

Degree program and examination regulations for the Master's degree program in International Information Systems (IIS) at the Faculty of Business, Economics, and Law at Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) – FPOIIS – Dated February 29, 2024

Based on Section 9 (1) in conjunction with Section 80 (1)(1), section 84 (2)(1), Section 88 (9), Section 90 (1)(2) and Section 96 (3)(1) Bavarian Higher Education Innovation Act dated August 5, 2022 (**BayHIG**), Friedrich-Alexander-Universität Erlangen-Nürnberg enacts the following degree program and examination regulations:

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Section 1 Scope

The degree program and examination regulations for the research-oriented Master's degree program in International Information Systems (IIS) leading to the qualification Master of Science supplements the currently valid version of the general examination regulations for Master's degree programs at the School of Business, Economics and Society at the Faculty of Business, Economics, and Law at FAU – **MPOWISO**.

Section 2 Admissions Committee for the Master's Degree Program

¹The admissions committee for the Master's degree program in International Information Systems shall consist of all lecturers employed at the Institute of Information Systems at the School of Business, Economics and Society as their main occupation pursuant to Section 19 (1) **BayHIG** and five representatives of the academic staff pursuant to Section 19 (1) **BayHIG** who are involved in the degree program as their main occupation pursuant to Section 53 (4) **BayHIG**. ²If there are fewer than five lecturers employed at the Institute as their main occupation pursuant to sentence 1, the number of representatives of academic staff pursuant to sentence 1 shall also be reduced accordingly to ensure that the lecturers employed at the Institute as their main occupation pursuant to Section 19 (1) **BayHIG** always have at least half of the votes.

Section 3 Qualification for a Master's Degree, Certificates and Admission Requirements

(1) Equivalent degrees as defined in Section 26 (1)(1)(1) **MPOWISO** are in particular Bachelor's degrees in the areas of business and economics, information systems, engineering or computer science (in particular Bachelor's degree programs at FAU in

business and economics, information systems, international business studies, computer science, information and communication technology, and industrial engineering and management, as well as other comparable degrees from other universities such as business studies, business administration, information systems or computer science).

(2) The following documents must be submitted pursuant to Section 2.3.3 of the **Appendix to MPOWISO**:

1. Evidence of proficiency in English at a level equivalent to at least C1 of the Common European Framework of Reference (CEFR) for languages; applicants who did not obtain their university entrance qualification in the USA, Canada, Australia, New Zealand, Ireland or the United Kingdom should provide proof of having passed one of the following recognized language tests:
 - a) Test of English as a Foreign Language (TOEFL) (an individual score of at least 95 points, "MyBest" score not accepted),
 - b) International English Language Testing System (IELTS) (a score of at least 7.0 points),
 - c) UNICERT III,
 - d) Cambridge Main Suite of English Examinations, in particular Cambridge Advanced English (CAE) or
 - e) Cambridge English Proficiency (CPE).
2. Evidence of scope and quality of other skills, competencies and soft skills in the following areas, as far as applicable:
 - a) Time spent abroad of relevance for the subject, in particular studying or completing an internship abroad; a transcript of records or another certificate from the foreign university or a reference or similar document from the employer where the applicant completed work experience or an internship can be accepted as proof.
 - b) Relevant work experience such as internships, vocational training, work as a research assistant or student trainee; proof can be provided with an employment contract, an employment or internship certificate or other proof of activity from the respective employer.
 - c) Adequate knowledge of a further foreign language (with the exception of English and the applicant's first language); a language certificate indicating the level of the Common European Framework of Reference for Languages (CEFR) is required as proof.

(3) ¹In the first stage of the qualification assessment process, the documents to be submitted according to 2.3 of the **Appendix to MPOWISO** and paragraph 2 above are assessed according to the following criteria, with a maximum possible score of 100 according to 5.1 of the **Appendix to MPOWISO**:

1. Quality of achievements in the relevant undergraduate degree according to paragraph 1 based on average grade (max 40 points)
2. Relevance of skills obtained from previous studies (not necessarily only from the relevant undergraduate degree) in business and economics, computer science and information systems, assessed according to submitted certificates and evaluated in view of study objectives (max 45 points)
3. Scope and duration of relevant periods of work experience, in particular internships, vocational training or qualified stays abroad; assessment on the basis of the evidence submitted pursuant to paragraph 2 (2) a) and b) (max 10 points)
4. Standard of proficiency in foreign languages according to the proof submitted pursuant to paragraph 2 (2) c) (max 5 points).

