



Study and examination regulations for the Master of Science in Engineering in the departments Architecture, Wood and Civil Engineering and Engineering Science and Information Technology (CER MSE)

The University Board of the Bern University of Applied Sciences,

based on Article 5 Paragraph 4 of the Federal Law from 6 October 1995 regarding universities of applied sciences (Swiss university regulations, FHSG)¹, Article 33 Paragraph 1 the letter n of the law from 19 June 2003 regarding the Bern University of Applied Sciences (FaG)², Article 56a and Article 62 of the ordinance of 5 May 2004 regarding the Bern University of Applied Sciences (FaV)³

has passed the following resolutions:

1. Fundamentals

Scope

Art. 1 These regulations for the course of studies and examinations apply to the Master of Science in Engineering (MSE) at the Bern University of Applied Sciences (BFH) and sets out guidelines for

- a* admission,
- b* the course of studies,
- c* acquiring the proofs of competence throughout the course of studies,
- d* acquiring a master's Diploma.

Structure of the academic year

Art. 2 ¹ The academic year is divided into two semesters.

² The regular courses of the academic year take place in two blocks of 14 weeks each. Additional parts of the course such as non-consecutive examinations, completion of specialist subject-related projects and the like take place outside these 14-week blocks.⁴

Study advisors, individual study agreement⁵

Art. 3 ¹ Each student is assigned a study advisor who advises and guides the student through the course of studies. Study advisors are teaching staff doing research in a BFH organisational unit.⁶

² For the master's course, the student works out an individual study agreement with his or her study advisor, based on the curriculum. This is then set out in writing and approved by the head of the degree programme in the department.⁷

³ The student meets with the course advisor at least once a semester to discuss the student's university work to date as well as to agree upon the modules to be taken in the next semester.

¹ SR 414.71.

² BSG 435.411.

³ BSG 436.811.

⁴ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

⁵ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

⁶ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

⁷ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

⁴ The main points of the discussion are recorded in writing and signed by both parties.

⁵ If the course advisor and the student cannot come to an agreement on the individual course programme, the department head of course of studies makes the final resolution.

Length of studies

Art. 4 The course is organised to allow 3 semesters of full-time study to complete the necessary course workload of 90 ECTS credits for the master's degree. If the course is attended part-time, up to seven semesters can be used.

2. Admission and recognition of credits

Registration

Art. 5 ¹ Applicants have to submit their application in due form and time in accordance with the provisions of the Charter of Bern University of Applied Sciences (FaSt) of 14 February 2019.⁸

² Together with the application, a complete dossier has to be submitted that comprises the following documents in addition to the full details provided in the online application form:⁹

- a* identity card or passport (front and back)
- b* passport photograph complying with international standards
- c* document on qualifications entitling the holder to enrol at a university
- d* job reference or certificate of employment
- e* CV
- f* letter of motivation

³ An incomplete dossier will be rejected so that it can be complemented or improved upon. Consequently, a brief period of grace will be granted for this, and the emphasis made that the application will be considered as withdrawn if it is not resubmitted within the defined time period.¹⁰

Admissions committee

Art. 6 ¹ The admissions committee is responsible for assessing the applications and any interviews that may have taken place.

² The admissions committee is made up of

- a* the heads of the master's course of studies from the department of Architecture, Wood and Civil Engineering (AHB) as well as Engineering Science and Information Technology (TI),
- b* at least one of the heads of teaching of either department, AHB or TI.¹¹

³ The admissions committee is presided over by the BFH representative in the master's Committee of MSE Switzerland.¹²

⁴ The admissions committee is selected by the two heads of department. The Vice Chancellor shall settle any differences of opinion.

⁵ Those responsible for the profiles offered at BFH (specialisations) will be called in as experts with an advisory vote.¹³

⁸ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

⁹ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

¹⁰ Incorporated according to the resolution of the University Board of 11 June 2020, in force since 1 August 2020.

¹¹ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

¹² Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

¹³ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

Admission and elements of the assessment of suitability

Art. 7¹ Admission to the course of studies is in compliance with Article 56a FaV and requires:

- a* a bachelor's degree from a Swiss university with an overall result of an A or B ECTS grade in a field corresponding to or related to the course of study and
- b* an assessment of suitability with an adequate evaluation by the admissions committee; this means the application file has been reviewed and, in case of doubt, an interview as per Article 9 has been conducted and evaluated by the admissions committee.

² The application is verified using the following criteria: technical and methodical level, originality, expressiveness and ability to reflect.

³ Once the application has been reviewed and all of the requirements as per Paragraph 1 and the criteria as per Paragraph 2 have been deemed to be met, the admissions committee accepts the applicant.

