

**Module Handbook 2011**

**Bachelor of Architecture / Master of Architecture | Building in Existing Structures**

**Hochschule RheinMain University of Applied Sciences  
Faculty of Architecture  
and Civil Engineering**

**Architecture Degree Programme**

**Module Handbook**

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# Bachelor of Arts, Architektur (B.A. Architecture)

Semester	Module	Subject	Course No.	Course	Method	Credits	Contact	Workload	PS	SS	Mode of Assessment
B1	B 1-100	Project 1	B1-101	Introduction to Architectural Design	Proj	8	6	240	90	150	WE, OE
			B1-102	Fundamentals of Architectural Design	L	4	2	120	30	90	OE, project-integrated
	B 1-300	Building Construction 1	B1-301	Building Construction and Structural Design	L+Prac	2	2	120	30	30	WE
			B1-302	Materials Science	L	2	2		30	30	WE
	B 1-500	Representation 1	B1-501	Geometry for Architectural Illustration	L+Prac	6	6	180	90	90	WE
B1-502			Fundamentals of Visual Communication	S	4	4	120	60	60	WE, OE	
B1-503			Computer-Aided Illustration	L+Prac	4	4	120	60	60	WE	
B2	B 2-100	Project 2	B2-101	Project	Proj	8	6	240	90	150	WE, OE
	B2-300	Building Construction 2	B2-301	Building Construction	L+S	4	4	180	60	60	WE, project-integrated
			B2-302	Structural Design ( Timber )	L+Prac	2	2		30	30	WE, project-integrated
	B 2-310	Construction Technologies 1	B2-311	Building Services ( Basic Systems )	L	2	2	120	30	30	T
			B2-312	Materials Science 2	L	2	2		30	30	T
	B 2-400	Architectural History 1	B2-401	Post-War Modernism	L	2	2	120	30	30	WE
			B2-402	Sociology of Architecture	L+Prac	2	2		30	30	WE, P
	B 2-500	Representation 2	B2-501	Fundamentals of Visual Communication	L+S	4	3	120	45	75	WE, OE
			B2-502	CAD	L+Prac	4	4	120	60	60	WE
	B3	B 3-100	Project 3	B3-101	Project	Proj	8	6	240	90	150
B 3-200		Building Theory 1	B3-201	Building Theory 1	L	2	2	120	30	30	WE, P
			B3-202	Urban Planning	L+Prac	2	2		30	30	WE
B 3-300		Building Construction 3	B3-301	Building Construction	L+S	4	4	180	60	60	WE, project-integrated, T
			B3-302	Structural Design ( Reinforced Concrete )	L	2	2		30	30	WE, project-integrated
B 3-310		Construction Technologies 2	B3-311	Building Services, Room Climate Control Systems & Sustainability	L	2	2	120	30	30	T
			B3-312	Construction Physics and Energy Efficiency Standards	L	2	2		30	30	T
B 3-400		Architectural History 2	B3-401	Classic Modernism	L	2	2	120	30	30	WE, T
	B3-402		Design Principles of Classic Modernism	L+Prac	2	2		30	30	WE	
B 3-500	Representation 3	B3-501	Computer-Aided Illustration	L	2	2	120	30	30	WE	
		B3-502	Architectural Drawing	L	2	2		30	30	WE	
B4	B 4-100	Project 4	B4-401	Project	Proj	8	6	240	90	150	WE, OE
	B 4-300	Building Construction 4	B4-301	Building Construction	L	4	4	180	60	60	WE, project-integrated, P
			B4-302	Structural Design ( Reinforced Concrete )	L	2	2		30	30	WE, project-integrated
	B 4-310	Construction Technologies 3	B4-311	Building Services, Room Climate Control Systems & Sustainability	L	2	2	120	30	30	T
			B4-312	Construction Physics and Energy Efficiency Standards	L	2	2		30	30	T
	B 4-400	Architectural History 3	B4-401	Architectural History 1900-1500	L	2	2	180	30	30	P, T
			B4-402	Fundamentals of Historic Preservation 1	L+Prac	4	3		80	40	WE
B 4-600	Construction Management 1	B4-601	Cost-Effective Construction Planning	L	4	3	120	30	90	WE, P	
B5	B 5-100	Project 5	B5-101	Project	Proj	8	6	240	90	150	WE, OE
			B5-102	Interior Design	L+Prac	4	2	120	30	90	WE, project-integrated
	B 5-200	Building Theory 2	B5-201	Building Theory 2	L	2	2	120	30	30	WE
			B5-202	Urban Planning	L	2	2		30	30	WE
	B 5-300	Building Construction 5	B5-301	Construction with Prefabricated Elements	L+Prac	4	4	240	60	60	WE, P
B5-302			High-Rise Construction Processes	L	4	3		60	60	WE, P	
B 5-400	Architectural History 4	B5-401	Architectural History 1500-Antiquity	L	2	2	120	30	30	T	
		B5-402	Fundamentals of Historic Preservation 2	L	2	2		30	30	WE, P	
B6	B 6-500	Representation 4	B 6-501	Presentation Techniques	L+Prac	2	2	120	30	30	WE
			B 6-502	Computer-Aided Illustration	L+Prac	2	2		30	30	WE
	B 6-600	Construction Management 2	B6-601	Preparing for Professional Practice	L	4	2	120	30	90	WE, P
W	Elective Modules	4 freely elective subjects with a total of 8 credits and 8 contact hours per week (SWS)						240			
B4	W	Elective Module 1	2xxxx	Freely elective acc. Module Handbook	Prac	2	2		30	30	acc. Module Handbook
B5	W	Elective Module 2	2xxxx	Freely elective acc. Module Handbook	Prac	2	2		30	30	acc. Module Handbook
B6	W	Elective Module 3	2xxxx	Freely elective acc. Module Handbook	Prac	2	2		30	30	acc. Module Handbook
	W	Elective Module 4	2xxxx	Freely elective acc. Module Handbook	Prac	2	2		30	30	acc. Module Handbook
Thesis	B 6-100	Thesis	B 6-101	BA Thesis	Proj	18	3	540	45	495	WE, O
<b>Total</b>						<b>180</b>	<b>145</b>	<b>5.400</b>	<b>2.210</b>	<b>3.190</b>	

