

32. Satzung
zur Änderung der Studien- und Prüfungsordnung für Bachelor- und
Masterstudiengänge
an der Hochschule Biberach
vom 22.02.2011

Aufgrund von § 32 des Gesetzes über die Hochschulen in Baden-Württemberg (Landeshochschulgesetz - LHG) mehrfach und zuletzt geändert durch Gesetz vom 24. Juni 2020 (GBl., Seite 426) hat der Senat der Hochschule Biberach in seiner Sitzung am 17.06.2020 die Änderung der Studien- und Prüfungsordnung beschlossen. Der Rektor hat seine Zustimmung gem. § 32 Abs. 3 LHG am 31. August 2020 erteilt.

Artikel 1

Änderung „Besonderer Teil“

Einfügung Neufassung § 27a Bachelor-Studiengang Civil Engineering, Inkrafttreten
01.09.2020

§ 27a Bachelor-Studiengang Civil Engineering

(1) The Aim of the Study Program

is a Bachelor degree qualifying for a profession with the title "Bachelor of Engineering" (B. Eng). The program trains an application-oriented civil engineer who can be employed in many fields and has a broad basic knowledge in all classical fields of civil engineering and a subject-specific specialization in a chosen major field of study (profile formation). In order to achieve practical skills, a large part of the study courses are offered in the form of exercises and project studies with a significant proportion of studentwork.

The teaching of the Bachelor Degree Program Civil Engineering (6 semesters) is practice-oriented and designed to enable students to independently analyze and fully solve planning and design problems within the framework of given work structures. For this purpose, the specialization areas "Structural Engineering" and "Infrastructure Planning" are offered in the advanced study program.

(2) Pre-study Internship

The admission to the bachelor's degree program is based on an admission procedure, the proof of a successfully completed foundation year and a 2-month pre-study internship. In special cases, the pre-study internship can be made up until the end of the second semester. The internship must take place on building sites in construction-related professions. The trainee is to be given as versatile an insight as possible into the individual construction methods as well as into the economic and social aspects of the construction site. Applicants who have completed their vocational training in a construction-related profession will generally be exempted from the preliminary internship.

(3) Scope and Structure of the Study Program

The study program is divided into three stages of study:

- The **first stage of study** (Level 1) includes the 1st and 2nd semester with the basic engineering modules which are standardized for all students.
- The **second stage of study** (Level 2) includes the 3rd and 4th semester with the core civil engineering modules that are uniform for all students.
- The **third stage of study** (Level 3) includes the 5th and 6th semester with the modules of specialization and mandatory and elective modules to be chosen by each student, as well as the Bachelor thesis integrated in the 6th semester.

The structure and content of the Bachelor Degree program can be found in Attachment 1. This includes the courses required for the Bachelor's Degree Program with the B.Eng. degree as well as the associated preliminary examinations and examination papers.

At the end of the first stage of study (Level 1) and at the end of the second stage of study (Level 2), the student should be advised on the basis of his or her academic achievements regarding his or her personal abilities and skills and his or her possible chances of success with regard to a successful completion of study.

(4) First Stage of Study (Level 1)

The first stage of study is completed when all module examinations of the first two semesters (Module BC 1 to BC 8) have been passed.

(5) Second Stage of Study (Level 2)

Transferring to the second stage of study is only possible if at least 6 of 8 modules of the first stage of study have been successfully completed.

(6) Third Stage of Study (Level 3)

A progression to the third stage of study is only possible if all modules of the first stage of study have been successfully completed and a maximum of two modules from the fourth semester are open. These open modules shall not be in the basic area of the consecutive modules in the chosen specialization.

Before starting the advanced studies (Level 3) in the 5th and 6th semester, the student decides on one of the two offered specializations:

- Structural Engineering or
- Infrastructure Planning

Major Structural Engineering		Major Infrastructure Planning	
BC 18	Structural Analysis und Finite Elements	BC 22	Traffic Engineering 2
BC 19	Reinforced Concrete 2	BC 23	Hydraulic Engineering 2
BC 20	Steel Construction 2	BC 24	Urban Water Management 2
BC 21	Structural Engineering Project-Study	BC 25	Infrastructure Planning Project-Study

The third stage of study (Level 3) includes the four modules of the specialization (in total 30 CP), the mandatory module BC 26 BIM and International Contract Management (5 CP) and further elective modules (in total 13 CP). The Bachelor thesis (12 CP) is integrated in the 6th Semester.

