Course offerings in Distance Learning Bachelor degree programme Mechanical Engineering according to PO 2019

Detailed study schedule with changes according to faculty council decisions as well as detailed information

Status: 12.10.2026

Content:

Study schedule of the compulsory modules independent of profile recommendations (semester 1 – 12)

- Profile recommendation General and Structural Mechanical Engineering (AKM)
- Profile recommendation Power Engineering (ET)
- Profile recommendation Aerospace Engineering (LRT)
- Profile recommendation Production Engineering (PT)

Annex

Footnotes

Curriculum
with the type and scope of the courses in SWS as well as required performances, the type, scope and design of which can be found in the module descriptions. Within distance learning, lectures and tutorials are replaced by blocked consultations.

Module no.	Module name	1. Sem.	2. Sem.	3. Sem.	4. Sem.	5. Sem.	6. Sem.	7. Sem.	8. Sem.	9. Sem.	10. Sem.	11. Sem.	12. Sem.	LP
		K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	
Compulsory modules														
MW-MB-01 [24, 36, 64]	Fundamentals of Mathematics	#/#	#/# PL											**6**
MW-MB-02 [36]	Engineering Mechanics - Statics	#/#	#/# PL											**5**
MW-MB-03 [9]	Fundamentals of Natural Sciences - Physics - Chemistry	#/# #/#	#/# 2xPL #/#		#/# PL #/#									**7**
MW-MB-04 [9, 17, 24, 32, 42]	Design Theory	#/#	#/#	#/# PL										**8**
MW-MB-05 [17, 24, 32]	Computer Science - Computer application in MW - Software and programming technology	#/# PL #/#	#/# #/#	#/# #/#	#/# 2x PL #/#									**8**
MW-MB-06 [47]	Production Engineering	#/#	#/# PL	#/# PL										**9**

Module no.	Module name	1. Sem.	2. Sem.	3. Sem.	4. Sem.	5. Sem.	6. Sem.	7. Sem.	8. Sem.	9. Sem.	10. Sem.	11. Sem.	12. Sem.	LP
		K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	
MW-MB-07 [87]	Business Administration and Language Skills - Language Skills - Business Administration	#/# PL #/#			#/# PL #/#									**5**
MW-MB-08 [4, 5, 7, 9,36, 42, 64, 75, 85]	Engineering Mathematics			#/#	#/# PL									**6**
MW-MB-09 [24, 36, 54, 75]	Engineering Mechanics - Strength of Materials				#/#	#/# PL								**7**
MW-MB-10 [4, 36, 54]	Fundamentals of Material Science				#/#	#/# 2xPL								**6**
MW-MB-11 [9, 36, 75]	Fundamentals of Electrical Engineering					#/#	#/# 2xPL							**7**
MW-MB-12 [4, 6, 9, 42, 54, 75, 85]	Engineering Thermodynamics/Heat Transfer - Engineering Thermodynamics - Heat Transfer					#/# PL #/#	#/# PL #/#							**9**
MW-MB-13 [4, 5, 36]	Special Topics of Mathematics					#/#	#/# PL							**9**
MW-MB-14	Machine Elements							#/# PL	#/# 2xPL					**12**

Module no.	Module name	1. Sem.	2. Sem.	3. Sem.	4. Sem.	5. Sem.	6. Sem.	7. Sem.	8. Sem.	9. Sem.	10. Sem.	11. Sem.	12. Sem.	LP
		K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	
MW-MB-15	General and Engineering-Specific Qualifications in Mechanical Engineering							#/# PL[1)]	#/# PL[1)]					**5**
MW-MB-16 **24, 36**	Engineering Mechanics - Kinematics and Kinetics							#/#	#/# PL					**6**
MW-MB-17 **36, 42, 54, 75, 85**	Fundamentals of Fluid Mechanics							#/#	#/# PL					**5**
MW-MB-18 **4, 9, 36, 70, 75**	Measurement and Automation Engineering									#/# PL	#/# 2xPL			**8**
MW-MB-19 **70, 75**	Extended Fundamentals for Mechanical Engineering									#/# X PL[2)]				**5**

Module no.	Module name	1. Sem.	2. Sem.	3. Sem.	4. Sem.	5. Sem.	6. Sem.	7. Sem.	8. Sem.	9. Sem.	10. Sem.	11. Sem.	12. Sem.	LP
		K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	
Profile recommendation General and Structural Mechanical Engineering (AKM) [3)]														
Compulsory modules														
MW-MB-AKM-01 [17, 23, 24, 32, 70, 75] MW-MB-KST-28 [17, 23, 24, 32, 70, 75] MW-MB-VTMB-01 [17, 23, 24, 32, 70, 75]	Fundamentals of Construction and Dynamic Dimensioning of Machines - Constructive Development Process - Machine Dynamics									#/# 2xPL #/# #/#				**7**
MW-MB-AKM-02 [70, 75] MW-MB-KST-01 [70, 75]	Fluid Power and Electrical Drive Systems - Basics of fluid Power Drives and Controls - Electric Drives											#/# PL #/# #/#		**7**
MW-MB-AKM-03 [70, 75]	Mechanical Drives - Drive Elements - Design Document Drive Assembly											#/# 2xPL #/# #/#		**7**

