

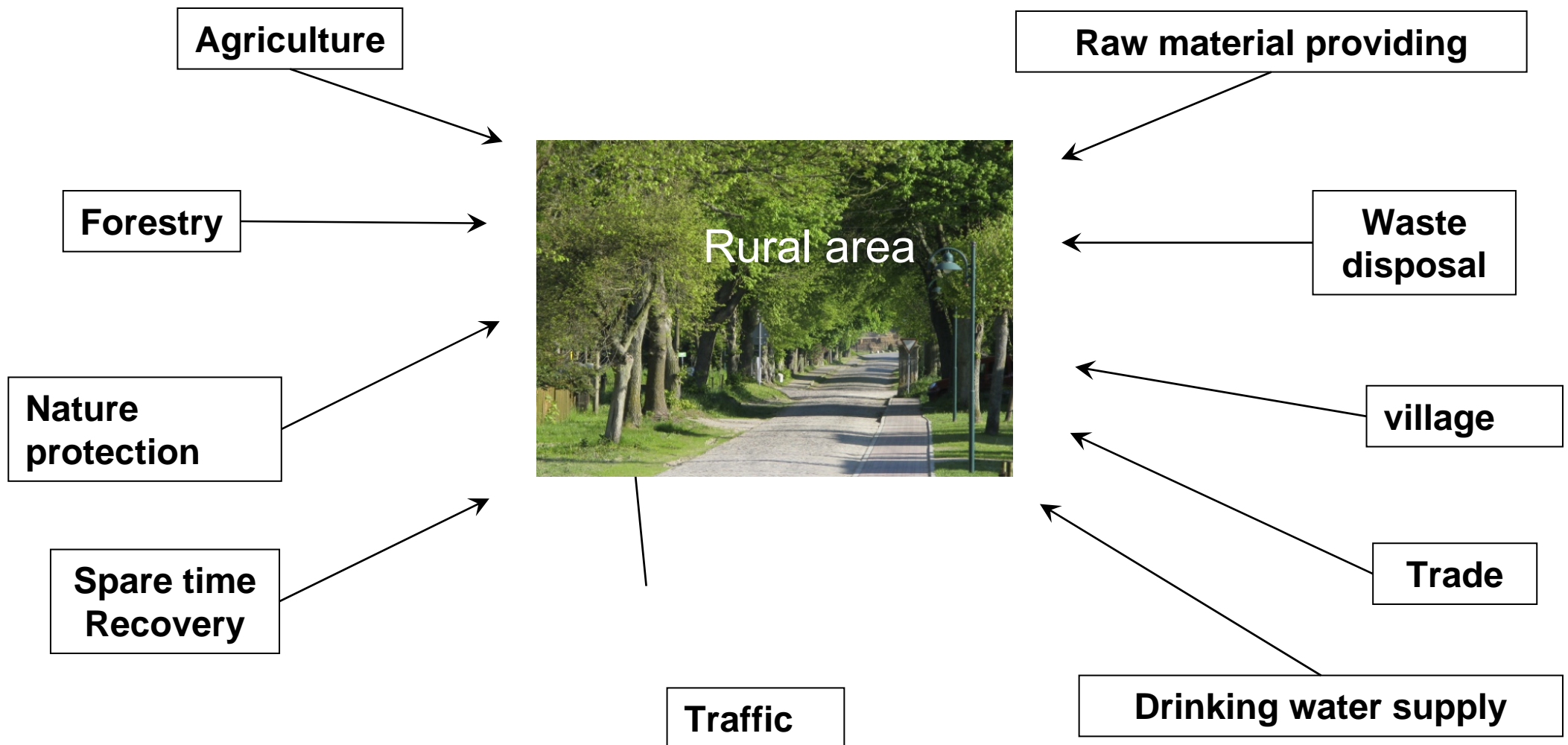
Structure of HES in University of Rostock

Prof. Dr.-Ing. habil. Hartmut Eckstädt
Faculty for Agriculture and Environmental Sciences
Professorship for Hydraulics and Sanitary Engineering
Satower Str. 48
18059 Rostock
Fon.: 0381 498 3460
Fax: 0381 498 3462
mail: hartmt.eckstaedt@uni-rostock.de