Criteria for evaluation

Art. 8¹ If there is no overall mark pursuant to Article 7, the following evaluation criteria apply:

- a* Completion of a bachelor's degree or comparable course of studies with a minimum of 60 points in the grade point average (GPA) of BFH-AHB/TI¹⁴ in a degree discipline that corresponds to the admission criteria of the selected profile,¹⁵
- b* The general expertise based on the transcript of records,
- c* Expertise in a degree discipline required for the selected profile. This is outlined for each profile in the relevant description¹⁶,
- d* The soft skills as per Article 9 Paragraph 3 which are evaluated based on the letter of motivation, the CV and proof of language skills (certificates).

² To be granted admission to the master's course, all of the criteria in Paragraph 1 must be met or evaluated with the mark of "achieved".

³ Evaluation takes place as per Article 9 of the regulations for proofs of competence at the Bern University of Applied Sciences of 7 July 2005.

Interview

Art. 9¹ If an applicant's achievements as per Articles 7 or 8 cannot be sufficiently or clearly determined, the student may be interviewed by the admissions committee.

² The interview determines whether the applicant has the necessary expertise as set out in Article 8 Paragraph 1 Letters b and c as well as the soft skills laid out in Paragraph 3, which cannot be clearly seen from the application package on its own.

³ The following suitability parameters in particular must be analysed:

- a* The ability to integrate into an organisational unit in research (ability to work in teams, prior knowledge of subject, expertise etc.),¹⁷
- b* The ability to think abstractly and understand logical, complex interrelations,
- c* Verbal skills (oral communication).

¹⁴ Calculation basis: $GPA = (CP A \times 100 + CP B \times 80 + CP C \times 60 + CP D \times 40 + CP E \times 20) / \text{total CP}$, where "CP N" = credit points with ETCS grade "N". The basis is the interpretation of the grades according to Article 21a of these regulations.

¹⁵ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

¹⁶ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

¹⁷ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

⁴ To be granted admission to the master's course, all of the criteria in Paragraphs 2 and 3 must be met or evaluated with the mark of "achieved".

Portfolio admission **Art. 10** ¹ If an applicant does not have an overall mark and his or her achievements cannot be measured according to the BFH-AHB/TI GPA scale, the admissions committee can decide to accept the applicant based on a portfolio admission, provided there are proven equivalent or higher competences.¹⁸

² The admissions committee determines equivalency based on a dossier test pursuant to the skills required for the course of studies according to the curriculum. The committee decides what additional evidence must be provided above and beyond the existing skills.

Matriculation **Art. 11** Students matriculate at BFH.

Recognition of credits in a master's programme from another university **Art. 12** ¹ Students may apply in writing to the admissions committee for recognition of studies carried out in a master's programme at an institute of higher education other than the BFH. Credits are awarded after equivalency has been established.

² The candidate must meet the entrance requirements for BFH-TI or BFH-AHB to have any external achievements recognised.

³ Achievements obtained at another university will be assessed on an individual basis by the admissions committee and, where appropriate, allocated to a specific module with a number of ECTS credits.¹⁹

Recognition of professional experience for master's courses **Art. 13** ^{1 20}

² A written application to the admissions committee can be made for the recognition of professional experience.

3. Proofs of competence

Definition **Art. 14** Proofs of competence include, in particular:

- a* oral and written examinations,
- b* presentations,
- c* projects,
- d* written papers,
- e* master's thesis.²¹

Purpose **Art. 15** The purposes of proofs of competence are

- a* to give students the opportunity to provide evidence of their knowledge and ability, thus monitoring their performance,
- b* to advance the level of the master's course and the value of the master's Diploma by placing high demands on the students.

¹⁸ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

¹⁹ Incorporated according to the resolution of the University Board of 11 June 2020, in force since 1 August 2020.

²⁰ Repealed according to the resolution of the University Board of 11 June 2020, in force since 1 August 2020.

²¹ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

4. Module

Definition	<p>Art. 16 ¹ The master's degree course is divided into modules.</p> <p>² A module is a unit of instruction. Each module of full-time study lasts at most one semester.</p> <p>³ A module may comprise several courses.</p> <p>⁴ The persons in charge of the module specify further details in the description of the module.</p>
Categories	<p>Art. 17 ¹ The course programme allocates the modules to the following categories:²²</p> <p><i>a</i> compulsory modules, <i>b</i> compulsory-elective modules.</p> <p>² Compulsory modules must be attended and passed for a student to graduate from the course.</p> <p>³ Elective modules may be selected from a group of modules.</p> <p>⁴ In the course programme the modules of the degree programme are subdivided into module groups.²³</p> <p>⁵ For each module group there is a minimum number of ECTS credits to be achieved.²⁴</p> <p>⁶ For each module group there is a maximum creditable number of ECTS credits.²⁵</p>
Description	<p>Art. 18 Each module is specifically described in line with the European Commission's "ECTS User's Guide" of 17 August 2004.</p>
Proofs of competence	<p>Art. 19 ¹ Students must earn at least one proof of competence in each module to be awarded ECTS credits.</p> <p>² The guidelines for proofs of competence are set out in the European Commission's "ECTS User's Guide" of 17 August 2004 and in the guidelines of the Conference of the Swiss Universities of Applied Sciences from 5 December 2002.</p> <p>³ The persons in charge of the module set out the details in the module descriptions, which are published.</p>

5. ECTS System

Art. 20 ¹ The BFH applies the European Credit Transfer System (ECTS).