²Points are allocated for the criteria pursuant to sentence 1 as follows:

1. ¹A maximum total of 40 points is allocated to achievements obtained in the undergraduate degree pursuant to sentence 1(1). ²Points are allocated on the basis of table 1.

Table 1: Conversion of grades pursuant to sentence 1 (1)

Grade	credits	Grade	credits
1.0	40.0	2.4	19.0
1.1	38.5	2.5	17.5
1.2	37.0	2.6	16.0
1.3	35.5	2.7	14.5
1.4	34.0	2.8	13.0
1.5	32.5	2.9	11.5
1.6	31.0	3.0	10.0
1.7	29.5	3.1	8.5
1.8	28.0	3.2	7.0
1.9	26.5	3.3	5.5
2.0	25.0	3.4	4.0
2.1	23.5	3.5	2.5
2.2	22.0	3.6	1.0
2.3	20.5	≥ 3.7	0

2. ¹A total of 45 points may be allocated for knowledge of business and economics, computer science and information systems that is relevant for the study objective pursuant to sentence 1(2), with a maximum of
 - a) 30 points for detailed knowledge of the foundations of business and economics
 - b) 40 points for knowledge of the foundations of computer science
 - c) 20 points for detailed knowledge of the foundations of information systems; the number of points that can be allocated for each area corresponds to half of the ECTS credits obtained in the relevant area.
3. ¹A maximum of 10 points are awarded for relevant/subject-related work experience and time spent abroad, in particular internships, vocational training or qualified stays abroad pursuant to sentence 1(3). ²A total of 1.7 points are allocated for each month spent in relevant full-time internships / employment or stays abroad and 0.85 points per month for employment in relevant part-time positions.
4. ¹The standard of proficiency in foreign languages pursuant to sentence 1(4) accounts for a maximum of 5 points. ²Points are allocated on the basis of table 2:

Table 2: Evaluation of language skills pursuant to sentence 1 (4)

Level	Points
C1 or above	5
B2	4
B1	3
A2	2
A1	1
None	0

³The overall score is reached by adding the points scored for the individual weighted criteria. ⁴Applicants who have scored at least 60 points shall receive a notification of having passed the qualification process; ineligible applicants with fewer than 50 points shall receive a rejection notification including reasons and information on legal remedies available. ⁵Applicants who obtain between 50 and 59 points in the first stage shall be invited to attend the second stage pursuant to (4).

(4) ¹In the second stage of the qualification assessment process pursuant to no. 5.2 of the **Appendix to MPOWISO**, applicants are invited to give a presentation followed by an admission interview. ²The presentation shall have a duration of 20 minutes (10 minutes presentation and 10 minutes discussion) and is intended to demonstrate that the applicant possesses the required technical and methodological expertise and can be expected to carry out independent academic work in a more research-oriented degree program. ³The admissions committee shall provide applicants with a choice of one or several topics for the presentation; applicants shall be informed of the topic at the same time as they are invited to attend the admissions interview, with notice of at least one week. ⁴In the subsequent admissions interview, the applicant shall be asked general questions covering topics such as their personal suitability for the degree program and their expectations regarding the degree program. ⁵The admissions interview shall have a duration of 10 minutes. ⁶The interview is intended to determine whether the applicant can be expected to complete the degree program successfully. ⁷A further total of up to 100 points is allocated for the presentation followed by the assessment interview. ⁸The applicants are assessed in particular on the basis of the following criteria and weighting:

1. Quality of the presentation with respect to content and structure, e.g. accuracy, weighting of points covered, structure of the entire presentation and links between the various parts (max 20 points), presentation skills, e.g. language, gestures, attitude, manner (max 20 points) and visualization, for example suitable choice of media (max 20 points)
2. Ability to conduct an academic discussion and defend their findings to an academic audience (max 20 points)
3. Ability to give a convincing argument of their suitability for the planned degree program (max 20 points).

