Study and Examination Regulations for the Bachelor's Programs of Hochschule Ravensburg-Weingarten (RWU) University of Applied Sciences as of June 26th, 2025

On June 26th, 2025, pursuant to § 8 section 5 in conjunction with § 30 section 1 and § 32 of the Baden-Württemberg Higher Education Act (Landeshochschulgesetz - LHG) of January 1st, 2005 (law gazette, page 1 et seqq.) as amended from time to time, the Senate of Hochschule Ravensburg-Weingarten University of Applied Sciences enacted the following changes to the Study and Examination Regulations in compliance with § 19 section 1 No. 9 LHG. The Rector has approved the Study and Examination Regulations pursuant to § 32 section 3 sentence 1 LHG.

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A. General Part

§ 1 Scope of Application and Structure

(1) The present Study and Examination Regulations apply to the following Bachelor's programs:

1. Energy and Environmental Engineering
2. Business Administration and Management
3. Mechanical Engineering
4. Automotive Engineering
5. Electrical Engineering and Information Technology
6. Business Informatics
7. Applied Computer Science
8. Industrial Engineering (Technology Management)
9. Social Work
10. Applied Psychology
11. Automotive Engineering PLUS Teaching Post
12. Computer Science/Electrical Engineering PLUS Teaching Post
13. Health Economics
14. Business Informatics PLUS Teaching Post
15. Nursing
16. Physical Engineering
17. E-Mobility and Green Energy
18. Media Design
19. Internet and Online-Marketing
20. Business Psychology
21. Mechatronics

(2) The academic year is divided into semesters commencing on May 01st and September 01st, respectively. The date on which the course of study can actually be commenced is laid down for each study program in the Admission Regulations.

(3) The provisions as laid down in the General Part (A) shall apply unless otherwise stipulated in the special Study and Examination Regulations of the individual study programs.

§ 2 Objective of the Study, Purpose of the Examination, Academic Degree

(1) The Bachelor's study program aims to convey specialized knowledge and skills corresponding to Level 1 of the German Qualifications Framework for Higher Education Degrees enabling the students to take up skilled employment develop their personality and pursue academic work.

(2) The Bachelor's examination terminates the studies by conferring a professional qualification in the following study programs:

1. Energy and Environmental Engineering
2. Business Administration and Management
3. Mechanical Engineering
4. Automotive Engineering
5. Electrical Engineering and Information Technology
6. Business Informatics
7. Applied Computer Science
8. Industrial Engineering (Technology Management)
9. Social Work
10. Applied Psychology
11. Automotive Engineering PLUS Teaching Post
12. Computer Science/Electrical Engineering PLUS Teaching Post
13. Health Economics
14. Business Informatics PLUS Teaching Post
15. Nursing
16. Physical Engineering
17. E-Mobility and Green Energy
18. Media Design
19. Internet and Online-Marketing
20. Business Psychology
21. Mechatronics

(3) The examination is meant to establish that the student has achieved the objectives defined for his program.

(4) Successful pass of the Bachelor's examination leads to the award of an academic degree, i.e:

1. Bachelor of Engineering (B.Eng.) for the study programs

- E-Mobility and Green Energy,
- Electrical Engineering and Information Technology,
- Energy and Environmental Engineering,
- Automotive Engineering,
- Automotive Engineering PLUS Teaching Post,
- Mechanical Engineering,
- Industrial Engineering (Technology Management)
- Mechatronics.

2. Bachelor of Science (B.Sc.) for the study programs

- Applied Computer Science,
- Applied Psychology,
- Computer Science/Electrical Engineering PLUS Teaching Post,
- Internet and Online-Marketing,
- Media Design,
- Physical Engineering,
- Business Informatics,
- Business Informatics PLUS Teaching Post
- Business Psychology.

3. Bachelor of Arts (B.A.) for the study programs

- Business Administration and Management,
- Health Economics,
- Nursing,
- Social Work.

§ 3 Official Length of Program, Organization of Studies

(1) The official length of program including the time provided for completing the Bachelor's thesis and passing all examinations is laid down in the Study and Examination Regulations of the individual study programs.

(2) At all stages, the study has a modular structure. A module denotes an individual course or a group of courses with a coordinated thematic and chronological structure to which a certain number of ECTS is assigned depending on the workload required for successful participation. These ECTS are not awarded for mere attendance, but as a rule only if proof of a specific accredited examination can be

provided. Assignment of the ECTS is effected in compliance with the ECTS (European Credit Transfer System), with one credit point corresponding to the sixtieth part of the student's annual workload (30 hours). The Reference Book of Modules of the individual study program completes the Study and Examination Regulations of the study program in question. It provides detailed information, among others, about the examinations as laid down in the Study and Examination Regulations. The Reference Book of Modules shall be approved by the Faculty Council in consultation with the Academic Commission. The Faculty Council may assign the head of study program with the task of approving the Reference Book of Modules.

(3) The SWS of a course generally take place in face-to-face. If more than 15% of the SWS of a course are to be delivered as distance learning, approval from the relevant dean's office is required, which must generally be applied for as part of the teaching and timetable planning process. Approval may be delegated by the dean's office to the heads of studies of the study programs.

(4) Upon decision by the Faculty Council concerned, courses can also, on a case-by-case basis, be taught in English.

(5) Upon decision of the responsible Faculty Council, the sequence and the type of modules/courses and examinations as laid down in the Study and Examination Regulations for the individual study programs can, in particular cases, be changed for one academic semester and for compelling reasons if this is imperative to ensure the orderly running of the study program. The reasons for the changes must be documented.

(6) Transitional provisions for new Study and Examination Regulations for the individual study programs must be agreed upon in the Faculty Council in consultation with the Academic Commission.

(7) The attendance of courses can be made compulsory if and only if the students' presence is absolutely necessary to build the competence. Compulsory attendance is documented in the Reference Book of Modules for the respective module.

§ 4 Pre-University Internship

(1) As a rule, the pre-university internship, if required in the Study and Examination Regulations for the respective study program, should be completed prior to the commencement of the study program, but evidence must be provided by the end of the third subject-related semester at the latest. The examination entitlement and admission to the study program will expire if the pre-university internship has not been completed by the end of the 3rd subject-related semester unless the student cannot be held responsible for his failure to observe the deadline. In the event of an objection, the Central

Examination Board will decide if the student will be held responsible for missing the deadline. The Student Examination Office will verify if a confirmation by the head of the Internship Office exists. Evidence of completion of the pre-university internship must also be provided by students commencing their studies at University of Applied Sciences Ravensburg-Weingarten in a higher subject-related semester due to the transfer of ECTS and study periods. In such case, the head of the Internship Office will fix the deadline for completion of the pre-university internship.

(2) During the pre-university internship, the intern will work in suitable firms or government agencies (training institutions or companies) to acquire practical knowledge and skills from the occupational field of his study program. A completed vocational training in the relevant occupational area of the study program or an activity equivalent to the pre-university internship can be recognized as a pre-university internship.

(3) Periods of school education, vacations, times of illness and other times of absence are not considered as internship for the purpose of these regulations. For the pre-university internship to be recognized, the training institution or company must issue a confirmation of internship stating the times worked and the fields of activity. Vacations, sick days and other days absent must be shown separately.

(4) Upon request by the student, the head of the Internship Office of the respective study program shall decide upon the recognition of the pre-university internship.

§ 5 Compulsory Practical Semester

(1) The sixth-months' Compulsory Practical Semester shall comprise practical activities from the student's line of profession (at training institution or company) as well as accompanying academic courses at the University held as block courses. The weekly/daily attendance time at the training institution or company may be flexible as agreed between the student and the company/institution offering the placement. However, for the Compulsory Practical Semester to be recognized with regard to examination requirements, the student must give evidence of at least 95 full-time attendance days in accordance with the regulations in place for the specific training company/institution. A higher number of full-time attendance days necessary for the Compulsory Practical Semester to be recognized as complying with the examination requirements may be defined in the Special Part hereof. For students entitled to use §§ 28 to 30 of the present regulations, the required full-time attendance days can be extended over a period of two semesters. Lack of evidence or failure to achieve the required number of attendance days will not affect the compulsory nature of the practical semester.

During their Compulsory Practical Semester, students will usually be supervised by a professor for a time period of 4 hours. The Compulsory Practical Semester may not be completed prior to the 5th

semester unless otherwise stipulated in the Study and Examination Regulations of the respective study program. Any preponement will be subject to written approval by the head of the competent Examination Board.

(2) The University will cooperate with the companies and institutions offering the placement in all issues concerning the student's work-related practical education. During the Compulsory Practical Semester, accompanying academic courses will be provided according to the Study and Examination Regulations of the respective study program.

(3) Students must draw up written reports on their training during the Compulsory Practical Semester and have them confirmed by the training institution or company. At the end of the Compulsory Practical Semester, the training institution/company will issue a proof of activity stating the type and the content of the activity, beginning and end dates of the training period, full-time attendance days in accordance with the regulations in place for the specific training company/institution as well as times of absence. On the basis of the training report and the proof of activity, it will be determined if the students have successfully completed their Compulsory Practical Semester. Should the Compulsory Practical Semester not be recognized as successfully completed, it may be repeated once, with the head of the Internship Office of the respective study program being responsible for the decision.

(4) It is the student's responsibility to obtain a placement for the Compulsory Practical Semester. The student must propose the training institution or company and obtain the approval of the head of the Internship Office; in case of doubt, the final decision lies with the Examination Board.

