

Furtwangen University Computer Science, Technology, Business, Media, Health Sciences Study and Examination Regulations

for Master's Programmes

The Senate of Furtwangen University – Computer Science, Engineering, Business, Media, Health endorsed the following Study and Examination Regulations on 13 December 2023 in accordance with § 8.5 and § 30.1 of the Baden-Württemberg University Law (Landeshochschulgesetz - LHG) of 1 April 2014 (GBl. S. 99), last amended by Article 1 of same law on 13 March 2018 (GBl. S. 85).

Please note: only the original German version of the Study and Examination Regulations is legally binding.
(§ = section)

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§ 1 **Applicability**

- (1) The Study and Examination Regulations are valid for the following Master's Programmes:
- Advanced Computer Science (last admission summer semester 2014)
 - Advanced Precision Engineering
 - Applied Health Promotion
 - Applied Materials Science
 - Application Architectures (last admission summer semester 2012)
 - Biomedical Engineering
 - Business Administration and Engineering – Sales & Service Engineering
 - Business Application Architectures
 - Business Consulting
 - Business Administration and Engineering – Product Innovation (last admission summer semester 2023)
 - Computer Science in Media (last admission summer semester 2010)
 - Digital Media (last admission summer semester 2013)
 - Executive Master of International Business Management
 - Computer Science
 - Human Factors
 - Innovation Engineering
 - Interactive Media Design
 - International Business Management
 - International Management
 - Computer Science in Media
 - Medical Devices – Regulatory Affairs
 - Medical Diagnostic Technologies (last admission summer semester 2019)
 - Mechatronic Systems
 - Microsystems Engineering (last admission summer semester 2010)
 - Micromedicine (last admission summer semester 2019)
 - Micromedical Engineering
 - Mobile Systems
 - MusicDesign (last admission summer semester 2020)
 - Precision Manufacturing and Management
 - Precision Medicine Diagnostics
 - Risk, Reliability and Safety Engineering
 - Sustainable Bioprocess Technology
 - Security & Safety Engineering
 - Smart Systems
 - Technical Physician

- (2) Any reference to offices and functions in these regulations apply equally to both women and men; in addition, § 4.1 LHG applies accordingly.

A. General Section

Part I

General Regulations

§ 2 Admission Requirements

- (1) A university degree or equivalent qualification is a prerequisite for admission to the Master Programmes as defined in § 1.1.
- (2) The overall credit volume requirement, earned from the first degree as per section 1 and the planned Master's degree together, is 300 credit points in total. Students with insufficient credit points must take further modules to secure the credits required. These modules will be determined in consultation with the Dean of Studies. The choice of modules will take into account the credits previously earned and the student's abilities, as well as the specific requirements of the Master Programme in question.
- (3) Further admission requirements for each Master programme are laid down in specific regulations.

§ 3 Normative Time-to-degree and Credit System

- (1) The normative time-to-degree for all study programmes listed in § 1.1 is defined in the Specific Section. It encompasses the theoretical taught semesters as well as all examinations and the Master's thesis.
- (2) Study programmes have a modular structure. A module comprises several teaching components linked in terms of content and timing. Each component is awarded a number of credit points which correspond to the length of time required for the successful completion of the component. The criteria for the award of credit points comply with the requirements of the ECTS (European Credit Transfer System). Each credit is equivalent to 30 hours' work.
- (3) The total number of mandatory and elective modules required for the successful completion of the programme is laid down in the Specific Section.
- (4) The order and type of modules as laid down in the Specific Section can, for compelling reasons and in individual cases, be altered by the Faculty Board responsible, for the duration of one taught semester.
- (5) For degree programmes with courses offered annually, the sequence of curricular semesters 1 and 2 shall be reversed, if necessary, depending on the time of commencement of the degree programme.

§ 3a Bilingual study programmes

In selected study programmes it is possible to complete a "Bilingual study programme". Upon application, this will be noted in the degree certificate as well as in a separate certificate. Of the 90 ECTS credits of the respective Master's programme, at least 30 ECTS credits each must be completed in English and German, of which at least 15 ECTS credits must be completed without a thesis. In the non-native language(s), proof of level C1 of the Common European Framework of Reference must also be provided. The required language examination(s) must not extend the period of study and must therefore be successfully completed before the last examination required for graduation, i.e. as a rule before submission of the thesis. For further details, please refer to the special section of the SPO for the relevant degree programmes.

§ 4 Structure of Examinations

- (1) For successful completion of studies 90 credit points, depending on the type of programme, must be earned. Passed modules are awarded the number of credit points laid down in the Specific Section. The Specific Section defines the individual graded and non-graded (pass/fail) assessments for the modules as well as the module grades of the programme. Graded assessments are normally examined in conjunction with the relevant course and are related to the course content.
- (2) The Specific Section defines the non-graded assessments for the mandatory and elective courses of the individual modules of the taught semester which are required for successful completion the programme.

