LEHRE

www.boku.ac.at

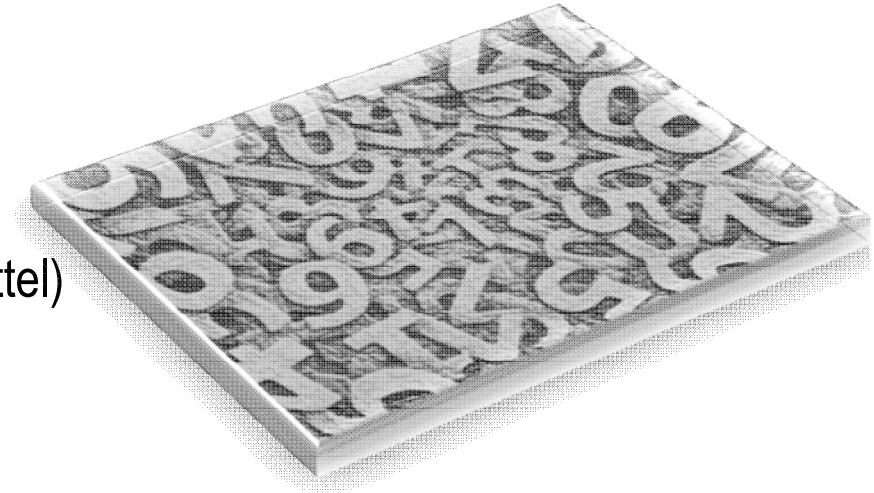
des Instituts für Vermessung, Fernerkundung und Landinformation

an der Universität für Bodenkultur Wien

Clement ATZBERGER

IVFL - Kennzahlen

- 1 Univ.Prof.
- 1 Ao.Prof.
- 2 Ass.Prof.
- 2 Senior Scientist
- 2 Senior Lecturer
- 7 wissenschaftliche MitarbeiterInnen (Drittmittel)
- 3 sonstige Bedienstete (adm. & techn.)
- 4 externe LektorInnen



- etwa 900 Studierende / Jahr
- Lehrbelastung ca. 170 Semesterwochenstunden / Jahr - Parallelgruppen
  (davon ca.120 Pflichtfächer / 50 Wahlpflichtfächer)

Lehrfelder ...

- Vermessung
- GNSS (Global Navigation and Satellite Systems)
- Land Administration
- Fernerkundung (inkl. Photogrammetrie)
- Bildverarbeitung
- Geo-Information

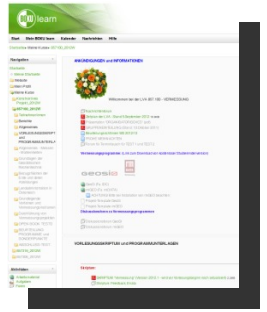
Lehre in Studienrichtungen

Bachelor

- Forstwirtschaft
- Umwelt- und Bioressourcenmanagement
- Kulturtechnik und Wasserwirtsch
- Agrarwissenschaften
- Landschaftsplanung und Landschaftsarchitektur

Master

- Umwelt- und Bioressourcen-Management
- Natural Resources Management and
  cological Engineering
- ndschafts-Planung und - Architektu
- ountain Forestry
- lturtechnik und Wasserwirtschaft
- Wildbach- und Lawinenverbauung
- Forstwissenschaft
- Agrarbiologie



Lehrveranstaltungen am IVFL (2012/13)

