

## RheinMain University of Applied Sciences – Faculty of Architecture and Civil Engineering

Courses taught in English and bilingually or with limited English support\*

\* Please check the column "Language of Instruction"

Regarding your course selection, please note the following:

With your application at RheinMain University of Applied Sciences you enroll in a specific degree program. At the Faculty of Architecture and Civil Engineering, you are allowed to choose courses from all degree programs offered. A selection of courses from other faculties is not possible.

To learn more about the course offerings for your semester at RheinMain University of Applied Sciences, please take a look at the list of courses taught in English/bilingually/with English support below or contact the International Coordinator of the Faculty of Architecture and Civil Engineering (international fab@hs-rm.de). Please be informed that this course list may be subject to change.

According to your level of German you may also choose courses taught entirely in German. Please visit the faculty website to see the curricula for all degree programs: https://www.hs-rm.de/en/faculties/architecture-and-civil-engineering/international#international-students-72757.

Core Skill and Language Courses							
Course Title	Credit Points (= ECTS)	Semester Offered					
Core Skill Courses Open to All Exchange Students offered by the Competence & C	areer Center ( <mark>Website</mark> )						
International Week: Future Leaders (August 12 -16. 2024)	3 ECTS	In Summer Only, as a block class					
Prepare & Reflect – International Exchange	3 ECTS						
Description: In this seminar, you will learn how to engage consciously with other cultures. We will look at ways to communicate and interact effectively and to avoid misunderstandings. You will be prepared for your semester abroad and accompanied during your stay. At the end of your stay you have the possibility to reflect and exchange your experiences with others. One of the major tasks is to create a short video about an intercultural topic within a small group and present it to the other participants.		Every semester					



German as a Foreign Language		
German Intensive Course (various levels*; duration: 2 weeks, prior to start of exchange semester)	4 ECTS	Every Semester
* Our intensive course is primarily aimed at existing A- to B1-levels. Students with a level B2 and up in German <i>may</i> be asked to choose a semester-long course if they are interested in taking a German language class, depending on the overall results of the placement tests prior to the Intensive Course.		
German as a Foreign Language (various A2-B2 levels)	2 ECTS	Every Semester
Hallo Deutschland: Geschichte, Kultur, Politik & Wirtschaft (German B2)	2 ECTS	Every Semester

English as a Foreign Language			
1261 Remedial English 1 (A2/B1)	2 ECTS for exchange students	Every Semester	
1313 English at Work: Writing Business Letters and E-Mails (B1)	2 ECTS	In Summer Only	
1315 English at Work: Giving Presentations (B1)	2 ECTS	In Winter Only	
1292 Improve Your English Accuracy (B1/B2)	2 ECTS	Every Semester (but sometimes compact in the semester break)	
1155 Intercultural Communication in Practice (Blended Learning)	2 ECTS	In Winter Only	
1115 Advanced Technical English 1 (B2)	2 ECTS	In Summer Only	
1125 Advanced Technical English 2 (B2)	2 ECTS	In Winter Only	
Additional English and German intensive courses and workshops are also offered during the semester breaks – contact the Language Center for information			
"English for Specific Purposes" Courses (focus varies depending on degree prog	ram)		
English for Civil Engineering (B1/B2)	3 ECTS	Every Semester	
English for Real Estate Management 1	5 ECTS	In Summer Only	
English for Real Estate Management 2	5 ECTS	In Winter Only	
English for Heritage Conservation	2 ECTS	Every Semester	
English for Mobility Management	2 ECTS	In Winter Only	



Course Title	Course Code	Course Description	Credit Points (= ECTS)	Language of Instruction	Course offered
Architecture (B.Sc.)					
Design Studio B: Building and Type	BAR210	Project B deals with current topics and tasks in the context of the built city and always aims to design a concrete house at a precisely determinable location and with a precise and realistic spatial program. In the process, the following aspects, among others, are investigated and dealt with in design terms:  - The significance of references, types and models for one's own design.  - The connection between the context and the shape of the house.  - The interior organisation of the house.  - The interplay between the interior structure and the expression of the house.  - The differentiation between public and private spaces in the house.  - The shape and appropriateness of the façade in relation to its task and significance in the context.  - The variety of architectural elements and their functions as well as their significance for the character of the house.  - The relationship between the organisation of the floor plan and the function and shape of the house.	9	Taught in German, 1:1-tutoring in English possible	Every Semester
Design Studio C: The City and the Urban Realm	BAR310	The aim of the course is to acquire the ability to think, design and develop beyond the mere individual object (architecture) in a complex context (city). The development of a concept that	10	Taught in German, 1:1- tutoring in English possible	Every Semester