§ 5 Permanent Withdrawal from Programme and Loss of Right to be Assessed, Deadlines

- (1) The credit requirements of the study programme (90 credit points) should be successfully completed within the normative time-to-degree. An accelerated track of studies enabling completion of credit requirements prior to these deadlines is possible.
- (2) The students will be informed of the number and type of graded and non-graded assessments required for the completion of a module on a timely basis. They will also be informed of the deadlines for such assessments as well as the assignment and submission dates for the master's thesis.
- (3) The right to be assessed is forfeited and permanent withdrawal from the programme is required where the graded and non-graded assessments have not been successfully completed within three semesters of the deadline defined in section one, unless the cause of the delay lies outside the student's control.
- (4) Any student entitled to parental leave under the relevant current law (BEEG), is entitled to complete certain graded or non-graded assessments at a point in time later than the deadline laid down in the examination regulations.
- (5) Any student who is able to study but is unable to attend lectures or complete the required non-graded assessment due to a longer illness or a longer or permanent disability, is entitled to complete certain graded or non-graded assessments at a point in time later than the deadline laid down in the examination regulations. The extension period can be no more than three years. The student must produce pertinent documentation, in most cases a doctor's note. In case of doubt, the university can require the student to provide a doctor's note from a doctor of the university's choice. Students must inform the university immediately of any changes in their circumstances.
- (6) The regulations for the extension of deadlines as stated in section 5 above also apply to any student who is:
 1. A member of the Students' Parliament (Studierendenrat) and the Student Council (Allgemeinen Studierenden-ausschuss AStA) according to §§ 13 and 21 of the founding statutes of the Student Parliament (Verfassten Studierendenschaft).
 2. A member of a German national olympic, scouting, reserve or team sports squad, or of a young hopefuls squad 1 and 2, which belongs to a federal association of the German Olympic Sports Confederation.
 3. A member of a state sports squad, or any other athlete designated as an elite athlete on an individual basis by the Elite Sports Officer of the University Board of Executives according to the current HFU list of criteria.

If elite athletes end their sporting career during their academic studies, the Elite Sports Officer of the University Board of Executives will decide at what point in time a further extension of the deadline will no longer be permitted.

- (7) Any student entitled to caregiving leave is entitled to complete certain graded or non-graded assessments at a point in time later than the deadline laid down in the examination regulations.

§ 6 Examinations

- (1) All examinations will, as a rule, take place during the examination period outside the lecture period of a given semester.
- (2) Where an individual can prove satisfactorily that due to prolonged or permanent impairment in accordance with § 32, (4) (5) of the LHG, they are unable to complete the exam in whole or in part in the prescribed manner, the Faculty Examination Board in question will allow suitable measures to be taken to compensate for the impairment. A doctor's note may be requested in such case.
- (3) For each student enrolled for examinations, the examination office will set up an account to record bonus points for all passed modules and malus points for all failed modules.
- (4) Where a module is passed, its credit points are credited to the applicable bonus account. Where a graded or non-graded assessment is failed, its credit points are recorded in the applicable malus account.
- (5) The language of instruction in the course is usually German and/or English. Examinations are generally held in the language in which the course of the module to be examined was held. The concrete specification is made in the module description. The examiner announces the language and examination modalities at the beginning of the semester.

§ 7 Oral Examinations

- (1) As a rule, all oral examinations will be taken by at least two examiners (viva voce examination) or an examiner in the presence of an observer (§ 15). They can be held as group or individual examinations. The grade is the average of the individual grades awarded by the examiners.
- (2) The duration of an oral examination for each person to be examined is at least 15 but no more than 30 minutes.
- (3) The main content matter and the results must be recorded in written form. The result should be communicated to the person examined at the end of the oral examination.
- (4) Any student wishing to take the same examination at a later point in time is permitted to view the examination if space allows and if the examinee is in agreement. Student observers are not permitted to be present when feedback and examination results are being given.
- (5) In exceptional cases, with the consent of the candidate and in accordance with the regulations of §§ 32a and 32b LHG, the examination may also be conducted using electronic information and communication systems (online).

§ 8 Written Examinations and Other Written Assignments

- (1) In written examinations and other written assignments students should demonstrate that they are capable of solving problems and completing tasks using the standard methods of their subject, within a limited time frame and with limited access to resources. The examination also seeks to determine whether students possess the requisite basic knowledge. An examination may offer a choice of different topics.
- (2) The grading period should not exceed four weeks.
- (3) The duration of a written examination is 90 minutes. Any exceptions are laid down in the Specific Section.
- (4) Written examinations may be conducted entirely or in part, by means of multiple-choice questions.

- (5) In exceptional cases, a written examination may be taken in whole or in part using electronic information and communication systems (online). In this case, § 32 a and § 32 b LHG apply.