(5) The University will establish Internship Offices for the various study programs. These Internship Offices will be responsible for the organisational aspects of the Compulsory Practical Semester, the coordination of the training contents and for maintaining the relationship with the training institutions and companies.

(6) The student will conclude a training agreement with the company or institution offering the placement according to the specimen defined by the Internship Office. A copy of the training agreement must be submitted to the Internship Office prior to the commencement of the Compulsory Practical Semester.

(7) The training institution or company commits to grant the student a leave of absence of up to ten work days during the Compulsory Practical Semester to prepare and review lectures; holidays are not considered attendance days.

(8) Subject to prior approval by the head of the Internship Office, the student is allowed to change the training institution or company during the Compulsory Practical Semester provided that such change

would be beneficial to the pursuit of the studies or necessary in well-founded exceptional circumstances. In case of doubt, the final decision lies with the Examination Board.

§ 6 Type and Structure of the Examination

(1) The Bachelor's examination consists of the examinations in the different modules and the Bachelor's thesis or the Bachelor's module, if the latter is provided for in the Study and Examination Regulations of the respective study program.

(2) A module encompasses defined competences to be acquired and, as a rule, concludes with a single accredited academic achievement/examination. Nature, form and scope of the accredited academic achievement/examination for the individual modules are laid down in the Study and Examination Regulations of the respective study program. Detailed information on the nature and the form of the examination(s) to be taken are given in the Reference Book of Modules.

§ 7 Scope of the Examination, Intermediate Assessment, Deadlines for Academic Achievements during the Course of the Studies

(1) Insofar as the official course of the studies is observed, the students will normally take a maximum of six examinations per semester according to § 6 hereof.

(2) At the end of the first year of study, an intermediate assessment will take place covering the academic achievements of the first two semesters as specified in the Study and Examination Regulations of the respective study program, worth 60 ECTS.

(3) Students must have passed all parts of the intermediate assessment, with the exception of maximum ten ECTS, by the end of the fourth semester of study. However, it is possible that the Study and Examination Regulations of the respective study program provide a different deadline by which all parts of the intermediate assessment, with the exception of maximum ten ECTS, must have been passed. The examination entitlement and the admission to the study program will expire should the student not have obtained all ECTS required for the intermediate assessment, with the exception of ten ECTS, by the end of his/her fourth semester or by the end of the deadline specified in the Study and Examination Regulations of the respective study program unless the student cannot be held responsible for his/her failure to observe the deadline. In the event of an objection, the Central Examination Board will determine if the student is to be held responsible for exceeding the deadline.

(4) To successfully complete the study program, it is necessary to earn a total of 210 ECTS. ECTS are awarded for passed modules as well as for the successfully accomplished Compulsory Practical

Semester, the applicable number of ECTS being defined in the Study and Examination Regulations of the respective study program.

(5) Students who have not obtained the required number of ECTS by the end of the official length of the program plus three semesters will lose their examination entitlement for the study program concerned. However, if a proof of having consulted the academic advisory service of his/her study program is submitted before the expiration of this deadline, the deadline is extended by one semester. The examination entitlement is not lost if the student is not responsible for exceeding the deadline. If the student is to be held responsible for exceeding the deadline will be determined by the Central Examination Board.

(6) The provisions concerning the academic achievements to be completed for the intermediate assessment override the provisions concerning the repetition of failed examinations.

(7) Examinations are offered in a semester for those modules taught in that semester as well as retake examinations. The examiner may change the form of examination to an oral examination in the case of retake examinations for organizational reasons (e.g. portfolios, group presentations or laboratory work) if the module is not taught in the semester concerned.

(8) Participation in RWU Master's degree program module examinations up to a maximum of 25 ECTS is permitted if academic achievements amounting to at least 180 ECTS have already been completed. The ECTS earned from Master's degree module examinations do not count towards the Bachelor's examination, but are credited ex officio towards the corresponding Master's examination. Failed attempts will also count towards the Master's examination.

§ 8 Retake of Examinations

(1) Failed examinations can be retaken twice. The second retake presupposes that the student can provide proof of having consulted the academic advisory service of his/her study program prior to registering for the examination. It is not possible to retake a passed examination.

(2) Failed compulsory examinations and compulsory examinations deemed failed must be retaken. A module examination cannot be retaken in parts, but only as a whole. The provisions concerning the retaking of Bachelor's examinations are laid down in § 12.

(3) Examinations taking place during the lecture period are deemed commenced once the student has participated in the first test. Students who are unable to sit parts of an examination taking place during the lecture period for reasons they cannot be held responsible for will be given the opportunity to retake the outstanding parts latest in the next semester. Place and time of the retake will be

determined by the examiner. For organizational reasons, the partial examination can be conducted as an oral examination analogous to §7 paragraph 7.

(4) A student may not withdraw from an examination that has already begun. Abandoning an examination that has already begun will be counted as a failed attempt..

§ 9 Forms of Examination, Electronic Examinations

(1) As a rule, accredited examinations can have the following forms:

- Oral examination
- Written examination
- Written examination during the lecture period
- Other written papers (e.g. term paper, report, seminar paper)
- Multiple choice
- Oral paper
- Presentation
- Laboratory work
- Design
- Practical work
- Poster
- Portfolio
- Colloquium

Further forms of examination can be defined in the Study and Examination Regulations of the individual study programs. Team achievements are admissible.

(2) Examinations can also be taken in IT-supported form.

(3) Oral examinations may be conducted by videoconference according to the Ravensburg-Weingarten University guidelines for conducting oral examinations via videoconference.

(4) As a rule, the examinations will be taken during the examination weeks outside the lecture period of the academic semester.

(5) The assessment process shall take no longer than four weeks.

§ 10 Oral Examinations

(1) As a rule, oral examinations shall be taken before at least two examiners or before one examiner and one competent observer, as a group or as an individual examination. Before determining the grade in compliance with § 13, each examiner shall hear the other examiners attending the examination resp. the competent observer.

(2) Oral examinations shall have a duration of at least 20 minutes for each candidate, maximum 30 minutes.

(3) The major contents and the results of the oral examinations must be laid down in the minutes. The tested candidate must be informed of the result subsequent to the examination.

(4) Students wishing to take the same examination on an examination date later than the ongoing examination period shall be admitted as listeners unless the tested candidate disagrees. However, such admission will not include consultation and announcement of the examination results.

§ 11 Examinations during the Lecture Period

(1) Examinations can also be held during the lecture period. In particular, such examinations include portfolio examinations and mid-term written tests. The sum of the individual partial tests completed during the lecture period may not exceed the regular extent of a single examination as defined for the study program. Type, extent, and relative weighting of the individual examination elements are laid down in the module description.

(2) A portfolio examination consists of several examination elements of different forms. Possible forms of examinations are, in particular, oral exams, oral papers and presentations, written documentations, multiple choice tests, documented practical works, designs or posters.

(3) A written examination during the lecture period consists of several partial written tests.

§ 11 a Award of Bonus Points

The responsible examiner can, at his/her own discretion, additionally define possibilities of improving the final grade (for example give bonus tasks, presentations and/or practical works) encouraging the students' continuous participation throughout the lecture. The total of such possibilities may not improve the final module grade by more than 0.5. A prerequisite for the bonus

points to be considered is that the student has passed the accredited examination as laid down in the Study and Examination Regulations of the respective study program. Students shall be informed of

these complementary possibilities to improve their final grade at the beginning of the course as well as via the Reference Book of Modules.

§ 12 Bachelor's Thesis

(1) The Bachelor's thesis is an accredited examination which shall prove the candidate's ability to solve problems and work on a topic from the subject-matter of his major field of study within a specified period of time using adequate methods. The scope of work for the Bachelor's thesis shall range between six and 12 ECTS with the exact number being laid down in the Study and Examination Regulations of the respective study program.

(2) The topic for the Bachelor's thesis will be issued by a professor. The thesis shall be supervised by same professor and another professor. Should the Bachelor's thesis be completed at an institution other than the University, the chairperson of the Examination Board must give his/her consent. It must be ensured that the student be released from work for the purpose of attending the required courses.

(3) The Bachelor's thesis must be submitted no later than six months after the date of registration. At the request of the student, the Examination Board may typically, in agreement with the supervisor, extend the deadline by up to four weeks if there is a special reason for doing so. In cases of serious hardship, the deadline may be suspended.

(4) The topic can only be returned once and only within the first two weeks of the completion time. A new topic must be agreed upon without delay, however within 4 weeks at the latest. § 28 section 3 remains unaffected hereof.

(5) The Bachelor's thesis must be submitted to the Student Examination Office in due time in two printed copies as well as in electronic form (pdf) or else exclusively in electronic form, depending on the requirements of the first examiner. The day and time of handing in the paper must be officially recorded. On submittal, the student will be required to assure in writing that he/she has written the thesis independently and that he/she did not use any sources or aids other than those referenced. Non-observance of the time limit fixed for handing in the Bachelor's thesis will lead to the paper being graded with "fail" (5.0).

(6) As a rule, the Bachelor's thesis will be graded by two examiners to be appointed by the Examination Board. Usually, one of the examiners will be the supervisor of the Bachelor's thesis. At least one of the examiners shall be a professor or university lecturer of the faculty concerned. The evaluation procedure shall not exceed four weeks.

