

Syllabus and Examination Regulations for the Master Program Industrial Safety and Security at the Augsburg University of Applied Sciences dated 15 October 2024

On the basis of Art. 9 sentence 1 and Art. 84 para. 2 sentence 1 of the Bavarian Higher Education Innovation Act (BayHIG) of 5 August 2022 (GVBl. p. 414, BayRS 2210-1-3-WK), which was last amended by § 3 of the law of 23 June 2023 (GVBl. p. 251) and by § 2 of the law of 24 July 2023 (GVBl. p. 455), Augsburg University of Applied Sciences, hereinafter referred to as Augsburg University of Applied Sciences, issues the following statutes:

§ 1

Purpose of the syllabus and examination regulations

¹These study and examination regulations serve to implement and supplement the Bavarian Higher Education Innovation Act (BayHIG) of 5 August 2022, the Ordinance on the Regulation of Study Accreditation in accordance with the State Treaty on the Accreditation of Studies (Bavarian Study Accreditation Ordinance - BayStudAkkV) of 13 April 2018 (GVBl. p. 264) BayRS 2210-1-1-13-K and the General Examination Regulations (APO) of Augsburg University of Applied Sciences of 20 December 2022 in their respective current versions. ²These syllabus and examination regulations also form the legal basis for possible cooperation with domestic and foreign partner universities as part of the Industrial Safety and Security master program.

§ 2

Study objectives

¹The consecutive Master's degree programme aims to qualify graduates of information technology and technical degree programs or business administration degree programs with a technical focus for a prominent position in industrial safety and security. ²The focus of the programme content is on the thorough consolidation of methodological skills and abilities as well as the acquisition of practice-oriented specialist knowledge. ³In addition, independent work and interdisciplinary thinking are particularly encouraged. ⁴In addition to further technical and scientific qualifications, the increasing importance of interdisciplinary cooperation, specialised language skills and staff management should also be taken into account.

§ 3

Qualification for the degree programme, admission

(1) ¹The qualification requirement for admission to the Master's program in Industrial Safety and Security is a Bachelor's degree with an above-average grade (overall examination grade of 2.3 or better) from a German college or university with an IT or technical focus or a business administration degree with a technical focus with at least 210 Credit Points (CPs). ²If the final grade of the previous degree programme is between 2.3 and 2.6, admission is granted after passing the entrance assessment in accordance with Annex A.5. ³Applicants who do not meet the above criteria may be admitted by the examination board in exceptional cases. ⁴University graduates with degrees accredited as equivalent value are also admitted in accordance with sentence 1 or sentence 2.

(2) The decision as to whether the qualification requirements according to § 3 para. 1 are met is made by the responsible admission committee at its own discretion.

(3) ¹Written and spoken German and English language skills are required. ²The admission requirement is a minimum level B1 (see Annex A.6) for German and B2 for English (European Framework of Reference for Languages). ³International applicants who can prove a B1 level of proficiency in German will be granted admission with an "International" specialisation. ⁴Exceptions to this are applications from Austria and German-speaking Switzerland as well as international applicants who have completed a bachelor's degree in a German-language degree program. ⁵A change to the specialisation "Safety and Security" at the beginning of the second semester (in the full-time variant) or the third semester (in the part-time variant) is only possible if proof of German language proficiency at level B2 is provided at the end of the first semester (in the full-time variant) or the second semester (in the part-time variant). ⁶In justified exceptional cases, proof of German may be waived; in such cases, the responsible admission committee will decide on admission at its own discretion.

(4) ¹A further qualification requirement is the successful completion of a procedure to determine aptitude for the specific degree programme in accordance with Art. 90 Para. 1 Sentence 2 BayHiG. ²The requirements and structure of the procedure are set out in Annex A.5 and in the statutes on the implementation and structure of assessment tests and aptitude assessment procedures in undergraduate degree programs and the procedure for determining course-specific aptitude in master programs at Augsburg University of Applied Sciences dated 28 March 2023.

(5) ¹The Admissions Committee is responsible for carrying out the procedure for determining programme-specific aptitude; it also regulates the details of the procedure in accordance with Annex A.5. ²The chairperson and deputy chairperson of the Examination Committee are also the chairperson and deputy chairperson of the Admissions Committee. ³The Faculty Council may appoint further members of the Examination Board to membership of the Admission Board.