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		provides answers to questions posed and self-			
		developed, but inherent to the location and its			
		spatial-social context, is at the centre of the task.			
		Through the interlocking of content in the			
		module, the methodical application of the			
		processes of urban design, constructive			
		implementation and structural-technical			
		derivation is practised holistically. The			
		prospective architects acquire the competence to			
		work interdisciplinarily across several scales			
Design Studio W1:	BAR410	By means of a design task, the students must	10	Taught in German, 1:1-	Every Semester
Construction and		prove that they can develop independent		tutoring in English possible	-
Technology		solutions for demanding and complex design			
		tasks in terms of building construction and that			
		they have the ability to implement both the			
		structure, the supporting structure and the			
		building envelope in the form of an integrated			
		overall concept. The project W1 defines its focus			
		in the area of design-forming constructions			
		without programmatic specification. The focus of			
		the task is the development of a design with a			
		focus on the structural, spatial-constructive and			
		material implementation. The constructive focus			
		of the design is on timber construction.			
Design Studio W2:	BAR610	On the basis of a design task with a demanding	10	Taught in German, 1:1-	Every Semester
Construction and		spatial program and complex interior and		tutoring in English possible	
Technology		structural interrelationships, the students must		career mag my _mgmam passanasa	
		demonstrate that they are able to transfer the			
		acquired knowledge into a coherent and			
		differentiated design. Special emphasis is placed			
		on the aspects of routing and room structuring as			
		well as the development of structural, material			
		and colour concepts that determine both the			
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AdHocs	1700	atmosphere of the rooms and the appearance of the building envelope in a congruent continuation of the design idea.  The individual tasks are thematically independent and didactically different small design projects. The type of processing and presentation depends on the respective task.  Each semester six AdHocs are offered. Each Adhoc is worth 1 ECTS, so in the scope of one	1-6	Task is given in German with English support, the work on the mini-projects is done by the students themselves	Every Semester 6 different AdHocs
Computational Design	BAR360	semester up to 6 ECTS can be collected.  Commonalities and differences between classical and digital design.  Parametric design versus direct modeling, geometry, and parametric rules  Aesthetic aspects of parametric design and digital optimization.  Learning to use typical software for this purpose.	4	Taught in German and English simultaneously	Every Semester
Electives		Different Electives available, a list is published shortly before the semester starts, please contact international-fab@hs-rm.de	2-4, depends on Elective	Taught in German, English support must be enquired at the beginning of the semester, very few taught in English	Every Semester
Bachelor's Thesis	9050	The bachelor's thesis is the examination paper that concludes the bachelor's degree. It shows that the candidate is able to deal with a problem from his or her subject area independently according to scientific methods within a given period of time. Solution of a project task in the fields of urban planning, building construction or a written concept in the field of construction management	22	Supervision in English possible on enquiry before application	Every Semester



Architecture (M.Sc	Architecture (M.Sc.)							
Design Project Heritage	MA-012	Project development - in the economic and use-specific area Development and inclusion of basic material (drawings, plans, data) Analysis - region - location - building: inclusion of building research, damage mapping, building substance analysis, compilation and evaluation of data and statistics Determination of use: Justification and evidence for use based on secondary statistics, the preceding analyses and observations, among other things. Design concept Economic feasibility: methods of proof for calculating return on investment Writing a feasibility study in the form of a scientific, written paper with corresponding design drawings	14	Taught in German, 1:1- tutoring in English possible	Two semesters in a row, one semester break, beginning in WS 23/24			
Scientific Minor Heritage	MA-014	The focus of the course is:  - an intensive examination of a building, an urban area, a city or region  - Documentation by means of measurement and room book in order to clarify construction processes and the development of the building  - Theoretical reconstruction of building phases  - Literature research and knowledge of comparative examples in order to work out a classification of the object in the building-historical context	4	Taught in German, 1:1- tutoring in English possible	Together with Design Project Heritage			