(7) In order to pass their Bachelor's thesis, candidates will need an overall grade of at least "sufficient" (4.0). It is possible to repeat it once; a second repetition being excluded.

§ 13 Evaluation of Examinations, Non-Observance of Deadlines for Examinations

(1) The grades for the different examinations accredited will be determined by the examiners involved. The following grades must be used for the assessment of the examinations:

Grade	Performance
1 = very good	An excellent performance
2 = good	A performance well above average requirements
3 = satisfactory	A performance which fulfills all average requirements
4 = sufficient	A performance which meets the requirements despite some shortcomings
5 = fail	A performance which due to considerable shortcomings does not meet the requirements

To differentiate the evaluation of the examinations, it is possible to use decimal grades in 1/10 increments with 1.0 being the best and 5.0 the worst grade.

(2) If an examination is evaluated by more than one examiner (each examiner evaluates the entire examination), the grade shall be calculated from the average of the grades fixed by each examiner. To determine the grade of an examination where several examiners assess different parts of the examination, the grade shall be determined on the basis of a total number of points to be achieved. If a module examination, by way of exception, consists of several independent tests, then the grade of the academic achievement will be calculated from the average of the grades achieved in the different examinations weighted according to the number of ECTS. The following grades shall be used.

for an average of up to 1.5	= very good;
for an average from 1.6 to 2.5	= good;
for an average from 2.6 to 3.5	= satisfactory;
for an average from 3.6 to 4.0	= sufficient;
for an average of 4.1 or worse	= fail.

(3) For examinations taking place throughout the semester such as portfolio examinations or written examinations held during the lecture period, the grade of the module is calculated from the weighted

results of the various examination elements. Individual partial performances do not have to be passed in order to pass the semester-accompanying examination.

(4) When fixing the grades only the first decimal will be taken into account; all other decimals will be dropped without rounding.

(5) The overall grade for the degree is calculated on the basis of the module grades achieved during the entire study weighted according to the number of ECTS (weighted arithmetic mean). Ungraded partial tests of a module will not be taken into account for the calculation of the module grades. However, as the weight of these grades contributes to the weight of the entire module, they will affect the calculation of the overall Bachelor grade.

(6) For outstanding performances (overall grade 1.3 or better), the overall assessment "pass with distinction" ("mit Auszeichnung bestanden") will be awarded.

(7) The final grade as documented in the Diploma Supplement will be awarded as relative grade according to the following table set up by the HRK *(Association of Universities and other Higher Education Institutions in Germany)*:

A the best 10 % of the graduates
B the next 25 % of the graduates
C the next 30 % of the graduates
D the next 25 % of the graduates
E the next 10 % of the graduates

This relative grading system is used if the number of graduates of the past three semesters is at least 30. Otherwise no relative grade will be awarded; instead the grades will be determined as follows:

A for an average of up to 1.5
B for an average from 1.6 to 2.0
C for an average from 2.1 to 2.5
D for an average from 2.6 to 3.5
E for an average from 3.6 to 4.0.

Recognition and conversion of examinations taken abroad will be effected according to § 6 of the statutes concerning the transfer of academic achievements and examinations at the University of Applied Sciences Ravensburg-Weingarten (Satzung über die Anrechnung von Studien- und Prüfungsleistungen an der Hochschule Ravensburg-Weingarten) as amended from time to time.

(8) An examination will also be assessed as "fail" (5.0) if it is not completed within the completion period or time awarded.

(9) Students must notify the head of the Examination Board without delay and in writing of the reason for exceeding the completion time or the failure to complete the examination furnishing appropriate evidence. In the case of illness, the presentation of a certificate filled in by a doctor and attesting the inability to sit an exam is required within 14 days. In cases of doubt, a doctor's certificate can be required from a doctor named by the University. If the reason stated is deemed valid, a new day and time for the examination will be fixed. In such case, the already achieved examination results will be taken into account. For examinations during the lecture period, § 8 section 4 shall apply.

§ 14 Deceit, Breach of Regulations

(1) Should a candidate try to influence the results of his/her own or another person's examination by deceit or use of unauthorized aids, his/her examination will be graded with "fail" (5.0). Authorized aids are those indicated in the final version of the electronic examination schedule. Students are obliged to inform themselves in this respect. Any disturbance of the orderly course of an examination can lead to the candidate being excluded from continuing the examination by the responsible examiner or supervisor, in which case the examination will be graded with "fail" (5.0). In severe cases, the Examination Board can exclude the candidate from taking further examinations.

(2) The person concerned by the decision may, within a period of one month, request the decision to be reviewed by the Examination Board in compliance with section 1, sentences 1 and 4. Decisions to their disadvantage must be notified to the candidate without delay and in writing stating the reasons and providing information on the legal remedies available.

§ 15 Passing of Examinations

(1) An accredited examination is deemed to be passed if it has been graded with "fair" (4.0) or better.

(2) ECTS can only be earned for successfully completed modules.

(3) The Bachelor's examination is deemed to be passed if the Bachelor's thesis and all the required modules have been passed and if the ancillary conditions as specified in the Special Part hereof are fulfilled..

§ 16 Definite Failure of the Bachelor's Examination

(1) The Bachelor's examination is deemed definitely failed if

- the candidate's second attempt at passing the Bachelor's thesis was unsuccessful or deemed unsuccessful
- the second repetition of a module examination or other accredited examinations has failed
- the candidate has forfeited his examination entitlement for reason of non-observance of the deadlines.

(2) The candidate will be notified in writing about his definite failure in the examination and informed about the legal remedies available.

§ 17 Recognition of Study Periods, Academic Achievements and Examinations

(1) Periods of study, academic achievements and accredited examinations will be transferred without verification of equivalency if the same have been completed at another German institution of higher education of the same type and in the same study program.

(2) Periods of study, academic achievements and accredited examinations in study programs not covered by section 1 will be accredited in compliance with the statutes concerning the recognition and transfer of academic achievements and examinations as well as competencies acquired at institutions other than institutions of higher education at the University of Applied Sciences Ravensburg-Weingarten *(Satzung über die Anerkennung und Anrechnung von Studien- und Prüfungsleistungen sowie außerhochschulisch erworbenen Kompetenzen an der Hochschule Ravensburg-Weingarten)* as amended from time to time if the competencies acquired do not differ significantly from the academic achievements/accredited examinations to be replaced.

§ 17 a Recognition of Competencies Acquired at Institutions other than Institutions of Higher Education

Competencies acquired at institutions other than institutions of higher education will be accredited in compliance with the University statutes concerning the transfer of academic achievements and examinations as well as competencies acquired at institutions other than institutions of higher education (Satzung der Hochschule Ravensburg-Weingarten über die Anrechnung von Studien- und Prüfungsleistungen sowie außerhochschulisch erworbener Kompetenzen) as amended from time to time.

§ 18 Examination Board

(1) An Examination Board composed of seven members shall be set up for each study program. Members shall be appointed for a four-year term of office.

(2) The chairperson (Head of study program), his/her deputy, the other members of the Examination Board as well as their deputies shall be appointed by the faculty to which the study program belongs from the ranks of the professors of this faculty as well as from the ranks of the professors of other faculties holding lectures in that study program on a regular basis.

(3) The head of the Internship Office shall ex officio be member of the Examination Board. It is possible to consult the head of the Central Examination Board, other professors, contract instructors and teachers for special assignments to obtain their opinion. As a rule, the chairperson will be responsible for the day-to-day business of the Examination Board.

(4) The Examination Board shall ensure that the provisions of the Study and Examination Regulations be adhered to. It will make suggestions for the reform of the syllabus or the study and examination regulations. The Examination Board can entrust the chairperson with some of its tasks.

(5) The members of the Examination Board shall have the right to attend examinations.

(6) The members of the Examination Board and their deputies are bound to professional discretion. Insofar as they are not employed in the public sector, they will be committed to confidentiality by the chairperson.

(7) A Central Examination Office will be created to support the Examination Board. Academic advice will be provided by the vice-rector in charge of student affairs and teaching.

(8) The Central Examination Board consists of the vice-rector in charge of student affairs and teaching as chairperson, one further vice-rector and the deans. The head of Student Administration will attend the meetings of the Central Examination Board in an advisory capacity. It is possible, on a case-by-case basis, to consult contract instructors or other professors to obtain their opinion. The Central Examination Board can appoint a representative who will be in charge of coordinating the organization and conduct of the academic achievements and examinations.

§ 19 Examiners

(1) Apart from professors it is also possible to appoint academic staff members who have been authorized to conduct examinations, and contract instructors as examiners. It is likewise possible to appoint experienced persons who have the necessary academic and professional qualifications to conduct the examination and who possess at least the same (or an equivalent) qualification as the one to be determined through the examination.

(2) The examiners' names shall be disclosed in due time.

(3) § 18 section 5 shall apply accordingly to examiners resp. observers.

§ 20 Responsibilities

(1) The tasks of the Central Study Committee are as follows:

1. Recommendations concerning the development of the individual study programs with regard to the guidelines of the Standing Conference of the Ministers for Education and Cultural Affairs (Kultusministerkonferenz) and the Accreditation Council.
2. Coordination to ensure a uniform implementation of the Study and Examination Regulations.
3. Preparation of the resolutions by the Senate on the Study and Examination Regulations if cross-faculty issues are concerned. The preparation of the resolutions lies primarily with the heads of study program who are members of the Dean's Office and represented in the Committee (cf. § 26 (4) Baden-Württemberg Higher Education Act – LHG). Members of the Central Study Committee are: one head of study program of each faculty (cf. § 24 (5) Baden-Württemberg Higher Education Act – LHG), the vice-rector in charge of student affairs and teaching (as chairperson) as well as further members pursuant to §10 (3) of the
University of Applied Sciences Ravensburg-Weingarten statutes concerning the quality assurance in study and teaching (nd Qualitätssicherungssatzung der Hochschule Ravensburg-Weingarten über die Qualitätssicherung in Studium und Lehre) as amended from time to time.

(2) The tasks of the Central Examination Board are as follows:

1. Decision on the kind of organization and the conduct of accredited examinations.
2. Monitoring of the organization and orderly conduct of the examinations.
3. Decision on applications for compensation of disadvantages.
4. Decision on study and examination issues in opposition proceedings.
5. Recommendation on the further development of examination regulations in consideration of the Baden-Württemberg regulation on the accreditation of study programs *(Studienakkreditierungs-verordnung)* as amended from time to time.

(3) The tasks of the examination boards of the individual study programs are as follows:

1. Decision on the consequences of breaches of examination regulations (§ 14).
2. Decision on pass and fail (§ 14 and § 15).
3. Decision on the appointment of examiners and observers (§ 19).
4. In cases of doubt, approval of the training institutions and companies for the Compulsory Practical Semester.

5. Decision on the admission of examinations and academic achievements, in cases of doubt.
6. Decision on the transfer of academic achievements and examinations.
7. Decision on the accreditation of competencies acquired at an institution other than an institution of higher education.
8. Decision on the issue of Bachelor's theses and the extension of the completion time.
9. Decision on the invalidity of the Bachelor's examination.
10. Comment on study and examination issues in opposition proceedings.
11. Comment with regard to the agreement concerning a deviating course of studies under § 28 section 6 and § 30.
12. Decision on the extension of the deadline for the completion of the intermediate assessment for students commencing the study program in the third or a later subject-related semester.
13. In cases of doubt, the decision on extensions of examination deadlines for students with family care responibilities (§ 28 paragraph 4).

(4) The Central Examination Office is responsible for:

1. Implementation of the decision on the kind of organization and the conduct of accredited examinations,
2. Management of examination-related documents,
3. Admission to academic achievements and other examinations,
4. Preparation and issue of examination-related notifications, attestations, certificates and other documents,
5. Proceedings concerning examination deadlines and official lengths of program,
6. Support of the examination boards.

(5) The Internship Offices are responsible for:

1. Organizational aspects of the Compulsory Practical Semester,
2. Coordination of the training contents,
3. Maintenance of relationships to the training institutions and companies,
4. Approval of the training institutions and companies for the Compulsory Practical Semester,
5. Decision on the recognition of the pre-university internship,
6. Decision on the successful pass of the Compulsory Practical Semester.

§ 21 Provision of the Range of Courses

The University will ensure by the range of courses offered that examinations can be performed within the time limits defined in the present Examination Regulations and that the courses can be offered to the extent necessary.

§ 22 Organization of Examinations

(1) The decision on the university-wide examination period as well as the related periods of time provided for exam registration and cancellation of an exam registration lies with the Senate. As a rule, the university-wide examination period will, for each semester, commence at the beginning of the lecture-free period. The period provided for exam registration and cancellation of an exam registration is published on the University homepage, under "University calendar". It is the students' responsibility to inform themselves about the periods of time stated and to register for the examinations. Exam registration and cancellation of an exam registration is effected electronically via the University's campus management system. In exceptional cases, it is possible to register for an examination or cancel an exam registration in writing, within the deadlines provided. Reasons for such exception must be given by the students and evidence must be provided. Non-participation in an examination that has not yet begun also counts as deregistration from the examination, unless it is an oral examination.

(2) In the case of oral examinations, it is possible to cancel the examination directly with the examiner up to the agreed start of the examination. If students do not take part in a registered oral examination, the examination will be graded as "insufficient" (5.0).

(3) Students will be notified of the place and time of the individual examinations taking place during the university-wide examination period in the form defined by the Student Examination Office.

§ 23 Admission to Examinations

(1) Students may take examinations in accordance with these Examination Regulations if they are enrolled in the corresponding degree program, have not lost their right to take examinations in the degree program or a related degree program with essentially the same content, and have properly registered for the examination. Any additional prerequisites listed in the Study and Examination Regulations of the respective individual study programs must also be fulfilled.

(2) Students who have already passed the final examination of the corresponding study program will not be admitted.

(3) Students shall be notified of their admission or non-admission in the form defined by the Student Examination Office.

§ 24 Information about Examination Results

(1) The examiner will inform the Student Examination Office of the examination results according to the modalities defined for the various examination forms and within the scheduled time frame.

(2) The Student Examination Office will inform the students of the examination results via an entry in the University's electronic examination management system.

(3) After passing an examination, the student's account will be credited with the corresponding ECTS. Provided that it is feasible from an organizational point of view, students can inspect their accounts at any time.

§ 25 Certificates, Bachelor's Diploma

(1) The student will receive a certificate of the passed Bachelor's examination without delay, if possible, within four weeks. The certificate shall state the major field of study chosen and shall include the modules with the corresponding grades, the topic and the grade of the Bachelor's thesis as well as the overall grade. The certificate shall bear the date of the day on which the last examination was taken and must be signed by the Rector and the dean of the graduate's faculty.

(2) Together with the certificate, the graduate will receive the Bachelor's diploma showing the date of the certificate and certifying the award of the Bachelor's degree pursuant to § 2 section 4. The Bachelor's diploma will be signed by the Rector and bear the official University seal.

(3) In addition, the graduate will receive a Diploma Supplement in English and German containing a detailed uniform description of the higher education degrees. It provides information on course contents, the study process and the academic and professional qualifications acquired with the degree. The Diploma Supplement will be signed by the head of Student Administration.

(4) Upon request, the student will receive attestations on passed examinations prior to the delivery of the certificate.

(5) The Bachelor's certificate will only be delivered on the condition that an attestation of discharge from administration exists.

(6) Upon request, a maximum of five subjects other than the prescribed subjects (additional subjects) will be shown in the Bachelor's certificate. The results of these subjects will not be taken into account for the determination of the overall grade.

§ 26 Invalidity of the Bachelor's Examination

(1) In the event that a candidate has cheated in an examination and should this fact be disclosed only after delivery of the certificate, the grade of the corresponding examination can be rectified pursuant to § 14 section 1. This may include the particular examination to be declared as "fail" (5.0) and the Bachelor's examination as failed. The same applies accordingly to the Bachelor's thesis.

(2) If the student has deliberately wrongfully obtained admission to the examination, the examination will be declared as "fail" (5.0) and the Bachelor's examination as failed.

(3) Before a decision is taken, the person concerned shall be given the opportunity to comment.

(4) The incorrect examination certificate shall be withdrawn and, if applicable, a new one handed out. The Bachelor's diploma shall also be withdrawn together with the incorrect examination certificate, if the examination was declared "failed" due to the deceit. A decision under section 1 and section 2 is excluded after a period of fife years from the date of the examination certificate.

§ 27 Inspection of the Examination Records

(1) Upon request, the candidate will be granted inspection of his/her written examinations, the relating examiners' evaluations and the minutes of the examination.

(2) The request must be made to the examiner. The examiner shall determine the place and time of the inspection. The inspection shall take place on university premises. The chairperson of the Examination Board is responsible for clarifying any discrepancies.

(3) The retention periods for examinations and their related documentation are specified in the Guidelines on Document Retention Periods at the Ravensburg-Weingarten University of Applied Sciences.

§ 28 Special Provisions for Students with Family Care Responsibilities

(1) Students who are entitled to parental leave pursuant to § 15, Paragraphs 1 through 3 of the Federal Parental Benefit and Leave Act (Bundeselterngeld- und Elternzeitgesetz) or who are caring for a close relative as defined in § 7, Paragraph 3 of the Home Care Leave Act (Pflegezeitgesetz) are entitled to avail themselves of the special provisions detailed in Paragraphs 2 through 5. The entitlement comes into or goes out of effect at the end of the semester in which the conditions mentioned in Sentence 1

arise or cease to apply. Entitled persons are required to keep corresponding records and are obliged to provide notification immediately should any of the prerequisites set out in Sentence 1 arise, change, or cease to apply. All notifications are to be addressed exclusively to the Student Examination Office. Different from the Federal Parental Benefit and Leave Act (Bundeselterngeld- und Elternzeitgesetz), students remain eligible until the youngest child to be cared for reaches the age of fourteen. Definitions and determinations of dependency as they relate to eligibility for home care leave are based on §§ 14 and 15 in Volume 11 of the German Social Security Code (Sozialgesetzbuch).

(2) Students who fall under the category of persons specified in Paragraph 1 are entitled to take some of their examinations after the deadlines stipulated by the individual degree programs' Study and Examination Regulations; the same applies to the deadlines for the completion of academic achievments. The following rules shall apply:

The deadline for completion of the intermediate assessment, the deadline starting the Compulsory Practical Semester and the deadline for completion of the Bachelor's examination are extended by half a semester for each semester in which the student falls into the category of eligible persons specified in Paragraph 1. Likewise, the deadline for completing the foundational phase (first 3-4 semesters) of the degree program can also be extended by up to two semesters, the deadline for beginning the Practical

Semester may be extended by up to three semesters, and the deadline for completing the advanced phase (final 3-4 semesters) of the degree program can be extended by up to five semesters.