Study at the Faculty for Agriculture and Environmental sciences



Why to study at the AUF



Das deutsche Hochschulsystem

UNIVERSITÄTEN
und diesen
gleichgestellte
SPEZIALISIERTE
INSTITUTIONEN
(Theologische und
Pädagogische
Hochschulen)
[Promotion]

Diplom & Magister Artium (M.A.) Grad [4-5 Jahre]

Staatsprüfung [3 – 6,5 Jahre]

Bakkalaureus/ Bachelor (B.A./ B.Sc./ B.Eng./ LL.M.)

[3 – 4 Jahre]

Magister/ Master (M.A./ M.Sc./ M.Eng./ LL.M.)

[1 – 2 Jahre]

bes.Zulassungsregeln

Promotion
(DR.)

(Dissertation/
evtl.
einschließlich
strukturiertes
Promotions-
studium)

FACHHOCH-
SCHULEN
(FH)

Diplom (FH) Grad [4 Jahre]

bes.Zulassungsregeln

bes.Zulassungsregeln

Bakkalaureus/ Bachelor (B.A./ B.Sc./ B.Eng./ LL.M.)

[3 – 4 Jahre]

Magister/ Master (M.A./ M.Sc./ M.Eng./ LL.M.)

[1 – 2 Jahre]

Diplom & M.A. Grad, Zertifikate, zertifizierte Prüfungen [4.5 Jahre]

bes.Zulassungsregeln

Bakkalaureus/ Bachelor (B.A./ B.F.A./ B.Mus.)

[3 – 4 Jahre]

Magister/ Master (M.A./ M.F.A./ M.Mus..)

[1 – 2 Jahre]

Promotion
(DR.)

KUNST-/ MUSIK-
HOCHSCHULEN

[Promotion teilweise
möglich]

Integrierte/ lange (einstufige) Studiengänge

bes.Zulassungsregeln

Erster Abschluss

Zweiter Abschluss

Promotion

Studiengänge und
Abschlüsse

Study courses

Agricultural ecology

- Bachelor of Science (B.Sc.)
(6 Semester)
- Master of Science (M.Sc.)
(4 Semester)



Land Improvement and Environmental Protection

- Bachelor of Science (B.Sc.)
(6 Semester)
- Master of Science (M.Sc.)
(4 Semester)



Up to now exist at the Faculty for Agricultural and Environmental Sciences in the University of Rostock the following courses (in the future it will be changed):

Bachelor of science: Undergraduate Program in Land Improvement and Environmental Protection
about 100 students/year
6 semester (3 years)

Structure of Bachelor-Course LKU

Agr. Engineering and Water Regul.	Bachelor Thesis		Core elective courses	Core elective courses	6.
Landscape Planning	Architecture in Settlements and Landscape	Construction Industry	Core elective courses	Core elective courses	5.
Soil Mechanics Road Planning	Hydro- mechanics	Geoinformatics I	Landscape Ecology	Habitat Diagnostics	4.
Materials/Buildin g Materials Science	Sanitary Engin. and Waste Management	Raumordnung/ Landeskunde	Hydrology and Meteorology	Cartography/Re mote Sensing	3.
Mathematical Statistics	Basics of Civil Engineering		Soil sciences	Geodesy	2.
Chemistry	Mathematics (Natural Science)	Physics	Fundamentals of Ecology and Eco- Physiology of Plants		1.

Master of science: Graduate Program in Land
Improvement and Environmental Protection
about 30 students/year
4 semester (2years)

Structured PhD courses and a new Bachelor of
sciences (Environmental Engineering) are in
preparation.

Structure of Master-course LKU

<p>Required Core Electives:</p> <ul style="list-style-type: none"> Integrated City Planning Civil Engineering Waste and Material Economics Sanitary Environmental Engineering Landscape Ecology and Resource Protection 	Master's Thesis			4.
	Earth and Soil Engineering	Soil and Water Protection	Planning and Structural Design	3.
	Construction Methods and Operational Safety	Supply and Waste Disposal	Land Management	2.
	Project Management	Computer Aided Engineering (CAE)	Construction and Planning Law	1.