⁹Points are allocated for the various aspects pursuant to sentence 8 according to the following criteria:

Table 3: Points allocated pursuant to Section 2 (4)(8)

Requirements pursuant to (4)(8) no. 1, 2 or 3 are met	Points
Requirements pursuant to (4)8 are fully met	20
Requirements pursuant to sentence (4)8 are mainly met, even though the criteria are not (fully) met for individual points	15
As a whole, the requirements pursuant to (4)8 are met, although other criteria are not (fully) met	10
As a whole, the requirements pursuant to (4)8 are not met	5
The requirements pursuant to (4)8 are hardly met or not met at all	0

¹⁰Applicants who achieve at least 60 points shall be admitted to the degree program; all other applicants shall receive a rejection notification including reasons and information on legal remedies available.

Section 4 Scope and Structure of the Master's Degree Program, Examinations, Areas of Specialization, Stay Abroad, Teaching and Examination Language

(1) ¹The scope and structure of the Master's degree program are stipulated in the following provisions and in the **Appendix**. ² The type and scope of the examinations are governed by Sections 5 to 8, the **Appendix**, and Sections 17 to 21 of **MPOWISO**.

³Modules which have been completed as part of the Bachelor's degree program or in other areas of the Master's degree program cannot normally be accredited as part of the Master's examination or another area in the Master's degree program due to the specific subject skills that must be acquired as part of the qualification goals of the Master's degree program, as detailed in the module descriptions; exceptions may be granted by the Examinations Committee.

(2) ¹In the first semester, students learn interdisciplinary skills and foundational knowledge. ²Students expand their previous knowledge from either management or computer science by attending classes in the other subject. ³In the first semester, students with a degree in business and economics or a related subject pursuant to Section 3(1) receive an introduction to the foundations of computer science by attending modules chosen from those included in the "customized introduction to International Information Systems". ⁴In the first semester, students with a degree in engineering or computer science related subjects receive an introduction to the foundations of business administration by attending modules chosen from those included in the "customized introduction to International Information Systems".

(3) ¹As the degree program progresses, students take modules from two compulsory elective areas each with a different focus (see Sections 5 and 6) to obtain skills in the following three areas:

1. ¹In the area "Data and Knowledge", students can discover important methods and tools used for analyzing, evaluating and using data. ²These modules also cover knowledge management and the data-assisted generation of new information and knowledge.
2. ¹In the area "Digital Business", students can choose from modules teaching skills in process, innovation and business model management. ²A particular focus is laid on the possibilities of using information and application systems.
3. ¹In the area "Architectures and Development" students learn techniques for designing and developing software. ²This covers all phases of software engineering processes, ranging from request management to software project management to the systematic testing of software and software systems.

²The compulsory electives pursuant to Sections 5 and 6 also each include "extension courses" (Section 5 (3) and Section 6 (3)) and "study abroad courses" (Section 7).

³The degree program is completed with the "interdisciplinary qualifications" (Section 8) and the Master's thesis.

(4) Building on the module areas stated in (3)(1), students may choose to study a specific specialization. ²Specializations include modules focusing on one related area of study and are worth at least 25 ECTS credits. ³The areas stated in (3) qualify as specializations. ⁴The module handbook specifies which modules are allocated to which specializations. ⁵If one module is allocated to several specializations, students can

decide themselves to which specialization the module should be allocated. ⁶In each specialization, at least one module (5 ECTS credits) must be taken from the compulsory elective area of information systems and at least one module (5 ECTS credits) from the compulsory elective area of informatics. ⁷Students may not have more than one specialization accredited. ⁸If students have acquired at least 25 ECTS credits in more than one specialization, the specialization with the better average grade shall be accredited. ⁹If the student files a request with the Examinations Committee, another specialization may be accredited instead, provided it meets the stipulated requirements.

