Systems		Thomas Fritz Human Aspects of Software Engineering
	Harald Gall Software Evolution and Architecture Lab		Anikó Hannák Social Computing Group		Elaine Huang Zurich People and Computing Lab		Lena A. Jäger Digital Linguistics		Dan Olteanu Data Systems and Theory Group		Renato Pajarola Visualization and Multi- Media Lab		Giorgia Ramponi Autonomous Sequential Learning and Predictive Intelligence Lab
	Jana Rehse Information Systems in Organizations		Theodoros Rekatsinas Large- Scale Systems		Davide Scaramuzza Robotics and Perception Group		Gerhard Schwabe Information Management Research Group		Rico Sennrich Text Technology		Burkhard Stiller Communication Systems Group		Claudio Tessone Blockchain and Distributed Ledger Technologies

General Information Online

Dean's Office: <https://www.oec.uzh.ch/en/studies.html>

➤ Study Regulations, Admission, Enrollment, Changing Programs, Course Booking, Important Dates, Petitions/Appeals, ...

IfI: <https://www.ifi.uzh.ch/en/studies/msc-info.html>

➤ Specific to Informatics: Fact Sheets (legally binding!), Topics/Professors, Tutors, also these slides for later reference

Please read the regulations and fact sheets!

The presentations held at the **Faculty's Master Welcome Day** are available from:

<https://www.oec.uzh.ch/en/studies/events/mwd.html>



Structure of the MSc Programs

All programs comprise...

- a compulsory module
- a Master's Project (group work!)
- modules from core/elective areas
- a Master's Thesis at the end

More on these components on the next slides...

You find these slides at:

www.ifi.uzh.ch > Academic Programs >
Master in Informatics

Five Major MSc study programs				90 ECTS credits
Information Systems IS	Software Systems SOSY	Human-Centered Computing HCC	Artificial Intelligence AI	Data Science DS
Compulsory module 6 ECTS	Compulsory module 6 ECTS	Compulsory module 6 ECTS	Compulsory module 6 ECTS	Compulsory module 6 ECTS
Master's project 15 ECTS				
Core elective area 18 ECTS	Core elective area 18 ECTS	Core elective area 18 ECTS	Core elective area 18 ECTS	Core elective area 18 ECTS
INF elective area 15 ECTS				
Free elective area 6 ECTS				
Master's thesis 30 ECTS	Master's thesis 30 ECTS	Master's thesis 30 ECTS	Master's thesis 30 ECTS	Master's thesis 30 ECTS

Compulsory Module

The compulsory module is specific to your study program.

Fundamentals of Software Systems

Introduction to advanced topics pertaining to the development and evolution of software systems, particularly distributed, data-intensive systems and their maintenance and evolution.

Prerequisites

Knowledge of bachelor level topics of distributed systems, databases, and software engineering are necessary for both the lab assignments and following the lectures.

Master's Project

The Master's Project...

- is a **group project** (= at least 2 IfI students)
- is an **intensive and demanding** project worth 15 ECTS credits
- best time: During semester break
- max. 12 months to complete
- must be supervised by an IfI professor

➤ **Check the fact sheet!**

IfI organizes a **Master's Project Market** each semester

➤ Some open projects are presented and you can find peers

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Master's project 15 ECTS					
Core elective area 18 ECTS	Core elective area 18 ECTS	Core elective area 18 ECTS	Core elective area 18 ECTS	Core elective area 18 ECTS	
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Free elective area 6 ECTS					
Master's thesis 30 ECTS	Master's thesis 30 ECTS	Master's thesis 30 ECTS	Master's thesis 30 ECTS	Master's thesis 30 ECTS	

Elective Areas

Core elective area

Specific to your Major study program (IS, SOSY, HCC, AI, or DS).

INF elective area

All modules offered by IfI on the Master's level (definition in the Study Regulations, p. 31)

Free elective area

All modules offered on the Master's level (definition in the Study Regulations, p. 31)

Five Major MSc study programs					90 ECTS credits
Information Systems	Software Systems	Human-Centered Computing	Artificial Intelligence	Data Science	
IS	SOSY	HCC	AI	DS	
Compulsory module 6 ECTS	Compulsory module 6 ECTS	Compulsory module 6 ECTS	Compulsory module 6 ECTS	Compulsory module 6 ECTS	
Master's project 15 ECTS					
Core elective area 18 ECTS	Core elective area 18 ECTS	Core elective area 18 ECTS	Core elective area 18 ECTS	Core elective area 18 ECTS	
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Free elective area 6 ECTS					
Master's thesis 30 ECTS	Master's thesis 30 ECTS	Master's thesis 30 ECTS	Master's thesis 30 ECTS	Master's thesis 30 ECTS	

Core Elective Area: SOSY

In the SOSY area, the compulsory module is **Fundamentals of Software Systems**

The core elective modules are:

Advanced Programming, Advanced Software Engineering, Blockchains and Overlay Networks, Communication Systems Lab Course, Effective Software Testing, Global Software Management, Human Aspects of Software Engineering, IT Security, Mobile Communication Systems, Object-Oriented Software Development, Protocols for Multimedia Communications (PMMK), Requirements Engineering I, Software Systems Reliability Lab, Systems for Data Science, Understanding Programming Languages.

Overview only for your convenience.
Only the online course catalogue contains binding information!

Five Major MSc study programs					90 ECTS credits
Information Systems IS	Software Systems SOSY	Human-Centered Computing HCC	Artificial Intelligence AI	Data Science DS	
Compulsory module 6 ECTS	Compulsory module 6 ECTS	Compulsory module 6 ECTS	Compulsory module 6 ECTS	Compulsory module 6 ECTS	
Master's project 15 ECTS					
Core elective area 18 ECTS	Core elective area 18 ECTS	Core elective area 18 ECTS	Core elective area 18 ECTS	Core elective area 18 ECTS	
INF elective area 15 ECTS					
Free elective area 6 ECTS					
Master's thesis 30 ECTS	Master's thesis 30 ECTS	Master's thesis 30 ECTS	Master's thesis 30 ECTS	Master's thesis 30 ECTS	

Master's Thesis

The Master's Thesis...