² One ECTS credit is the equivalent of a student workload of approximately 30 working hours.

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²⁴ Incorporated according to the resolution of the University Board of 11 June 2020, in force since 1 August 2020.

²⁵ Incorporated according to the resolution of the University Board of 11 June 2020, in force since 1 August 2020.

³ Full-time study requires the student to acquire at least 60 ECTS credits per academic year.

⁴ For part-time study, the annual workload is reduced accordingly.

⁵ A student's workload comprises

- a* assisted study,
- b* assisted independent study,
- c* independent study and
- d* proofs of competence.

6. Evaluation

Evaluation

Art. 21 Proofs of competence are evaluated with an ECTS grade.

ECTS-Grades

Art. 21a ECTS-Grades are:²⁶

- A excellent
- B very good
- C good
- D satisfactory
- E pass
- F fail

Pass norms for modules, awarding of ECTS credits^{27,28}

Art. 22 ¹ A module has been passed when a student achieves a minimum ECTS grade of E.

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⁴ Students who pass a module will be awarded the full number of ECTS credits allocated to that module. No ECTS credits are awarded for a failed module.

Length of examinations and content

Art. 23 ¹ The length of the module examinations is specified in the module descriptions.

² Module examinations generally take place when no lectures are held.

³ The examination dates for the main modules are determined by the MSE coordination services.³¹

⁴ The department head of course of studies determines the examination content for the specialisations.

Repeating modules and proofs of competence

Art. 24 ¹ Students may only repeat failed module examinations and proofs of competence once.

² The conditions applicable to the current version of the module apply whenever a student re-takes an examination.

³ Passed modules cannot be repeated.³²

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²⁷ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

²⁸ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

²⁹ Repealed according to the resolution of the University Board of 11 June 2020, in force since 1 August 2020.

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Substitute module	<p>Art. 25 If, for organisational reasons, a student cannot repeat a module, the course advisor along with the department head of the master's course of studies determines what other coursework, of equivalent scale, must be completed instead of the failed module.</p>
Publication of results	<p>Art. 26 ¹The results of all of the proofs of competence in a given semester are published in writing within 30 working days following the last proof of competence.</p> <p>² The module confirmation contains the following general information:</p> <ul style="list-style-type: none"> <i>a</i> the title and identification of each module, <i>b</i> a list of the courses the module comprises, <i>c</i> the ECTS grade achieved, <i>d</i> the ECTS credits obtained, <i>e</i> for modules that have not been passed, one of the following annotations "unsatisfactory" or "unsatisfactory, first retake". <p>³ Confirmation of the modules is provided in German or French and in English. More than one module confirmation can be contained in one document.</p> <p>⁴ For the master's thesis module, the list of courses is replaced by evaluations of the various parts of the thesis on which the grade for the module is awarded. The following components are to be taken into account:</p> <ul style="list-style-type: none"> <i>a</i> the quality of the project, <i>b</i> the scientific content of the work, <i>c</i> the self-critical observation of the results obtained, <i>d</i> the report (readability, language, presentation etc) and the defence of the work.
Master's thesis	<p>Art. 27 ¹ The master's thesis allows students to demonstrate their ability to independently and successfully solve a theoretical and practical problem using scientific reasoning and reflection within a specified period of time. A list of the resources used, and an own work declaration must be included with the project.</p> <p>² The master's thesis is an compulsory module. 30 ECTS credits are allocated to it.³³</p> <p>³ For the supervision of the master's thesis an expert is called in who is appointed by the head of department at the request of the head of the master's course of studies.³⁴</p> <p>⁴ The master's thesis is evaluated by the supervising lecturer in consultation with the expert.</p> <p>⁵ When evaluating the master's thesis, the evaluated components of the master's thesis are listed. These components make up the module mark (cf. Art. 26 Para. 4).</p>

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³⁴ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.