(5) ¹Students must spend at least one semester abroad over the course of the degree program. ²This could mean spending a semester at a foreign university, writing the Master's thesis at a foreign university or working on the Master's thesis at a company abroad. ³In order to achieve the learning outcome of the stay abroad, students must complete it in a country other than the one in which they obtained their university entrance qualification or their undergraduate degree. ⁴Students who obtained both their university entrance qualification and their undergraduate degree in a country where German is not the official language may, upon request, be exempt from the requirement to spend time abroad pursuant to sentence 1.

(6) ¹Section 4 (5) **MPOWISO** shall apply with the proviso that the teaching and examination language in the compulsory modules is English. ²Elective modules may also be offered and chosen in which the teaching and examination language is German. ³Furthermore, students may choose to study other foreign languages in the foreign language skills modules.

Section 5 Compulsory Elective Modules in Information Systems

(1) ¹The overall learning outcome of the compulsory electives in information systems is to teach students applied knowledge in the individual module areas pursuant to Section 4 (3) from the perspective of information systems. ²The individual topics are explored from a sociotechnical perspective that investigates the interaction between business administration tasks, human stakeholders and IT-based application systems. ³The element of choice in the various areas allows students to focus on a certain topic. ⁴The specific learning outcomes for the individual modules depend on the chosen module and are stipulated in the module handbook.

(2) ¹In the compulsory elective modules in information systems worth a total of 30 ECTS credits, students must acquire at least 5 ECTS credits from each area pursuant to Section 4 (3). ²In order to gain the required total number of ECTS credits, students can submit up to 15 additional ECTS credits from the three module areas stated in Section 4 (3), up to 10 ECTS credits from "extension courses" (see (3)) and up to 10 ECTS credits from "study abroad courses" (see (7)).

(3) ¹Within the context of compulsory electives in information systems, students may also choose to study modules from "extension courses". ²The specific learning outcome of these modules is to teach students additional domain-specific knowledge from the areas of application of information systems.

(4) ¹ The type and scope of the examinations in the individual modules depend on the skills taught according to Section 1 and the module handbook. ²Possible examination forms are: written examination, presentation, case study, seminar paper or project

report as well as combinations of the same; Section 6 (2)(3) **MPOWISO** shall remain unaffected. ³The type and scope of examinations for imported modules or modules completed abroad shall be governed by the **degree program and examination regulations** for the subject in question or the university abroad.

(5) ¹The compulsory elective modules in information systems usually consist either of a lecture (4 SWS) or a lecture (2 SWS) and a tutorial (2 SWS) or a lecture (2 SWS) and a seminar (2 SWS) or two seminars (2 SWS + 2 SWS). ²Details are stipulated in the module handbook. ³Different rules may apply for imported modules or modules completed abroad; in this case they shall be governed by the **degree program and examination regulations** for the subject in question or the university abroad.

Section 6 Compulsory Elective Modules in Informatics

(1) ¹The overall learning outcome of the compulsory electives in informatics is to teach students applied knowledge in the individual module areas pursuant to Section 4 (3) from the perspective of informatics. ²The various topics are examined from an operative-technical perspective, exploring the planning, design, and implementation of IT-based application systems from a technical point of view. ³The element of choice in the various areas allows students to focus on a certain topic. ⁴The specific learning outcomes for the individual modules depend on the chosen module and are stipulated in the module handbook.

(2) ¹In the compulsory elective modules in informatics worth a total of 30 ECTS credits, students must acquire at least 5 ECTS credits from each area. ²In order to gain the required total number of ECTS credits, students can submit up to 15 additional ECTS credits from the three module areas stated in Section 4 (3)(1), up to 10 ECTS credits from “extension courses” (see (3)) and up to 10 ECTS credits from “study abroad courses” (see (7)).

(3) ¹Within the context of compulsory electives in informatics, students may also choose to study modules from “extension courses”. ²The specific learning outcome of these modules is to teach students additional domain-specific knowledge from the areas of application of informatics.

