Computer Graphics - an Introduction

Winter

(in German: Computer Graphics - an Introduction)

Module-ID: FIN-INF-110472

Abbreviation	Credit Points	Semester	Term	Duration	Language	Level
ICG	6	Winter	starting at 1.	1 Semester	english	Master

Link:	LSF
Limited accessability:	
Responsibility:	Holger Theisel
Lecturer:	Holger Theisel
Classes:	• Lecture *Computer Graphics - an Introduction* • Exercise class *Computer Graphics - an Introduction*
Applicability in curriculum:	- M.Sc. DE: Grundlagen Informatik - M.Sc. VC: Visual Computing

Intended learning outcomes:
The students

- understand the basic concepts of computer graphics
- can apply their knowledge to create their own simple rendering program
- work in groups on exercises and programming tasks
- learn both the theoretical basics and applications of computer graphics

- are able to acquire in-depth knowledge of computer graphics after finishing the course

Content:

- Introduction, history, application areas of Computer graphics
- Modeling and acquisition of graphical data
- Transformations
- Clipping
- Rasterization and antialiasing
- Lighting
- Texturing
- Visibility
- Ray tracing
- Modern concepts of computer graphics at a glance

Workload:

- 56h contact time (lecture + exercise class)
- 94h self study (lecture material, solution of exercises and assignments)

Pre-examination requirements:	**Type of examination:**	**Teaching method / lecture hours per week (SWS):**
• Successful completion of the exercises • Completing a programming task	Exam: Written exam 120 min. Exam certificate: Passing the written exam 120 min.	• Lectures (2 SWS) • Exercises (2 SWS)

Prerequisites according to examination regulations:	**Recommended prerequisites:**
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Media:	**Literature:**

	• J.D. Foley, A. van Dam, S.K. Feiner, J.F. Hughes: Computer Graphics – Principles and Practice (second Edition). AddisonWesley Publishing Company, Inc., 1996 • J.Encarnacao, W. D. Salomon: Computer Graphics Geometric Modeling, Springer, 1999A. • Watt: 3D Computer Graphics. Addison-Wesley Publishing Company, Inc., 2000

Comments:
(nur anrechenbar wenn nicht vorher die deutschsprachige Bachelor-LV Computergraphik I belegt wurde)

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