(6) ¹Applicants with a degree in accordance with Section 3 (1) who have earned fewer than 210 CPs but at least 180 CPs may be admitted. ²Applicants who have completed an undergraduate degree program with a different grading system or without CPs with six semesters are treated the same as applicants with 180 CPs. ³These applications must provide proof of the missing competences within the first year after enrolment by means of subsequent qualification to the extent of the required CPs. ⁴In this respect, enrolment is conditional.

(7) ¹The examination board determines which modules from the undergraduate degree programs offered by the Faculties of Electrical Engineering, Computer Science and Business are to be successfully completed for post-qualification; the syllabus and examination regulations of the relevant degree programs apply accordingly. ²In the post-qualification, competences must be acquired that were not part of the undergraduate degree programme. ³If practical skills are missing, the post-qualification must be achieved by completing a relevant practical activity that corresponds in type (and scope) to a practical semester of the degree program in question. ⁴The examination board decides on the proof of admission on a case-by-case basis, taking into account the individual missing qualification.

§ 4

Structure of the programme, normal duration of studies

(1) ¹The programme is offered as a full-time or part-time course with a normal duration of studies of three or five semesters, including the master's thesis. ²It comprises 90 credit points (CP) in accordance with the European Credit Transfer and Accumulation System (ECTS). ³The programme starts in the summer semester.

(2) ¹The degree programme is divided into the following five study areas:

1. a crossover range of 10 CP,
2. a compulsory area of 40 CP,
3. a compulsory elective area 1 (specialisation-specific compulsory elective modules) of 10 CP,
4. a compulsory elective area 2 (general science compulsory elective modules) of 5 CP and
5. the master's thesis totalling 25 CP.

²The crossover area lays the foundations for interdisciplinary work. ³The compulsory area teaches the basics of industrial safety and security or the consolidation of the German language in the case of the specialisation "International" (see § 3) and academic work. ⁴The compulsory elective areas serve to develop individual specialisations. ⁵The master's thesis demonstrates the student's ability to carry out independent academic work, see § 10 and Annex A.3.

(3) ¹Each student must choose a specialisation by the beginning of the second semester (in the full-time option) or the third semester (in the part-time option) at the latest. ²The following specialisations are available:

1. Safety
2. Security
3. International (for international applicants with proof of German B1).

§ 5

Basic and orientation examination, conditions for advancement

¹There is no orientation phase in the master's program and therefore no basic and orientation examinations. ²There are no advancement requirements for the master's program.

§ 6

Modules and examinations

(1)¹ The Master's program is divided into modules in accordance with § 4 para. 1 APO. ²All modules are either compulsory modules, required elective modules or elective modules in accordance with Section 4 (3) APO. ³Compulsory modules are the modules of a degree program that are mandatory for all students. ⁴Required elective modules are modules that are offered as alternatives. ⁵Each student must make a specific selection from among them in accordance with the syllabus and examination regulations. ⁶If a required elective module has a limited number of participants, priority is given to students who have not yet taken this required elective module. ⁷Electives are modules that are not mandatory for the achievement of the study objective. ⁸If places are available, modules from the Master's programs offered by Augsburg University of Applied Sciences can be selected as electives.

(2)¹ The compulsory modules, their number of hours, the type of course and the examinations are set out in [Annex A.3](#) to these syllabus and examination regulations. ²The scope of the required elective modules is also specified.

(3)¹ The study plan regulates which required elective modules are admitted and offered to students each semester. ²In addition, the curriculum for the respective semester regulates which forms of courses and examinations are used in the individual modules. ³By way of derogation from sentences 1 and 2, the necessary regulations can also be made in the module catalogue, provided that their temporal validity is clearly recognisable.

(4)¹ There is no entitlement to all required elective modules and elective modules being offered. ²Similarly, there is no entitlement to courses being offered if the number of participants is insufficient.

§ 7

Curriculum and module catalogue

The Faculty of Electrical Engineering draws up a curriculum in accordance with § 8 APO and a module catalogue to ensure the range of courses on offer and to inform students.

§ 8

Practical semester

The master's program does not include a practical semester.