(4) ¹The type and scope of lectures, seminars and examinations depend on the skills taught pursuant to (1) and follow the provisions of the degree program and examination regulations for the Bachelor's and Master's degree programs in Computer Science at the Faculty of Engineering at Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) – **FPOINF** – in the currently valid version.

Section 7 Study Abroad Courses

(1) ¹Within the context of compulsory electives in information systems (see (5)) and informatics (see (6)), students may also choose to study modules from “study abroad courses”. ²The learning outcome of “study abroad courses” is to teach students further relevant knowledge in areas of application for the skills acquired in compulsory elective modules in each area that are not covered by the other compulsory electives offered in that area. ³Acquiring these skills at a university abroad also provides students with an opportunity to acquire additional intercultural skills and/or perspectives regarding the chosen topics. ⁴The specific learning outcomes for the individual modules depend on the chosen module and are stipulated in the descriptions of the modules available at the university abroad.

(2) ¹ The type and scope of lectures, seminars and examinations depend on the skills according to (1) and are stipulated in the relevant **degree program and examination regulations** of the university abroad.

Section 8 Interdisciplinary Qualifications pursuant to Section 4 (3)(3)

(1) ¹The overriding learning outcome of the interdisciplinary qualifications is in the first instance to allow students to gain more advanced knowledge in the specializations covered by the degree program, either in the area of information systems or in informatics, as well as gaining a greater understanding of other interdisciplinary topics pursuant to the following paragraphs. ²Secondly, the interdisciplinary qualifications allow students to gain an insight into other fields of study, expanding their observational horizons and encouraging students to take an interdisciplinary approach to topics relating to information systems. ³Thirdly, the element of choice gives students the opportunity to shape their own particular profile in view of their future career.

(2) ¹The specific learning outcome of courses in foreign language skills is to give students the ability to express themselves in various languages in an international environment. ²Students may take any of the language modules offered by the FAU Language Centre, with the exception of language modules in English up to level C1 of the CEFR, in the second foreign language that students are required to provide evidence of during the admission procedure, and in the student's first language.

(3) ¹The specific learning outcome of the Studium Generale is to allow students to expand their observational horizons and tailor their own profile. ² Modules can be selected from the entire range of modules offered at FAU.

(4) ¹The specific learning outcome of the IIS research seminar is to give students the ability to carry out independent research into a topical issue using specialist literature and research reports and to defend their opinion on the matter in an academic discussion. ²The focus is on systematically working through and preparing the content.

(5) ¹Firstly, the specific learning outcome of the IIS project seminar is to allow students to gain a greater understanding of an application-oriented project that may relate to either information systems or informatics. ²Secondly, students are given the opportunity to shape their own individual profile in view of their future career and to put the theory learned in Section 5 and Section 6 into practice on the basis of a specific practical problem.

(6) ¹ The type and scope of the examinations in the area of the interdisciplinary qualifications are dependent on the skills for the chosen module according to (1) and the **Appendix** or the module handbook. ³In the case of foreign language skills and the Studium Generale, imported modules or modules completed abroad shall be governed by the **degree program and examination regulations** for the subject in question or the university abroad, or the applicable module description. ⁴The module catalog is announced before the beginning of the semester in accordance with local practice.

Section 9 Legal Validity and Transitory Provisions

(1) ¹These degree program and examination regulations shall come into effect on April 1, 2024. ²They shall apply to all students starting a degree program from winter semester 2024/2025 onwards. ³All students who at the time these degree program and

examination regulations come into effect are already studying in accordance with the degree program and examination regulations for the Master's degree program in International Information Systems (IIS) at the Faculty of Business, Economics, and Law at Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) – **FPOIIS** – dated July 8, 2010, last amended by the statute dated September 22, 2021, shall complete their studies in accordance with the version of the degree program and examination regulations that has applied to them to date.