Diploma **Art. 28** ¹ The BFH MSE Diploma is awarded to students who have accumulated at least 90 ECTS credits in the individual study agreement as laid out by the study advisor and the student.³⁵
²The title of master's degree complies with the guidelines of the State Secretariat for Education, Research and Innovation.³⁶

Title **Art. 29** Upon successful completion of the master's course of study, the degree of "Master of Science BFH in Engineering with specialisation in ..." (MSc) is awarded. The title is supplemented by the name of the profile chosen.³⁷

Diploma supplement **Art. 30** Upon successful completion of the course of studies, graduates are awarded the Diploma Supplement in addition to the master's Diploma.

7. Organisation

Interruption of studies **Art. 31** ¹ In justified cases, the head of the master's course of studies can grant an interruption in studies of one or more semesters upon receipt of a written request.

²Justified cases include in particular, military service, civilian service, pregnancy, illness, an immediate need to care for a close family member, accident or death of a person close to the student.

Disqualification from course **Art. 32** ¹ Any student who has not obtained or can no longer obtain the necessary ECTS credits to graduate is disqualified from further study by the head of department.

²Students are expelled if they have not paid the course fees within the specified period of time.

Minimum number of modules **Art. 32a** In each semester, at least one module must be taken.³⁸

Enrolling in modules **Art. 33** Students who enrol in a module are simultaneously registered for the corresponding proofs of competence and module examinations.

Examiners **Art. 34** ¹ Proofs of competence are generally conducted by the lecturer who taught the module in question.

²The department head of the master's course of studies may, if there are good reasons, substitute lecturers with equivalent specialised knowledge for the usual examiners.

³Upon agreement with the head of the master's course of studies, experts may be brought in to the practical specialisation modules to assist with proofs of competence.

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³⁶ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

³⁷ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

³⁸ Incorporated according to the resolution of the University Board of 11 June 2020, in force since 1 August 2020.

	<p>⁴ The master's thesis is evaluated by the supervising lecturer in consultation with the expert (Art. 27 Para. 3).</p>
Public accessibility	<p>Art. 35 ¹ Examinations are generally not public.</p> <p>² The master's thesis is generally presented in public. If there is a third-party confidentiality agreement, the master's thesis is not presented in public.</p> <p>³ The master's thesis is defended in front of a specialist committee consisting of lecturers and experts (not public).</p> <p>⁴ In the case of confidentiality agreements, the head of the master's course of studies determines in writing exceptions to Paragraphs 1 to 3.</p>
Languages	<p>Art. 36 ¹ The languages of instruction are German, French or English and are specified in the module descriptions.</p> <p>² The language of the proof of assessment is generally the same as the language of instruction.</p>
Postponement	<p>Art. 37 ¹ Students unable to attend a proof of competence for good reason may apply for a postponement or do it on the next examination date. The master's head of course of studies and the course advisor make a decision about the application within a reasonable period of time.</p> <p>² Good reason includes absences beyond the student's control such as military service, civilian service, pregnancy, illness, accident, immediate caring for next of kin or the death of a person close to the student or the like. The reasoning must be submitted 48 hours following the proof of competence, at the latest. A doctor's note must be presented in the event of illness.</p>
Unexcused absence	<p>Art. 38 Students who are absent from a proof of competence without good reason as per Article 37 receive an ECTS grade of F.</p>
Cheating	<p>Art. 39 ¹ Any student who attempts to use dishonest means to achieve a better mark for himself or another person will be awarded an ECTS grade of F.</p> <p>² The examiners will record the incident in writing and forward it to the department head of the master's course of studies.</p>
Documentation	<p>Art. 40 ¹ The examiners are responsible for documenting successful proof of competence.</p> <p>² Records must be kept until the appeals deadline has passed and in the case of an appeal, until the legal completion of the process.</p>
Justification and access to records	<p>Art. 41 ¹ Unsatisfactory assessment must be justified.</p> <p>² Students have the right to inspect their files.³⁹</p>

³⁹ Version according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.



8. Legal right

Art. 42 ¹ The appeals procedure is governed by cantonal law.⁴⁰

² Written objections against resolutions pursuant to Article 26 Paragraphs 1 and 2 and Article 32 can be filed with the department head within 30 days.

³ Written complaints concerning objection resolutions as per Paragraph 2 can be made to the BFH appeals commission within 30 days. Objections of inadequacy are not permitted.

9. Final clause

Coming into effect

Art. 43 These regulations come into force on 1 August 2008.

Transitional provision⁴¹

Art. 44 Students who have started their studies prior to the 2020/21 autumn term finish them under existing law.

Bern, 23 June 2008
University Board of the Bern University of Applied Sciences
President:

signed Dr Georges Bindschedler

Bern, 31 July 2008
Board of Education of Canton Bern
Director:

signed Bernhard Pulver, Cantonal President

Amended according to the University Board's resolution of 11 June 2020, in force since 1 August 2020.

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