§ 9 Grading

- (1) Assessments can be a non-graded assessment, a graded assessment or a combination of the two. Non-graded assessments are awarded a “pass” or “fail”. Graded assessments are awarded a grade.
- (2) The grades for the different graded assessments are set by the examiner in question. The following grades are to be used when marking graded assessments:
- | | | |
|-------------|----------------|--|
| 1; 1.3 | = very good | = outstanding performance |
| 1.7; 2; 2.3 | = good | = performance which is significantly above average |
| 2.7; 3; 3.3 | = satisfactory | = average performance |
| 3.7; 4 | = adequate | = performance which, despite shortcomings still satisfies requirements |
| 5 | = inadequate | = performance which, due to significant shortcomings, no longer satisfies requirements |
- (3) Where a graded assessment is made up of several parts with individual grades, the overall grade is calculated as an average of the appropriately weighted individual grades.
- (4) The module grade is as follows:
- | | |
|---|------------------------------|
| for an average of up to and including 1.5 | = very good |
| for an average of between 1.6 and up to and including 2.5 | = good |
| for an average of between 2.6 and up to and including 3.5 | = satisfactory |
| for an average of between 3.6 and up to and including 4.0 | = adequate |
| anything below an average of 4.1 | = inadequate (graded as 5.0) |
- (5) When calculating the final grade § 21.2 applies in the same manner.
- (6) In calculating the average, the grade is rounded only to the first decimal place; all other decimals are ignored without rounding.
- (7) Grades achieved under these Study and Examination Regulations are converted to the ECTS grading system in accordance with the following table (due to the limited amount of data available, a conversion on the basis of statistical data is not possible).

German Grade	ECTS Grade
1.0 - 1.5	A
1.6 - 2.3	B
2.4 - 3.0	C
3.1 - 3.7	D
3.8 - 4.0	E
4.1 - 5.0	F

- (8) The assignment grades earned during a study semester abroad are converted using the “Standard HFU Table for the Calculation of Grades Earned Abroad” (Tabelle für die HFU-einheitliche Umrechnung von Auslandsprüfungsleistungen).
- (9) The module grade is calculated as follows: the grades of each of the module’s graded assessments are multiplied by the appropriate credit points. The results are then added and divided by the total number of credits of all the module assessments. The result is rounded to the first decimal point.

§ 10 Unexcused Absence, Withdrawal, Deception, Breach of Regulation

- (1) Absence or withdrawal from an examination without good reason will be awarded a grade of 5.0. The same applies where a written assessment is not completed within the required period of time. Students may withdraw once from an examination for which they are registered, without being required to give a reason. To do so an application must be filed with the Examinations Office in writing no later than one day prior to the examination (if an assessment consists of several parts, before the final part).

Multiple withdrawals from examinations are permitted for any student who is:

1. A member of the Student Parliament (Studierendenrat) and the Student Council (Allgemeinen Studierendenausschuss AStA) in accordance with §§ 13 and 21 of the founding statutes of the Student Parliament (Verfassten Studierendenschaft).
2. A member of a German national olympic, scouting, reserve, or team sports squad, or of a young hopefuls squad 1 and 2, which belongs to a federal association of the German Olympic Sports Confederation.
3. A member of a state sports squad, or any other athlete designated by the Elite Sports Officer of the University Board of Executives as an elite athlete on an individual basis, according to the current HFU list of criteria.

If elite athletes end their sporting career during their academic studies, the Elite Sports Officer of the University Board of Executives will decide at what point in time a further extension of the deadline will no longer be permitted.

- (2) A credible reason for absence or withdrawal must be submitted promptly and in writing. In case of illness, a doctor's note, and in case of doubt, a note from a doctor nominated by the university may be required. Where the reason given is deemed valid, a new examination date will be set.
- (3) The illness of a child for which the student is the legal guardian is assigned the same status as the student's own illness in the case of observance of deadlines for initial examination registration, examination resits and reasons for absence from examinations / graded assessments.
- (4) Where a student attempts to influence the result of an examination through deception or the use of non-admissible aids, the examination will be awarded the grade of 5.0. Any person disrupting the proper course of an examination may be excluded by the examiner responsible. In such a case, the assessment will be awarded the grade of 5.0. In serious cases of disturbance or deception, the Faculty Examination Board can request that the university exclude such a person from taking part in any further examinations. Plagiarism is considered a serious offense.
- (5) A person so affected may appeal the decision within a month with the Faculty Examination Board in accordance with section 4, first and second sentence. The person should be informed of any negative decision immediately and in writing, giving reasons for the decision. Information regarding rights of appeal must also be provided.

§ 11 Pass and Fail

- (1) A module has been passed when a minimum module grade of 4.0 has been awarded. If the module assessment consists of several individual assessments, it is only passed when all the individual assessments have been awarded a minimum grade of 4.0. A module has been passed when all assessments of the module have been passed.

- (2) An assessment in the form of a graded assessment has been passed when a minimum grade of 4.0 has been awarded. Any further assessment requirements imposed should be marked as a footnote in the Specific Section of the General Study and Examination Regulations.
- (3) An assessment in the form of a non-graded assessment has been passed when a “pass” has been awarded.
- (4) An assessment which is a combination of graded assessment and non-graded assessment has been passed when a minimum grade of 4.0 has been awarded in the graded assessment and a “pass” is awarded in the non-graded assessment. Any further assessment requirements should be marked as a footnote in the Specific Section of the General Study and Examination Regulations. In such a case, registration or withdrawal is only possible from the assessment as a whole, not from the individual parts of the assessment.
- (5) The Master Programme has been passed once all module examinations and the Master thesis have been passed with a minimum grade of 4.0.
- (6) If a module has not been passed or the Master thesis was awarded a grade of less than 4.0, this should be communicated to the student being examined. If applicable, the student must also be informed as to whether and, if applicable, to what extent and within which deadlines, the assessment in question / the Master thesis can be retaken.
- (7) If the master’s degree programme has been failed, upon provision of the relevant documents and the notice of exmatriculation, the student can apply for a certificate showing the graded and non-graded assessments passed and the relevant grades. The certificate will also show that the master’s degree programme was not passed.