Proj... Project, L... Lecture, Prac... Practical, S... Seminar, WE... Written Exam, OE... Oral Exam, T... Test, P... Paper

## Master of Arts, Architecture | Building in Existing Structures (M.A. Architecture | Revitalization and Transformation)

Semester	Module	Subject	Course No.	Course	Method	Credits	Contact	Workload	PS	SS	Mode of Assessment
M1	M 1-100	Project M 1	M1-101	Revitalisation 1 - Project Analysis/Feasibility Study	P	6	3	180	45	135	WE, OE
	M 1-610	Project Management	M 1-611	Project Development	S	6	3	180	45	135	WE, project-integrated
	M 1-210	Transformation	M 1-200	Transformations	L+Prac	4	2	120	60	60	WE
	M 1-800	Methodology 1	M 1-801	Methods and Techniques	L+Prac	6	4	120	60	60	WE
			M 1-802	Monumental Topography	L+Prac		2	60	30	30	WE
	M 1-810	Methodology 2	M 1-811	Strategies in Historic Preservation	Prac	6	2	60	30	30	WE
			M 1-812	City Heritage Sites/Cultural Landscapes	L+Prac		4	120	60	60	WE
M2	M 2-100	Project M 1-2	M 2-101	Revitalisation 1 - Building in Existing Structures	P	12	6	360	90	270	SP, M
	M 2-700	Metamorphosis 1	M 2-701	Building Construction/Building Envelope	L+Prac	4	2	60	15	45	SP, projektintegriert
			M 2-702	Structural Design/Supporting Structures	L+Prac		2	60	15	45	SP, projektintegriert
	M 2-710	Metamorphosis 2	M 2-711	Material Science	S	4	2	120	60	60	WE
	M 2-500	Visualisation	M 2-501	Presentation	S	4	2	60	30	30	WE
M 2-502			Architectural Drawing	S		2	60	30	30	WE	
M3.1	M 3-100	Project M 3-1	M 3-100	Revitalisation 2 - Urban Restructuring	P	18	6	540	90	450	SP, M
	M 3-400	Urban Restructuring	M 3-401	Urban Restructuring	L+Prac		4	120	30	90	WE
			M 3-402	Urban Development	S	6	2	60	30	30	WE
M3.2	M 3-110	Project M 3-2	M 3-111	Revitalisation 3 - Reshaping	P	18	6	540	90	450	SP, M
	M 3-700	Metamorphosis 2	M 3-701	Energy-Conscious Design	S		2	180	30	60	SP, projektintegriert
			M 3-702	Architectural Design in Context	S	6	2	30	60	60	SP, projektintegriert
M1	E	Elective Module 5		Freely elective acc. Module Handbook			2	420	210	210	gem. Modulhandbuch
M2	E	Elective Module 6		Freely elective acc. Module Handbook			2				gem. Modulhandbuch
	E	Elective Module 7		Freely elective acc. Module Handbook			2				gem. Modulhandbuch
	E	Elective Module 8		Freely elective acc. Module Handbook			2				gem. Modulhandbuch
M3	E	Elective Module 9		Freely elective acc. Module Handbook			2				gem. Modulhandbuch
	E	Elective Module 10		Freely elective acc. Module Handbook			2				gem. Modulhandbuch
	E	Elective Module 11		Freely elective acc. Module Handbook			14	2			gem. Modulhandbuch
Thesis	M 4-100	Master semester	M 4-101	Master-Thesis	P	30	4	900	60	840	SP, M
<b>Summe</b>						<b>144</b>	<b>76</b>	<b>3.600</b>	<b>990</b>	<b>2.610</b>	

Proj... Project, L... Lecture, Prac... Practical, S... Seminar, WE... Written Exam, OE... Oral Exam, T... Test, P... Paper

**Programme Structure**  
**Bachelor of Architectur**

# Module Overview Bachelor of Architectur

## 1st Semester

- Orientation Phase
- Conveying the Fundamentals of Design

B1	Module	Subject	No.	Course	Prof.	Method	Credits	Contact	Workload	CNF	F	CNW			
80	B 1-100	Project 1	1101	Introduction to Architectural Design		S		6	240	1		0,400			
82						Scheffler									
84						Weber									
86															
88															
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188															
190															
192															
194															
196															
198															
200															
										30	26	900		1,113	

## 2nd Semester

- Introduction to the Project
- Introduction to Building Construction and Materials Science
- Introduction to Architectural History
- Advanced Principles of Visual Communication

