

Module Handbook

TUK MODHB Homepage

Module INF-16-81-M-7

Visualisation and HCI (Project) (M, 8.0 LP)

Module Identification

Module Number	Module Name	CP (Effort)
INF-16-81-M-7	<i>Visualisation and HCI (Project)</i>	8.0 CP (240 h)

Basedata

CP, Effort	8.0 CP = 240 h
Position of the semester	1 Sem. in WiSe/SuSe
Level	[7] Master (Advanced)
Language	[EN] English
Module Manager	Ebert, Achim, apl. Prof. Dr. (PROF DEPT: INF, GS)
Lecturers	Ebert, Achim, apl. Prof. Dr. (PROF DEPT: INF, GS)
Area of study	[INF-VIS] Visualisation and Scientific Computing
Reference course of study	[INF-88.79-SG] M.Sc. Computer Science
Lifecycle-State	[NORM] Active

Courses

Type/SWS	Course Number	Choice in Module-Part	SL	PL	CP	Sem.
4L	INF-16-81-K-7	P	PRAES	no	8.0	WiSe/SuSe

- About [INF-16-81-K-7]: Title: "Visualisation and HCI (Project)"; Presence-Time: 56 h; Self-Study: 184 h
- About [INF-16-81-K-7]: The study achievement "[PRAES] presentation" must be obtained.

Evaluation of grades

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

Contents

From [INF-16-81-K-7] Visualisation and HCI (Project):

Different tasks from visualization, e.g.:

- Visualization of scalar fields: Implementation of algorithms like marching cubes, volume rendering, etc.
- Visualization of vector fields: Implementation of algorithms like stream lines and surfaces, turbulence detection, detection of topology, etc.
- Construction of visualization framework for the implemented algorithms with interactive graphical output based on

Competencies / intended learning achievements

After successfully completing the module, students will be able to

- practically apply methods and techniques of visualization and interaction.
- explain common visualization and interaction techniques on a theoretical and algorithmic level.
- implement the complete development cycle of complex visualization tasks.
- critically reflect and discuss the project results on the basis of application examples.

Literature

From [INF-16-81-K-7] Visualisation and HCI (Project):

- see Scientific/Information Visualization resp. Human-Computer Interaction

Requirements for attendance of the module (informal)

None

- Notice: Some Courses have informal requirements for attendance:
 - #A: [INF-16-81-K-7] Visualisation and HCI (Project) (4L, 8.0 LP) (P: Obligatory)

Requirements for attendance of the module (formal)

None

References to Module / Module Number [INF-16-81-M-7]

Course of Study	Section	Choice/Obligation
[INF-88.79-SG] M.Sc. Computer Science	[Specialisation] Specialization 1	[WP] Compulsory Elective