Module no.	Module name	1. Sem.	2. Sem.	3. Sem.	4. Sem.	5. Sem.	6. Sem.	7. Sem.	8. Sem.	9. Sem.	10. Sem.	11. Sem.	12. Sem.	LP
		K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	
Elective modules														
Choice of 2 modules														
MW-MB-AKM-05 [86]	Intralogistics - Fundamentals - Elements and supporting Structures - Logistics Lab - Design of intralogistics systems										#/# 2xPL #/# #/# #/#			**7**
~~MW-MB-AKM-09~~ [17, 26] ~~MW-MB-KST-29~~ [17, 26]	~~Tools and Methods of Product Development~~ ~~- Digital MockUp in Product Development~~ - ~~Designing with CAD~~										~~#/#~~ ~~2xPL~~ ~~#/#~~ ~~#/#~~			~~**7**~~
MW-MB-AKM-37 [26, 32, 70, 75] MW-MB-KST-32 [26, 32, 70, 75]	Methodical Product Development and Selected Tools - Digital MockUp in product development - Designing with CAD										#/# 2xPL #/# #/#			**7**

Module no.	Module name	1. Sem.	2. Sem.	3. Sem.	4. Sem.	5. Sem.	6. Sem.	7. Sem.	8. Sem.	9. Sem.	10. Sem.	11. Sem.	12. Sem.	LP
		K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	
Profile recommendation Power Engineering (ET) [3)]														
Compulsory modules														
MW-MB-ET-01 [1, 42]	Fluid Mechanics and Simulation Methods - Simulation tools in power engineering - Flow simulation for engineering applications - Engineering fluid mechanics											#/# PVL, PL #/# #/# #/#		**7**
MW-MB-ET-02 [1, 9, 54]	Process Thermodynamics - Process Thermodynamics - Reaction Process Engineering									#/# PL #/# #/#				**7**
MW-MB-ET-03 [1, 42]	Fundamentals of Heat and Mass Transfer - Combustion Technology - Heat and Mass Transfer											#/# PL #/# #/#		**7**

Module no.	Module name	1. Sem.	2. Sem.	3. Sem.	4. Sem.	5. Sem.	6. Sem.	7. Sem.	8. Sem.	9. Sem.	10. Sem.	11. Sem.	12. Sem.	LP
		K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	
MW-MB-ET-06 [9, 17]	Fundamentals of Non-Fossil Primary Energy Use - Renewable Energy Sources - Fundamentals of Nuclear Energy Technology										#/# 2xPL #/# #/#			**7**
MW-MB-ET-07	Heat Exchanger, Pipings, Pressure Vessels and Energy Storage - Basics of Energy Storage Components - Pipelines, Apparatus and Containers - Heat Exchanger and Steam Generator										#/# 2xPL #/# #/# #/#			**7**

Module no.	Module name	1. Sem.	2. Sem.	3. Sem.	4. Sem.	5. Sem.	6. Sem.	7. Sem.	8. Sem.	9. Sem.	10. Sem.	11. Sem.	12. Sem.	LP
		K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	
Profile recommendation Aerospace Engineering (LRT) [3)]														
Compulsory modules														
MW-MB-LRT-01 [9]	Fundamentals of Aerodynamics and Flight Mechanics - Aerodynamics 1 - Fundamentals of Flight Mechanics									#/# PL #/# #/#				**7**
MW-MB-LRT-02 [17, 64]	Fundamentals of Aerospace Vehicles - Aircraft Design - Space Systems											#/# PL #/# #/#		**7**
MW-MB-LRT-03 [75]	Fundamentals of Aerospace Engineering - Aerospace Materials - Fluid Mechanics Fundamentals of Turbomachinery											#/# PL #/# #/#		**7**
MW-MB-LRT-04	Fundamentals of Flight Propulsion - Gas Dynamics - Aircraft Propulsion 1										#/# PL #/# #/#			**7**

Module no.	Module name	1. Sem.	2. Sem.	3. Sem.	4. Sem.	5. Sem.	6. Sem.	7. Sem.	8. Sem.	9. Sem.	10. Sem.	11. Sem.	12. Sem.	LP
		K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	
MW-MB-LRT-05	Numerical Methods of Fluid Mechanics and Structural Mechanics - Finite Element Method - Computational Fluid Dynamics										#/# PVL, PL #/# #/#			**7**
Profile recommendation Production Engineering (PT) [3)]														
Compulsory modules														
MW-MB-PT-01 [1, 70, 75]	Production Engineering - Manufacturing Processes - Joining Technology - Surface and Coating Technology - Forming and Remoulding Technology - Cutting and Removal Technology									#/# 2xPL #/# #/# #/# #/#				**7**

