

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

TUK (<https://www.uni-kl.de>) MODHB (<https://modhb.uni-kl.de/>) Homepage (/)

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-SAM-B131-M-4

Laboratory Energy and Environmental Technology I (M, 3.0 LP)

Module Identification

Module Number	Module Name	CP (Effort)
MV-SAM-B131-M-4	Laboratory Energy and Environmental Technology I	3.0 CP (90 h)

Basedata

CP, Effort	3.0 CP = 90 h
Position of the semester	1 Sem. in SuSe
Level	[4] Bachelor (Specialization)
Language	[DE] German
Module Manager	Roclawski, Harald, Dr.-Ing. (WMA DEPT: MV) (/staff/268/)
Lecturers	Roclawski, Harald, Dr.-Ing. (WMA DEPT: MV) (/staff/268/)
Area of study	[MV-SAM] Fluid Mechanics and Turbomachinery
Reference course of study	[MV-82.B10-SG] B.Sc. Energy and Process Engineering (/mhb/FB-MV/cos-528/)
Lifecycle-State	[NORM] Active

Courses

Type/SWS	Course Number	Choice in Module-Part	SL	PL	CP	Sem.
4L	MV-VKM-86315-K-4 (/mhb/courses/MV-VKM-86315-K-4/)	P	LABOR	no	3.0	SuSe

- About **[MV-VKM-86315-K-4]**: Title: "Laboratory Energy and Environmental Technology"; Presence-Time: 56 h; Self-Study: 34 h
- About **[MV-VKM-86315-K-4]**: The study achievement **[LABOR] practical laboratory / experimental work** must be obtained.
- About **[MV-VKM-86315-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.

Contents

From **[MV-VKM-86315-K-4] Laboratory Energy and Environmental Technology** (/mhb/courses/MV-VKM-86315-K-4/):

The students will work on experiments of components which are applied to systems of power engineering. This includes the measurement of mechanical quantities and experiments with centrifugal pumps, mixers, fuel cells, turbochargers and internal combustion engines.

Competencies / intended learning achievements

From **[MV-VKM-86315-K-4] Laboratory Energy and Environmental Technology** (/mhb/courses/MV-VKM-86315-K-4/):

The students will be able to apply the theoretical knowledge from their lectures to the experiments. The students will learn how to design, perform and evaluate experiments. In addition, they will learn about different measuring methods and measurement equipment. By participating in the lab, the students will be able to analyze and assess components of power engineering systems.

Literature

From **[MV-VKM-86315-K-4] Laboratory Energy and Environmental Technology** (/mhb/courses/MV-VKM-86315-K-4/):

Will be announced during the course.

Requirements for attendance (informal)

Modules:

- **[MV-LAF-105-M-4] Energy Technology I (M, 3.0 LP)** (/mhb/modules/MV-LAF-105-M-4/)
- **[MV-SAM-31-M-4] Turbomachinery I (M, 4.0 LP)** (/mhb/modules/MV-SAM-31-M-4/)

- [MV-SAM-B129-M-4] Introduction to Energy Technology (M, 5.0 LP) (/mhb/modules/MV-SAM-B129-M-4/)

Requirements for attendance (formal)

None

References to Module / Module Number [MV-SAM-B131-M-4]

Course of Study	Section	Choice/Obligation
[MV-82.B10-SG] B.Sc. Energy and Process Engineering (/mhb/FB-MV/cos-528/)	KF2: Energietechnik	[WP] Compulsory Elective