# Medical Visualization

Summer

(in German: Medical Visualization )

**Module-ID: FIN-INF-102622**

| Abbreviation | Credit Points | Semester | Term | Duration | Language | Level |
|---|---|---|---|---|---|---|
| MedVis | 6 | Summer | starting at 1. | 1 Semester | english | Master |

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|---|---|
| **Link:** | LSF |
| **Limited accessability:** | true |
| **Responsibility:** | Bernhard Preim |
| **Lecturer:** | Gabriel Mistelbauer |
| **Classes:** | • Lecture *Medical Visualization*<br>• Exercise class *Medical Visualization* |
| **Applicability in curriculum:** | - M.Sc. INF: Informatik<br>- M.Sc. INGINF: Informatik<br>- M.Sc. WIF: Informatik<br>- M.Sc. VC: Visual Computing |

**Intended learning outcomes:**
Students ...

- are familiar with methods for visualizing three-dimensional medical image data
- can compare and evaluate methods for medical volume visualization
- know selected advanced methods for medical visualization
- can apply interactive methods to medical image data

**Content:**

- Medical volume visualization
- Visualization of 3D surfaces
- Virtual endoscopy
- Vessel visualization

**Workload:**
56 contact hours + 124 h self study

| Pre-examination requirements: | Type of examination: | Teaching method / lecture hours per week (SWS): |
|---|---|---|
| | Oral exam | • 2 SWS lecture<br>• 2 SWS exercise class |

| Prerequisites according to examination regulations: | Recommended prerequisites: |
|---|---|
| none | Lecture *Visualization* |

| Media: | Literature: |
|---|---|
| | • B. Preim und D. Bartz: Visualization in Medicine, Morgan Kaufman, San Francisco, 2006Preim,<br>• Botha: Visual Computing for Medicine, 2nd Edition, , Morgan Kaufman, San Francisco, 2013 |

**Comments:**

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Revision #1
Created 2026-11-19 09:31:33 UTC by Fakultät für Informatik
Updated 2026-11-19 09:31:33 UTC by Fakultät für Informatik