§ 12 Resits

- (1) Examinations which have already been passed cannot be retaken.
- (2) Examinations which have not been passed must be retaken. Failed examinations are awarded the number of malus points laid out in the Specific Section.
- (3) The resit examination shall be taken at the earliest at the beginning of and at the latest within the examination period of the respective following semester. Resit examinations must be offered every semester even in courses offered annually. Exceptions must be justified to the dean of studies.

§ 13 Accreditation of Study Periods, Accreditation (Graded / Non-Graded) of prior Learning Accreditation of Prior and Experiential Learning

- (1) Credits and degrees which have been awarded at other German state and state-recognized universities and Cooperative State Universities or from degree programmes in foreign state or state-recognized universities, will be accredited upon request, on the condition that there is no significant difference between such awards and the awards which they are to substitute. The purpose of accreditation is to determine examinations to be taken and to allow continuation of studies or admission to further degree programmes. The onus is on the university to prove that an application does not fulfill the requirements for accreditation.

In the case of a change of degree programme within Furtwangen University, passed assessments and failed examination attempts in courses which are common to both degree programmes will be officially accredited after a hearing of the party involved.

- (2) Prior and experiential learning will be accredited upon request if the type and level of knowledge and skills derived from the experience are equivalent to the criteria of the standard course requirements. The onus is on the applicant to prove that their application fulfills the requirements for accreditation. The volume of credit permissible from prior and experiential learning should not exceed 50% of the total degree programme award.

- (3) Accreditation cannot be awarded for assessments which the student has already passed, failed or withdrawn from at Furtwangen University. Application for accreditation must be made to the relevant Faculty Examination Board within three weeks of the start of lectures in a semester. After that period accreditation can only be considered if proof for *restitutio in integrum* is submitted. The onus is on the applicant to supply the pertinent documentation for accreditation. Where certificates or documents are neither in German or English, a certified German translation may be required. The following documents must be submitted:
- Accreditation in accordance with paragraph 1: unadjusted transcript of records, module description with learning objectives, methods of teaching, content, workload, prerequisites and grading system used to assess the module.
 - Accreditation in accordance with paragraph 2: vocational training regulations, general examination regulations, assessment tasks

The final decision regarding accreditation must be made by the end of the enrolment period of the semester in which the completed application was made to the Faculty Examination Board/dean of studies. Where accreditation is refused or only partially granted, the rationale for the decision must be set out in writing and include information regarding appeal procedures.

- (4) Should existing bilateral agreements between Germany and other countries pertaining to equivalency in universities vary from paragraphs 1 to 3 in favour of foreign university students, the regulations of these equivalency agreements take precedence.
- (5) Grades for accredited graded assessments or non-graded assessments will be carried forward directly to the students record where the grading system is comparable, or where possible be calculated according to the table in § 10.7 and will contribute to the total grade. In the case of ungraded credits for examinations or modules for which the General Study and Examination Regulations require a grade, the grade of 4.0 will be awarded. Accredited non-graded assessments and graded assessments can be clearly marked in the certificate. Credit points for the accredited modules will be awarded to the bonus account and any failed graded or non-graded assessments will be listed in the malus account.

§ 14 Faculty Examination Board

- (1) In order to organise examinations and fulfill other tasks required by the Study and Examination Regulations, each faculty will form a Faculty Examination Board consisting of all full-time professors in the faculty. The chairperson is the vice dean elected from amongst all deans of studies.
- (2) The Faculty Examination Board ensures that the Study and Examination Regulations are adhered to. The Faculty Examination Board may delegate certain of the tasks it is responsible for to the chairperson, the dean or the dean of studies responsible.
- (3) The members of the Faculty Examination Board have the right to be present at any examinations.
- (4) The members of the Faculty Examination Board have by virtue of their office a duty of confidentiality.
- (5) The Faculty Examination Board appoints the examiners and observers.
- (6) The Faculty Examination Board assigns the theses and appoints thesis supervisors.
- (7) The Faculty Examination Board deals with all examinations appeals and, where applicable, issues official statements.
- (8) The Faculty Examination Board is responsible for all disciplinary decisions related to the breach of examination regulations (see § 10).
- (9) The Faculty Examination Committee is responsible for decisions regarding accreditation of study periods, grades and prior learning (§ 13).

§ 14 a Central Examination Board

- (1) Furtwangen University (HFU) will set up a Central Examination Board (ZPA).
- (2) Members of the ZPA are the Vice President Academic Affairs, the respective heads of the Faculty Examination Boards, the Head of the Examinations Office and the Head of the Student Affairs Department. The chairperson is the Vice President Academic Affairs.
- (3) The Central Examination Board is responsible for: coordinating the standard application of the Study and Examination Regulations (SPO), dealing with cross-faculty examination issues and coordinating cross-faculty teaching and quality issues.