Module no.	Module name	1. Sem.	2. Sem.	3. Sem.	4. Sem.	5. Sem.	6. Sem.	7. Sem.	8. Sem.	9. Sem.	10. Sem.	11. Sem.	12. Sem.	LP
		K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	
MW-MB-PT-02 [54, 70, 75]	Production Engineering - Manufacturing and Planning - Occupational Science - Production Planning - Production and Logistics											#/# PL #/# #/# #/#		**7**
MW-MB-PT-03 [70, 75]	Production Engineering - Machine Tools and Production Automatization - Production automation - Machine Tools - Basics											#/# PL #/# #/#		**7**
Elective modules														
Choice of 2 modules														
MW-MB-PT-04 [47, 70, 75]	Manufacturing Processes - Advanced Course - Welding Process - Forming Process Design										#/# PL #/# #/#			**7**

Module no.	Module name	1. Sem.	2. Sem.	3. Sem.	4. Sem.	5. Sem.	6. Sem.	7. Sem.	8. Sem.	9. Sem.	10. Sem.	11. Sem.	12. Sem.	LP
		K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	K/P	
MW-MB-PT-06, [70, 75]	Development of Machine Tools - Building Group Design - Controlled Drives										#/# PL #/# #/#			**7**
Bachelor thesis													11	**11**
Colloquium													1	**1**
Credit points														**180**

Annex

V	Lecture*)
Ü	Exercise*)
P	Practical course
SK	Language course
PL	Exam performance(s)
PVL	Preliminary examination(s)
LP	Credit Points - in brackets ( ) pro rata allocation to individual semesters according to workload
SWS	Lecture hours per week

*) Pursuant to § 5 Paragraph 1 Sentence 3 Study Regulations, the teaching and learning forms of lecture and tutorial in the distance learning programme are each replaced by the teaching and learning form of consultation.

1) Alternatively, at the student's choice, courses totalling 4 SWS according to the catalogue General and Engineering-Specific Qualifications in Mechanical Engineering.

2) Alternatively, at the student's choice, courses with a total volume of 5 SWS including the examination performances specified according to the catalogue Advanced Fundamentals in Mechanical Engineering.

3) Alternatively, at the student's choice, one of eight profile recommendations and, taking into account § 24 Paragraph 2 Sentence 3, one of four profile recommendations.

1 Extension in accordance with § 6 Para. 6 and § 10 Para. 2 Study Regulations for the Diploma Programme in Mechanical Engineering of 17 May 2019 or Bachelor's Programme in Mechanical Engineering of 17 May 2019 in accordance with the resolution of the Faculty Council of 15.04.2020 Adjustment in the field Applicability.

4 Extension in accordance with § 6 Para. 6 and § 10 Para. 2 Study Regulations for the Diploma Programme in Process and Natural Materials Engineering of 29 April 2019, the Bachelor Programme in Process and Natural Materials Engineering of 28 April 2019 or Diploma Postgraduate Programme in Process and Natural Materials Engineering of 15 February 2020 in accordance with the resolution of the Faculty Council of 15 April 2020 Adjustment in the field Applicability.

5 Extension in accordance with § 6 Para. 6 and § 10 Para. 2 Study Regulations for the Diploma Programme in Materials Science of 29 April 2019 or Bachelor's Programme in Materials Science of 28 April 2019 in accordance with the resolution of the Faculty Council of 15.04.2020 Adjustment in the field Applicability.

6 Extension in accordance with § 6 Para. 6 and § 10 Para. 2 Study Regulations for the Diploma Programme in Process and Natural Materials Engineering of 29 April 2019, the Bachelor Programme in Process and Natural Materials Engineering of 28 April 2019 and the Diploma Postgraduate Programme in Process and Natural Materials Engineering of 15 February 2020 in accordance with the resolution of the Faculty Council of 17 March 2021 Adjustment in the field of usability.

7 Extension in accordance with § 6 Para. 6 and § 10 Para. 2 Study Regulations for the Diploma Programme in Materials Science of 29 April 2019 or Bachelor's Programme in Materials Science of 28 April 2019 in accordance with the resolution of the Faculty Council of 21.04.2021 Adjustment in the field Applicability.

9 Extension in accordance with § 6 Para. 6 and § 10 Para. 2 Study Regulations for the Diploma Programme in Mechanical Engineering of 17 May 2019 or Bachelor's Programme in Mechanical Engineering of 17 May 2019 or Diploma Postgraduate Programme in Mechanical Engineering of 17 January 2020 in accordance with the resolution of the Faculty Council of 21.04.2021 Adjustment in the field Applicability.