LV-Nr	Zeit Ort	Titel	Dauer (SSt)	Art	Teil/Prüf/Eval/Info	P/W/Dr	Vortragende/r (Mitwirkende/r)
857001	S	Beiträge der Fernerkundung für die nachhaltige Entwicklung Brasiliens (insbesondere Amazoniens und diverser urbaner Ballungszentren) anhand von Fallbeispielen	4	VO			
857029	W	Dissertantenseminar Vermessung, Fernerkundung und Landinformation	2	SE			Atzberger C, Fuchs H
857029	S	Dissertantenseminar Vermessung, Fernerkundung und Landinformation	2	SE			Fuchs H, Atzberger C
857100	W	Vermessung	3	VU		1/0/0	Mansberger R, Klisch A
857101	S	Einführung in die Fernerkundung	2	VU		1/0/0	Atzberger C, Bauer T, Klisch A
857102	S	Kulturtechnisches Feldpraktikum	5	UE		1/0/0	Mansberger R, Heine E, Klisch A, Koukal T, Popovici P, Cepuder P, Nolz R, Schwen A, Hauer C, Fürst J, Seitz H
857103	W	Vermessungskunde für Landschaftsplanung	2	VU		1/0/0	Heine E
857104	W	Geoinformatik	3	VU		1/0/0	Fuchs H, Bauer T
857106	S	Einführung in die Fernerkundung für Landschaftsplanung	1	VO		1/0/0	Atzberger C
857107	S	Einführung in die Fernerkundung (UBRM)	2	VU		1/0/0	Atzberger C, Bauer T, Klisch A
857108	S	Geoinformationssysteme	2	VU		2/0/0	Fuchs H, Bauer T, Vuolo F
857131	S	Einführung in die forstliche Fernerkundung	2	VU		1/0/0	Klisch A, Koukal T
857143	W	Vermessungskunde	3	VU		1/0/0	Fuchs H, Koukal T
857144	S	Vermessungspraktikum	2	UE		1/0/0	Mansberger R, Heine E, Popovici P
857300	W	Geodatenmanagement (verpflichtend im Modul)	2	VU		0/6/0	Atzberger C, Fuchs H
857303	W	Ortung und Navigation mit satellitengestützten Verfahren (verpflichtend im Modul)	2	VU		0/4/0	Heine E
857304	S	Remote Sensing and Image Processing (in Eng.)	4	VU		0/6/0	Atzberger C, Vuolo F
857306	W	Angewandte Photogrammetrie	3	VU		0/6/0	Mansberger R, Popovici P
857307	W	Raumbezogenes Modellieren und Simulieren	2	VU		0/4/0	Fuchs H
857308	S	Geodaten für GIS-Anwendungen in Österreich	2	VU		0/7/0	Janeschitz E
857310	W	Mathematische Methoden in der Geoinformatik	1	VU		0/4/0	Fuchs H
857313	W	Ausgewählte Kapitel aus Geodatenmanagement	2	VO		0/4/0	Atzberger C
857315	W	Landadministration (verpflichtend im Modul)	2	VO		0/5/0	Ernst J
857316	W	International Land Management (in Eng.)	1	VS		0/4/0	Mansberger R, Seher W
857320	W	Remote Sensing and GIS in Natural Resource Management (in Eng.)	2	UE		2/4/0	Bauer T, Vuolo F
857321	W	Remote Sensing and GIS in Natural Resource Management (in Eng.)	2	VO		3/3/0	Atzberger C
857325	W	Vertiefung Fernerkundung und GIS	2	VU		1/2/0	Bauer T, Klisch A

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Geodesy and Geoinformation at TU Wien
Contemporary Education

Georg Gartner
Dean of Academic Affairs

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

Overall Aims of the Vienna University of Technology:

- research orientation
- scientific excellence
- research driven education programs
- comprehensive competence

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

General Implications of the overall Aims

1. cultivation of competitive profils
2. enhancement of research and study conditions
3. efficiency assurance
4. strengthening of internationalization

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

ad Cultivating competitive profils

- reassessment of university structure
- homogenization of study programs
- strong personal connection between research and education
- intensivation of research-dependent classes