§ 9

Examination board

¹ An examination board is formed for the Master's degree programme in Industrial Safety and Security, which consists of at least four professors who must belong to the Faculty of Electrical Engineering, the Faculty of Computer Science and the Faculty of Business and who teach on the Master's degree programme in Industrial Safety and Security. ²When making appointments, it must be ensured that the faculties involved in the degree program are represented by at least one member and a maximum of two members. ³The Examination Board is appointed by the Faculty Council of the Faculty of Electrical Engineering, the Faculty of Computer Science and the School of Business. ⁴The Faculty Council of the Faculty of Electrical Engineering appoints the chairperson and deputy chairperson. ⁵The Examination Board may call on all colleagues involved in the degree programme to attend individual meetings in an advisory capacity.

§ 10 master's thesis

- (1) The topic of the master's thesis is usually determined at the beginning of the third (in the full-time variant) or fifth (in the part-time variant) semester.
- (2) The processing time for consecutive processing is six months.
- (3) Proof of a total of 30 CP is a prerequisite for the issue of the topic of the master's thesis.
- (4)¹ The master's thesis can be written in German or English. ²The decision on the language is made in agreement between the applicant and the first and second examiners.
- (5) The master's thesis is usually submitted digitally or in paper form.

§ 11 Assessment of test performance and overall examination result

- (1) For the calculation of the overall examination result, the final grades of all modules of the advanced courses are weighted according to the number of CP, the final grades of the orientation phase are weighted with 50% of the assigned CP.
- (2) The differentiated assessment of test performances is carried out in accordance with § 20 APO.
- (3) The master's examination is deemed to have been passed if all examinations have been successfully completed in accordance with the appendix and the master's thesis has been assessed by the examiners with at least the grade "sufficient".

§ 12 Master's examination certificate

- (1) A certificate and an English-language Diploma Supplement in accordance with the model in the appendix to the General Examination Regulations (APO) of Augsburg University of Applied Sciences dated 20 December 2022 in the currently valid version.
- (2) The final certificate lists the assessments and CPs achieved for all modules.
- (3) The title of the master's thesis is shown on the final certificate.

§ 13 Academic degree

- (1) On successful completion of the master examination, the academic degree of "Master of Science", abbreviated to "M. Sc.", is awarded.
- (2) A diploma will be issued for the award of the academic degree in accordance with the respective model in the annex to the General Examination Regulations (APO) of Augsburg University of Applied Sciences dated 20 December 2022 in the currently valid version.

§ 14

Entry into force and transitional provisions

(1)¹ These syllabus and examination regulations enter into force on 15 October 2024. ² At the same time, the syllabus and examination regulations for the Master's program in Industrial Safety and Security dated 23 January 2008 in the version of the fifth amendment statutes dated 10 December 2013 shall cease to apply if and insofar as they no longer apply.

(2) It applies for the first time to all students who started their studies in the first semester of the summer semester 2025.

Issued on the basis of the resolution of the Senate of Augsburg University of Applied Sciences dated 16 July 2024 and the University Council of Augsburg University of Applied Sciences dated 29 July 2024 and the approval of the President of Augsburg University of Applied Sciences dated 11 October 2024.

Augsburg, 11 October 2024

Prof.Dr. Dr. h.c. Gordon T. Rohrmair
President

A Annex

A.1 Abbreviations

A.1.1 General abbreviations

CP = credit points according to the European Credit and Accumulation Transfer System

SWS = credit hours

oE = without success

mE = with success

PS = practical semester

OP = orientation phase

ZV = admission requirement

AWP = general science required elective modules

FWP = specialised science required elective modules

A.1.2 Forms of examination

schrP = written examination

StA = student research

project

mdIP = oral examination

PP = practical examination

PfP = portfolio examination

MA = master's thesis

A.1.3 Types of courses

V= Lecture

Ü= Exercise

S= Seminar

K= Colloquium

P= Internship

SU = seminar-based teaching

A.2 Scope and description of the examination forms

Form of examination Scope (unless otherwise specified) and description

written examination 60 - 180 min.

Term paperWritten elaboration of the subject-related assignment, prepared with teaching supervision throughout the semester, possibly combined with a personal presentation of the term paper. The scope of the student research project is 5 - 60 pages.

oral examination 5 - 45 min.

Practical examination See § 18 para. 3 APO.

Portfolio examination See § 18 Para. 4 APO.

Master's thesis The master's thesis is proof of the ability to work independently on a specialised problem within a specified deadline using scientific methods.