		<ul> <li>Determining a "valuation", cultural-historical classification or a classification in the urban context</li> <li>Drafting of texts and preparation of building descriptions</li> <li>The object-specific application of modern measuring and documentation techniques is of particular importance in the exercise.</li> </ul>			
Design Project Add- On	MA-022	The uses of buildings are changing in ever faster cycles - barracks are becoming city quarters, office buildings are becoming housing, and industrial buildings are often becoming obsolete. The still very entrenched belief that buildings are programmed for long periods of time must be questioned. Thus, building today is always rebuilding or continuing to build. The aim is to acquire the ability to think and design beyond the mere individual object (architecture) in the complex context (process). The development of a strategy to build on the existing and to provide answers to questions posed and developed by the students themselves, but inherent in the existing structure, is at the centre of the task.	14	Taught in German, 1:1-tutoring in English possible	Two semesters in a row, one semester break, beginning in SuSe 23
Scientific Minor Add- On	MA-024	Integrated into the Design Project Add-On, strategic competences in the field of further building beyond the singular design project are to be practised.	4	Taught in German, 1:1- tutoring in English possible	Together with Design Project Add-On



Design Project Transformation	MA-032	An existing building is designed in the sense of a given architectural task. A transformation strategy is developed by analysing the existing building and assessing its potential, and an architectural project is developed, presented and discussed. The conceptual focus is placed on a sustainable consideration of the building as an ecological and economic resource and its spatial and structural transformation in a social context.	14	Taught in German, 1:1- tutoring in English possible	Two semesters in a row, one semester break, beginning in SuSe 24
Scientific Minor Transformation	MA-034	Based on a qualitative as well as quantitative analysis of the existing building structure of different example projects, different architectural potentials are elaborated and discussed comparatively, taking into account programmatic, ecological and social goals.	4	Taught in German, 1:1- tutoring in English possible	Together with Design Project Transformation
Master's Thesis	9050	The master's thesis can deal with the following topics:  • Project work: architectural work: usually an architectural design  • Written and scientific work: usually a research project mainly from the fields of preservation, adding, transformation or paste	30	Supervision in English possible on enquiry before application	Every Semester
Architectural Herita The History of Urbanization	BBK236	Introduction: overview of the history of urban planning and construction and its significance for current urban development responsibilities Ancient history and protohistory: topographic location, public and cultic buildings, residential units, fortifications Antiquity: topographic location, public and cultic buildings, residential units, fortifications	2	Taught in English	Every Semester



		Middle Ages: city founding, idealized townscapes, quarters, streets, squares Renaissance / Baroque: ideal, planned and fortress cities Industrialization: urban processes of growth and change 20th century: guiding principles of urban planning and resulting spatial structures Presence: history of urbanism and current responsibilities in urban development			
Special Fields of History of Architecture II	BBK336	Different topic areas dealt with in the lecture on building history (16th – 20th century) are addressed in more detail.  Research/examinations, presentations, and papers on individual regions, construction types, and/or epochs  Topics are partially linked to the content of the History of Art Seminar  Putting into historical and biographical context	2	Taught in English	Every Semester
Cultural Heritage in an International Context	BBK413	Introduction: history and handling of built cultural heritage in Germany and in the context of the UNESCO World Heritage Convention Introduction to the notions of Outstanding Universal Value, authenticity and integrity Central questions to the notions of interculturality and transculturality in the World Heritage program Management of UNESCO World Heritage sites – tasks and conflicts	4	Taught in English	Every Semester
Strategies in Built Heritage Conservation	BBK414	Depiction of the conservation of built heritage with respect to their specific historical	2	Taught in English	Every Semester



