

Module Handbook

TUK MODHB Homepage

Module GS-CVT-CS-M4-M-5

CVT Programming Project (M, 4.0 LP)

Module Identification

Module Number	Module Name	CP (Effort)
GS-CVT-CS-M4-M-5	CVT Programming Project	4.0 CP (120 h)

Basedata

CP, Effort	4.0 CP = 120 h
Position of the semester	1 Sem. in WiSe
Level	[5] Master (Entry Level)
Language	[EN] English
Module Manager	Ebert, Achim, apl. Prof. Dr. (PROF DEPT: INF, GS)
Lecturers	Ebert, Achim, apl. Prof. Dr. (PROF DEPT: INF, GS)
Lifecycle-State	[NORM] Active

Courses

Type/SWS	Course Number	Choice in Module-Part	SL	PL	CP	Sem.
4L	INF-80-09-K-5	P	SL1	PL1	4.0	WiSe

- About [INF-80-09-K-5]: Title: "CVT Programming Project"; Presence-Time: 56 h; Self-Study: 64 h
- About [INF-80-09-K-5]: The study achievement SL1 must be obtained.
 - It is a prerequisite for the examination for PL1.

Study achievement SL1

- Verification of study performance: **proof of successful participation in the exercise classes (ungraded)**
- Study achievement is a prerequisite for the examination.

Examination achievement PL1

- Form of examination: **written or oral examination**
- Examination Frequency: each winter semester
- Examination number: 68009 ("CVT - Programming Project")

Contents

From [INF-80-09-K-5] CVT Programming Project:

The objective of the programming project is to learn advanced programming skills in a suitable programming language, for example C++. The programming tasks are completed individually or in small groups. Topics covered include:

- Variables, expressions, operators
- Elementary data types, references
- Control flow
- Data structures
- Use of libraries
- Object-oriented design

If necessary, hints and a short repetition of basics in the programming language used will be given.

Competencies / intended learning achievements

Learning Outcomes:

- Advanced programming skills in a modern programming language, e.g. C++ or Python.
- Software development in smaller teams

Literature

From [INF-80-09-K-5] CVT Programming Project:

- Dale, N.: Programming and Problem Solving with C++, 6th edition, Jones & Bartlett Learning, 2013
- Friedman, F.L.: Problem Solving, Abstraction, and Design Using C++, 6th edition, Pearson, 2010
- Gaddis, T.: Starting Out with C++: Early Objects, 8th edition, Pearson, 2013

Requirements for attendance of the module (informal)

Basic knowledge of a programming language

Requirements for attendance of the module (formal)

None

References to Module / Module Number [GS-CVT-CS-M4-M-5]

Course of Study	Section	Choice/Obligation
[GS-88.844-SG] M.Sc. Commercial Vehicle Technology	[Compulsory Modules] Mandatory modules	[P] Compulsory
[GS-88.?-SG#2022] M.Sc. Commercial Vehicle Technology 2022 [2022]	[Compulsory Modules] Mandatory modules	[P] Compulsory