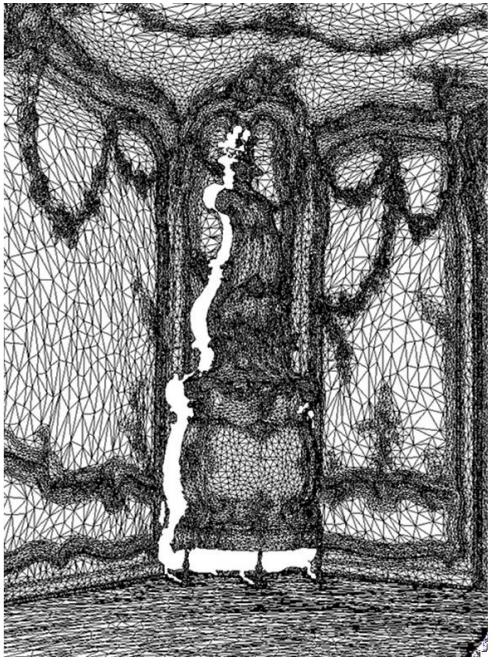
TECHNISCHE UNIVERSITÄT WIEN

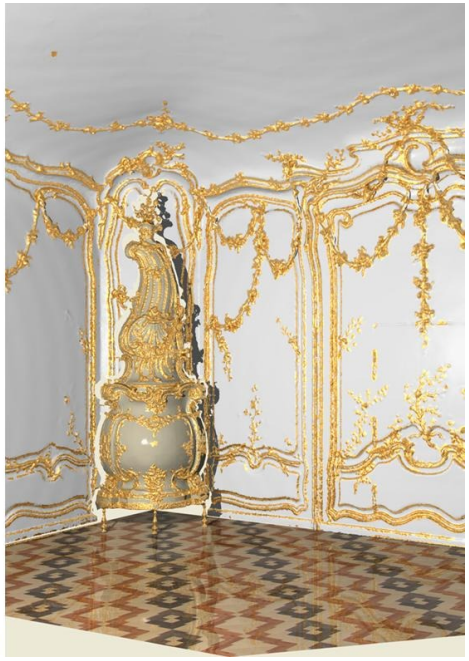
VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Research

Photogrammetry

Key Competence:
Photogrammetry and LaserScanning for 3D Model Derivation





TECHNISCHE UNIVERSITÄT WIEN

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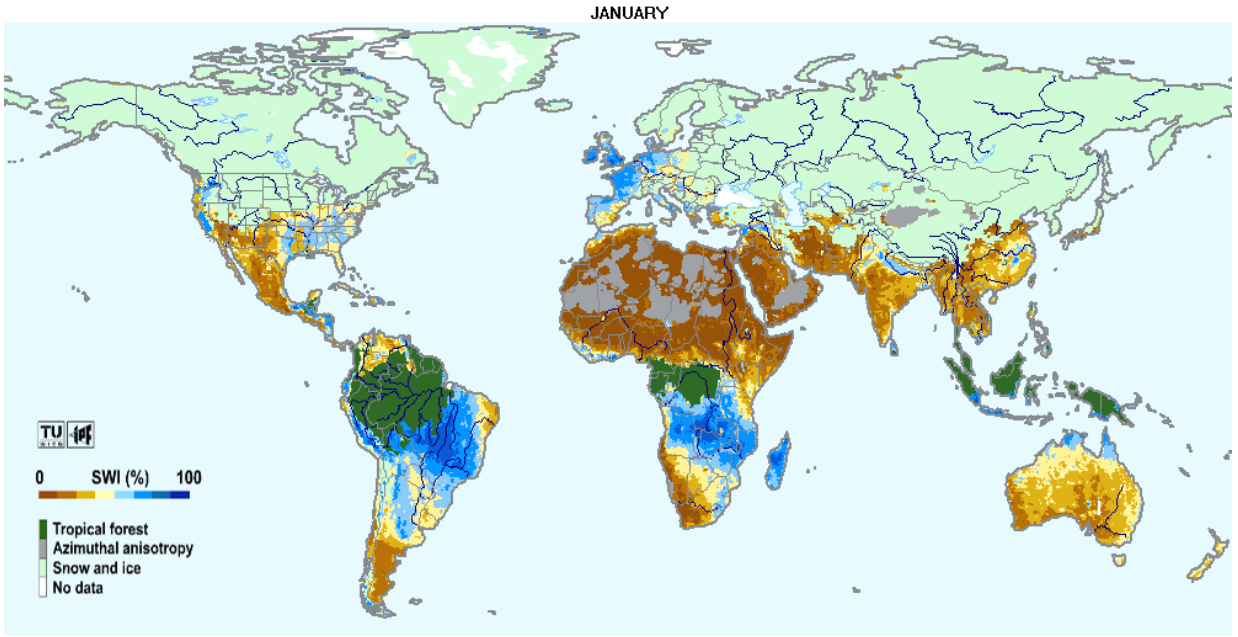
Contemporary Research