Organisation

Presence activities

- Lectures
- Seminars
- Exercises
- Exkursions

Facultativ activities

- University courses
- Language centre
 - Fundamental courses
 - Tutorials

Private studies

- Studies of literature
- Preparation of lectures and reinforcement

1 Modul with 6 credit points equates

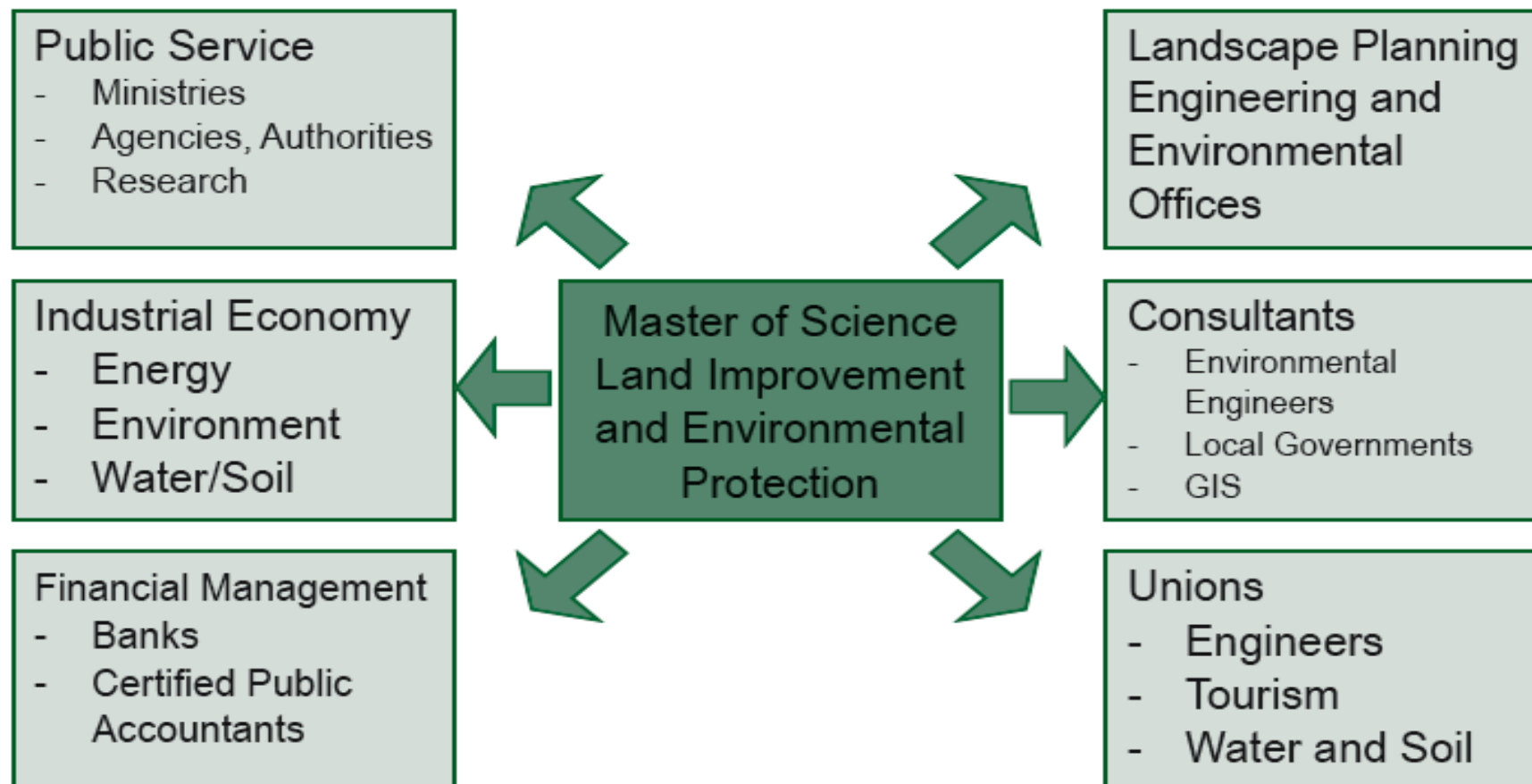
• **180h** workload

• 4 Semester week hours ca. 56h → **124h Private studies**

The graduate program drives the graduate student to study in an independent, constructive, and research oriented way. According to the tendencies and professional goals of the students, they can choose between the six offered main focuses of studies, which offer high demand, international professions:

- Integrated City Planning
- Civil Engineering
- Waste and Material Economics
- Sanitary Environmental Engineering
- Landscape Ecology and Resource Protection
- Hydrology and Landscape Water Supply

Graduates application fields:



Especially in the Master program the students are confronted with the research problems. For instance they have to solve parts of such programs in their master thesis. The PhD students are fully integrated in the actual research programs.

Main research topics in the professorship for hydraulics and sanitary engineering are:

- Management of all kinds of wastewater and water treatment plants
 - Treatment control of small wastewater treatment plants (Our Institute is a certified testing institute of construction institute in Berlin)
 - Ecological sanitation
 - Optimizing of wastewater pumping systems
 - Rheological Problems (Transportation of slurries and liquid manure in pipes)
 - Disintegration of wastewater sludge
- Special sewer systems (Vacuum and pressure systems)

The main amount of research funding we get in the moment from the industry (EURAWASSER Nord GmbH, Wilo-SE Pumpen) On the other hand we get the money from the German research ministry BMBF and a lot of small plants (for the expert opinions).

Cooperation we have inside of the University with the mathematical department and with the engineering faculty. Also there is cooperation with other Universities especially in the PhD-programs, f.i. with Universities in Germany (Hamburg, Hannover, Cottbus, Munich, Berlin and Dresden)

We have contacts to several firms and organizations inside and outside of Germany.

Cooperation in working groups of DWA (German Association for water, wastewater and waste)
expert committee for special sanitary systems,
expert committee for waste water pumping systems

Cooperation with foreign countries:
Wroclaw –Poland, Zurich –Switzerland, Debrecen –
Hungary, Damascus, Aleppo, Lattakia, Homs-Syria,
Arba Minch , Jimma, Awassa, Addis – Ethiopia,
Managua- Nicaragua, Santa Clara, Bayamo- Cuba,
Hanoi – Vietnam, Hisar – India.

Foreign PhD-Students:

Prof. Dr. Taffa Tulu University of Adama (Ethiopia)

Prof. Dr. Naser al Darir University of Aleppo

Dr. Efrain Chamorro University of Managua (Nicaragua)

Dr. Noama Shareef University of Lattakia

Dr. Mariam Muhammad University of Lattakia

Dr. Ramez Maschkouk University of Lattakia

Dr. Dania al Jeroudi University of Damaskus

Dr. Ermyas Mulugeta University of Addis Abeba (Ethiopia)

Nouri Sheek University of Tripolis

Isan Machlouf University of Lattakia

Profil lines of the University of Rostock in the interdisciplinary faculty:

Department Life light and matter

Department Maritime systems

Department Aging sciences

Department Knowledge, Culture, Transformation



The Faculty for Agricultural- and Environmental sciences

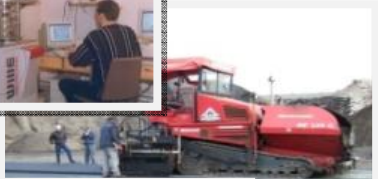
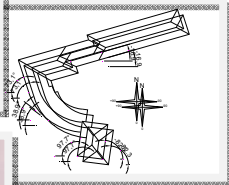
Common Information

- Founded in 1942
- One of 9 Faculties of the University of Rostock
- 4 Institute
 - Institute for Nutztierwissenschaften und Technologie
 - Institute for Land use
 - Institute for Management of rural areas
 - Institute for Environmental Protection
- Students: about 800
- Deanery:
 - Dean: **Prof. Dr. Elmar Mohr**
 - Vice dean: Prof. Dr. Ralf Bill
 - Dean for studies: Prof. Dr. Stephan Glatzel
 - Dean for research: Prof. Dr. Michael Nelles