§ 15 Examiners and Observers

- (1) Examinations which are not taken concurrently with a lecture can normally only be taken by professors. Other lecturers, tenured or otherwise, may be appointed as examiners where professors are not available. Other persons with professional and academic experience and a qualification at least equal to that which forms the basis of the examination, may be appointed as examiners.
- (2) The examinee may propose an examiner or a group of examiners for their master's thesis and their oral examination, however this does not constitute a right.
- (3) The examiners names should be published on a timely basis.
- (4) Only those with a qualification at least equal to that which forms the basis of the examination can be appointed as observers.
- (5) § 14.4 applies to examiners and observers respectively.

§ 16 Central Examinations Office

- (1) A Central Examinations Office will be set up. The Board of Executives will appoint a professor or up to two professorial deputies as heads of the Examinations Office.
- (2) Grades certificates, examination records (transcript of records) and degree certificates are issued by the central Examinations Office.
- (3) The Head of the Examinations Office
 - Signs notices of ex-matriculation and makes decisions regarding the loss of right to be assessed and exmatriculation due to exceeded deadlines according to §5.3 of the Study and Examination Regulations.
 - Makes decisions regarding appeals against decisions of the Faculty Examination Board.
 - Makes decisions regarding the authorization of withdrawal from examinations in cases of doubt.
 - Makes decisions regarding the discontinuation of the master's thesis according to §18.7
 - Makes decisions regarding the repetition of the thesis in exceptional circumstances according to §§ 18 (8), 19 (7).
 - Makes decisions regarding the approval of late course registrations and course registration changes.

Part II:

Master's Degree Programme

§ 17 Programme Content

- (1) The Specific Section defines the type of assessments required for the mandatory and elective modules.
- (2) The assessments are based on the subject matter of the module components as set out in the Specific Section.

§ 17 a Permanent Failure to Complete Studies

The study programme is considered permanently failed, if

1. the master's thesis has not been passed at the second attempt or is considered failed, or
2. the number of malus points from assessments exceeds 72 (48 for two-semester Master's programme) credit points, or
3. the deadline for completing the programme has been exceeded (cf. § 5.3).

In all three cases the student loses the right to be examined for the degree programme in question and will be ex-matriculated.

§ 18 Registration, Assignment and Completion Deadline for the Master's Thesis

- (1) The Master's thesis is a graded assessment the aim of which is to indicate that a student is able to independently complete an assigned task related to their subject area within a limited timeframe using sound scientific methodology.
- (2) The registration of the Master's thesis takes place within the registration period. The registration must include the topic, name of primary supervisor, name of secondary supervisor (if known) and start and submission date of the thesis. The document must be signed by the candidate and the primary supervisor/university supervisor. A starting date other than 01 March or 01 September must be approved by the Faculty Examination Board (FPA). A charge is payable for late registration. Faculties can set an alternative deadline in their Thesis Stipulations.
- (3) Having checked and confirmed the registration using the full particulars provided above (see paragraph 2), the Faculty Examination Board (FPA) will assign the master's thesis. Topic and deadlines must be recorded on the file. If a master's thesis has not been registered or does not fulfil the registration requirements defined by the individual faculties in their Thesis Stipulations, the master's thesis cannot be undertaken or will not be recognised.
- (4) The Master's thesis will be assigned and supervised by a professor or a member of the academic staff or, if such are not available as examiners, by a tenured or non-tenured lecturer (primary supervisor). The secondary thesis supervisor may also be a person with practical and training experience. Both supervisors must have gained a master's degree or a higher degree, or an equivalent qualification. The consent of the chairperson of the Faculty Examination Board is required if the master's thesis is to be undertaken in an establishment outside the university.
- (5) Master's thesis topics will be announced by the primary supervisors in the faculty or by companies. Candidates may approach primary supervisors in the faculty with their own proposals; topics from other faculties may also be undertaken. The Faculty Examination Board will decide on the assignment of topics and the allocation of supervisors to the individual topics or candidates. Topic, remit and scope of the master's thesis are to be defined by the supervisor in a manner which ensures that the time limit for the master's thesis can be adhered to. The Master's thesis can also be undertaken as group work, provided that individual contributions which are to be graded can be clearly distinguished and assessed.

- (6) An application for a subsequent change of topic must be submitted to the dean of studies on prior arrangement with the thesis supervisor and the departmental office must be notified. If the change merely involves the final wording of a provisional thesis topic, it is sufficient for the primary thesis supervisor to make a corresponding insertion on the master's Thesis Registration Form.
- (7) The time limit for completion of the master's thesis is six months. An extension of no more than nine months may be granted where necessary to ensure equal examination conditions, or in cases where the candidate is not responsible for the delay. The final decision will be taken by the dean of studies on the basis of feedback from the supervisor. In cases where, through no fault of the candidate, the Master's thesis work is interrupted resulting in the thesis work taking more than nine months, the candidate must apply to the Head of the Examinations Office without delay, stating the cause and enclosing a letter of approval from the primary supervisor.
- (8) Withdrawal in accordance with § 10.1, after a thesis has been registered, is only possible under exceptional circumstances and is subject to the permission of the Faculty Examination Board. In such cases, a new thesis topic must be applied for within 2 months of the withdrawal date. In exceptional cases the final decision will be taken by the Head of the Examinations Office.