(3) Students may petition their respective Examination Board to extend the deadline (up to twice the original time period) for submitting their Bachelor's thesis. Students must provide credible evidence prior to beginning the thesis that their familial responsibilities will extend up to and beyond the normal submission deadline. If the family care obligations first arise only after having already started the Bachelor's thesis, the student may still petition their respective Examination Board for an extension of up to twice the remaining time, counted from the point when the familial responsibilities first arose. Alternatively, at the student's request, the Bachelor's thesis may be withdrawn and then restarted at a later date after the period of family care obligations is over.

(4) The deadline for examinations that are not to be taken in written or oral form at the university is extended by an appropriate period of time (e.g. term paper, project work). Excluded are laboratory work and other examinations for which an extension is not possible for organizational reasons.

(5) For students with family care responsibilities, an acute illness of the relative being cared for is equivalent to an illness of the students.

(6) Students belonging to the group of people as mentioned in section 1 are entitled to attend courses, sit examinations and use University institutions during a semester off, if the leave of absence has a causal link with their duty of care.

(7) In justified cases, an application for a change of the form of examination can be filed. The decision on the application will lie with the Central Examination Board.

§ 29 Special Protection during Pregnancy and Lactation

(1) Pregnant and breastfeeding students are entitled to periods of protection and leave under the German Maternity Protection Act (Mutterschutzgesetz). With respect to the study progress, the claiming of protection periods shall be deemed equivalent to a leave of absence. During such times, students are entitled to attend courses, sit examinations and use the University institutions.

(2) In the framework of work completed in laboratories or studios, the protective provisions of the Maternity Protection Act shall apply.

(3) Pregnant students are not obliged to report their pregnancy. It is, however, strongly recommended, in their own interest, that they report their pregnancy to the Student Administration Office as soon as their pregnancy is confirmed. This will provide them with the possibility to use their rights under the Maternity Protection Act. The same applies to breastfeeding students. A doctor's certificate or a certificate from a midwife must be enclosed. The pregnancy attestation should include the expected delivery date.

(4) A compensation of disadvantages according § 30 Sec. 2 and 3 can also be granted on the basis of a pregnancy or lactation.

§ 30 Students with Disabilities or Chronic Illness

(1) In the case that a student is handicapped by a permanent disability or a chronic illness rendering the completion of courses within the time limits as defined in § 7 particularly difficult, the Central Examination Board may, upon written request, declare an an extension of the deadlines or an individual study plan to be binding. The individual study plan must comprise at least two academic achievements in each subject-related semester.

(2) In the case that a candidate is handicapped by a permanent or temporary disability or a chronic illness making it particularly difficult for him/her to sit an examination in the prescribed form, the Central Examination Board may, upon written request, take adequate measures to compensate for the impairment or, if achievement of the aim of the examination can be evidenced in an equivalent manner

by any other form of examination, allow a different form. The proof of abilities as required by the performance profile of the examination administered may not be waived.

(3) Applications under Sec. 1 and 2 have to be submitted to the examination office, which will forward them accordingly to the Central Examination Board. The following evidence must be provided:

1. In the case of a disability a copy of the valid certificate of disability must be enclosed.
2. A doctor's certificate including the necessary findings and stating the handicaps and their impact on the study or the individual examinations. The form for requesting a compensation for disadvantages made available by the University must be used to this effect. The Central Examination Board may request an attestation by a doctor named by the Board.
3. When filing an application under section 1, the student must additionally submit a statement from the head of the study program requested extension of the deadline resp. a draft of the individual study plan signed by the head of the study program.

§ 31 Special Provisions for Elected Student Members in Statutory Bodies and Organs of the University or the Student Services Organization and the Constituted Student Body

(1) An activity as elected member in statutory bodies or organs of the University or the Student Services Organization and the Constituted Student Body during at least one year may not be taken into account for the calculation of the examination deadlines pursuant to Sect. 32 (6) LHG. The decision lies with the Rector upon the student's request.

(2) Through their active participation in bodies and organs as mentioned in section 1, the students will acquire core competencies, which can be accredited as partial academic achievement in the framework of a module aiming at conveying such competencies, and up to five ECTS can be granted for this. The decision lies with the Rector upon the student's request.

(3) The special provisions as laid down in sections 1 and 2 may only be used as an alternative.

B. Special Part

§ 36 Bachelor's Study Program Electrical Engineering and Information Technology

(1) Structure of the Study Program

The Bachelor's study program in Electrical Engineering and Information Technology is divided into the first two semesters of basic studies and the main study program, which concludes with the Bachelor's examination in the seventh semester.

It is also possible to complete the study program while integrating apprenticeship. Detailed regulations are described in section 7.

A practical semester and courses amounting to 180 ECTS credits are required to successfully complete the study program. The total of 210 ECTS is made up of 6 semesters of theory with 30 ECTS each and a practical semester with 30 ECTS.

Two specializations (profiles) are offered in the main course of study:

- Automation Technology and
- Communication Technology.

When re-registering for the 4th semester, students must decide on one of the fields of study by submitting a written application.

German-speaking students who begin their studies in the summer semester must take English in the language module.

(2) Courses

The general part of the Study and Examination Regulations (in particular §3 paragraph 3: Courses may also be offered in English in individual cases by resolution of the respective Faculty Board) is not overridden by this special part.

The courses of the first four semesters are offered in English for students starting in the summer semester (on an annual basis). Laboratories can be planned bilingually. All other semesters are offered in German (§3 paragraph 3 applies). Compulsory elective courses may also be offered in English without the approval of the Faculty Board. All courses include an exercise component.

The courses required for successful completion as well as the associated study and examination achievements are listed in Tables 1 to 5 below.

The following abbreviations are used:

Type of course		Type of exam		Scope of exam	
V	Lecture	**B**	Bachelor's Thesis	**SWS**	Semester hours
PR	Project	**R**	Seminar Paper and presentation	**ECTS**	ECTS points in compliance with the European Credit Transfer System
S	Seminar	**PF**	Portfolio	**E**	Medium of instruction is English
P	Practical, exercises	**K(xx)**	Written examination duration of xx minutes	**D**	Medium of instruction is German
		M	Oral examination		
		PA	Practical work (lab, term or seminar paper or project work)		
		RPA	Practical work documented by a seminar paper and presentation (PF: 50% PA graded and 50% R graded)		

(3) Elective Modules

Students choose 2 compulsory elective modules from Table 3 (if they have chosen a specialization in Communication Technology) or Table 4 (if they have chosen a specialization in Automation Technology). They also choose one elective module. The elective modules are announced at the beginning of each semester. The modules from Tables 3 and 4 that are not used as compulsory elective modules can also be taken as elective modules. If elective modules from other universities are chosen, special approval from the Examination Board is required. Tutoring activities can be recognized as electives up to a maximum of 5 ECTS. Elective modules from the field of electrical engineering and computer science can be chosen across all specializations.

(4) Accredited Examinations

The examinations are listed in Tables 1 to 4. Each examination must be passed. Otherwise, § 8 of these study and examination regulations applies. The assessment of the examinations is carried out in accordance with § 13 of these study and examination regulations.

(5) Practical Semester (Compulsory)

The 5th semester is a practical semester. The practical semester can only be taken up if the student has successfully completed all examinations of the first two semesters. In the apprenticeship-integrated study variant, the compulsory practical semester can also be completed in practical phases during the lecture-free period in the theory semesters in the cooperating company (see section 7).

In the practical semester, students should work on an engineering task from the fields of automation technology, energy technology, communication technology and sales and get to know the technical requirements, industrial working methods and the operational environment in the planning, development and use of electronic networks and systems.

Fields of work can be:

- Planning and realization of electronic and information technology systems
- Planning, design and development of electronic circuits
- Testing of networks and systems
- Software development
- Use of computers for circuit and system design (CAD)
- Computer simulation
- Planning, design and development of electrical drives
- Planning and realization of mechatronic systems in vehicle technology
- Technical sales support

Total duration: at least 22 weeks with at least 95 attendance days in the practical company.

(6) Bachelor's Thesis

The Bachelor's thesis can only be started once all coursework from the first four semesters of study and the practical semester have been completed. The topic, task and scope of the Bachelor's thesis must be limited by the person setting the task in such a way that the thesis can be completed in approx. 360 working hours, corresponding to 12 ECTS. Section 12 of the General Part of the Study and Examination Regulations applies.

(7) Apprenticeship-integrated Study Program

The curriculum for the apprenticeship-integrated study option includes 9 semesters and leads to a degree in a recognized apprenticeship vocation (e.g. electronics technician for energy and building technology, electronics technician for industrial engineering, mechatronics technician). The semesters of the non-apprenticeship-integrated study variant are integrated into the extended curriculum (see Table 5). The curriculum is supplemented by apprenticeship content in a cooperating company and a commercial school; this apprenticeship content is the responsibility of the cooperating company or the commercial school and contributes to the degree in the apprenticeship and not to the Bachelor's degree. The compulsory practical semester is completed in practical phases during the lecture-free period in the theory semesters in the cooperating company (see paragraph 5). The project with seminar and the Bachelor's thesis can be completed in the cooperating company.

(8) Validity

These study and examination regulations will come into force in the winter semester 2024/25.