B2	Module	Subject	No.	Course	Prof.	Method	Credits	Contact	Workload	CNF	F	CNW			
202	B 2-100	Project 2	2101	Structural Design		S		6	240	1		0,400			
204						Moest									
206						Wilking									
208															
210															
212															
214															
216															
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294															
296															
298															
300															
										30	27	900		1,070	

Bachelor 1

Bachelor 2

## Module Overview Bachelor of Architecture

### 3rd Semester

- Advanced Project Work
- Conveying the Principles of Urban Planning

B3	Module	Subject	No.	Course	Prof.	Method	Credits	Contact	Workload	CNW F	CNW				
30	B 3-100	Project 3	3101	Contextual Design		P		6	240	1	0,400				
60						Fritz									
90						Raff									
120						Rausch-									
150						Bahm									
180															
210	B 3-300	Building Construction 3	3301	Building Construction Reinforced Concrete Structures		V		8	4	180	0,5	0,033			
270						Fritz	S							0,5	0,133
300															
330															
360	B 3-310	Construction Technologies 2	3302	Structural Design (Reinforced Concrete)		V			2		0,5	0,017			
390						Wilking	Ü		6	2	120	1	0,033		
420															
450															
480	B 3-310	Construction Technologies 2	3311	Building Services, Room Climate Control Systems & Sustainability Room Climate Control Systems & Sustainability		Müller	V		2		1	0,033			
510															
540															
570															
600	B 3-200	Building Theory 1	3201	Building Theory		V			2	120	1	0,033			
630						NN	V			2				0,4	0,020
660															
690															
720	B 3-400	Architectural History 2	3401	Classical Modernism		V			2	120	1	0,033			
750						Dr. Hilpert									
780															
810															
840	B 3-500	Representation 3	3501	Computer-Aided Illustration		V			4		0,4	0,013			
870						Kieferle	Ü		4	2	120	0,5	0,017		
900															
			3502	Architectural Drawing		V			2		0,2	0,007			
				Architectural Drawing		Detl	S		4		0,8	0,107			
									30	28	900	1,080			

### 4th Semester

- Advanced Project Work
- Introduction to Construction Management

B4	Module	Subject	No.	Course	Prof.	Method	Credits	Contact	Workload	CNW F	CNW				
30	B 4-100	Project 4	4101	Morphogenetic Constructions		S		6	240	1	0,400				
60						Kieferle									
90															
120															
150															
180															
210	B 4-300	Building Construction 4	4301	Building Construction Steel Constructions Façade Systems		V		8	4	180	0,5	0,033			
270						Müller	S							0,5	0,133
300															
330															
360	B 4-310	Construction Technologies 2	4302	Structural Design (Steel)		V			2		0,5	0,017			
390						Wilking	Ü		6	2	120	0,5	0,050		
420															
450															
480	B 4-310	Construction Technologies 2	4311	Building Services Daylight - Artificial Light, Electrotechnical Systems		V			2	120	1	0,033			
510						Gall	V			2				1	0,033
540															
570															
600	B 4-600	BauManagement 1	4601	Cost-Effective Construction Planning		V			3	120	0,5	0,025			
630						Dr. Schütz	Ü							0,5	0,075
660															
690															
720	B 4-400	Architectural History 3	4401	Architectural History 1500-1900		V			2	180	1	0,033			
750						Dr. Nohlen									
780															
810															
840	W	Elective Module 1	4402	Fundamentals of Historic Preservation		V			3		0,5	0,025			
870						Dr. Nohlen	Ü							0,5	0,075
900															
									6						
									2	2	60	1	0,100		
									30	26	900	1,033			

## Module Overview Bachelor of Architecture

### 5th Semester

- Completion of Project
- Completion of Construction Teaching

B5	Module	Subject	No.	Course	Prof.	Method	Credits	Contact	Workload	CNW F	CNW			
30	B 5-100	Project 5	5101	Spatial Design		P		6	240	1	0,400			
60						Weber								
90														
120														
150														
180														
210														
240														
270														
300					5102	Interior Design	Weber	Ü				2	120	0,6
330										0,4	0,040			
360														
390	B 5-300	Building Construction 5	5301	Construction with Prefabricated Elements Building with Systems	Raff	V		4	240	0,25	0,017			
420						S								
450														
480														
510			5302	High-Rise Construction Processes	Schütz	V		3		0,25	0,013			
540						Ü				0,75	0,113			
570														
600														
630	B 5-200	Building Theory 2	5201	Building Theory Public Structures	Hoensle	V		2	120	1	0,033			
660														
690					5202	Urban Planning Rural/Urban Space	Scheffler	V				2		
720								Ü				4		
750	B 5-400	Architectural History 4	5401	Architectural History 400 BCE-1500	Dr. Nohlen	V		2	120	1	0,033			
780														
810					5402	Fundamentals of Historic Preservation	Dr. Nohlen	V				2		
840								Ü				4		
870	W	Elective Module 2						2	2	1	0,100			
900												60		
							30	25	900	1,002				

