

Module Handbook (<https://modhb.uni-kl.de/>)

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Notes on the module handbook of the department Mechanical and Process Engineering

Die hier dargestellten veröffentlichten Studiengang-, Modul- und Kursdaten des Fachbereichs Maschinenbau und Verfahrenstechnik ersetzen die Modulbeschreibungen im KIS und wurden mit Ausnahme folgender Studiengänge am 28.10.2020 verabschiedet.

Ausnahmen:

- BSc. Bio- und Chemieingenieurwissenschaften (Stand WS 20/21): https://www.mv.uni-kl.de/fileadmin/mv/Studium_Lehre/Modulhandbuecher/MH_BSc_BCI.pdf (https://www.mv.uni-kl.de/fileadmin/mv/Studium_Lehre/Modulhandbuecher/MH_BSc_BCI.pdf)
- BEd. Lehramt Metalltechnik (Stand WS 19/20): https://www.mv.uni-kl.de/fileadmin/mv/Studium_Lehre/Modulhandbuecher/MHB_Bachelor_Lehramt_Metalltechnik.pdf (https://www.mv.uni-kl.de/fileadmin/mv/Studium_Lehre/Modulhandbuecher/MHB_Bachelor_Lehramt_Metalltechnik.pdf)
- MSc. Bio- und Chemieingenieurwissenschaften (Stand WS 20/21): https://www.mv.uni-kl.de/fileadmin/mv/Studium_Lehre/Modulhandbuecher/MH_Msc_BCI.pdf (https://www.mv.uni-kl.de/fileadmin/mv/Studium_Lehre/Modulhandbuecher/MH_Msc_BCI.pdf)
- MEd. Lehramt Metalltechnik Werkstoffe und Fertigung (Stand WS 19/20): https://www.mv.uni-kl.de/fileadmin/mv/Studium_Lehre/Modulhandbuecher/MHB_Master_Lehramt_Metalltechnik_-_Werkstoffe_und_Fertigung.pdf (https://www.mv.uni-kl.de/fileadmin/mv/Studium_Lehre/Modulhandbuecher/MHB_Master_Lehramt_Metalltechnik_-_Werkstoffe_und_Fertigung.pdf)
- MEd. Lehramt Metalltechnik Maschinen- und Fahrzeugtechnik (Stand WS 19/20): https://www.mv.uni-kl.de/fileadmin/mv/Studium_Lehre/Modulhandbuecher/MHB_Master_Lehramt_Metalltechnik_-_Fahrzeugtechnik.pdf (https://www.mv.uni-kl.de/fileadmin/mv/Studium_Lehre/Modulhandbuecher/MHB_Master_Lehramt_Metalltechnik_-_Fahrzeugtechnik.pdf)
- MEd. Lehramt Metalltechnik Verfahrenstechnik (Stand WS 19/20): https://www.mv.uni-kl.de/fileadmin/mv/Studium_Lehre/Modulhandbuecher/MHB_Master_Lehramt_Metalltechnik_-_Verfahrenstechnik.pdf (https://www.mv.uni-kl.de/fileadmin/mv/Studium_Lehre/Modulhandbuecher/MHB_Master_Lehramt_Metalltechnik_-_Verfahrenstechnik.pdf)

Module MV-LAF-173-M-4

Laboratory Vehicle Engineering (M, 3.0 LP)

Module Identification

Module Number	Module Name	CP (Effort)
MV-LAF-173-M-4	<i>Laboratory Vehicle Engineering</i>	3.0 CP (90 h)
MV-VKM-173-M-4	<i>Laboratory Vehicle Engineering</i>	3.0 CP (90 h)

Hint concerning Module MV-VKM-173-M-4:
Number in examination regulations.

Basedata

CP, Effort	3.0 CP = 90 h
Position of the semester	1 Sem. in WiSe/SuSe
Level	[4] Bachelor (Specialization)
Language	[DE] German
Module Manager	Günthner, Michael, Prof. Dr.-Ing. (PROF DEPT: MV) (/staff/313/)
Lecturers	Günthner, Michael, Prof. Dr.-Ing. (PROF DEPT: MV) (/staff/313/)
Area of study	[MV-LAF] Vehicle Propulsion Systems
Reference course of study	[MV-88.235-SG] M.Sc. Vehicle Engineering (/mhb/FB-MV/cos-547/)
Lifecycle-State	[NORM] Active

Courses

Type/SWS	Course Number	Choice in Module-Part	SL	PL	CP	Sem.
4L	MV-LAF-86316-K-4	P	L-Schein	no	3.0	WiSe/SuSe

- About **[MV-LAF-86316-K-4]**: Title: "Laboratory Vehicle Engineering"; Presence-Time: 56 h; Self-Study: 34 h
- About **[MV-LAF-86316-K-4]**: The study achievement **[L-Schein] proof of successful participation in the practical course / lab** must be obtained.
- About **[MV-LAF-86316-K-4]**:

Depending on the examination regulations, the course work can/must be submitted as graded examination work. In this case the repetition rules of the examination regulations for practical laboratory work apply.

Evaluation of grades

The module is not graded (only study achievements)..

Contents

From **[MV-LAF-86316-K-4] Laboratory Vehicle Engineering** (/mhb/courses/MV-LAF-86316-K-4/):

- Engine test bench investigations using pressure indication and exhaust gas emission measurement
- Work on internal combustion engines (+ component-specific presentations by the students)
- Teamwork on a project from the field of automotive engineering

Competencies / intended learning achievements

From **[MV-LAF-86316-K-4] Laboratory Vehicle Engineering** (/mhb/courses/MV-LAF-86316-K-4/):

The students are able to

- describe the structure of the exhaust gas aftertreatment of a vehicle.
- name the necessary measurement technology for determining the exhaust gas components required for certification and independently carry out an evaluation of relevant test bench data.
- gain an overview of pressure indication on combustion engines and to independently carry out an evaluation of relevant test bench data.
- work independently on vehicles and particularly carry out basic maintenance work on internal combustion engines.

Literature

From [MV-LAF-86316-K-4] Laboratory Vehicle Engineering (/mhb/courses/MV-LAF-86316-K-4/):

Will be announced during the course.

Requirements for attendance (informal)

Recommended:

Modules:

- [MV-IMAD-B107-M-4] Automotive Engineering (M, 5.0 LP) (/mhb/modules/MV-IMAD-B107-M-4/)
- [MV-LAF-159-M-7] Vehicle Propulsion Systems (M, 3.0 LP) (/mhb/modules/MV-LAF-159-M-7/)
- [MV-LAF-B108-M-4] Combustion Engines (M, 7.0 LP) (/mhb/modules/MV-LAF-B108-M-4/)

Requirements for attendance (formal)

None

References to Module / Module Number [MV-LAF-173-M-4]

Module-Pool	Name
[MV-ALL-MPOOL-6 (/mhb/modulepools/MV-ALL-MPOOL-6/)]	Wahlpflichtmodule allgemein

References to Module / Module Number [MV-VKM-173-M-4]

Course of Study	Section	Choice/Obligation
[MV-88.235-SG] M.Sc. Vehicle Engineering (/mhb/FB-MV/cos-547/)	Wahlpflichtmodule	[WP] Compulsory Elective