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A.3 Modules

The definition of the abbreviations of the examination forms can be found on p. 6. The remarks can be found on p. 7.

Table 1: Overview of the modules.

Module no.	Module title	Credit hours	CP	Type of Courses	Examination form and duration	Remarks; grade weights for calculating the final module grade
Crossover area (10 CP)						
MISCO	Interdisciplinary Required elective modules	8	10	SU, Ü	schrP/PfP	1) 2)
Compulsory area (30 CP)						
MIS1G1	Introduction into Safety and Human Machine Interaction	4	5	SU, Ü	schrP	1)
MIS1G2	Cryptography and Security	4	5	SU, Ü	schrP	1)
MIS1G3	Master seminar	4	5	S	PfP	2)
MIS2S1	Major Project	10	15	Ü	PfP	2) 3)
with focus on International (10 CP)						
MIS1SP1	German B2.1	4	5	SU, Ü	schrP/PfP	1) 2)
MIS2SP2	German B2.2	4	5	SU, Ü	schrP/PfP	1) 2)
with a focus on safety or security (10 CP)						
MIS1SI1	Management, Employee Management and IT Law	4	5	SU, Ü	schrP/PfP	1) 2)
MIS2SI2	Certification Module	4	5	SU, Ü	schrP/PfP	1) 2)
Compulsory elective area 1 (10 CP)						
MISWP1	Specialised required elective modules	8	10	SU, Ü	schrP/PfP	1) 2)
Compulsory elective area 2 (5 CP)						
MISWP2	General science required elective modules	4	5	SU, Ü	schrP/PfP	1) 2)
Master's thesis (25 CP)						
MIS3MT	master's thesis		25		PfP	4)

A.4 Remarks

- 1) In addition to § 6 para. 3, the curriculum (see § 7) may specify the language in which the module is taught.
- 2) If a PfP is used for the module, it is composed as follows:
 - schrP (60 - 150 min), weighting: 80 %
 - StA (10 - 30 pages), weighting: 10 %
 - mdIP (10 - 30 min), weighting: 10 %
- 3) In the "Major Project" module, the qualification objective cannot be achieved without an oral exchange between the students and interaction between the students and the lecturer. For this reason, students are required to attend in person.

- 4) The portfolio examination in the master's thesis module consists of the following two components:
 1. MA (50 - 100 pages), weighting: 80 %
 2. mdIP (30 min), weighting: 20 %.

A.5 Procedure for determining aptitude for a specific degree programme

1. The prerequisite for participation in the procedure to determine aptitude for a specific degree programme is a complete application in due form and within the required deadline and proof of the qualification requirements in accordance with [Section 3](#) of the syllabus and examination regulations.
2. Applicants with a degree that meets the criteria of [Section 3](#) of the syllabus and examination regulations and a grade between 2.3 and 2.6 will be admitted after passing the admission interview. The admissions interview is conducted by an admissions committee appointed by the examination board. The applicant will be notified of the date at least two weeks in advance and the interview will take place at Augsburg University of Applied Sciences. Admission is granted if at least 17 out of 24 possible points are achieved in the interview. The interview lasts 20 minutes and has the following procedure:
 - a) Short presentation by the applicant on a topic related to industrial safety or security, which will be communicated to the applicant in writing at least two weeks before the date of the examination. (Duration: 10 minutes; max. score 12)
 - b) Discussion of the classroom presentation ((Duration: 10 min.; Max. score 12)
3. The following competences are tested during the classroom presentation and the subsequent specialist discussion:
 - Expertise (0-4 points)
 - Intellectual abilities (0-4 points)
 - Co-operation and communication (0-4 points)
4. The interview is recorded by the co-examiner. The admissions committee draws up an assessment proposal and submits this together with the minutes to the examination committee for approval.

A.6 Accredited language exams

1. Level B1 German:
 - German language examination for the university entrance of foreign university applicants (DSH), at least level 1
 - Test of German as a foreign language for foreign university applicants (TestDaF) with at least level 3 in all 4 sub-tests and at least 12 points in total
 - Examination telc German B1 University
 - Goethe Certificate B1
2. Level B2 German and English:

With regard to accredited language certificates, please refer to the corresponding annex to the statutes on the procedure for pre-registration, re-enrollment, leave of absence and deregistration at Augsburg University of Applied Sciences in the currently valid version.