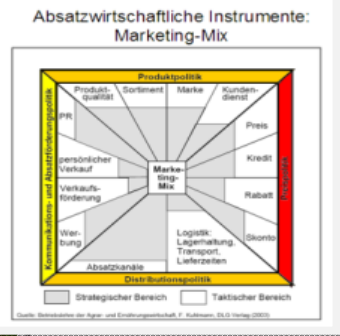
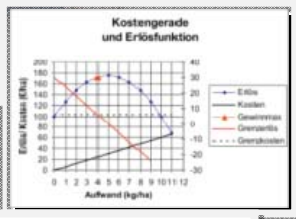
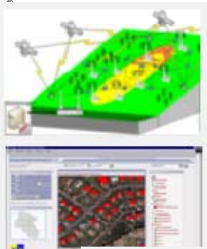
Environmental Engineering

- Building market/ Building construction
- Environmental economy
- Project management
- Hydrology
- Engineering hydrology
- Landscape water balance
- Agricultural Meteorology
- Technical Mechanics
- Geotechnics, Foundations
- Road construction
- Coastal Engineering
- Harbor Engineering
- Waste management
- Mass flow management
- Use of renewable energy
- River development
- Irrigation and Drainage
- Storage tank construction
- Sanitary Engineering
- Wastewater treatment



Management of rural areas

- Geodesy
- Cartography
- Geo informatics
- Landscape planning
- Landscape works
- Land management
- Economy
- Finance, Agricultural marketing
- Agricultural politics
- Village Engineering
- Construction
- Development of Villages
- Habitat diagnostics
- Botanic



Forschungsschwerpunkte der Fakultät

Grundlagen der Biomasseproduktion und
–nutzung über die gesamte Wertschöpfungskette
von der Pflanzenzüchtung bis zur Verwertung der
organischen Reststoffe
Biomasseproduktion und
–verwertung



Grundlagen des nachhaltigen Managements der
Umweltressourcen mit dem Schwerpunkt Wasser
und Boden unter verschiedenen
Landnutzungsbedingungen
im Ostseeraum

Umweltressourcenmanagement

Nachhaltige Tierproduktion unter Berücksichtigung
von Biodiversität, Ressourcenschutz,
Tiergesundheit/
Id der Anpassung an sich ändernde
weltbedingungen, einschließlich der
Reduzierung von Klimagasen
Nachhaltige Tierproduktion



Biologische, ökologische und technische
Rahmenbedingungen
für die Entwicklung und das Management der Region
Ostseeküste als multifunktionale Landschaft unter
Berücksichtigung der gesamten Wertschöpfungskette

Multifunktionale Landschaften

Kooperationspartner

Bundesforschungsinstitute

- FBN
- FLI
- ZALF
- BBA
- vTI
- DBFZ

Landesforschungsinstitut

- LFA
- LUFA
- LUNG

Universitäten und Hochschulen

- Neubrandenburg
- Greifswald
- Stralsund

Steinbeis - Transferzentren

- Geoinformatik
- Wasser und Boden
- Soil Biotechnology

Netzwerke

- Beirat Agrarforschung M-V
- Netzwerk – Versuchsanlagen
- BioOK
- FINAB
- Wissenschaftlicher Beirat Umweltministerium M-V
- Netzwerk Agrarwissenschaften Ostdeutschland



Kooperationspartner weltweit (Auswahl)

Europa

- ETH Zürich, Schweiz
- Helsinki University of Technology, Finnland
- Universität für Bodenkultur Wien, Österreich
- Landwirtschaftliche Universität Wrocław, Polen

Asien

- Universität Hanoi, Vietnam
- National Dong Hwa University Hualien, Taiwan
- National Taiwan University, Taipeh, Taiwan
- Haryana University Hisar, Indien
- Universität Sanaa, Yemen

Amerika/Lateinamerika

- University of Athens, Georgia, USA
- University of Saskatchewan, Kanada
- University of Santa Clara (Cuba)
- University of Bayamo (Cuba)

Afrika

- Universität Damaskus, Syrien
- Universität Lattaquia, Syrien
- Universität Sanaa, Yemen
- National Research Centre in Kairo, Ägypten
- Universität Jimma, Äthiopien