Table 1: Bachelor's Study Program Electrical Engineering and Information Technology
Basic: for students of the english study program

Module	Course	Curricular semester assigned				Graded examination
			1	2	3	
		Type	ECTS/ SWS	ECTS/ SWS	ECTS/ SWS	
Electrical Engineering 1: Basics	Analysis of Electric Networks	V	5/4			K90
Electrical Engineering 2: Electrodynamics	Electrodynamics	V		5/4		K90
Electrical Engineering 3: Time and Frequency Domains	Circuit Analysis in the Time and Frequency Domains	V			5/4	K90
Metrology 1: Basics	Metrology 1	V		5/4		K90 *
	Metrology Lab	P *				
Metrology 2: Advanced	Metrology 2	V			5/4	K90 *
	Electronics Practical: Linear Meterology	P *				
Mathematics 1: Analysis 1	Analysis 1 with Exercises	V	5/4			K90
Mathematics 2: Linear Algebra	Linear Algebra with Exercises	V	5/4			K90
Mathematics 3: Analysis 2	Analysis 2 with Exercises	V		5/4		K90
Electronics 1: Basics	Basic Practical Electrical Engineering 1	P *	5/4			PF *
	Electronics 1	V				
Programming	Programming	V+P	5/4			K90
Electronics 2: Advanced	Basic Practical Electrical Engineering 2	P		5/4		PF
	Electronics 2	V				
Object-Oriented Programming	Object-Oriented Programming	V+P		5/4		K90
Digital Technology	Digital Technology	V+P *		5/4		K90 *
Mathematics 4: Statistics and Numeric	Statistics	V+P			5/4	PF
	Numeric	V+P				
Computer Technology	Computer Technology	V+P *			5/4	K90 *
Sustainable Electronics	Design of Efficient Circuits	V			5/4	K90
Electronics 3: Circuit Design	Circuit Design	V+P			5/4	PF
	Basic Practical Electrical Engineering 3	P				
Physics Mechanics	Physics Mechanics	V	5/4			K90
Sum ECTS / SWS			**30/24**	**30/24**	**30/24**	

** Successful completion of the practical course is a prerequisite for participation in the module examination*

Table 2: Bachelor's Study Program Electrical Engineering and Information Technology
Main: for students of the english study program

Module	Course	Curricular semester assigned					Graded examination
			4	5	6	7	
		Type	ECTS/ SWS	ECTS/ SWS	ECTS/ SWS	ECTS/ SWS	
Digital Signal Processing	Digital Signal Processing	V+P		Practical Study Semester	5/4		PF
Circuit Design	Computer aides Circuit Design	V+P	5/4				PF
Language	German	V+P	5/4				PF
Communication Technology	Communication Technology	V	5/4				K90
Robotics	Robotics	V+P			5/4		PF
Seminar: Scientific Work	Scientific Work	S+P			5/4		RPA
Communication Networks	Communication Networks	V				5/4	K90
Control Systems	Control Systems	V			7/6		K90 *
	Control Systems Practical	P *					
Microcontroller	Microcontroller	V	5/4				RPA
	Microcontroller Practical	P					
Automation Technology	Automation Technology 1	V			3/2		K90 *
	Automation Technology 2	V+P *				5/4	
Profile	Compulsory Elective 1	-			5/4		see subject
Profile	Compulsory Elective 2	-				5/4	see subject
Elective	Elective Subject	-	5/4				see subject
Project work	Practical project	PR	5/0				RPA
Bachelor's thesis	Bachelor's thesis incl. final colloquium (20% of the grade)					15/0	B+R
Sum ECTS / SWS			**30/24**	**30/0**	**30/24**	**30/12**	

** Successful completion of the practical course is a prerequisite for participation in the module examination*

Table 3: Bachelor's Study Program Electrical Engineering and Information Technology
Main: Study Focus Communication for students of the English study program (2 out of x)

Module	Course	SoSe or WiSe			Graded examination
			ECTS/ SWS	ECTS/ SWS	
		Type	SoSe	WiSe	
Internet Applications	Internet Applications	V+P	5/4		PF
Automotive Electronics Controls	Automotive Electronics Controls	V		5/4	K90
Image Processing	Basics of Image Processing	V+P	5/4	5/4	PF
Traffic Telematics	Traffic Telematics	V	5/4	5/4	M
Seminar: Communication	Accompanying Seminar Practical Project: Communication	P	5/4	5/4	M
Selected topics	Special Offers according to Notice Board	V+P	Notice Board	Notice Board	Notice Board

Table 4: Bachelor's Study Program Electrical Engineering and Information Technology
Main: Study Focus Automation for students of the English study program (2 out of x)

Module	Course	SoSe or WiSe			Graded examination
			ECTS/ SWS	ECTS/ SWS	
		Type	SoSe	WiSe	
Introduction to Power Train Engineering	Introduction to Power Train Engineering	V	5/4		K90
Real-time programming	Real-time programming	V	5/4	5/4	K90 *
	Real-time programming Practical	P*			
Power Electronics	Power Electronics	V	5/4	5/4	K90
High-voltage Vehicles	High-voltage Vehicles	V+P	5/4	5/4	PF
Image Processing	Image Processing Basics	V+P	5/4	5/4	PF
Seminar: Automation	Accompanying Seminar Practical Project: Automation	P	5/4	5/4	M
Selected topics	Special Offers according to Notice Board	V+P	Notice Board	Notice Board	Notice Board

Table 5: Bachelor Program Electrical Engineering and Information Technology
Curriculum for the training-integrated study variant (German only)

Semester	Unternehmen	Hochschule	Abschluss
1	Vertrag/Vorstellung		
2	Ausbildung		
3		1. Theoriesemester	Grundstudium
4		2. Theoriesemester	Grundstudium
5		3. Theoriesemester	Hauptstudium
6		4. Theoriesemester	Hauptstudium
7	Praxis		
8		6. Theoriesemester	Hauptstudium
9	Bachelorarbeit	7. Theoriesemester	B. Eng.

§ 48 Bachelor's Study Program E-Mobility and Green Energy

(1) Structure of Study Program

The Bachelor's study program E-Mobility and Green Energy is divided into the first two semesters of basic studies and the main study program, which concludes with the Bachelor's examination in the seventh semester. It is also possible to complete the study program in an integrating apprenticeship. Detailed regulations are described in section 7.

A practical study semester and courses amounting to 180 ECTS are required to successfully complete the study program. The total of 210 ECTS is made up of six semesters of theory with 30 ECTS each and a practical study semester with 30 ECTS.

German-speaking students who start their study program in the summer semester have to take the module Language, English.

(2) Courses

The General Part of the Study and Examination Regulations (in particular § 3 section 3: Courses may also be offered in English in individual cases by decision of the respective Faculty Board) is not overridden by this special part.

The courses of the first four semesters are offered in English for students starting in the summer semester (on an annual basis). Laboratories can be planned bilingually. All other semesters are offered in German (§ 3 section 3 applies). Compulsory elective courses may also be offered in English without the approval of the Faculty Board. All courses include an exercise component.

The courses required for successful completion as well as the associated study programs and examinations are listed in Tables 1 to 4 below.

The following abbreviations are used:

Type of course		Type of exam		Scope of exam	
V	Lecture	**B**	Bachelor's Thesis	**SWS**	Semester hours
PR	Project	**R**	Seminar Paper and presentation	**ECTS**	ECTS points in compliance with the European Credit Transfer System
S	Seminar	**PF**	Portfolio	**E**	Medium of instruction is English
P	Practical, exercises	**K(xx)**	Written examination duration of xx minutes	**D**	Medium of instruction is German
		M	Oral examination		
		PA	Practical work (lab, term or seminar paper or project work)		
		RPA	Practical work documented by a seminar paper and presentation (PF: 50% PA graded and 50% R graded)		

(3) Profile-building Modules and Elective Modules

Students choose three profile-forming modules from Table 3. They also choose two elective modules. The elective modules are announced at the beginning of each semester. The modules from Table 3 that are not used as profile-forming modules can also be taken as elective modules. If elective modules from other universities are chosen, special approval from the Examination Board is required. Tutoring activities can be recognized as electives up to a maximum of 5 ECTS.

(4) Accredited Examinations

The examinations are listed in Tables 1 to 4. Each examination must be passed. Otherwise, § 8 of the General Part of the Study and Examination Regulations applies. The assessment of the examinations is carried out in accordance with § 13 of the General Part of the Study and Examination Regulations.

(5) Practical Study Semester (compulsory)

The fifth semester is a practical study semester. The practical study semester can only be taken up if the student has successfully completed all examinations of the first two semesters. In the apprenticeship-integrated study variant, the compulsory practical semester can also be completed in practical phases during the lecture-free period in the theory semesters in the cooperating company (see section 7).

In the practical study semester, students should work on an engineering task from the fields of electrical engineering or automotive engineering and become familiar with the technical requirements, industrial working methods and the operational environment in the planning, development and use of electronic networks and systems.

Fields of work can be

- Planning and realization of electronic and information technology systems
- Planning, design and development of electronic circuits
- Testing of networks and systems
- Software development
- Use of computers for circuit and system design (CAD)
- Computer simulation
- Planning, design and development of electrical drives
- Planning and realization of mechatronic systems in vehicle technology
- Technical sales support

Total duration: at least 22 weeks with at least 95 attendance days in the practical company.