§ 19 Submission and Assessment of the Master's Thesis

- (1) The final papers shall be submitted in electronic form at the specified time. The time of submission is to be made part of the records. The supervisors may request additional print copies, which may not deviate from the electronic form. The details for the submission of theses are regulated by the "Thesis Stipulations" of the Faculty Examination Boards.
- (2) When submitting the thesis, a written assurance must be given that the thesis - in the case of a group thesis, the part of the thesis marked accordingly - has been written independently and that no sources and aids other than those specified have been used. This assurance must be signed by the student's own hand, which can also be transmitted digitally.
- (3) The Master's thesis is assessed by two examiners (primary and secondary supervisors). The assessment should be completed within six weeks. Upon request, three weeks after the submission of the thesis, the primary supervisor can inform the Examinations Office whether or not the thesis has been passed.
- (4) The thesis grade is the arithmetical average of the grades awarded by the two examiners. It forms part of the final grade, weighted as defined in the Specific Section of the SPO. If the grades of the two examiners diverge by more than 2.0, or if only one of the examiners awards the thesis a grade of 5.0 (Fail), the two examiners will be asked to give their rationale for the grades awarded. The Faculty Examination Board will then decide whether a third review should be undertaken by a professor of Furtwangen University. If two of the three markers award the thesis a grade of 5.0 (Fail), the master's thesis has been failed. However, if at least two of the examiners award the thesis a grade of 4.0, the grade of the master's thesis will be the arithmetical average of the grades awarded by the three examiners. If in doing so, this results in an arithmetical average of less than 4.0 (adequate), the master's thesis will be awarded a 4.0.
- (5) In cases where a candidate who is employed externally agrees to an obligation of confidentiality, the thesis is assessed only on the basis of the documentation submitted; it may not contain any confidential sections. The documentation may contain a non-disclosure notice effective for a maximum of five years. This must, however, be explicitly agreed prior to assignment of the thesis by the primary and secondary supervisors of the thesis. Such an agreement should be signed by the dean of the faculty and the university supervisor.
- (6) A Master's thesis that is discontinued or not submitted on time will be graded as a "Fail" (5.0).
- (7) If a master's thesis receives a grade of less than 4.0, it may be retaken once; a second resit is not possible. Application for the setting of a new topic must be made in writing to the chairperson of the Faculty Examination Board no later than two months following the notification of failure. Failure to comply with this deadline will result in loss of entitlement to be examined except in cases where the candidate can not be held responsible for the delay. In exceptional cases the final decision will be taken by the Head of the Examinations Office.

- (8) The thesis module includes a colloquium or a presentation. Further details can be set out in the thesis stipulations of the individual faculties.
- (9) The Faculty Examination Board decide upon faculty-specific thesis stipulations which affect, for example, the acceptance stipulations, the presentation, the costs, the place of work, external theses, the formal layout and design, and the data storage devices which are to be submitted.

§ 20 Additional Modules / Subjects and Required Elective Subjects

- (1) Students may be examined in subjects / modules in addition to those prescribed (additional modules / subjects). The results achieved in such modules / subjects do not form part of the calculation of the final grade. Upon request, any additional modules / subjects which have been taken as part of the student's study programme and their grades can be listed in the grades certificate. This does not apply for credits gained at Furtwangen University outside the main course of study.
- (2) The status of additional subjects cannot be changed to that of required elective subject. A graded additional subject may be listed on the grades certificate upon request. Additional subjects do not affect the student's final grade.
- (3) Required elective courses become mandatory examined courses upon registration for the class which means that they must also be passed even if they are not a requirement of the Master's-degree. Withdrawal from an elective is in principle not permitted. If the course or assessment is no longer offered, the dean of studies will assign a new required elective course as a substitute. The Head of the Examinations Office will make decisions regarding any other exceptions in special cases upon request.

§ 21 Composition of Final Grade and Grades Certificate

- (1) In accordance with § 9.4-6, the final grade is calculated from the module grades weighted in accordance with their credit points.
- (2) For outstanding results (final grade of 1.3 or above) the grade "Passed with Distinction" is awarded.
- (3) A grades certificate shall be issued immediately, if possible, within four weeks of completion of the studies. The certificate will contain the module grades, the topic and grade of the master's thesis, as well as the final grade and the total credit points awarded in accordance with § 2.2; the grades will include the decimal value in brackets as set down in § 9.6. Furthermore, the total number of credit points, the confirmation of any period of study abroad, the area of specialization, as well as - upon request - the results of the examinations in any additional subjects/additional modules, the length of time required to successfully complete the degree, and, if applicable, bilingual study, shall be included in the certificate.
- (4) The grades certificate is dated on the day on which the final assessment was completed. It is signed by the President (or in exceptional cases one of the Vice Presidents) as well as the relevant dean (or in exceptional cases their representative) and affixed with the seal of Furtwangen University – Computer Science, Technology, Business, Media, Health Sciences.
- (5) The language of the grades certificate (German / English) is defined in the Specific Section. A translation into the other language can be provided upon request.
- (6) Furtwangen University issues a Diploma Supplement in English.
- (7) Furtwangen University produces an ECTS table which shows the breakdown of the final grade in percentages for every degree programme.

§ 22 Academic Title and Master's Certificate

- (1) The master's degree is issued by Furtwangen University following successful completion of the master's programme.
- (2) *Master of Science (MSc)* for the Advanced Computer Science, Advanced Precision Engineering, Application Architectures, Applied Health Promotion, Applied Materials Science, Biomedical Engineering, Business Application Architectures, Business Consulting, Business Administration and Engineering – Product Innovation, Computer Science in Media, Digital Media, Computer Science, Human Factors, Innovation Engineering, International Management, Medical Devices – Regulatory Affairs, Medical Diagnostic Technologies, Mechatronics Systems, Microsystems Engineering, Micromedicine, Micromedical Engineering, Mobile Systems, Precision Manufacturing and Management, Precision Medicine Diagnostics, Risk, Reliability and Safety Engineering, Sustainable Bioprocess Technology, Security & Safety Engineering, Smart Systems and Technical Physician programmes.
- (3) *Master of Business Administration (MBA)* for the Executive Master of International Business Management, Business Application Architectures and International Business Management programmes.
- (4) *Master of Business Administration (MBA)* for the Sales & Service Engineering (MBA in Sales & Service) for the Business Administration and Engineering – Sales & Service Engineering programme.
- (5) *Master of Arts (MA)* for the Interactive Media Design programme and MusicDesign.
- (6) The master's degree certificate is issued at the same time as the grades certificate and has the same date. It certifies the award of the master's degree. The Master's degree certificate is signed by the President (in exceptional cases by one of the Vice Presidents) and affixed with the seal of Furtwangen University.

§ 23 Invalid Graded / Non-Graded Assessments and / or Invalid Degree

- (1) Where the examinee is found guilty of deception on a graded / non-graded assessment and such fact only becomes known after the grades certificate was issued, the relevant grade can be corrected in accordance with § 10.4. If necessary, modules can be awarded a 5.0 and the degree can be declared failed. The same applies to the Master's thesis.
- (2) Where the requirements for the completion of a module have not been met, but no deception was intended by the examinee and this fact only becomes known after the grades certificate was issued, then no further action will be taken. In cases where intentional deception was used to pass a graded / non-graded assessment or a module, such a graded / non-graded assessment or module can be awarded a 5.0 and the degree can be declared failed.
- (3) Before a decision is made, an opportunity for a hearing must be given. The decision is taken by the relevant Faculty Examination Board in accordance with section 1 and 2.
- (4) The incorrect grades certificate must be retracted and, if applicable, a replacement must be issued. Should a graded / non-graded assessment or the degree programme as a whole be declared failed as a result of deception, the master's degree certificate must be revoked together with the incorrect grades certificate. A decision made on the basis of section 1 and 2, sentence 2 is only possible within five years of the date of issue of the grades certificate

§ 24 Inspection of Examination Files

Upon request, the examinee can inspect their written work at an appropriate time and place for up to a year after the completion of an assessment; § 29 of the Landesverwaltungsverfahrensgesetz is not affected.

§ 24 a Leave of Absence

Students on leave of absence are not permitted to participate in any examination (see § 61.3 of the Landeshochschulgesetzes (LHG) for exceptions relating to the maternity rights law). Due to an extension of the submission date, work begun in the previous semester may be submitted to be completed in the following semester.

§ 24 b Maternity Rights, Parental Leave, Caregiving

- (1) If maternity rights are applied for in accordance with the law for the protection of working mothers (“Mutterschutzgesetz”, MuSchG), applicable deadlines must be adhered to and pertinent documentation must be enclosed with the application. Deadlines for maternity rights take precedence over any other deadlines in the Study and Examination Regulations. The period of maternity leave is not included in the deadline applicable in § 5.3.
- (2) Mothers-to-be are permitted to take examinations during maternity leave, however the Examinations Office must be informed of this in writing. This regulation is valid for the entire semester if a part of the maternity leave takes place during the semester.
- (3) Similarly, if parental leave is applied for in accordance with current German regulations (BEEG), the applicable deadlines must be adhered to. Students applying for parental leave must notify the faculty examination board in writing of the time period requested at least four weeks prior to the start of the parental leave. Pertinent documentation should be enclosed with the application. The dean of studies will ascertain whether the applicant fulfils the legal requirements for parental leave and will inform the applicant of the results and of the new examination dates.
- (4) If maternity or parental leave take place during study leave, it is still possible to take examinations. (See § 61.3, LGG). A separate exam registration must be carried out by the required deadline. Recognition of exam results without prior registration is not possible.
- (5) Caregiving leave for a close relative as set out under the relevant current Caregiving Leave Law and §§ 14 and 15 of the eleventh book of the Social Welfare Statutes can be granted upon request. Pertinent documentation should be enclosed with the application. The period of caregiving leave is not taken into consideration in the deadline set down in § 5.3.

B. Specific Section

§ 25 Notes on the Standard Curriculum of the Master's Programmes

- (1) Where the standard curriculum provides for elective modules, the student must select sufficient subjects/modules from those offered to achieve the number of credit points (ECTS) stipulated in the regulations for the respective programme.
- (2) Where a programme offers different specialisations, one of these must be selected.