Remote Sensing

Key Competence:
Remote Sensing for Environmental Monitoring

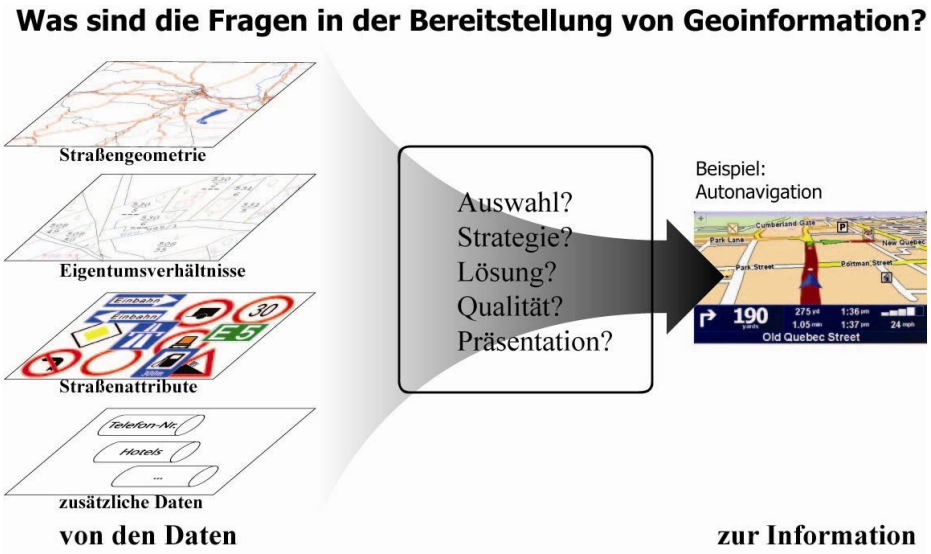


TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Research
Geoinformation

Key Competence:
Theoretical Conceptions of Space and Time



TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Research

Cartography

Key Competence:
GeoVisualization, Location Based Services

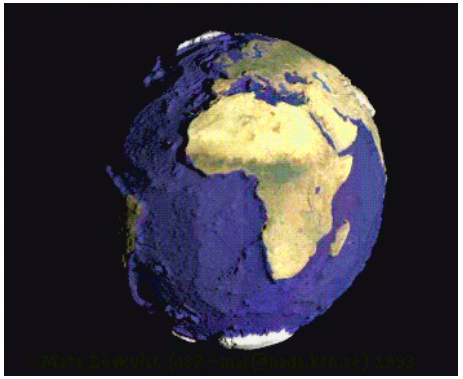
TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Research

Geodesy

Key Competence:
earth size and shape, gravity field, rotation patterns
monitoring of constructions



TECHNISCHE UNIVERSITÄT WIEN

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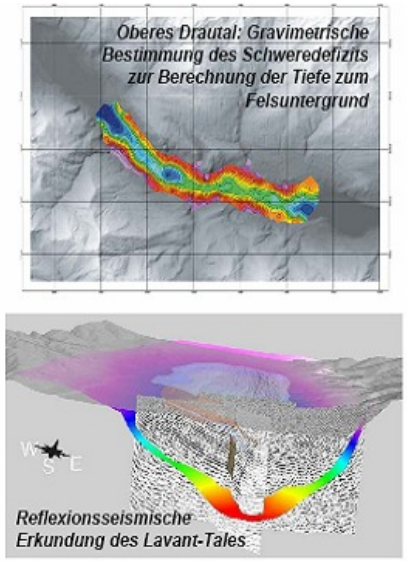
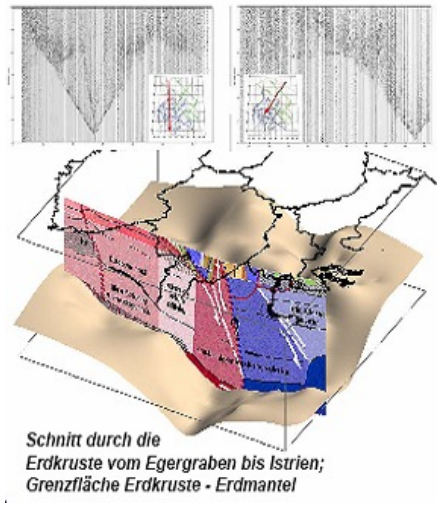
Contemporary Research