17 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree programme in Mechanical Engineering of May 17, 2019 or Bachelor’s degree programme in Mechanical Engineering of May 17, 2019 or Diploma-postgraduate degree programme in Mechanical Engineering of January 17, 2020 according to the resolution of the Faculty Council of 21.07.2021 Adjustment in the field responsible lecturer.

23 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree programme in Mechanical Engineering dated May 17, 2019 or Bachelor’s degree programme in Mechanical Engineering dated May 17, 2019 or Diploma-postgraduate degree programme in Mechanical Engineering dated January 17, 2020 according to the resolution of the Faculty Council dated 20.10.2021 Adjustment in the field Applicability.

24 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree programme in Mechanical Engineering dated May 17, 2019 or Bachelor’s degree programme in Mechanical Engineering dated May 17, 2019 or Diploma-postgraduate degree programme in Mechanical Engineering dated January 17, 2020 according to the resolution of the Faculty Council dated 20.04.2022 Adjustment in the field Applicability.

26 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree programme in Mechanical Engineering of May 17, 2019 or Bachelor’s degree programme in Mechanical Engineering of May 17, 2019 or Diploma-postgraduate degree programme in Mechanical Engineering of January 17, 2020 according to the resolution of the Faculty Council of 04/20/2022 Replacement of the course offerings.

32 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree programme in Mechanical Engineering dated 17.05.2019 or Diploma-postgraduate degree programme in Mechanical Engineering dated 17.01.2020 according to the resolution of the Faculty Council dated 15.06.2022 Adjustment in the field responsible lecturer.

36 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree programme in Mechanical Engineering dated 17.05.2019 or Bachelor’s degree programme in Mechanical Engineering dated 17.05.2019 or Diploma-postgraduate degree programme in Mechanical Engineering dated 17.01.2020 according to the resolution of the Faculty Council dated 19.10.2022Adjustment in the field Usability.

42 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree programme in Mechanical Engineering dated 17.05.2019 or Bachelor’s degree programme in Mechanical Engineering dated 17.05.2019 or Diploma-postgraduate degree programme in Mechanical Engineering dated 17.01.2020 according to the resolution of the Faculty Council dated 19.04.2023 Adjustment in the field Usability.

47 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree programme in Mechanical Engineering of 17.05.2019 or Bachelor’s degree programme in Mechanical Engineering of 17.05.2019 or Diploma-postgraduate degree programme in Mechanical Engineering of 17.01.2020 according to the resolution of the Faculty Council of 17.05.2023 Adjustment in the field responsible lecturer.

54 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree program in Mechanical Engineering of 17 May 2019 or Bachelor's degree program in Mechanical Engineering of 17 May 2019 or Diploma postgraduate degree program in Mechanical Engineering of 17 January 2020 in accordance with the decision of the Faculty Council of 15 November 2023 Adaptation in the applicability field.

64 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree program in Mechanical Engineering of 17 May 2019 or Bachelor's degree program in Mechanical Engineering of 17 May 2019 or Diploma postgraduate degree program in Mechanical Engineering of 17 January 2020 in accordance with the decision of the Faculty Council from 23 October 2024 Adaptation in the applicability field.

70 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree program in Mechanical Engineering of 17 May 2019 or Bachelor's degree program in Mechanical Engineering of 17 May 2019 or Diploma postgraduate degree program in Mechanical Engineering of 17 January 2020 in accordance with the decision of the Faculty Council from 16 April 2025 Adaptation in the usability field.

75 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree program in Mechanical Engineering of 17 May 2019 or Bachelor's degree program in Mechanical Engineering of 17 May 2019 or Diploma postgraduate degree program in Mechanical Engineering of 17 January 2020 in accordance with the decision of the Faculty Council from 22 October 2025 Adaptation in the usability field.

85 Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree program in Mechanical Engineering of 17 May 2019 or Bachelor's degree program in Mechanical Engineering of 17 May 2019 or Diploma postgraduate degree program in Mechanical Engineering of 17 January 2020 in accordance with the decision of the Faculty Council from 15 April 2026 Adaptation in the usability field.

86 Update to the assigned courses, April 15, 2026.

[87] Extension in accordance with § 6 para. 6 and § 10 para. 2 Study Regulations for the Diploma degree programme in Mechanical Engineering of 17.05.2019 or Bachelor's degree programme in Mechanical Engineering of 17.05.2019 or Diploma-postgraduate degree programme in Mechanical Engineering of 17.01.2020 according to the resolution of the Faculty Council from 15 April 2026 Adjustment in the field responsible lecturer.