Table of Abbreviations

Type of course		
B	Blended Learning	Form of teaching and learning in which classroom lectures are combined with online elements.
O	Online Lecture	Instruction is given online.
P	Practical /Lab	Presence may be required.
Pr	Joint Course Assessment	Examination of taught course.
Pj	Project	
S	Seminar	Teaching session in which certain topics are dealt with and discussed in more depth. It is therefore expected that students take an active part in the seminar. To this end, attendance can be required.
Ü	Practical	
V	Lecture	
W	Workshop	Teaching session in which discussions are held between all participants. Goal is often the development of strategies or the solution of problems as a group. To this end, attendance can be required.
Grading method		
PL	Graded Assessment	Assessment is graded.
SL	Non-Graded Assessment	Assessment is graded with "pass" or "fail".

Prefixes		
sb	Semesterbegleitend – takes place during the semester	The assessment in question must take place before the start of the normal examination period.
sba	Semesterbegleitend aufteilbar – takes place during the semester and can be divided into several parts	The assessment which takes place during the semester can be divided into several parts. If this option is used, the lecturer must announce, document and archive the examination details (weighting, compensability, repeat requirement in case of failure) at the beginning of the semester after consultation with the Dean of Studies.
Mode of Assessment		
A	Practical Assignment	Practical work which may be carried out in connection with a project
B	Report	Written report whose structure and scope are defined by the lecturer
H	Written assignment	Written project work on a defined topic.
K	Written Examination	Written examination which can also take the form of an online examination and/or an e-examination
KO	Kolloquium	Oral exam which can also be taken online on a specific topic carried out individually or in groups
L	Laboratory Work	Laboratory work, normally with standard procedures (experiments or routine exercises) by which pre-defined experiment set ups or pre-defined structured routine procedures are carried out.
M	Oral Examination	Oral examination which can also be taken online
P	Student Journal	Written presentation of a laboratory activity or similar
PF	Portfolio	Written documentation of learning progress
PN	Presentation	Presentation on a defined topic which can also be carried out online. No documents other than those required to give the basic presentation have to be submitted.
R	Referat – Presentation with documentation	Presentation with accompanying written documentation on a defined topic. Content and scope of the written work is defined at the start of the course or module.
ST	Study Assignment	Assignment on a defined topic which consists of both written work and a presentation.
T	Thesis	Thesis without presentation

Further Abbreviations		
ECTS	European Credit Transfer System	
FAR	Faculty Board	
FPA	Faculty Examination Board	
LP	Credit Points (according to ECTS)	
LV	Lecture	
PAL	Prüfungsamtsleiter/-in	Head of the Examinations Office
SWS	Semesterwochenstunden	Number of contact hours per week
ZPA	Zentraler Prüfungsausschuss	Central Examination Board

- § 26 **Master Programme Advanced Computer Science (last admission summer semester 2014)**
- § 27 **Master Programme Application Architectures (last admission summer semester 2012)**
- § 28 **Master Programme Biomedical Engineering**
- § 29 **Master Programme Business Consulting**
- § 30 **Master Programme Business Administration and Engineering – Sales & Service Engineering**
- § 31 **Master Programme Computer Science in Media (last admission summer semester 2010)**
- § 32 **Master Programme Microsystems Engineering (last admission summer semester 2010)**
- § 33 **Master Programme Executive Master of International Business Management**
- § 34 **Master Programme International Business Management**
- § 35 **Master Programme Smart Systems**
- § 36 **Master Programme Security & Safety Engineering**
- § 37 **Master Programme Digital Media (last admission summer semester 2013)**
- § 38 **Master Programme International Management**
- § 39 **Master Programme Business Application Architectures**
- § 40 **Master Programme Computer Science in Media**
- § 41 **Master Programme Interactive Media Design**
- § 42 **Master Programme Medical Diagnostic Technologies (last admission summer semester 2019)**
- § 43 **Master Programme Technical Physician**
- § 44 **Master Programme Micromedicine (last admission summer semester 2019)**
- § 45 **Master Programme Advanced Precision Engineering**
- § 46 **Master Programme Sustainable Bioprocess Technology**
- § 47 **Master Programme Mobile Systems**
- § 48 **Master Programme Mechatronic Systems**
- § 49 **Master Programme Computer Science**

- § 50 **Master Programme Business Administration and Engineering – Product Innovation
(last admission summer semester 2023)**
- § 51 **Master Programme Applied Materials Science**
- § 52 **Master Programme Applied Health Promotion**
- § 53 **Master Programme Precision Manufacturing and Management**
- § 54 **Master Programme MusicDesign (last admission summer semester 2020)**
- § 55 **Master Programme Risk, Reliability and Safety Engineering**
- § 56 **Master Programme Precision Medicine Diagnostics**
- § 57 **Master Programme Micromedical Engineering**
- § 58 **Master Programme Human Factors**
- § 59 **Master Programme Medical Devices – Regulatory Affairs**
- § 60 **Master Programme Innovation Engineering**

C. Final Regulations

§ 61 Commencement

These Study and Examination Regulations take effect from 1 June 2020. At the same time the Study and Examination Regulations of Furtwangen University – Computer Science, Engineering, Business, Media, Health, dated 11 December 2019, cease to be effective.

Furtwangen, 17 May 2023

signed by Professor Dr. Rolf Schofer

President