For the further elective modules (in total 13 CP) the students can choose to earn credit points from the following modules:

- BC 27 Geotechnical Engineering 2
- BC 28 Energy
- BC 29 Timber Construction

or by modules from the respective other specialization (BC 18, BC 19, BC 20 or BC 22, BC 23, BC 24).

(7) Bachelor Thesis

The Bachelor thesis is integrated in the 6th semester, but can be only be started after the fulfillment of the following **admission requirements**:

1. All modules of the first and second stage of study have been completed.
2. For the advanced module to which the topic of the Bachelor thesis is to be assigned, the preliminary examination performance of the 5th semester was successfully completed.

The **processing time** is 4 months. An extension of the processing time is only possible in exceptional cases and only for a maximum of 1 month. The reasons for the application must be submitted in written form. The reason must be justified. In case of illness, a medical certificate is required.

The bachelor thesis will be presented and defended within a **colloquium**. In addition, an abstract and the presentation shall be submitted.

(8) Excursions

Within the framework of teaching, excursions can be offered in individual subjects or interdisciplinary excursions during and outside the lecture period. They are regarded as compulsory excursions if this is determined by the respective lecturer.

(9) Formation of the module and overall grade

The module grade is determined by the result of the module examination. If partial examinations are conducted within a module, the module grade shall be determined according to the credit points of the partial examinations. Ungraded examination performances and the credit points assigned to them shall not be taken into account in the calculation of the module grade. For the calculation of the overall grade, the module grades and the Bachelor thesis shall be weighted with the credit points for the modules according to Attachment 1.

(10) Implementation Phase

During the implementation phase of the new bachelor program, the following modules will not be offered: BC 22, BC 23, BC 24, BC 25, BC29. Depending on the demand, the number of students and the funding, these modules will be offered at a later stage.

(11) Entry into effect

This special part of the study and examination regulations will come into effect on 01.September 2020.

Attachment 1:

Content Bachelor Degree Program Civil Engineering

Attachment 1:Content Bachelor Degree Program Civil Engineering

ECTS-Credit Points	Total CP	1. Sem 2. Sem 3. Sem 4. Sem 5. Sem 6. Sem					
		CP	CP	CP	CP	CP	CP
Level 1 Basics	60	30	30				
Level 2 Basics in Civil Engineering	60			30	30		
Level 3 Major: Structural Engineering	30					18	12
Level 3 Major: Infrastructural Planning Engineering	30					18	12
Level 3 Mandatory and Electives	18					12	6
Level 3 Bachelor Thesis	12						12
Total ECTS-Credit Points	180	30	30	30	30	30	30

Abbreviations

- BC Bachelorprogram in Civil Engineering
- CP ECTS-Credit Points
- Pre Prerequisite for Examination
- Ex Examination
- wE Written Examination
- oE Oral Examination
- gSP graded Seminar Paper
- uSP ngraded Seminar Paper
- P Presentation
- L Laboratory assignment
- F Field assignment

Table 1: Modules of Level 1

No.	Module / Lecture	CP	1. Sem 2. Sem 3. Sem 4. Sem 5. Sem 6. Sem						Examinations		
			CP	CP	CP	CP	CP	CP	Pre	Ex	Min
Level 1		60									
BC 01	Mathematics	8									
BC 01-1	Mathematics 1		4							wE	90
BC 01-2	Mathematics 2			4						wE	90
BC 02	Technical Mechanics	10									
BC 02-1	Technical Mechanics 1		5							wE	90
BC 02-2	Technical Mechanics 2			5						wE	90
BC 03	Construction Materials	8									
BC 03-1	Construction Materials 1 incl. Construction Chemistry		4							wE	90
BC 03-2	Construction Materials 2 incl. Construction Chemistry			4					L	wE	90
BC 04	Introduction in Building Construction	10									
BC 04-1	Building Construction 1		4							gSP	
BC 04-2	Building Construction 2			4						gSP	
BC 04-3	Basics in Building Physics			2						wE	60
BC 05	Information Technology and Communication	6									
BC 05-1	Engineering IT		2							gSP	
BC 05-2	Component Oriented CAD			2						gSP	
BC 05-3	Teambuilding and Leading in Projects			2						uSP	
BC 06	Geoinformation	6									
BC 06-1	Surveying		3							wE	60
BC 06-2	Project Geoinformation		3						F	gSP	
BC 07	Basics of Geology and Geotechnical Engineering	6									
BC 07-1	Engineering Geology		2						L	wE	60
BC 07-2	Basics of Geotechnics			4					L & F	wE	60
BC 08	Construction Management 1	6									
BC 08-1	Construction Process Engineering		3								
BC 08-2	Ressource Planning und Scheduling			3						gSP	