### 6th Semester

- Bachelor's Thesis
- Preparing for the Practical Phase

B6	Module	Subject	No.	Course	Prof.	Method	Credits	Contact	Workload	CNW F	CNW						
30	B 6-100	Thesis	9000	Bachelor-Thesis		S		1	180	1	0,067						
60						NN											
90																	
120																	
150																	
180																	
210																	
240																	
270																	
300																	
330																	
360																	
390																	
420																	
450																	
480																	
510																	
540																	
570	B 6-600	Construction Management 3	6601	Preparing for the Professional Practice	Dr. Schütz	V		2	120	0,5	0,017						
600						Ü											
630										0,5	0,050						
660																	
690	B 6-500	Representation 4	6501	Presentation Techniques Rhetoric	Sz	V		2	120	0,5	0,017						
720						Ü											
750					6502	Computer-Aided Illustration Simulation	Kieferle	V				2		0,5	0,017		
780								Ü				4		0,5	0,050		
810	W	Elective Module 3 + 4						2	120	1	0,100						
840																	
870	W	Elective Module 3 + 4						2	120	1	0,100						
900																	
							30	13	900	0,617							



<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 1-100****Project 1**

Design Teaching, Project

Prof. Dipl.-Ing. Günter Weber

Prof. Dipl.-Ing. Ernst Ulrich Scheffler, Prof. Dipl.-Ing. Günter Weber

Summer Semester and Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 1-101 Introduction to Architectural design

B 1-102 Fundamentals of Architectural design

Students acquire the ability to perceive the material and spatial world of objects in relation to partitioning elements and the ability to represent these using drawings and models.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Written Work ( Drawings, Models )

12

8

360 hours

1st Semester

<b>Course</b>	<b>B 1-101</b>
<b>Title</b>	<b>Introduction to Architectural Design</b>
<b>Subject</b>	Design Teaching, Project
<b>Responsible</b>	Prof. Dipl.-Ing. Günter Weber
<b>Lecturers</b>	Prof. Dipl.-Ing. Ernst Ulrich Scheffler, Prof. Dipl.-Ing. Günter Weber
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Introduce Architectural design Practise the basic techniques: thinking and drawing, building models Link form, material, construction
<b>Content</b>	Small, thematically related tasks of increasing difficulty including designing interior spaces and furnishing them.
<b>Method</b>	Seminars, individual tuition, presentations
<b>Mode of Assessment</b>	Written Work ( drawings, models )
<b>ECTS Credits</b>	8
<b>Contact Hours per Week</b>	6
<b>Workload</b>	240 hours; group work approx. 90 hours; private study approx. 150 hours
<b>Schedule</b>	1st Semester
<b>Comments</b>	

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 1 - 102****Fundamentals of Architectural Design**

Design Teaching, Project

Prof. Dipl.-Ing. Günter Weber

Prof. Dipl.-Ing. Günter Weber

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Debate the contentual, formal and theoretical aspects of architecture. Acquire the principles of design and classification. Ability to consider things analytically in conjunction with skilled assessment of the functional and spatial aspects of architectural design. Learn teamwork and presentation techniques.

Treatment of perception systems. Introduction to the theory of the architectural space incl. classifying its constituent factors. Considering classification principles using examples from architectural history and contemporary architecture. Treatment of analysis and presentation methods as the basis for the design work. Incorporating architecture into ecological and sociological problem-solving.

Lectures, Group Work

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>

Oral Examination

4

2

120 hours, Lectures 30 hours, private study 90 hours

1st Semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 1-300**  
**Building Construction 1**  
 Construction / Technology / Realisation  
 Prof. Dipl.-Ing. Walter Wilking  
 Prof. Dipl.-Ing. Walter Wilking  
 Summer Semester and Winter Semester  
 1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B1-301 Building Construction and Structural Design - Fundamentals  
 B 1-302 Materials Science - Traditional Materials

Students are taught the fundamental criteria of building construction. They experience the complex interplay of the fundamentals of structure and materials.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Test, Written Work ( course-related exercises, class exercises )  
 6  
 4  
 120 hours  
 1st Semester

<b>Course</b>	<b>B 1-301</b>
<b>Title</b>	<b>Building Construction and Structural Design - Fundamentals</b>
<b>Subject</b>	Construction / Technology / Realisation
<b>Responsible</b>	Prof. Dipl.-Ing. Walter Wilking
<b>Lecturers</b>	Prof. Dipl.-Ing. Walter Wilking
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Learn the basic interrelationships between building materials and their function in relation to construction. Grasp the fundamentals of structural design.
<b>Content</b>	Convey the basic knowledge of building construction: what are foundations, walls, ceilings, facades, roofs etc.; what significance does the material have with its physical characteristics in relation to the architectural space that is to be constructed with it. Static systems, types of loads, supporting forces, stress resultants, bending moments, pressures, strains - a general understanding of all these terms without laborious calculation methods.
<b>Method</b>	Lectures, Practicals
<b>Mode of Assessment</b>	Written Work ( course-related exercises, class exercise )
<b>ECTS Credits</b>	3
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours; Lectures approx. 30 hours, private study for Practicals approx. 30 hours
<b>Schedule</b>	1st Semester
<b>Comments</b>	

<b>Course</b>	<b>B 1-302</b>
<b>Title</b>	<b>Materials Science - Traditional Materials</b>
<b>Subject</b>	Construction / Technology / Realisation
<b>Responsible</b>	Prof. Dipl.-Ing. Andreas Fuchs
<b>Lecturers</b>	Prof. Dipl.-Ing. Andreas Fuchs
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Learn about traditional building materials and their modern advancements, typical joining technologies, physical and technical features, colours and surfaces, cost-effectiveness
<b>Content</b>	<ul style="list-style-type: none"> <li>• Ceramic materials, fine and heavy ceramics ( bricks, roof tiles, paving, tiling )</li> <li>• Structural glass ( types of glass, functional glass, glazing technology )</li> <li>• Wood, timber materials</li> <li>• Iron and steel ( products, commercial forms )</li> <li>• Non-ferrous metals</li> </ul>
<b>Method</b>	Lectures, Class Exercises
<b>Mode of Assessment</b>	Test
<b>ECTS Credits</b>	3
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours; Lectures approx. 30 hours; preparation for class exercises approx. 30 hours
<b>Schedule</b>	1st Semester
<b>Comments</b>	

<b>Module</b>	<b>B 1-500</b>
<b>Title</b>	<b>Representation 1</b>
<b>Subject</b>	Artistic Principles / Architectural representation / Presentation
<b>Responsible</b>	Prof. Dipl.-Ing. Rudolf Deil, Prof. Dipl.-Ing. Joachim Kieferle
<b>Lecturers</b>	Prof. Dipl.-Ing. Rudolf Deil, Prof. Dipl.-Ing. Joachim Kieferle, Dipl.-Ing. ( FH ) Michael Traut
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester

<b>Courses</b>	B 1-501 Geometry for Architectural Illustration B 1-502 Fundamentals of Visual Communication - Lines and Planes B 1-503 Computer-Aided Illustration
<b>Learning Outcomes</b>	Students acquire the methodological expertise of the architect with regard to the artistic, representational and creative fundamentals of the profession. They are taught the skills required for both analogue and digital media. They also acquire the fundamentals of the required architecture-specific perception.

<b>Mode of Assessment</b>	Written Work
<b>ECTS Credits</b>	14
<b>Contact Hours per Week</b>	14
<b>Total Workload</b>	420 hours
<b>Schedule</b>	1st Semester

<b>Course</b>	<b>B 1-501</b>
<b>Title</b>	<b>Geometry for Architectural Illustration</b>
<b>Subject</b>	Artistic Principles / Architectural Representation / Presentation
<b>Responsible</b>	Prof. Dipl.-Ing. Joachim Kieferle
<b>Lecturers</b>	Dipl.-Ing. ( FH ) Michael Traut
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Master the basic geometric operations for object and spatial representation. Develop the spatial sense. The competence focuses are getting to know and using geometric bodies in designed images with spatial interrelationships in linked architectural representation.
<b>Content</b>	Learn and use basic geometric constructions, types of Projection for geometric bodies with representation-specific content and methods for the plane of Projection of object and spatial representation. Discussion of fundamental content to introduce teaching of perspective. Learn the spatial interrelationships in architecture with linked lines and with the means and methods of plasticity elucidation of the object ( shadow construction )
<b>Method</b>	Lectures, Practicals ( individually and in small groups )
<b>Mode of Assessment</b>	Written Work ( class exercise, portfolio )
<b>ECTS Credits</b>	6
<b>Contact Hours per Week</b>	6
<b>Workload</b>	180 hours, Lectures 90 hours, private study 90 hours
<b>Schedule</b>	1st Semester
<b>Comments</b>	



<b>Course</b>	<b>B 1-502</b>
<b>Title</b>	<b>Fundamentals of Visual Communication - Lines and Planes</b>
<b>Subject</b>	Artistic Principles / Architectural Representation / Presentation
<b>Responsible</b>	Prof. Dipl.-Ing. Rudolf Deil
<b>Lecturers</b>	Prof. Dipl.-Ing. Rudolf Deil
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Discuss issues of visual presentation and communication for meaning, forms of appearance and effects. Ability to develop the vision and communication of the artistic in art and architecture / design. Getting to know and using the fundamental artistic means and methods depending on tools and materials.
<b>Content</b>	Conveying knowledge, ability and skill in the basic course content of artistic perception and communication: the variety and function of luminance values, graphical traces with classification principles ( point - line - plane ) and connection trends incorporating colour. Appearance of surface qualities ( material - texture - structure ).
<b>Method</b>	Introductory Lectures for Practicals, Practicals, commentary on selected student papers, day excursion
<b>Mode of Assessment</b>	Written Work ( audited collection of work, exercises, class exercise )
<b>ECTS Credits</b>	4
<b>Contact Hours per Week</b>	4
<b>Workload</b>	120 working hours; short Lectures approx. 15 hours, Practicals 80 hours, follow-up with tuition and presentation 25 hours
<b>Schedule</b>	1st Semester
<b>Comments</b>	

<b>Course</b>	<b>B 1-503</b>
<b>Title</b>	<b>Computer-Aided Illustration</b>
<b>Subject</b>	Artistic Principles / Architectural Representation / Presentation
<b>Responsible</b>	Prof. Dipl.-Ing. Joachim Kieferle
<b>Lecturers</b>	Prof. Dipl.-Ing. Joachim Kieferle
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Learn basic design principles in picture editing, typography, layout and video for online and offline presentation of Projects or written work. Critical ability concerning digital tools in architecture. Learn about typical software.
<b>Content</b>	<ul style="list-style-type: none"> <li>• Picture editing, design principles and introduction to typical software ( e.g. Photoshop )</li> <li>• Typography and illustration, design principles and introduction to typical software ( e.g. Illustrator )</li> <li>• Layout, design principles and introduction to typical software ( e.g. InDesign )</li> <li>• Video editing, design principles and introduction to typical software ( e.g. Premiere )</li> </ul>
<b>Method</b>	Lectures, Practicals
<b>Mode of Assessment</b>	Written work ( course-related exercises )
<b>ECTS Credits</b>	4
<b>Contact Hours per Week</b>	4
<b>Workload</b>	120 hours, Lectures 60 hours, Practicals 60 hours
<b>Schedule</b>	1st Semester
<b>Comments</b>	

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-100**  
**Project 2**  
 Design Teaching, Project  
 Prof. Dipl.-Ing. Norbert Moest  
 Prof. Dipl.-Ing. Norbert Moest, Prof. Dipl.-Ing. Walter Wilking, N.N.  
 Summer Semester and Winter Semester  
 1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 2-101 Project - Structure, Addition, Sequence  
 Students learn the specific typological features and the functional interrelationships of context, construction and structure. They analyse designs and learn the interrelationships between building structure and materialisation. The module is closely linked to module B 2-300 Building Construction 2 in terms of content.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work  
 8  
 6  
 240 hours  
 2nd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-101**  
**Project - Structure, Addition, Sequence**  
 Design Teaching, Project  
 Prof. Dipl.-Ing. Norbert Moest  
 Prof. Dipl.-Ing. Norbert Moest, tbc, Prof. Dipl.-Ing. Walter Wilking  
 Summer Semester and Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Project 2 is the first complex assignment of the Architecture course. Students must demonstrate that they can understand a topic, put it into context and realise it in a functional or architectural design. They must constructively utilise the spatial design ideas, specify the materials and demonstrate and realise the technical design possibilities.

Timber construction is the focus of the design. Substantial parts of the building must be designed using this renewable and recyclable material. Construction appropriate to the design ( framing, Brettstapel or frame construction method ... ), and sensible use of the extensive range of products, is an essential part of the design exercise. The following topics should be the focus of the set task:

- Dialogue between the outer and inner space
- Building with wood
- Construction and materiality
- Rooms versus access areas
- Light as a resource of spatial staging

Project work in seminar form

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work, Papers ( design plans and models, presentation )  
 8  
 6  
 240 hours; 90 hours of group work and individual tuition; 150 hours of private study on plans and models  
 2nd Semester  
 Requirement: completed Project 1 ( module B 1-100 )

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-300**  
**Building Construction 2**  
 Construction / Technology / Realisation  
 Prof. Dipl.-Ing. Norbert Moest  
 Prof. Dipl.-Ing. Norbert Moest, Prof. Dipl.-Ing. Walter Wilking  
 Summer Semester and Winter Semester  
 1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 2-301 Building Construction - Timber Constructions, Suitable Roofs  
 B 2-302 Structural Design ( Timber )  
 Timber Construction 2 is offered in conjunction with Project 2. Design, materialisation and dimensioning of simple structures is combined with the basic design method of the structure, addition and sequence.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written work  
 6  
 6  
 180 hours  
 2nd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-301**  
**Building Construction - Timber Constructions, Suitable Roofs**  
 Construction / Technology / Realisation  
 Prof. Dipl.-Ing. Norbert Moest  
 Prof. Dipl.-Ing. Norbert Moest  
 Summer Semester and Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Building Construction introduces the principles of building and demonstrates that realisation of a design idea, of the artistic concept, of the architectural design is only achieved through constructive development. Building is the verification of the artistic concept using craftsmanship or industrial means, the specification of the materials and not least the production, assembly and transport technology, and economy.

The start of this discussion will be limited to wood as a material. Wood demonstrates like no other material the interrelationship of characteristic and construction and as a natural material can be used in the most diverse ways thanks to its inner structure. Wood in its predominantly linear finish produces simplicity and clarity. Even when the traditional methods and connections are replaced by "engineered" designs and the layered bonding of panels facilitates new support dimensions, wood demonstrates more clearly than any other material the principles of support and construction systems.

Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( Project-integrated exercises using plans and models )  
 4  
 4  
 120 hours, Lectures 30 hours; Practicals 90 hours  
 2nd Semester  
 Linked to the content of Structural Design ( Timber )

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-302**  
**Structural Design ( Timber )**  
 Construction / Technology / Realisation  
 Prof. Dipl.-Ing. Walter Wilking  
 Prof. Dipl.-Ing. Walter Wilking  
 Summer Semester and Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Use of structural design  
 Calculating in wood: permissible forces, simple static systems, braced systems, strutted frames, trussed beams, fasteners.  
 Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( calculation example work on Project )  
 2  
 2  
 60 hours: Lectures 30 hours; Practicals and follow-up 30 hours  
 2nd Semester  
 Integration in module B 2-100

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-310**  
**Construction Technologies 1**  
 Construction / Technology / Realisation  
 Prof. Dipl.-Ing. Andreas Fuchs, Prof. Dr.-Ing. Ulrich Schütz  
 Prof. Dipl.-Ing. Andreas Fuchs, Prof. Dr.-Ing. Ulrich Schütz  
 Summer Semester and Winter Semester  
 1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 2-311 Building Services - Sanitation and Heating Systems  
 B 2-312 Materials Science - Complex Materials - EnEV  
 The module introduces the fundamentals of building services and advanced materials science. Students acquire the ability to use and analyse classic ( literature research ) and digital ( e.g. Internet ) information about products and systems and learn about the latest technologies in this context.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Test, Written Work  
 4  
 4  
 120 hours  
 2nd Semester



<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-311**  
**Building Services - Sanitation and Heating Systems**

Construction / Technology / Realisation

Prof. Dr.-Ing. Ulrich Schütz

Prof. Dr.-Ing. Ulrich Schütz

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Introduction to building services planning. Students acquire the expertise to have a meaningful and competent dialogue with engineers. The course gives an overview, explains the significance and context of building services as a whole and provides an in-depth look at some trades ( see below )  
 The Building Services Room Climate Control Systems & Sustainability - EnEV course builds on this course.