Geophysics

Key Competence:
seismic monitoring, geodynamics





TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

Cultivating competitive profils – Study Programs

until 2013

- Bachelor in Geodesy and Geoinformation
- Master in Surveying and Cadastre
- Master in Geodesy and Geophysics
- Master in Geoinformation and Cartography

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

Cultivating competitive profils – Study Programs

from 2013

- Bachelor in Geodesy and Geoinformation
- Master in Geodesy and Geoinformation

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

Cultivating competitive profils – Study Programs

- International Master Cartography
  TU München, TU Wien, TU Dresden

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

Bachelor in Geodesy and Geoinformation

- Duration: 6 Semester
- Structure: joined intro, modular structure
- Content: broad fundamental basics in maths, geometry, physics; dedicated theoretical and practical training in all seven subjects of geodesy and geoinformation

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

Bachelor in Geodesy and Geoinformation

- Specialization: Geodesy or Geoinformation
- Students: ~ approx. 40-70/semester; often technical background; predominantly male
- Degree: Bachelor of technical Sciences

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

Master in Surveying and Cadastre

- Specialization: Applied Geodesy and Cadastre
- Students: ~ approx. 10-20/year;
  aiming for career as civil engineer, public administration, private industry; research
- Degree: Master of technical Sciences as
  „Diplomingenieur“

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

Master in Geodesy and Geophysics

- Specialization: Satellite Geodesy and Geophysics
- Students: ~ approx. 10-20/year;
  aiming for career in private industry; research
- Degree: Master of technical Sciences as
  „Diplomingenieur“

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

Master in Geoinformation and Cartography

- Specialization: Geoinformation and Cartography
- Students: ~ approx. 10-20/year;
  aiming for career in public administration;
  private industry; research
- Degree: Master of technical Sciences as
  „Diplomingenieur“

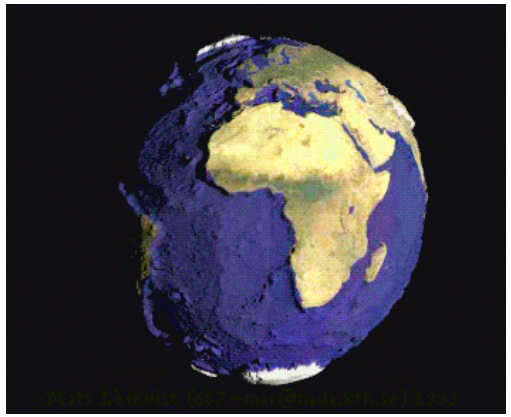
TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

from 2013

Master in Geodesy and Geoinformation



TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Education

from 2013

Master in Geodesy and Geoinformation

- Specialization: through modules
- Students: ?

  aiming for career in public administration; private industry; research
- Degree: Master of technical Sciences as „Diplomingenieur“

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Contemporary Research and Education

ad Increased Internationalization

- enlarging exchange capacities
- stimulate strategic cooperations
- establish international programs

