# CURRICULUM

## MASTER DEGREE PROGRAM IN INFORMATION SYSTEMS

### AT WU VIENNA UNIVERSITY OF ECONOMICS AND BUSINESS

(as amended by the resolutions of the Committee for Academic Programs dated January 18, 2007, July 10, 2008, May 14, 2009, March 4, 2010, May 10, 2011, October 11, 2011, June 5, 2012, and January 14, 2014, approved by the Senate of WU Vienna University of Economics and Business on January 24, 2007, July 11, 2008, May 27, 2009, March 17, 2010, May 18, 2011, October 19, 2011, June 20, 2012, October 17, 2012, December 12, 2012, and January 29, 2014)

On January 24, 2007, the Senate of WU Vienna University of Economics and Business approved the following resolution by the Committee for Academic Programs of January 18, 2007 on the curriculum for the Master Degree Program in Information Systems, in accordance with the Federal Act on the Organization of Universities and their Studies (*Universitätsgesetz*, Universities Act 2002), Federal Law Gazette BGBl.I No. 120/2002 as amended.

## § 1 Objectives

The Master Degree Program in Information Systems is intended to provide a design-oriented education in information systems based on a broad knowledge of management, with a differentiated perspective on basic human-machine interaction and the ethical aspects of information systems.

Students learn the necessary management and research skills to implement IT systems in organizations. The main focus of the program is imparting management skills for IT projects, based on a broad knowledge base in the field of information technologies. Students gain methodological and research qualifications and profound specialist knowledge in IT-related issues through advanced electives.

According to these fundamental principles, the program prepares its graduates for a wide range of potential positions:

- Employees in the IT department of large organizations (e.g. Financial service providers, public administration) as IT managers, IT analysts or IT developers, etc.
- Employees of IT companies (e.g. IBM, SAP, Microsoft, software companies)
- Employees of consulting firms in the field of IT services
- Entrepreneurs in the field of IT services

The analysis, design, planning and development of information systems, organizing and managing IT projects and services, IT consulting, and the sale of IT solutions are among the graduate's' most important fields of activity.

The field of information systems is located in the interdisciplinary interface between practical business applications and information technologies. To provide an academic education, the program is diversified and allows graduates to choose from numerous

professional options while guaranteeing sufficient basic knowledge of the subject. Information systems professionals are expected to remain up-to-date on the needs of IT users at all times, to be able to fulfill these needs using the most recent information technology. Graduates are given the tools they need to evaluate and actively design information systems, and to realize their ideas constructively in operating systems. Inventively and creatively, they determine the design and continuous further development of business information systems (or related IT products) to implement new business ideas and to be able to react to changes in prevailing conditions appropriately. In addition, the critical examination and discussion of current research results provides the foundation for a potential further academic career.

After completion of the program, graduates should be able to:

- Analyze the design of IT systems (particularly business information systems) from various perspectives, transfer development and improvement potential into technically and economically well-founded decisions, and critically analyze and evaluate these decisions

- Have the skills to plan, design, coordinate and implement IT-supported business processes (taking modern information techniques, ergonomic and legal aspects as well as economic restrictions into account)

- Create long-term, sustainability-oriented concepts for the development of information systems. This includes developing system architecture, delineating information subsystems, and determining the demand for new IT systems or for changes to existing systems; this also includes for example evaluating the potential or effects of IT systems in everyday use (mobile systems, integrated systems, geoinformatics systems, etc.)

- Implement system development projects, working alone or in a team, depending on the size of the project, using strongly or loosely structured IT process management techniques

- Support end users with IT systems-related problems and compensate skills deficits using IT-supported knowledge management methods or targeted training

- Communicate even complex issues and problem cases understandably and appropriately to both experts and laypeople

- Follow and evaluate the current development of knowledge and approaches in the field of information systems from a variety of sources (scientific publications, databases, journals, etc.), and continually develop personal skills and competence in the sense of life-long learning

# § 2 Admission Requirements

(1) The prerequisite for admission to the Master Degree Program in Information Systems is the successful completion of a bachelor degree program or a Fachhochschule (university of applied sciences) bachelor program or an equivalent first-degree program in a relevant discipline at a recognized post-secondary educational institution in Austria or abroad. Admission to the Master Degree Program in Information Systems is regulated by a selection procedure pursuant to § 64 (6) of the Universities Act 2002.

(2) Dual application of examinations to the Master Degree Program in Information Systems through recognition of examinations completed in the first-degree program in a relevant discipline pursuant to (1) is not permissible.


# § 3 Classification, Structure, Total Credit Hours and ECTS

(1) The Master Degree Program in Information Systems is a degree program in social and economic sciences within the meaning of § 54 (1) of the 2002 University Act.

(2) The 4-semester Master Degree Program in Information Systems is made up of 120 ECTS credits and 45 credit hours. The master thesis is worth 30 ECTS credits, and the subjects of the Master Degree Program in Information Systems account for the remaining 90 ECTS credits.

(3) The Master Degree Program in Information Systems will be held entirely in English.

# § 4 Types of Examinations

The examination types indicated in this curriculum are defined in the examination regulations of Vienna University of Economics and Business. This Curriculum, together with the Exam Regulations, forms a curriculum pursuant to § 25(1) item 10 of the Universities Act 2002.


# § 5 Classes and Examinations in the Core Subjects

The Master Degree Program in Information Systems has courses and examinations worth 50 ECTS credits in the following compulsory subjects:

| Course title | ECTS | Credit hours | Type of examination |
|---|---|---|---|
| *In Information Systems and Organizations (14 ECTS)*: | | | |
| Business Information Systems | 4 | 2 | PI* |
| Business Process Management | 4 | 2 | PI |
| Data Mining and Decision Support Systems | 6 | 3 | PI |
| *In Information Systems and Organizations (16 ECTS):* | | | |
| Innovation Management | 4 | 2 | PI |
| IT Governance and Controlling | 4 | 2 | PI |
| IT Strategy | 4 | 2 | PI |
| Introduction to IT Law | 4 | 2 | PI |
| *In Information Systems Development (20 ECTS):* | | | |
| Database Systems | 4 | 2 | PI |
| Distributed Systems | 4 | 2 | PI |
| Information Systems Development | 4 | 2 | PI |
| User-Centered Information Systems Design, Strategy and Technology | 4 | 2 | PI |
| Theory of Computation | 4 | 2 | PI |

*prüfungsimmanent* (PI), i.e. course with continuous assessment of student performance

# § 6 Electives

(1) Students are required to complete electives worth a total of 40 ECTS credits (20 credit hours). Students must select either two IT specializations pursuant to (2) or one IT specialization and 2 fields of competence pursuant to (3). Please note that (4) applies. All electives are courses with continuous assessment of student performance (PI).

(2) Each IT specialization consists of courses worth a total of 20 ECTS credits (10 credit hours). Each IT specialization concludes with a practically oriented, integrative project seminar, in which students can review and further develop the necessary management and social skills. The following IT specializations are available:

1. Information Systems Service Management
2. Information Systems Processes
3. Information Systems Engineering

(3) Each field of competence consists of courses worth a total of 10 ECTS credits (5 credit hours). Fields of competence include, for example:

1. Business Analytics
2. ICT Law
3. Information Systems Management and Accountability
4. Sustainable Information Systems
5. Spatial Business Intelligence

(4) The IT specialization "Information Systems Service Management" may not be selected in combination with either of the fields of competence "Information Systems Management and Accountability" or " Sustainable Information Systems".

(5) The Vice-Rector for Academic Programs and Student Affairs shall, in consultation with the Academic Director responsible for the program in question, determine the specific course program, with regard to curricular issues, and submit them to the Committee for Academic Programs. The Committee for Academic Programs is entitled to revoke the Vice-Rector's decision in its subsequent meeting with regard to curricular matters and determine a course program itself. The finalized course program is to be published in the bulletin (*Mitteilungsblatt*) of WU Vienna University of Economics and Business in a timely manner. In the event of changes, to protect the interests of those students who had justifiably relied on being able to complete their examinations according to the previously valid regulations, the Vice-Rector for Academic Programs and Student Affairs shall provide for adequate transitional measures and submit these to the Committee for Academic Programs. The Committee for Academic Programs is entitled to revoke the Vice-Rector's decision in its subsequent meeting and may instead determine transitional provisions itself.

# § 7 Specific Requirements for Admission to Examinations

(1) The successful completion of the courses "Innovation Management" and "IT Governance and Controlling" is the prerequisite for admission to the examinations of the IT specialization "Information Systems Service Management".
(2) The successful completion of the courses "Business Process Management" and "Information Systems Development" is the prerequisite for admission to the examinations of the IT specialization "Information Systems Processes".

(3) The successful completion of the courses "Distributed Systems" and "Information Systems Development" is the prerequisite for admission to the examinations of the IT specialization "Information Systems Engineering".

