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Hamburg

Universität für Baukunst
und Raumentwicklung

HAMBURGS NEUE UNIVERSITÄT
Europas erste Hochschule für die gebaute Umwelt

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**New Perspectives for Geomatics Bachelor and Master
Education at the HafenCity University, Hamburg**




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HafenCity University
Europe's first university for the built environment

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Topics of the presentation

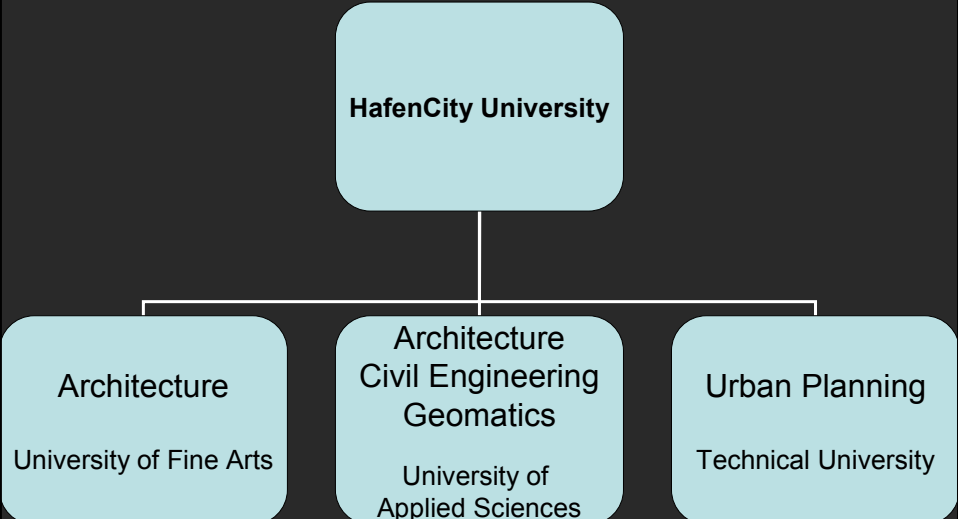
- Introduction
- The HafenCity University Hamburg (HCU)
 - Historical background
 - Future orientation
- Curriculum
 - Teaching at the HCU
 - Geomatics at the HCU
 - Nontechnical courses
 - Studium Fundamentale
- Conclusion

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HafenCity University – Historical Background



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graph TD
    HCU[HafenCity University] --- UFA[University of Fine Arts]
    HCU --- UAS[University of Applied Sciences]
    HCU --- TU[Technical University]
  
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HafenCity University – Future Orientation

Civil Engineering

Architecture

Urban Planning

Geomatics

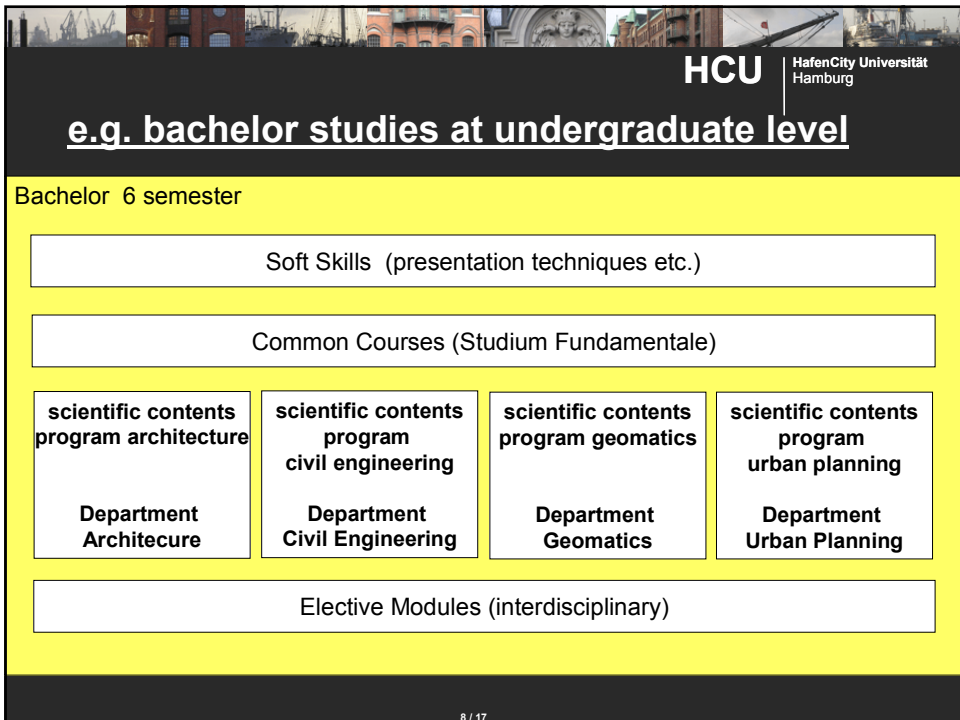
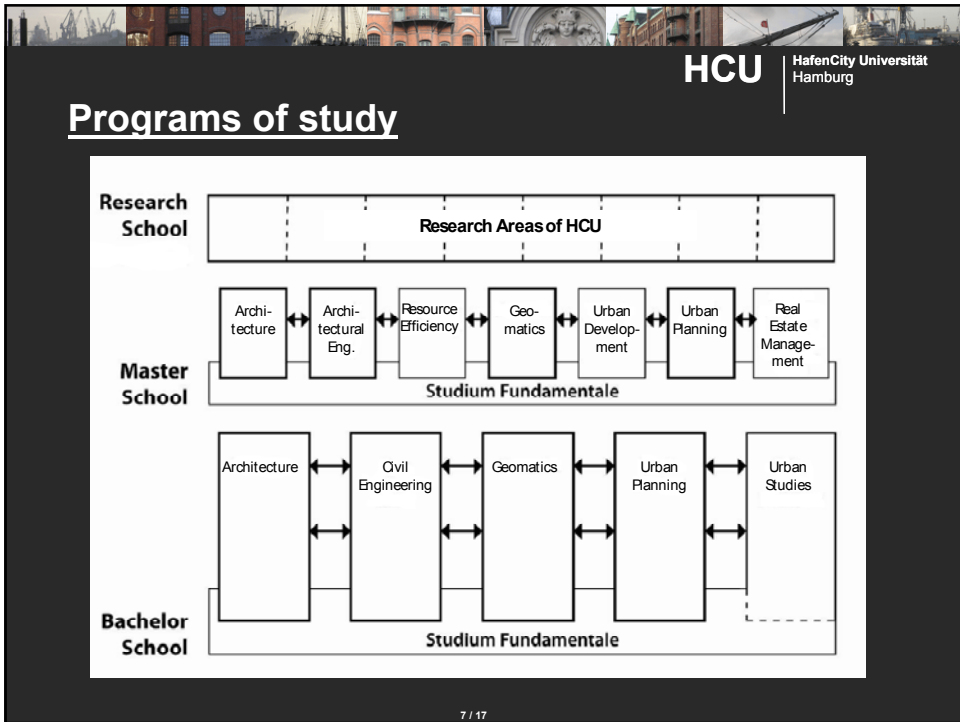
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General structure and goals

- Focusing university
- Creative university
- Student-centered university
- Researching university
- Dialogue and cooperation

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Three keywords for teaching

- **Disciplinarity (80%)**
Excellence in one's own topic
- **Interdisciplinarity (10%)**
Appreciation and understanding of neighboring disciplines
- **Transdisciplinarity (10%)**
Open-minded attitude to radically different perspectives

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Geomatics at the HCU

-Professional life


Master of Science Geomatics (2 years)

Master of Science Hydrography (2 years)
International course

Practice

Bachelor of Science Geomatics (3 years)

- Bachelor and both masters accredited




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Geomatics at the HCU

- Innovative partner for spatial questions around the topics construction and urban development
- Thematic focus for networking at HCU:
 - 3-d data acquisition and data modeling
 - Spatial information systems and geo-visualization
- Focus in teaching and research:
 - Bachelor Geomatics: Geodetic Basics
 - Master Geomatics: GI-Technology / Metrology
 - Master Hydrography: Survey of coastal waters

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Nontechnical courses – really NONtechnical?

- adequate wide engineering foundation (by DFG)
 - qualifies for technical solutions
 - ability to interact with other disciplines
 - basic knowledge of economics and social science
 - ability for lifelong learning
- approx. 10% of Geomatics curriculum in Germany
- Multiplicity of names (Studium Generale, Softskills etc.)
- Common nontechnical content in Geomatics study
 - law and administration business
 - technical English, project management
 - techniques of presentation and academic work

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Studium Fundamentale

Transdisciplinary work

- Increasing creativity, communication skills and the ability of reflection
- Confrontation with radically different ways of thinking
- Question the expertise leading to new methods

- Similar concepts in St.Gallen or Witten-Herdecke
- Appears in different study programs but not yet in context of construction and urban development

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Studium Fundamentale

not to be:


- accumulation of softskills
- courses offered for self-realization and –awareness
- takeover of technical contents lost by bachelor and master structuring

has to be:

- clarification of different ways of understanding and percipience
 - comprehensive and collateral study
- training of reflection as a fundamental competence

- Integrated as required subject in all programs
- 15 CP in bachelor and 10 CP in master programs

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Possible Contents

- Start-up phase in winter semester 2008/2009
- Lots of possible perspectives:
 - Musicology, theatre, sculpture etc.
 - Astronomy, natural science etc.
 - Ethics, philosophy etc.
- Achievement of new perspectives depends on discipline
- Will be supported by
 - University of Witten-Herdecke
 - Hochschule für Musik und Theater Hamburg

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Conclusions

- Particular development of a compact university
- Studium Fundamentale: new kind of nontechnical training
- Benefit or success of transdisciplinary work is not certain
- Experiment for university teachers and students
- Risks for Geomatics Education at HCU:
 - 10% of study for future engineers is “wasted”
 - Hamburg Geomatics: “softened graduate”
 - Becoming meaningless in an “university for art and architecture of urban development”

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Thank you for your attention!