Table 2:

Modules of Level 2

No.	Module / Lecture	CP	1. Sem 2. Sem 3. Sem 4. Sem 5. Sem 6. Sem						Examinations			
			CP	CP	CP	CP	CP	CP	Pre	Ex	Min	
Level 2		60										
BC 09	Statics	8										
BC 09-1	Statics 1				4						gSP	
BC 09-2	Statics 2					4					wE	120
BC 10	Reinforced Concrete 1	8										
BC 10-1	Reinforced Concrete 1a				4						gSP	
BC 10-2	Reinforced Concrete 1b					4					wE	120
BC 11	Steel Construction 1	6										
BC 11-1	Steel Construction 1a				3						gSP	
BC 11-2	Steel Construction 1b					3					wE	120
BC 12	Construction Management 2	8										
BC 12-1	Health and Safety				2						uSP	
BC 12-2	Estimation				3						wE	60
BC 12-3	Cost Controlling					3					gSP	
BC 13	Geotechnical Engineering 1	6										
BC 13-1	Geotechnical Engineering 1a				3						uSP	wE 60
BC 13-2	Geotechnical Engineering 1b					3					gSP	
BC 14	Traffic Engineering 1	7										
BC 14-1	Traffic Engineering 1a				3						gSP	90
BC 14-2	Traffic Engineering 1b					4					& wE	
BC 15	Hydraulic Engineering 1	6										
BC 15-1	Hydraulic Engineering 1a: Hydromechanics and Hydraulics				3						uSP	wE 60
BC 15-2	Hydraulic Engineering 1b: Application in Hydraulic Engineering					3					gSP	
BC 16	Urban Water Management 1	6										
BC 16-1	Urban Water Supply				3						uSP	wE 60
BC 16-2	Urban Drainage					3					gSP	
BC 17	Basics in Law and Building Information Modelling	5										
BC 17-1	Basics in Public and Private Law				2						wE	60
BC 17-2	Basics in Building Information Modelling					3					gSP	

Table 3a: Major Structural Engineering in Level 3

No.	Module / Lecture	CP	1. Sem 2. Sem 3. Sem 4. Sem 5. Sem 6. Sem						Examinations			
			CP	CP	CP	CP	CP	CP	Pre	Ex	Min	
Level 3	Major Structural Engineering	30										
BC 18	Structural Analysis und Finite Elements	5										
BC 18-1	Structural Analysis und Finite Elements						5				gSP	
BC 19	Reinforced Concrete 2	8										
BC 19-1	Reinforced Concrete 2a						4				gSP	
BC 19-2	Reinforced Concrete 2b							4			wE	120
BC 20	Steel Construction 2	8										
BC 20-1	Steel Construction 2a						4			uSP	wE	60
BC 20-2	Steel Construction 2b							4			gSP	
BC 21	Structural Engineering Project-Study	9										
BC 21-1	Structural Engineering Project-Study Part 1						5				gSP	
BC 21-2	Structural Engineering Project-Study Part 2							4			gSP	

Table 3b: Major Infrastructure Planning in Level 3

No.	Module / Lecture	CP	1. Sem 2. Sem 3. Sem 4. Sem 5. Sem 6. Sem						Examinations			
			CP	CP	CP	CP	CP	CP	Pre	Ex	Min	
Level 3	Major Infrastructure Planning	30										
BC 22	Traffic Engineering 2	5										
BC 22-1	Traffic Engineering 2						5				gSP	
BC 23	Hydraulic Engineering 2	8										
BC 23-1	Hydraulic Engineering 2a						4			uSP	wE	60
BC 23-2	Hydraulic Engineering 2b							4			gSP	
BC 24	Urban Water Management 2	8										
BC 24-1	Urban Water Management 2a						4			uSP	wE	60
BC 24-2	Urban Water Management 2b							4			gSP	
BC 25	Infrastructure Planning Project-Study	9										
BC 25-1	Infrastructure Planning Project-Study Part 1						5				gSP	
BC 25-2	Infrastructure Planning Project-Study Part 2							4			gSP	