(4) The successful completion of the course "Data Mining and Decision Support Systems" is the prerequisite for admission to the examinations of the field of competence "Business Analytics".

(5) The successful completion of the course "Introduction to IT Law" is the prerequisite for admission to the examinations of the field of competence "IT Law".

(6) The successful completion of the course "IT Governance and Controlling" is the prerequisite for admission to the examinations of the field of competence "Information Systems Management and Accountability".

(7) The successful completion of the course "User-Centered Information Systems Design, Strategy and Technology" is the prerequisite for admission to the examinations of the field of competence "Sustainable Information Systems".

(8) The successful completion of the course "Business Information Systems" is the prerequisite for admission to the examinations of the field of competence "Spatial Business Intelligence".

# § 8 Studies Abroad

In the course of the preliminary decision procedure, when reviewing a student's study program for his/her planned studies abroad, it should be ensured that the courses to be attended at the university abroad are relevant in the overall context of the Master Degree Program in Information Systems

# § 9 Master Thesis

(1)     Each student is obliged to submit a master thesis worth 30 ECTS credits.

(2)     In their master theses, the students have to demonstrate their ability to independently handle a topic with the help of academic research methods.

(3)      The topic of the master thesis is to be chosen from one of the two chosen electives. Students are entitled to propose a topic themselves or to select one from a number of suggestions made by the available supervisors. Apart from that, § 33 of the Bylaws of the Vienna University of Economics and Business applies.

# § 10 Completion of the Master Program

After a student has successfully completed all required examinations and the master thesis, a certificate will be issued evidencing the successful completion of the Master Degree Program in Information Systems.

# § 11 Academic Degree

Graduates of the Master Degree Program in Information Systems will be awarded the academic degree "Master of Science (WU)", abbreviated as "MSc (WU)".

# § 12 Effective Date

(1) The amendments of this curriculum, as pursuant to resolutions of the Committee for Academic Programs dated July 10, 2008, May 14, 2009, March 4, 2010, may 10, 2011,

and October 11, 2011, approved by the Senate on July 11, 2008, May 27, 2009, March 17, 2010, May 18, 2011, and October 19, 2011 respectively, shall take effect on October 1, 2012.

(2) This Curriculum shall replace the curriculum for the program referred to in German as the "*Magisterstudium*" in Information Systems pursuant to the resolution of the Committee for Academic Programs dated June 6, 2005, approved by the Senate on June 8, 2005.

(3) The amendments to this Curriculum pursuant to the resolution of the Committee for Academic Programs dated June 5, 2012, approved by the Senate on June 20, 2012, will enter into force on October 1, 2012.

(4) The amendments to this Curriculum pursuant to the resolution of the Committee for Academic Programs dated October 9, 2012, approved by the Senate on October 17, 2012, will enter into force on October 1, 2013.

(5) The amendments to this Curriculum pursuant to the resolution of the Committee for Academic Programs dated November 20, 2012, approved by the Senate on December 12, 2012, will enter into force on October 1, 2013.

(6) The amendments to this Curriculum pursuant to the resolution of the Committee for Academic Programs dated January 14, 2014, approved by the Senate on January 29, 2014, will enter into force on October 1, 2014.


# § 13 Expiration of the *Magisterstudium* in Information Systems and Transitional Provisions

(1) The curriculum for the *Magisterstudium* in Information Systems in force at WU Vienna University of Economics and Business on September 30, 2012 shall expire on October 1, 2012, as provided by the transition regulations contained in the following paragraphs. The expiring curriculum was enacted in compliance with the Austrian Federal Act on University Studies, the University Studies Act (*Universitäts-Studiengesetz* – UniStG), Federal Law Gazette BGBl I 48/1977.

(2) After the fall semester 2011/12, it will no longer be possible to enroll in the *Magisterstudium* in Information Systems.

(3) Students currently enrolled in the *Magisterstudium* in Information Systems at WU when this Curriculum comes into effect are entitled to complete the program by the end of the summer semester 2014, under the provisions of the curriculum valid on September 30, 2012.

(4) If the program cannot be completed within the allotted time, the student will automatically be subject to the provisions of the Curriculum for the Master Degree Program in Information Systems as amended for the duration of his/her studies.

(5) Students are entitled to change to the new curriculum at any time.

(6) For students subject to the new curriculum, the selection procedure stipulated in §2 (1) of this Curriculum shall apply pursuant to § 64 (6) of the Universities Act 2002.