The Building Services Daylight Electrotechnical Systems course focuses on light planning and the fundamentals of the electrotechnical trades.

- Overview of all building services trades
- Explaining the cooperation between architect and engineer
- Guidance on the build sequence and coordination with building construction
- Building services development
- Trades:           Sewage  
                      Water  
                      Heating

Lectures

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Test

2

2

60 hours, Lectures 30 hours, follow-up for tests 30 hours

2nd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-312**  
**Materials Science - Complex Materials**  
 Construction / Technology / Realisation  
 Prof. Dipl.-Ing. Andreas Fuchs  
 Prof. Dipl.-Ing. Andreas Fuchs  
 Summer Semester and Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

The course facilitates orientation through the complex materials market. Students debate selection criteria and gain the terminology that is essential for communication with experts.

- Minерally bound materials ( stone, mortar, plaster, screed )
- Concrete
- Insulation
- Plastics
- Coating materials

Lectures

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Test  
 2  
 2  
 60 hours; Lectures 30 hours, follow-up, class exercises 30 hours  
 2nd Semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-400**  
**Architectural History 1**  
 Architectural History / Design Theory  
 Prof. Dr. habil. Dipl.-Ing. Thilo Hilpert  
 Prof. Dr. habil. Dipl.-Ing. Thilo Hilpert  
 Summer Semester and Winter Semester  
 1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 2-401 Post-War Modernism  
 B 2-402 Sociology of Architecture  
 Students acquire a critical awareness of architecture and the societal-sociological background. The review of architectural history begins in the Second Modernity and looks backwards. Students are made aware of social science themes and recognise their embeddedness in architecture and urban planning in the contemporary and historical context.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work and Papers  
 4  
 4  
 120 hours  
 2nd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-401**  
**Post-War Modernism**  
 Architectural History / Design Theory  
 Prof. Dr. habil. Dipl.-Ing. Thilo Hilpert  
 Prof. Dr. habil. Dipl.-Ing. Thilo Hilpert  
 Summer Semester and Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Orientative knowledge to understand architectural development in the 20th century.

- Methods of building documentation as a basis for evaluating buildings post-1945
- Phases of rebuilding ( 1948 - 1980 )
- Trends of the Second Modernity

Lectures with Seminars

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work and Papers ( building documentation or class exercise )  
 2  
 2  
 60 hours; Lectures 30 hours; building documentation, papers and follow-up 30 hours  
 2nd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-402**  
**Sociology of Architecture**  
 Architectural History / Design Theory  
 Prof. Dr. habil. Dipl.-Ing. Thilo Hilpert  
 Prof. Dr. habil. Dipl.-Ing. Thilo Hilpert  
 Summer Semester and Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Fundamentals of sociological effects on architecture.

**Historical level:** social change ( urban development? How do buildings, facilities change, in the course of the process of civilisation? What effects do the process of hygienising and restructuring have on increasingly capitalistic societal modes of operation? How can the interaction between culture and specific lifestyles be understood? Why are there specific epochs of art and architecture in this regard and which ones? ) **Micro level:** spatial structures and social behaviour ( how do people portray themselves through buildings? What do colours have to do with the people's identity? What effects does the limitation of spaces have on human behaviour? What does the history of the private life have to do with a limitation on spatial structures? What effects does space have on human behaviour? )  
**Macro level:** characteristics of social structure and social imbalances in living / the urban structure / the housing ( milieus / strata / lifestyles / social structure? ) Are there styles of living that can be assigned to a population stratum? What influence does social position have on living? Different rural - urban lifestyles? How can ghetto formation be avoided by architectural means?

Lectures and Papers

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work, Papers  
 2  
 2  
 60 hours, Lectures 30 hours, preparation for paper, presentation 30 hours  
 2nd Semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-500**  
**Representation 2**  
 Artistic Principles / Architectural Representation / Presentation  
 Prof. Dipl.-Ing. Rudolf Deil, Prof. Dipl.-Ing. Johannes Fritz  
 Prof. Dipl.-Ing. Rudolf Deil, Prof. Dipl.-Ing. Johannes Fritz  
 Summer Semester and Winter Semester  
 1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 2-501 Fundamentals of Visual Communication - Object and Architecture  
 B 2-502 CAD - Fundamentals of Technical Representation / Plan Graphics  
 Continues and deepens the aims of module B 1-500 Representation 1.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work  
 8  
 7  
 240 hours  
 2nd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-501**  
**Fundamentals of Visual Communication - Object and Architecture**  
 Artistic Principles / Architectural Representation / Presentation  
 Prof. Dipl.-Ing. Rudolf Deil  
 Prof. Dipl.-Ing. Rudolf Deil  
 Summer Semester and Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Perceive, analyse and present graphically the differentiation and diversity of the artistic and spatial forms of appearance of object and architecture. Practise and learn how to add and delete design elements using artistic and graphic representation with technical and graphical techniques.  
 Colour representation by testing and discovering colour gradient qualities on object and architecture based on interpretations of image interference; supplementing and transforming with technical methods and techniques. Sketch notations of space-forming design elements in sequences, reduction and abstraction in general and in architecture.  
 Short Lectures, Practicals, commentary on practical examples