(6) Bachelor's Thesis

The Bachelor's thesis can only be started once all coursework from the first four semesters of study and the practical study semester have been completed. The topic, task and scope of the Bachelor's thesis must be limited by the person setting the task in such a way that the thesis can be completed in approximately 360 working hours, corresponding to 12 ECTS. § 12 of the General Part of the Study and Examination Regulations applies.

(7) Apprenticeship-integrated Study Program

The curriculum for the apprenticeship-integrated study variant comprises 9 semesters and leads to a qualification in a recognized apprenticeship occupation (e.g. automotive mechatronics technician) by the end of the study period at the latest. The semesters of the non-apprenticeship-integrated study variant are integrated into the extended curriculum (see Table 3). The curriculum is supplemented by training content in a cooperating company and a commercial school; this training content is the responsibility of the cooperating company or the commercial school and contributes to the degree in the training occupation and not to the Bachelor's study program. The compulsory practical study semester is completed in practical phases during the lecture-free period in the theory semesters in the cooperating company (see section 5). The project with seminar and the Bachelor's thesis can be completed in the cooperating company.

(8) Validity

These study and examination regulations will come into force in the winter semester 2024/25.

Table 1: Bachelor's Study Program E-Mobility and Green Energy

Basic: for students of the english study program

Module	Course	Curricular semester assigned				Graded examination
			1	2	3	
		Type	ECTS/ SWS	ECTS/ SWS	ECTS/ SWS	
Electrical Engineering 1: Basics	Analysis of Electric Networks	V	5/4			K90
Electrical Engineering 2: Electrodynamics	Electrodynamics	V		5/4		K90
Electrical Engineering 3: Time and Frequency Domains	Circuit Analysis in the Time and Frequency Domains	V			5/4	K90
Metrology 1: Basics	Metrology 1	V		5/4		K90 *
	Metrology Lab	P *				
Machine design	Machine design	V			5/4	K90
Mathematics 1: Analysis 1	Analysis 1 with Exercises	V	5/4			K90
Mathematics 2: Linear Algebra	Linear Algebra with Exercises	V	5/4			K90
Mathematics 3: Analysis 2	Analysis 2 with Exercises	V		5/4		K90
Electronics 1: Basics	Basic Practical Electrical Engineering 1	P	5/4			PF
	Electronics 1	V				
Programming	Programming	V+P			5/4	K90
Electronics 2: Advanced	Basic Practical Electrical Engineering 2	P		5/4		PF
	Electronics 2	V				
Automotive engineering	Automotive engineering	V		5/4		PF
Digital Technology	Digital Technology	V + P *		5/4		K90 *
Automotive engineering: practice and digital design (CAD)	Practical automotive engineering	P *			5/4	PF*
	CAD	P				
Materials science	Materials science	V	5/4			K90
Sustainable Electronics	Design of Efficient Circuits	V			5/4	K90
Electronics 3: Circuit Design	Circuit Design	V+P			5/4	PF
	Basic Practical Electrical Engineering 3	P				
Physics Mechanics	Physics Mechanics	V	5/4			K90
Sum ECTS / SWS			**30/24**	**30/24**	**30/24**	

** Successful completion of the practical course is a prerequisite for participation in the module examination*

Table 2: Bachelor's Study Program E-Mobility and Green Energy

Main: for students of the english study program

Module	Course	Curricular semester assigned					Graded examination
			4	5	6	7	
		Type	ECTS/ SWS	ECTS/ SWS	ECTS/ SWS	ECTS/ SWS	
Digital Signal Processing	Digital Signal Processing	V+P		Practical Study Semester	5/4		PF
Power Electronics	Power Electronics	V	5/4				K90
Language	German	V+P	5/4				PF
Real-time Programming	Real-time Programming	V	5/4				K90*
	Real-time Programming Practical	P *					
Seminar: Scientific Work	Scientific Work	S+P			5/4		RPA
Introduction to Drive Engineering	Introduction to Drive Engineering	V	5/4				K90
Control Systems	Control Systems	V			7/6		K90 *
	Control Systems Practical	P *					
Microcontroller	Microcontroller	V	5/4				RPA
	Microcontroller Practical	P					
Renewable Energies and Energy Storage	Renewable Energies and Energy Storage	V				5/6	PF
	Practical Environment and Process Engineering	P					
Profile 1	Compulsory elective 1	see subject			5/4		see subject
Profile 2	Compulsory elective 2	see subject				5/4	see subject
Profile 3	Compulsory elective 3	see subject				5/4	see subject
Elective Module 1	Elective Subject 1	see subject	5/4				see subject
Elective Module 2	Elective Subject 2	see subject			3/2		see subject
Practical Project	Project Work	PR			5/0		RPA
Bachelor's thesis	Bachelor's thesis incl. final colloquium (20% of the grade)					15/0	B+R
Sum ECTS / SWS			**30/24**	**30/0**	**30/24**	**30/14**	

** Successful completion of the practical course is a prerequisite for participation in the module examination*

Table 3: Bachelor's Study Program E-Mobility and Green Energy
Modules: Profiles, Study)

Module	Course	SoSe or WiSe			Graded examination
			ECTS/ SWS	ECTS/ SWS	
		Type	SoSe	WiSe	
High Voltage Vehicles	High Voltage Vehicles	V+P	5/4	5/4	PF
Electric Power Trains	Hybrids in cars	V	5/4	5/4	K90
Automotive Electronics Controls	Automotive Electronics Controls	V		5/4	K90
Traffic Telematics	Traffic Telematics	V	5/4	5/4	M
Solar Cells, Fuel Cells and Batteries	Photovoltaics	V	5/4	5/4	K90
	Fuel Cells and Batteries	V			
Mathematics 4	Statistics	V+P	3/2	3/2	K60
Heat Transfer	Basics Heat Transfer	V+P	5/4	5/4	K90
Robotics	Robotics	V+P	5/4	5/4	PF
Image Processing	Basics Image Processing	V+P	5/4	5/4	PF
Selected topics	Special Offers according to Notice Board				

Table 4: Bachelor's Study Program E-Mobility and Green Energy
Curriculum for the apprenticeship-integrated study variant (German only)

Semester	Unternehmen	Hochschule	Abschluss
1	Vertrag/Vorstellung		
2	Ausbildung		
3		1. Theoriesemester	Grundstudium
4		2. Theoriesemester	Grundstudium
5		3. Theoriesemester	Hauptstudium
6		4. Theoriesemester	Hauptstudium
7	Praxis		
8		6. Theoriesemester	Hauptstudium
9	Bachelorarbeit	7. Theoriesemester	B. Eng.

§ 52 Bachelor's Study Program Mechatronics

(1) Structure of the Study Program

The study program Mechatronics is divided into two study phases. The first study phase (semesters 1 to 2) represents the basic studies and concludes with the intermediate examination according to § 7 Section 2 of the General Part of the Study and Examination Regulations. The second study (semesters 3 to 7) phase is the main study period, which includes compulsory subjects, individual specialization and individual electives as well as the compulsory practical study semester and the Bachelor's examination. The standard period of study is seven semesters. The courses are offered in English. German courses are offered in parallel so that a German B2 language level is reached before the internship semester starts. The successful completion of the program requires 210 ECTS credits. The program is completed with the Bachelor's examination.

(2) Courses and Examinations

The courses of the two study phases as well as the associated examination achievements result from the following tables 1 to 3. German native students have to choose English in the language module. The following abbreviations are used:

Type of course		Type of exam		Scope of exam	
V	Lecture	**B**	Bachelor's thesis	**SWS**	Semester hours
PR	Project	**R**	Seminar Paper and presentation	**ECTS**	ECTS points in compliance with the European Credit Transfer System
S	Seminar	**PF**	Portfolio		
P	Practical, exercises	**K(xx)**	Written examination duration of xx minutes		
		M	Oral examination		
		RPA	Practical work documented by a seminar paper and presentation (PF: 50% PA graded and 50% R graded)		

(3) Profile Specialization

The study course Mechatronics offers individual profile specializations that reflect modern job profiles (see following tables). The students have to choose one with the re-immatriculation for the 4th semester. The number of offered specializations can depend on the number on enrolled students and availability of resources. The currently offered specializations will be decided in the faculty council and will be announced in due time.

Each profile specialization offers one diversification module. This allows students to choose one module from the list of the other profile specializations to gain knowledge and skills in areas beyond their specialization choice.

(4) Elective Modules

Two additional elective modules are available to students for their individual profile formation. Available elective modules are announced by display on the notice board at the beginning of each semester. Only modules which are not identical in content to compulsory subjects or have only a slight overlap in content can be selected as electives. In addition, the examination board of the study program can recognize achievements made elsewhere (e.g. tutoring, voluntary work, etc.) upon application by the student in individual cases.

(5) Scientific Project

Each scientific project work is completed with a presentation. The execution of the project work is accompanied by a seminar.

(6) Practical Study Semester

The sixth semester is a practical study semester. It can only be taken up if the intermediate examination according to § 7 Section 2 of the General Part of the Study and Examination Regulations has been passed. The practical study semester comprises a practical activity in a company, the contents of which must be designed in accordance with the job profiles of a Mechatronics graduate. The competencies acquired during the study course are to be applied and deepened by working on suitable projects in the company. The students should get to know the technical requirements, the working methods and the operational environment in practice and work on applied projects as independently as possible as well as jointly responsible, considering the operational conditions. During the Practical Study Semester, students are supervised by the Internship Office. Various requirements must be fulfilled for the recognition of the Practical Study semester. The Internship Office defines these requirements, such as the preparation of an interim and a final report, and specifies the date of

submission and the format of these reports. Students are informed through the intranet and an information session.

At the end of the Practical Study Semester, Internship Days are organized to review the semester, during which a final presentation is to be given. Attendance at the Internship Days is mandatory. In exceptional cases, with special approval from the head of the Internship Office, a recorded final presentation may be created instead of attending the Internship Days, and it should be presented during these days. The student is responsible for obtaining approval for the final presentation from the company.

(7) Bachelor's Thesis

Prior to beginning the thesis, all examinations and course achievements of the first four semesters as well as the practical semester must have been completed. The supervising professor assigning the thesis must limit the topic, the task and the extent of the thesis in such way that it can be completed in approx. 360 hours of work corresponding to 12 ECTS. See §12 of the general part of the SPO. The bachelor seminar serves to reflect on the contents of the bachelor thesis in connection with the course contents of the degree program and is conducted by the supervisor of the thesis

(8) Validity

This SPO is valid starting from summer semester 2025.

Table 1: Bachelor's Study Program Mechatronics

Basic Study Phase

No.	Module	Course	Curricular semester assigned				Exam
				1	2	3	
			Type	ECTS/ SWS	ECTS/ SWS	ECTS/ SWS	
1	Mechatronics 1: Basics	Mechatronic Basics	VP	5/4			PF
2	Electronics 1: Basics	Linear Network Analysis	VP	5/4			PF
		Lab BET1	P				
3	Computer Science 1: Basics and Programming	Computer Science Basics	VP	5/4			K60 or PF
		Programming 1: Basics	P				
4	Mechanics 1: CAD and Technical Drawing	Technical Drawing	VP	3/2			PF
		CAD	VP	2/2			
5	Maths 1: Analysis 1	Analysis 1	VP	5/4			K90
6	Maths 2: Linear Algebra	Linear Algebra	VP	5/4			K90
7	Mechatronics 2: Metrology	Metrology 1	VP		5/4		K90
		Metrology Practical					PA
8	Eletronics 2: Analog Circuits	Analog Circuits	VP		5/4		PF
		Lab BET2	P				
9	Computer Science 2: Object Oriented Programming	Object Oriented Programming	VP		5/4		PA
10	Mechanics 2: Statics and Mechanics of Materials	Statics and Mechanics of Materials	VP		5/4		PF
11	Maths 3: Analysis 2	Analysis 2	VP		5/4		K90
12	Sciences 1: Fundamentals of Physics	Fundamental of Physics	VP		5/4		K90
13	Mechatronics 3: Sensors and Control	Sensors and Control	VP			5/4	PF
14	Electronics 3: Digital Circuits	Digital Circuits	VP			5/4	PF
		Lab BET3	P				
15	Computer Science 3: Application Programming	Application Programming	VP			5/4	PA
16	Mechanics 3: Kinetics and Engineering Design	Kinetics and Engineering Design	VP			5/4	K60 or PF
17	Maths 4: Numerical Analysis	Numerical Analysis	VP			5/4	K90
18	Sciences 2: Electrodynamics	Electrodynamics	VP			5/4	K60
	Summary ECTS / SWS			**30/24**	**30/24**	**30/24**	

Table 2: Bachelor's Study Program Mechatronics

Main Study Phase

No.	Module	Course	Curricular semester assigned					Exam
				4	5	6	7	
			Typ	ECTS/ SWS	ECTS/ SWS	ECTS/ SWS	ECTS/ SWS	
19	Mechatronics 4: Electric Drives	Electric Drives	VP	5/4				K90
20	Mechatronics 5: Modeling and Simulation	Modeling and Simulation	VP	5/4				K90
21	Sustainability 1: Energy	Integrated Sustainable Energy System	VP	5/4				K90
22	Specialization Module 1	see table 3		5/4				
23	Specialization Module 2	see table 3		5/4				
24	Sciences 3: Materials	Materials	VP	5/4				K60
25	Mechatronics 6: Microcontroller	Advanced Microcontroller Programming	VP		5/4	-	-	PA
26	Mechatronics 7: Scientific Project	Scientific Project	PR		5/4			PA
27	Mechatronics 8: Robotics	Robotics	VP		5/4			K60
		Robotics Labs						
28	German / Language Equivalent	German B2 Level / Language equivalent	SP		5/4			PF
29	Specialization Module 3	see table 3			5/4			
30	Specialization Module 4	see table 3			5/4			
31	Practical Semester	Practical semester seminar				30/1		RPA ungraded
32	Elective 1	Elective subject 1					5 *)	
33	Elective 2	Elective subject 2					5 *)	*)
34	Sustainability 2	Sustainability and Ethics in Mechatronics	S				5/2	R
35	Bachelor's Thesis and Bachelor's Seminar	Bachelor's Seminar	S				3/2	Thesis
		Bachelor's Thesis					12	
	Summary ECTS / SWS			**30/24**	**30/24**	**30/1**	**30/4**	

** SWS and type of exam of elective modules depend on the individual choices made by students.*

Table 3: Bachelor's Study Program Mechatronics

Spezialization 1: Production Mechatronics

	Module	Course	Curricular semester assigned			Graded exam.
				4	5	
			Typ	ECTS/ SWS	ECTS/SWS	
36	Production Mechatronics 1: Digital Production and Industry 4.0	Digital Production and Industry 4.0	VP	5/4		PA
37	Production Mechatronics 2: Introduction Production Technologies	Introduction Production Technologies	VP		5/4	K60
38	Production Mechatronics 3: Advanced Production Technologies	Advanced Production Technologies	VP		5/4	K60
39	Production Mechatronics 4: Diversification Module	individual choice: any module of other profile specialization		5/4		see selected module

Spezialization 2: Automation

	Module	Course	Curricular semester assigned			Exam
				4	5	
			Typ	ECTS/ SWS	ECTS/SWS	
40	Automation 1: Digital Production and Industry 4.0	Digital Production and Industry 4.0	VP	5/4		PA
41	Automation 2: Control Systems	Control Systems	VP	5/4		K90
42	Automation 3: Human-Machine-Interface Design	Human-Machine-Interface Design	VP		5/4	RPA graded
43	Automation 4: Diversification Module	individual choice: any module of other profile specialization			5/4	see selected module

Spezialization 3: Smart Sensors

	Module	Course	Curricular semester assigned			Graded exam.
				4	5	
			Typ	ECTS/ SWS	ECTS/SWS	
44	Smart Sensors 1: Sensors	Sensors Overview	VP	5/4		K90
45	Smart Sensors 2: Data Analytics	Data Analytics & Statistics	VP	5/4		K90
46	Smart Sensors 3: Digital Twins	Digital Twins	VP		5/4	K90
47	Smart Sensors 4: Diversification Module	individual choice: any module of other profile specialization			5/4	see selected module

Spezialization 4: Mobility

	Module	Course	Curricular semester assigned			Graded exam.
				4	5	
			Typ	ECTS/ SWS	ECTS/SWS	
48	Mobility 1: Automotive Engineering	Automotive Engineering	VP	5/4		PF
49	Mobility 2: Mobility Lab	Mobility Lab	P		5/4	PF
50	Mobility 3: High Voltage Vehicles	High Voltage Vehicles	VP		5/4	PF
51	Mobility 4: Diversification Module	individual choice: any module of other profile specialization		5/4		see selected module

Spezialization 5: Renewable Energy Mechatronics

	Module	Course	Curricular semester assigned			Graded exam
				4	5	
			Typ	ECTS/	ECTS/	
				SWS	SWS	
52	Energy Mechatronics 1: Energy and Process Technology	Energy and Process Technology	VP	5/4		K90
53	Energy Mechatronics 2: Energy technology lab course	Energy technology lab course	P	5/4 *)		PA
54	Energy Mechatronics 3: Renewable Energy Systems and Energy Storage	Renewable Energy Systems and Energy Storage	VP		5/4	K90
55	Energy Mechatronics 4: Diversification Module	individual choice: any module of other profile specialization		5/4		see selected module

** The energy technology lab spans over 2 semesters due tot he nature oft he lab experiments.*

Spezialization 6: Photonics

	Module	Course	Curricular semester assigned			Graded exam
				4	5	
			Typ	ECTS/	ECTS/	
				SWS	SWS	
56	Photonics 1: Engineering Optics	Engineering Optics	VP	5/4		M or K90
57	Photonics 2: Machine Vision	Machine Vision	VP		5/4	PF
58	Photonics 3: Optoelectronics	Optoelectronics	VP		5/4	K90
59	Photonics 4: Diversification Module	individual choice: any module of other profile specialization		5/4		see selected module

C. Final Provisions

§ 53 Entry into force

These study and examination regulations come into force on June 26th, 2025. At the same time, the previous Study and Examination Regulations for the Bachelor's study programs at Ravensburg-Weingarten University of Applied Sciences dated January 16th, 2025 shall cease to apply. Unless otherwise agreed, students who are already enrolled will continue to be subject to the course-related special section of the study and examination regulations in the version in which they began their studies.

Weingarten, June 26th, 2025

Sgn. Prof. Dr.-Ing. Thomas Spägele
Rector

Weingarten, June 26th, 2025

Sgn. Dr. Sebastian Mauser
Vice-Rector for Student Affairs, Teaching and
Quality Management