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		functions, constructions and building			
		structures by means of case studies			
		Different fields of conservation such as			
		Building Conservation, Urban Conservation			
		and Garden Conservation			
		Definitions and concepts of the prevalent			
		methods of preservation such as building			
		survey and building documentation,			
		conservation, restoration, renovation,			
		maintenance, repair and re-habilitation as well			
		as reconstruction.			
		Presentation of several action strategies			
		against the back-ground of historic and recent			
		conservation theories			
		Communication with potential project			
		partners, historic monuments protection			
		authorities and state offices for historic			
		monuments also in regard to organization and			
		methods of operation			
Heritage Impact	8042	Increasing demands of urban development	4	Taught in English	Every Semester
Assessment for		and revitalisation in recent decades has been			
World Heritage		damaging both tangible and intangible			
Properties		heritage values. In such a situation, conflict			
		raise between management plans and			
		development projects.			
		In 2011, ICOMOS international developed a			
		Heritage Impact Assessment (HIA) guideline			
		regarding identify and assess the negative			
		impacts of man-made threats on heritage			
		values, and consequently, minimize and			
		mitigate the adverse impacts as well as			
		improve the management and protection of			
		World Heritage properties. This seminar is			



		going to introduce how this assessment tool works, through the study of several World Heritage properties which HIA is conducted in recent years. Besides, the students will be familiar with other assessment instruments such as SEA and EIA.			
Bachelor's Thesis	9050	The bachelor's thesis is the examination paper that concludes the bachelor's degree. Each semester there is a task which is formulated by the students themselves. The topic is taken from the subject areas of the bachelor's degree program. The work is super-vised on a random basis, appointments for enquiries are available.	15	Supervision in English possible on enquiry before application	Every Semester
Architectural Herita					
Master's Thesis	9050	The master's thesis can deal with the following topics:     Project work: architectural work: usually an architectural design     Written and scientific work: usually a research project mainly from the fields of preservation, adding, transformation or paste	30	Supervision in English possible on enquiry before application	Every Semester
Civil Engineering (B.	Eng.)				
Geotechnical Laboratory	11142	Independent performance of investigations in the field: small borehole, dynamic penetration testing (DPH, DPL), density determination, plate load test, etc. Independent preparation and performance of laboratory tests:  Determination of consistency limits, grading curves by sieving and sedimentation, Proctor test, compression test, shear test and determination of water permeability.	2	Taught in German, with 1:1 tutoring in English	Every Semester



		Preparation of a geotechnical investigation report according to Eurocode 7.2			
Computational Geotechnics	21200	Fundamentals of geotechnical verification in accordance with DIN EN 1997-1 and DIN 1054; working on real tasks at the computer workstation: carrying out geotechnical verifications for shallow foundations, deep foundations, etc. with commercial calculation software (GGU Settle, Footing, Retain, Stability, etc.); programming of individual files for geotechnical analyses and calculations (MS-Excel and Mathcad (PTC)); calculation of pile foundations and combined pile-slab foundations (KPP) with ELPLA 10 (Geotec); introduction to the topic "Finite elements in geotechnics" (Plaxis 2D); instructions for checking and critically evaluating computerized results	5	Taught in English	Only in summer semester, on demand
Bachelor's Thesis	9050	Acquired competences: - Structuring of a defined topic - Scientifically based and methodically derived problem solving - In-depth thinking through and familiarization with a professionally sound topic - Systematization of a set topic - Creative thinking - Problem orientation and reasoned problem solving - Researching the necessary specialist literature - Ability to analyze and synthesize	10	Supervision in English possible on enquiry before application	Every Semester



		<ul><li>Critical questioning of facts, methods and backgrounds</li><li>Research skills</li></ul>			
Laboratory in Sanitary Environmental Engineering	23130	Presentation of the analytical methods according to the German Standard Methods (DEV). Carrying out practical laboratory tests in the Laboratory for Urban Water Management (determination methods for relevant wastewater parameters, oxygen determination, pH determination, precipitation and flocculation tests, determination of the dewatering behaviour of sewage sludge, etc.).	2	Taught in German, with 1:1 tutoring in English	Offered on an irregular basis, please enquire before application: international-fab@hs-rm.de
Planning Project in Sanitary Environmental Engineering	23130	Requirements for technical systems (operating environment, load assumptions, maintenance, service life) Components and performance spectrum of the plants Basics of dimensioning (design, construction, operation, material, location) Dimensioning and application of specialised software; creation of automation concepts; planning methods and monitoring instruments Aspects of interdisciplinary cooperation with participating specialist engineers	3	Taught in German, with 1:1 tutoring in English	Offered on an irregular basis, please enquire before application: international-fab@hs-rm.de
Civil Engineering & (				T E	
Technical Risk Management	40140	The course is composed of the theoretical and practical aspects of project management and project risk management in civil engineering projects. The theoretical part gives overview of traditional and agile project management approach in project risk management. The planning, assessment and treatment stages	6	Taught in English	Every Semester; limited number of participants, 1-2 incomings, in winter semester taught online



		are discussed with emphasis of processes, tools and techniques. All aforementioned is applied and tested on real case study of project Miramare during workshop.			
Decision-making for Managers in Civil Engineering	N.N.	The course is composed of the theoretical and practical aspects of project management in civil engineering projects. The theoretical part gives overview of basic principles, methods and techniques as well as conditions for multicriteria decision-making in order to achieve the sustainable project solution. The decision-making process throughout the projects' whole life-cycle is discussed with the emphasis on processes, tools, and techniques that are used in both single and group decision-making environment. All aforementioned is applied on the case study with the goal of solving specific problems that occur in civil engineering projects.	6	Taught in English	In summer only; limited number of participants, 1-2 incomings
Master's Thesis	49210	<ul> <li>Scientifically sound work</li> <li>Structuring of a defined topic</li> <li>Scientifically based and methodically derived problem solving</li> <li>Thinking through and familiarising oneself with a subject in depth</li> <li>Systematisation of a given topic</li> <li>Creative thinking</li> <li>Problem orientation and scientifically based problem solving</li> <li>Researching the necessary specialist literature</li> <li>Ability to analyse and synthesise</li> </ul>	30	Supervision in English possible on enquiry before application	Every Semester



		<ul><li>Critical questioning of facts, methods and backgrounds</li><li>Research skills</li></ul>			
Environmental Mar	nagement and l	Urban Planning in Metropolitan Areas (M.Eng.)			
Interdisciplinary Project	8100	Multifunctional and complex analysis of interdisciplinary goals and tasks, differentiation of concerns, functions and tasks, derivation of the different technical goals and subtasks, synthesis of common tasks and concerns, elaboration of environmental concerns and environmental quality goals, consideration of aesthetic aspects, recognising the different user demands, dealing with a concrete planning case in the Rhine-Main conurbation. Review of tasks through all planning stages, cooperation with institutions and project with institutions and project sponsors, planning and environmental law on the project case, landscape and open space planning as well as environmental assessment and LBP/impact regulation; responsibilities and decision-making, Objective setting and assessment criteria, planning process, procedure management, participation, project assessment, research, realisation, economic framework conditions, social components, Moderation tasks / mediation, modularisation, environmental management, controlling, evaluation, property law, Public law and private law in the project case.	10	Supervision in English possible on enquiry before application	Every Semester



		Usually with case studies on environmental			
		assessment			
Master's Thesis	9050	Scientifically sound work	30	Supervision in English	Every Semester
Master S Triesis	9030	Structuring a defined topic	30	possible on enquiry	Every Semester
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		Scientifically justified and methodically		before application	
		derived problem solution			
		Thinking through and familiarising oneself			
		with a professionally sound topic			
		Systematising a set topic			
		Creative thinking			
		Problem orientation and scientifically justified			
		problem solution			
		Researching the necessary specialist			
		literature Ability to analyse and synthesise			
		Critical questioning of facts, methods and			
		backgrounds, Ability to research			
<b>Mobility Managemen</b>	t (B.Eng.)				
		Technical consolidation of a study module or	15	Supervision in English	Every Semester
		combination of several study modules at the		possible on enquiry	
		end of the study program in order to lead into		before application	
		professional practice.			
		Focus on engineering, technical or business			
		aspects with the business part accounting for			
		maximum one third of the bachelor's thesis.			
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Bachelor's Thesis	9050	Work on the bachelor's thesis for six weeks.			
Bachelor's Thesis Real Estate Managen					
		Work on the bachelor's thesis for six weeks.	5	Taught in English	Only summer
			5	Taught in English	Only summer semester,
		Work on the bachelor's thesis for six weeks.  Investment decisions of European investors in	5	Taught in English	semester,
		Work on the bachelor's thesis for six weeks.  Investment decisions of European investors in Germany Investment decisions of German investors in	5	Taught in English	
		Work on the bachelor's thesis for six weeks.  Investment decisions of European investors in Germany	5	Taught in English	semester, beginning in



		Different market situations based on selected examples from other European countries and their metropoles, e.g. London, Madrid and Paris			
		Particularities of Eastern European countries and their investment structures			
International Real		Micro- and macro-economic basis of the case studies Regional economic analysis and urban economics Economic theory and practice of interest rate and currency management in open economies Hedging strategies Structures of international finance and currency politics (foreign trade policy) Economic theory of games, behavioral finance and application to negotiation models in real estate economics Application-oriented case studies on international real estate economics Depending on group size: practice lectures and/or excursions to companies/institutions (corporate contacts)	5	Taught in English	Only summer semester, beginning in SuSe 25
Estate Economics	4920	Compiling	10		F C .
Deskalede The	0050	Technical consolidation of a study module or combination of several study modules at the end of the study program in order to lead into professional practice Link to the practical experience phase module in the same semester Possibility to combine the two modules in such a way that the topic of the bachelor's	12	Supervision in English possible on enquiry before application	Every Semester
Bachelor's Thesis	9050	professional practice Link to the practical experience phase module in the same semester Possibility to combine the two modules in			



Dool Fototo (M.Co.)		the activities and tasks done during the practical experience phase in co-ordination with the company providing the practical experience placement Focus on engineering, technical or business aspects with the business part accounting for maximum one third of the bachelor's the-sis Work on the bachelor's thesis for eight weeks, followed by an oral examination and a presentation of the major aspects of the bachelor's thesis			
Real Estate (M.Sc.)	T		_		
International Real Estate Market Analysis & Economics	222300	Target markets and target regions for German real estate investor group Investor groups and target product of international real estate investors Methodology for structured country analysis for international real estate market analysis Analytics for real estate markets based on UK/US approaches to key market metrics Financial analysis of cross-country Currency, Economic and Interest Scenarios International sources of equity and debt capital and structuring of real estate capital	5	Taught in English	Only summer semester, beginning in SuSe 25
International Investment Vehicles & Tax Structuring	223300	Real estate funds under the European AIFM-directive Impacts of structuring of real estate investments on the operation of real estate companies Impacts of legal and tax structuring on operational real estate management Case studies: International fund hubs and international fund structures	5	Taught in English	Only winter semester, beginning in WS 24/25



		Case studies: International real estate finance			
		Examples from practice of international real			
		estate investment structure			
		Entrepreneurship: Business models and	5	Supervision in English	Only summer
		company formation		possible on enquiry	semester
		Innovation management in real estate		before application	
		companies and business cases			
		Financing options for traditional start-ups and			
		digital prop techs			
		Stakeholder management in the real estate			
		industry or in projects			
		Management of conflicts of interest in			
		complex projects			
		Supervised, comprehensive interdisciplinary			
		practical project			
Multidisciplinary		Consideration of diversity, inclusion and			
Project	224100	equality in practical projects			
		After successful completion of the module,	25	Supervision in English	Every semester,
		students will be able to		possible on enquiry	beginning in
		answer a current real estate-specific question,		before application	SuSe 25
		taking into account its interdisciplinary			
		(technical and economic) character.			
		answer a current real estate-specific problem			
		taking into account its interdisciplinary			
		(technical and economic) character			
		independently structure and plan resources			
		for a complex problem, identify and use the			
		specialist knowledge required to solve the			
		problem			
		identify and use the specialist knowledge			
		required to solve it			
	000070	to make use of self-motivation and to cope			
Master's Thesis	229050	with problems or challenges constructively			



		learn from mistakes present complex real estate issues in a comprehensible manner and in accordance			
	(n. c. —	with scientific and ethical standards.			
Sustainable Mobility	(M.Eng.)				T
International Project on Mobility and	8332	The students work on one or more of the following topics in alternating practice-relevant projects:  Development of mobility concepts with an international dimension  Development of guiding principles for sustainable mobility in different regions and	5	Taught in English	Only winter semester
Transport	6532	contexts  After successful completion of the module, students will be able to:  - identify current challenges in specialized areas of sustainable mobility and independently develop and argue for solutions.  - identify national and international or cultural differences in specialized areas of	5	Taught in English, block seminar on six Friday afternoons	Only summer semester
Mobility for Whom? - A critical view on contemporary planning		sustainable mobility and derive conclusions for meaningful, new solutions and develop concepts for regional implementation.			