Table 4:

Mandatory and Electives in Level 3

No.	Module / Lecture	CP	1. Sem 2. Sem 3. Sem 4. Sem 5. Sem 6. Sem						Examinations		
			CP	CP	CP	CP	CP	CP	Pre	Ex	Min
Level 3	Mandatory and Electives	18									
BC 26	Mandatory: BIM and International Contract Management	5									
BC 26-1	Building Information Modeling						3			gSP	
BC 26-2	International Contract Management (FIDIC)						2			wE 60	
BC 27	Elective: Geotechnical Engineering 2 (or other Elective with 8 CP)	8									
BC 27-1	Geotechnics 2a						4			wE 60	
BC 27-2	Geotechnics 2b							4			wE 60
BC 28	Elective: Energy (or other Elective with 5 CP)	5									
BC 28-1	Sustainable Energy Management						3			wE 60	
BC 28-2	Renewable Energy							2			wE 60
BC 29	Elective: Timber Construction (or other Elective with 5 CP)	5									
BC 29-1	Timber Construction 1a						3			wE 60	
BC 29-2	Timber Construction 1b							2			wE 60
Level 3	Bachelor Thesis	12									
BC 30	Bachelor Thesis	12									
BC 30-1	Bachelor Thesis incl. Presentation and Defence							12			gSP

§ 33 Bachelorstudiengang Industrielle Biotechnologie, Änderung des besonderen Teils vom 01.10.2018

Abs. 2 wird wie folgt gefasst:

Das Studium gliedert sich in drei Abschnitte; im Studienmodell Bachelor International ändern sich gegebenenfalls die einzelnen Studienabschnitte.

- Abschnitt 1: erstes und zweites Semester
- Abschnitt 2: drittes bis fünftes Semester
- Abschnitt 3: sechstes und siebtes Semester

Der erste Studienabschnitt ist erfolgreich abgeschlossen, wenn alle Modulprüfungen der darin enthaltenen Module bestanden wurden (Vorprüfung). Der Studierende erhält hierüber ein Zeugnis. Die Noten der Module des ersten Studienabschnittes gehen in die Gesamtnote der Bachelorprüfung ein.

Ein Wechsel in den zweiten Studienabschnitt ist nur möglich, wenn der Studierende das Modul "Mathematik und Biostatistik I", sowie vier weitere Module des ersten Studienabschnittes bestanden hat.

Der Eintritt in das fünfte Studiensemester ist nur dann möglich, wenn der Studierende alle Prüfungsleistungen des ersten Studienabschnittes sowie vier Module aus dem zweiten Studienabschnitt erfolgreich abgeschlossen hat. Das Ablegen von Prüfungsvorleistungen des fünften

Semesters setzt den erfolgreichen Abschluss des ersten Studienabschnitts und die Ablegung von mindestens zwei Prüfungen aus dem dritten und vierten Semester voraus.

Am Ende des ersten Studienabschnitts wird den Studierenden aufgrund ihrer Studienleistung zu ihren besonderen Fähigkeiten und Fertigkeiten und möglichen Erfolgsaussichten in Studium und Beruf eine Beratung angeboten. Die Beratung wird im dritten Semester vom Dekan bzw. Studiendekan durchgeführt.

Zum erfolgreichen Abschluss des Bachelor-Studiums müssen insgesamt 210 Leistungspunkte erworben werden.

Abs. 4 wird wie folgt gefasst:

Der Erwerb von 2 Leistungspunkten durch die Teilnahme am fächerübergreifenden Angebot der Hochschule Biberach (Studium Generale) ist für alle Studierenden verpflichtend und soll bis zum einschließlich fünften Studiensemester erfolgen.

Artikel 2

„Schlussbestimmungen“

Inkrafttreten

Der besondere Teil der Studien- und Prüfungsordnung § 27a Bachelor-Studiengang Civil Engineering tritt zum 01. September 2020 in Kraft.

Die Änderungen des besonderen Teils der Studien- und Prüfungsordnung § 33 Bachelorstudiengang Industrielle Biotechnologie treten zum 01. September 2020 in Kraft

Biberach, den 31. August 2020


Professor Dr. André Bleicher

Bekanntmachungsnachweis:
veröffentlicht: 09.09.20
abgenommen: