TECHNISCHE UNIVERSITÄT KAISERSLAUTERN

Module Handbook

TUK MODHB Homapage

Course of Study "Mechanical Engineering" (B.Sc.)

[MV-82.103-SG]

Department	[MV] Maschinenbau und Verfahrenstechnik
Degree	[B.Sc.] Bachelor (B.Sc.)
Course of Study	Mechanical Engineering
Short Name	**B.Sc. Mechanical Engineering**
State	[NORM] Active
Additional informations	Examination regulations [DE] Homepage of the Course of Study [DE]

Section *Mathematical and scientific fundamentals*

Fundamentals

P	MAT-00-01-M-1	Higher Mathematics I	**8.0** CP
P	MAT-00-02-M-1	Higher Mathematics II	**8.0** CP
P	MAT-00-03A-M-1	Higher Mathematics: Vector Analysis and Differential Equations (for Engineering Students)	**8.0** CP
P	MAT-00-033-M-1	Higher Mathematics: Numerics (for Engineering Students)	**4.0** CP
P	PHY-EXP-018-M-1	Experimentalphysik I für Ingenieure/innen	**5.0** CP
P	PHY-PRAKT-507-M-1	Physikalisches Praktikum für Maschinenbauer	**4.0** CP
P	MV-CHE-01-M-1	Chemistry for engineers	**5.0** CP

Section *Ingenieurwissenschaftliche Grundlagen I (IWG I)*

Fundamentals

P	MV-TM-7-M-1	Engineering Mechanics I	5.0 CP
P	MV-TM-8-M-4	Engineering Mechanics II	5.0 CP
P	MV-TM-9-M-4	Engineering Mechanics III	5.0 CP
P	MV-TM-279-M-4	Engineering Mechanics IV	4.0 CP
P	MV-WKK-B100-M-4	Materials Science	11.0 CP
P	MV-MEGT-13-M-4	Mechanical Design I	9.0 CP
P	MV-MEGT-14-M-4	Mechanical Design II	9.0 CP
P	MV-FBK-15-M-4	Introduction to Manufacturing Technology	5.0 CP
P	MV-VPE-B101-M-4	Integrated Design Engineering Education	7.0 CP
P	MV-VPE-17-M-4	Information technology for mechanical engineers	5.0 CP
P	MV-TD-18-M-4	Thermodynamics I	5.0 CP
P	MV-TD-19-M-4	Thermodynamics II	4.0 CP
P	MV-PAK-B102-M-4	Electrical Engineering for Mechanical Engineering	7.0 CP

Section *Ingenieurwissenschaftliche Grundlagen II (IWG II)*

Core Modules (non specialised)

P	MV-MTS-23-M-4	Measurement and control Theory	8.0 CP
P	MV-SAM-24-M-4	Fluid Mechanics I	5.0 CP
P	MV-KIMA-30-M-4	Theory of Design I	4.0 CP

Section *SoftSkills*

SoftSkills

P	MV-FBK-B104-M-4	General Softskills	4.0 CP
P	MV-MV-B125-M-4	Guidelines for independent tasks	6.0 CP
W	MV-MV-B147-M-2	Zusatzmodul - Anleitung zum wissenschaftlichen Arbeiten	3.0 CP

Section *Product Development in Mechanical Engineering (if chosen)*

Specialisation

Eines der Kompetenzfelder muss gewählt werden!

P	MV-MEGT-110-M-4	Gear Technology	5.0 CP
P	MV-IVW-28-M-4	Light weight structures	5.0 CP
P	MV-VPE-29-M-4	Virtual Product Engineering I	3.0 CP
P	MV-KIMA-102-M-4	Theory of Design II	4.0 CP
P	MV-SAM-31-M-4	Turbomachinery I	4.0 CP
P	MV-MDSD-MPOOL-4	Dynamics of Machines or Dynamics of Structures	[5.0] CP

Section *Vehicle Engineering (if chosen)*

Specialisation

P	MV-IMAD-B107-M-4	Automotive Engineering	5.0 CP
P	MV-LAF-B108-M-4	Combustion Engines	7.0 CP
P	MV-MMS-MPOOL-4	Mechatronics or Mechatronic Systems	[5.0] CP
P	MV-KIMA-161-M-7	Principles of Commercial Vehicle Technology	4.0 CP
P	MV-MDSD-MPOOL-4	Dynamics of Machines or Dynamics of Structures	[5.0] CP

Section *Material Science and Technology*

Specialisation

P	MV-WKK-39-M-4	Construction Materials I	3.0 CP
P	MV-WKK-103-M-7	Construction Materials II	3.0 CP
P	MV-CCE-26-M-4	Introduction to Polymer Technology	3.0 CP
P	MV-CCE-38-M-4	Introduction to Composite Materials	4.0 CP
P	MV-IVW-177-M-4	Processing of Composite Materials	3.0 CP
P	MV-WKK-251-M-4	Laboratory "Technology of Materials"	5.0 CP
P	MV-MDSD-MPOOL-4	Dynamics of Machines or Dynamics of Structures	[5.0] CP

Section *Production Technology (if chosen)*

Specialisation

P	MV-WSKL-B109-M-4	Machine Tools I/II	6.0 CP
P	MV-FBK-282-M-4	Cutting and abrasive machining of materials	3.0 CP
P	MV-AWOK-37-M-4	Joining Technologies I	3.0 CP
P	MV-MTS-193-M-4	Production metrology	3.0 CP
P	MV-IVW-177-M-4	Processing of Composite Materials	3.0 CP
P	MV-WKK-39-M-4	Construction Materials I	3.0 CP
P	MV-MDSD-MPOOL-4	Dynamics of Machines or Dynamics of Structures	[5.0] CP

Section *KF5: Computational Engineering (if chosen)*

Specialisation

P	MV-SAM-31-M-4	Turbomachinery I	**4.0** CP
P	MV-TM-136-M-4	Finite Elements	**6.0** CP
P	MV-TD-56-M-4	Thermodynamics of Mixtures	**5.0** CP
P	MV-TM-142-M-4	Continuum Mechanics	**6.0** CP
P	MV-TD-57-M-4	Heat Transfer	**5.0** CP

Section *Applied Computer Science (if chosen)*

Specialisation

P	MV-VPE-29-M-4	Virtual Product Engineering I	**3.0** CP
P	INF-02-01-M-2	Foundations of Programming	**10.0** CP
P	INF-02-09-M-2	Digital Systems and Computer Architecture	**8.0** CP
P	MV-MMS-MPOOL-4	Mechatronics or Mechatronic Systems	**[5.0]** CP

Section *Spezielle Softskills*

SoftSkills

P	MV-MV-B105-M-4	Nichttechnisches Wahlmodul Enthält Lehrveranstaltung an der Technischen Universität Kaiserslautern außerhalb des Fachbereiches Maschinenbau und Verfahrenstechnik.	**2.0** CP

Section *Praktikum (Grund- und Fachpraktikum)*

Internship / Occupational Modules

P	MV-MV-48-M-4	Advanced Internship	**20.0** CP

Section *Bachelorarbeit*

Thesis

P	MV-MV-49-M-4	Bachelor's thesis	**12.0** CP