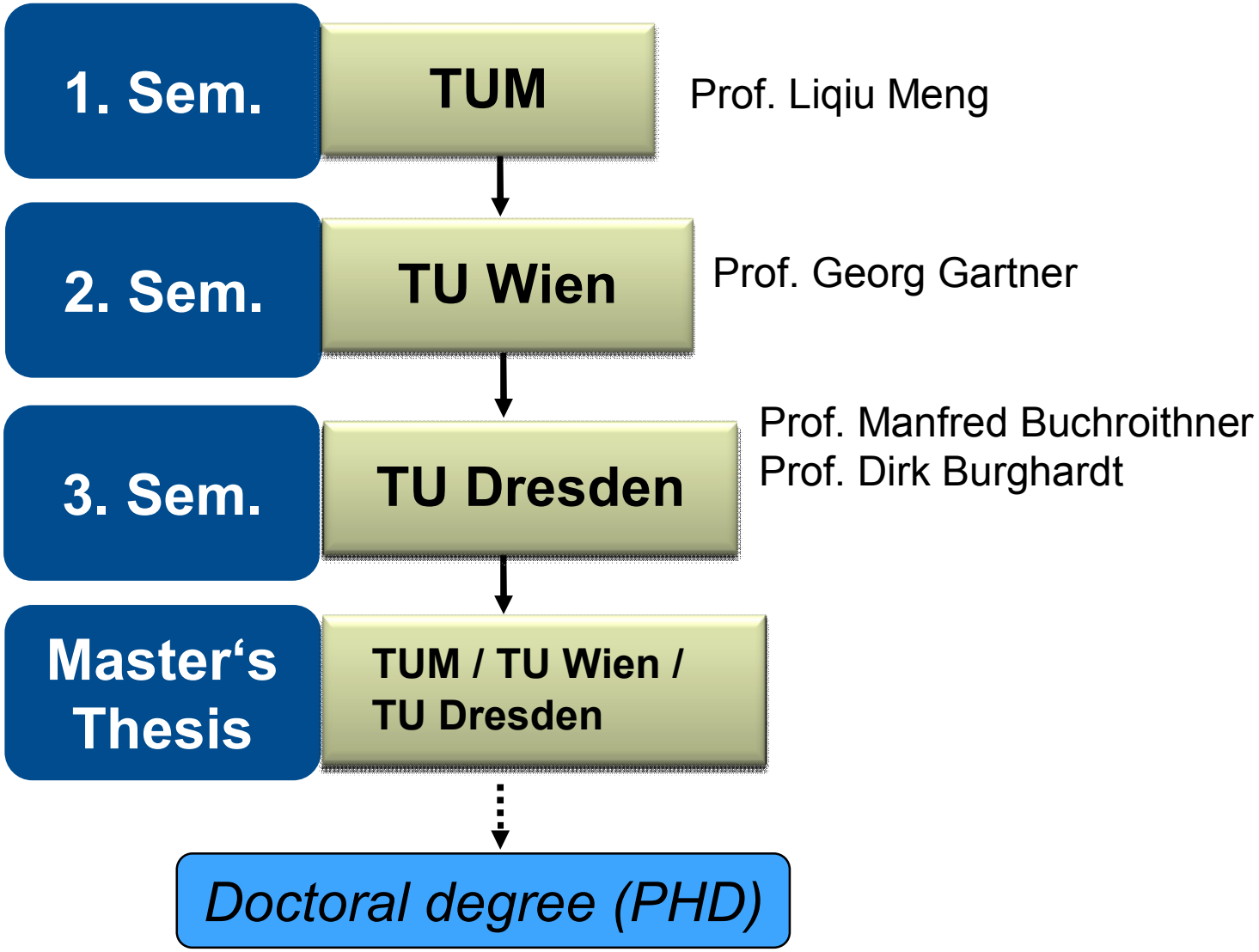
International Master Cartography

Technische Universität München

TECHNISCHE UNIVERSITÄT WIEN

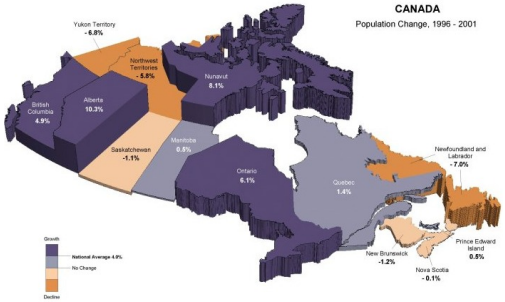
TECHNISCHE UNIVERSITÄT DRESDEN

Program structure



MODERN CARTOGRAPHY

Augmented reality

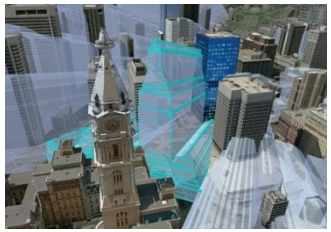


thematic mapping

Visual Analytics

LBS

map and art



3D, data analysis

map perception

data matching

maps in web 2.0

TECHNISCHE UNIVERSITÄT WIEN

VIENNA UNIVERSITY OF TECHNOLOGY

Conclusion

- TU Vienna has established successful programs on Geodesy and Geoinformation
- Overall strategic goals are implemented in order to keep the overall aim of high-level education
- Methods of Quality Assurance are applied and further developed