- is a **full-time endeavor** worth 30 ECTS credits (i.e., no significant side jobs or other study activities possible)
- max. six months to complete
- can only be started once the Master's Project has been successfully completed
- must be supervised by an IfI professor

➤ **Check the fact sheet!**

- Find topics on the IfI website (check the individual group pages) or contact the groups directly.

Five Major MSc study programs					90 ECTS credits
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Master's project 15 ECTS					
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Further Modules

Seminar

- one IFl seminar is mandatory
- recommended from 2nd semester
- check the Course Catalogue early and register for the seminar within the seminar's application deadline

➤ **Note: this deadline is shorter than the regular module booking deadline!**

Independent Study

- Optional module

➤ **Check the fact sheet!**

➤ **Please consult the Framework Ordinance and the Program Regulations; they are the only complete and legally-binding documents**

External Modules

- ETH: <https://www.oec.uzh.ch/en/studies/credits/external-eth.html>
- Mobility within Switzerland: <https://www.uzh.ch/cmsssl/en/studies/application/chmobilityout.html>
- International exchange: <https://www.int.uzh.ch/en/out.html>
- Partner universities: <https://www.oec.uzh.ch/en/international/engagement.html>

SOSY – Software Systems

What else do you need to know about SOSY?

Main professors:

Alberto Bacchelli	Empirical Software Engineering
Burkhard Stiller	Communication Systems
Harald Gall	Software Evolution and Architecture
Ivan De Oliveira Nunes	Security and Privacy of Information, Networks, and Systems
Michael Böhlen	Database Technology
Thomas Fritz	Human Aspects of Software Engineering

It is possible to change the Major under certain conditions: <https://www.oec.uzh.ch/en/studies/enrollment/change.html>

Minor

Available Minor programs are listed in the Course Catalogue:

<https://studentservices.uzh.ch/uzh/anonym/vvz/index.html>

➤ Master of Science UZH in Informatics (RVO22) > Minor 30

Note: Modules in the *Minor area Informatics (INF)* are offered only in the Fall semester. There are no modules in the *Minor area Informatics* in the Spring semester. Take this into account when planning your next few semesters.

You can change your Minor under certain conditions:

<https://www.oec.uzh.ch/en/studies/enrollment/change.html>

Study programs (22)

> Major 90

▼ Minor 30 - Faculty of Business, Economics and Informatics

Artificial Intelligence

Banking and Finance

Business Administration

Data Science

Economics

Finance

Informatics

Information Systems

▼ Minor 30 - Other Faculties

Computational Linguistics and Language Technology

Bioinformatics

Biology

Chemistry

Geography

Hints (1/3)

- **Focus on the compulsory modules** in your Major and Minor programs
- **Make a study plan**
- Check course schedule of previous years for planning. Courses often stay in the same slot. Suggested order:



- **Read the fact sheets** well before starting the respective module or thesis
- All legally binding information regarding modules, incl. exam dates, are in the UZH Course Catalogue. Most modules additionally have a website or OLAT course, but **the Course Catalogue is binding**

Hints (2/3)

- **Check the study websites** of the Faculty and the Department:
 - <https://www.oec.uzh.ch/en/studies.html>
 - <https://www.ifi.uzh.ch/en/studies/msc-info.html>
- Note that **booking/cancellation deadlines** may vary between faculties.
- Working at IfI: Some modules/courses seek **Tutors**.
- Check out <https://www.ifi.uzh.ch/en/studies/msc-info.html> and the individual group pages.
- Mentoring, social events, representatives: Informatics **student association ICU**: <https://icuzh.ch>

Hints (3/3)

- **Consider the policies on plagiarism and scientific integrity.** You find the fact sheet on plagiarism on this website:
 - <https://www.ifi.uzh.ch/en/studies/msc-info.html>
 - The Swiss Academies of Arts and Sciences issued a Code of conduct for scientific integrity:
<https://swiss-academies.ch/publications/kodex-fur-wissenschaftliche-integritat>
- UZH provides a number of **advice and support services** for topics such as Gender Equality and Diversity, Disability, or Psychological Counseling:
 - <https://www.students.uzh.ch/en/advice.html>
- **Practise passive and active English without tools** (in exams, no translation tools are permitted)
 - UZH offers English courses: <https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Englisch.html>

Questions/Whom to Contact

If you have questions, please follow these steps:

1. Read the Study Regulations: <https://www.oec.uzh.ch/en/studies/regulations.html>
2. Read the Ifl's study information and fact sheets: <https://www.ifi.uzh.ch/en/studies/msc-info.html>
3. Check information in the Course Catalogue: <https://studentservices.uzh.ch/uzh/anonym/vvz/index.html>
4. Send e-mail to the respective person:

For questions about

- Master Projects
- Independent Studies
- Master Theses
- Informatics studies in general

Contact the Ifl's Study Coordinator,
Daniela Bärtschi: studies@ifi.uzh.ch

For questions specific to a course: Contact the instructor.

For everything else, contact the Dean's Office:
<https://www.oec.uzh.ch/en/staff/team.html> (Study Affairs)

And of course you can ask your fellow students, for example by joining the student association ICU: <https://icuzh.ch>

Did you know?

The Informatics Library is part of the UB Sciences on the Irchel campus!

Books can be delivered to Oerlikon free of charge:

<https://t.uzh.ch/1mr>

or <https://www.ub.uzh.ch/en>