(2) ¹The degree program and examination regulations for the Master's degree program in International Information Systems (IIS) at the Faculty of Business, Economics, and Law at Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) – **FPOIIS** – dated July 8, 2010, last amended by the statute dated September 22, 2021, shall become invalid as of September 30, 2028. ²Examinations according to the valid degree program and examination regulations stated in sentence 1 shall be offered for the last time in summer semester 2028. ³Sentence 2 notwithstanding, the module "Conceptual modeling" shall be offered for the last time in winter semester 2023/2024; students who have not completed the module before this date must complete the module "Data engineering" instead.

Appendix: Study Plan for Master's Degree Program IIS

Module name	Teaching unit	SWS (semester hours)				Total ECTS credits	Distribution of workload per semester in ECTS credits				Type and scope of the examination	Grade factor
		L	T	P	S		1s t se m.	2nd sem .	3rd sem .	4th sem .		
Customized introduction to International Information Systems (management I and II or informatics I and II) (15 ECTS)												
Management I (5 ECTS)												
Foundations of international management I	see FPO MSc IBS					5	5				see FPO MSc IBS	1
Management II (10 ECTS)												
Business strategy	see FPO MSc IBS					0–5	0–5				see FPO MSc IBS	1
and / or												
Foundations of international management II	see FPO MSc IBS					0–5	0–5				see FPO MSc IBS	1
and / or												
Global operations strategy	see FPO MSc IBS					0–5	0–5				see FPO MSc IBS	1
and / or												
Managing intercultural relations	see FPO MSc IBS					0–5		0–5			see FPO MSc IBS	1
Informatics I (10 ECTS)												
Introduction to Computer Science	Introduction to Computer Science	4	2	2		10	10				Written examination (120 minutes)	1
Informatics II (5 ECTS)												
Data engineering	see FPO BSc AI					5		5			see FPO BSc AI	1
Information Systems (30 ECTS) ¹⁾												
Module area: Data & knowledge – Information systems						5–20	5	0–15			see Section 5 (4)	1
Module area: Digital business – Information systems						5–20	5	0–15			see Section 5 (4)	1
Module area: Architectures & development – Information systems						5–20		5	0–15		see Section 5 (4)	1
Extension courses						0–10		0–10			see Section 5 (4)	1

Module name	Teaching unit	SWS (semester hours)				Total ECTS credits	Distribution of workload per semester in ECTS credits				Type and scope of the examination	Grade factor
		L	T	P	S		1s t se m.	2nd sem	3rd sem	4th sem		
Study abroad courses						0–10			0–10		see Section 7 (2)	1
Informatics (30 ECTS) ¹⁾												
Module area: Data & knowledge – Informatics						5–20	5	0–15			see Section 6 (4)	1
Module area: Digital business – Informatics						5–20	5	0-15			see Section 6 (4)	1
Module area: Architectures & development – Informatics						5–20		5	0–15		see Section 6 (4)	1
Extension courses						0–10		0–10			see Section 6 (4)	1
Study abroad courses						July 2025 (10)			0–10		see Section 7 (2)	1
Interdisciplinary qualifications (15 ECTS) ²⁾												
Foreign language skills pursuant to Section 8 (2)						0–5		0–5			see Section 8 (6)	1
Studium Generale pursuant to Section 8 (3)						0–5		0–5			see Section 8 (6)	0
IIS research seminar pursuant to Section 8 (4)						0–5			0–5		Seminar paper and presentation (70 % + 30 %)	1
IIS project seminar pursuant to Section 8 (5)						0–10			0–10		Project report and presentation (70 % + 30 %)	1
Master's thesis (30 ECTS)												
Master's thesis						30				30	Master's thesis	1
Total SWS (minimum) and ECTS:		24	10	4	10	120	30	30	30	30		
		48										

¹⁾ Within this compulsory elective section, students must choose modules from each module area worth 5 ECTS credits. The type and scope of teaching units and examinations depend on the specific manner in which the respective module is taught; see module handbook for details. Section 4 (3)(3) **MPOWISO** shall apply when choosing modules.

²⁾ Choice of modules worth 15 ECTS credits pursuant to Section 8 and the module handbook. The type and scope of teaching units and examinations depend on the specific manner in which the respective module is taught; see module handbook for details. Section 4 (3)(3) **MPOWISO** shall apply when choosing modules.