

Vorlesung 'Computer Graphics'

INTRODUCTION

The Course

Prof. Dr. Tom Vierjahn

Visual Computing (<https://vc.w-hs.de>)

Department of Business Studies and Information Technology
Campus Bocholt



Summer Term 2025

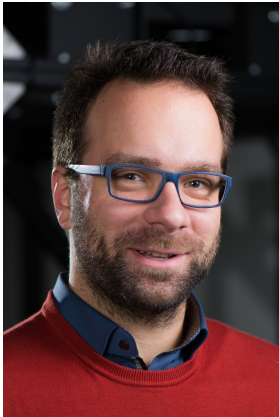


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Who is Teaching this Class?

Prof. Dr. Tom Vierjahn



Picture: Sascha Gebhardt

► 1981 born

Education:

- 2007: Dipl.-Ing. (FH) Media Technology
- 2010: M.Sc. Virtual Reality
- 2015: PhD (Computer Science)

Work:

- 2008–2013: Duesseldorf Univ. Appl. Sc.
- 2010–2014: rmh new media GmbH
- 2014–2018: RWTH Aachen University
- since 18/19: Westphalian Univ. Appl. Sc.

- ▶ Images
- ▶ Ray Tracing
- ▶ Illumination
- ▶ Transformation
- ▶ Animation
- ▶ Rasterization
- ▶ Projection

In Class:

- ▶ 6 ECTS
- ▶ 1.5 h lecture:
 - ▶ in-person in the Computer Lab
 - ▶ remote via Zoom
 - ▶ streamed and recorded via YouTube and vimeo
- ▶ 1.5 h practical course/project:
 - ▶ at first, a practical course
 - ▶ later, project
 - ▶ assignments online
- ▶ I'll provide the fundamentals
- ▶ you'll pick further topics

Exam:

- ▶ talk and demonstration of your project
 - ▶ likely first exam week
- ▶ written report
 - ▶ approx. 2 weeks after end of exam weeks
- ▶ groups (≤ 4 participants)
- ▶ individual work by exception

- ▶ Steve Marschner, Peter Shirley: 'Fundamentals of Computer Graphics'.
Fourth edition. – CRC Press, 2016.
Available on the university's network.
- ▶ Andrew S. Glassner (ed.): 'An Introduction to Ray Tracing'.
Morgan Kaufmann, 2002.
- ▶ Matt Pharr, Wenzel Jacob, Greg Humphreys: 'Physically Based Rendering'.
Fourth edition. – The MIT Press, 2023.
- ▶ Tomas Akenine-Möller et. al: 'Real-Time Rendering'.
Fourth edition. – CRC Press, 2018.



Albrecht Dürer: Unterweysung der Messung mit dem Zirckel und Richtscheit in Linien Ebenen unnd gantzen corporen. 1525.

- ▶ Who? What? How?
- ▶ Reading Material
- ▶ What for?

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Visual Computing

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