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( audited collection of work from class and home exercises, class practical )  
 4  
 3  
 120 hours; Lectures approx. 15 hours, Practicals approx. 80 hours, follow-up and presentation 25 hours  
 2nd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 2-502**

**CAD - Fundamentals**

Technical Representation / Fundamentals of Artistic Plan Graphics / Architectural Representation / Presentation

Prof. Dipl.-Ing. Johannes Fritz

Prof. Dipl.-Ing. Johannes Fritz

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Development of computer-aided architectural drawing and the relevant basic knowledge of the technical plan and representation methods. Students will learn how the creative is part of an architect's mode of working through independent practical exercises and applications in the Project.

Introduction to computer-aided drawing with the AutoCAD programme. Methodology of entering two-dimensional drawing data. Dealing with types of lines, editing techniques, block technique, layer technique. Drawing simple plans with hatching, dimensioning and labelling, taking into account the representation rules specific to plans and architecture.

Lectures and Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written work ( course-related exercises )

4

4

120 hours; Lectures approx. 60 hours, Practicals approx. 60 hours

2nd Semester



<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 3-100**

### **Project 3**

Design Teaching, Project

Prof. Dipl.-Ing. Volker Kleinekort

Prof. Dipl.-Ing. Fritz, Prof. Dipl.-Ing. Kieferle, Prof. Dipl.-Ing. Kleinekort

Summer Semester and Winter Semester

1st Semester

<b>Courses</b>
<b>Learning Outcomes</b>

#### B 3-101 Project - Contextual Urban Design

Students will be able to recognise the complex interrelationships between the social, built and economic environment on an urban scale from the architecture of the individual object, and to realise the acquired knowledge in their own designs. The module is closely linked to module B 3-200 Building Theory 1 and integrates the content of courses B 3-201 Building Theory

1 Living and Working, B 3-202 Urban Planning, and the content of the courses of module B 3-300 Construction 3.

Linking the content of the aforementioned modules enables students to practise methodical application of the processes of design, urban design, constructive realisation and structural derivation. The budding architects acquire the expertise to work on an interdisciplinary basis.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Written Work

8

6

240 hours

3rd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 3-101**

### **Project - Contextual Urban Design**

Design Theory, Project Module

Prof. Dipl.-Ing. Volker Kleinekort

Prof. Dipl.-Ing. Fritz, Prof. Dipl.-Ing. Kieferle, Prof. Dipl.-Ing. Kleinekort

Summer Semester and Winter Semester

1st Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Develop and prepare a design concept in an urban context with analysis in advance of the existing situation and showing the development potentials for urban quarters through planning.

The constructive focus is based on the teaching content of the subject building construction - solid structures in masonry and concrete. Aspects of living are considered from a building theory perspective in a medium-level urban context. Presentation of the design concept in the form of appropriate graphic plans and demonstrative models forms a further focus of this Project work.

Group Work

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( plans and models, presentation )

8

6

240 hours; 90 hours of group work and individual tuition, 150 hours private study on plans and models

3rd Semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 3-200**

**Building Theory 1**

Building Theory / Architectural Design / Urban Design

Prof. Dipl.-Ing. Günter Weber

Prof. Dipl.-Ing. Volker Kleinekort

Summer Semester and Winter Semester

1 Semester

<b>Courses</b>
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B 3-201 Building Theory 1 - Living and Working

B 3-202 Urban Planning - Fundamentals and Future Tasks of Urban Planning

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>

Written Work and Papers

4

4

120 hours

3rd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 3-201**

### **Building Theory 1 - Living and Working**

Building Theory / Architectural Design / Urban Design

Prof. Dipl.-Ing. Volker Kleinekort

Prof. Dipl.-Ing. Volker Kleinekort

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Get to know different typologies in the field of residential and office building. Understand the congruence between usage and structural design. Acquire basic pragmatic knowledge combined with spatial and sociological aspects.

Typological and analytical consideration of various construction tasks using prominent architectural examples. Convey the legalities of building typology.  
Development and building ground plan.  
Type and variation.  
Partial and complete.

Lectures, Group Work

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Paper with Written Work

2

2

60 hours, Lectures 30 hours, preparation for paper 30 hours

3rd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 3-202**  
**Urban Planning - Fundamentals and Future Tasks of Urban Planning**  
 Building Theory / Architectural Design / Urban Design  
 Prof. Dipl.-Ing. Volker Kleinekort  
 Dipl.-Ing. Stefan Rausch-Böhm  
 Summer Semester and Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Convey the fundamentals of urban planning and technical tools, and introduce the fields of activity in urban planning and urban design.

Zoning and structural planning, forms of urban grouping, theory of the public space, micro areas and living environment, future tasks: cities and globalisation.

Urban history and settlement development, city models, economic fundamentals of urban planning, urban sociology, urban development planning, urban space and design, zoning and development planning, planning methodology

Theories and changing tasks in urban planning

Planning, mediation and moderation processes, technique of plan representation and presentation, and communication

Lectures and course-related exercises

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written work, Paper ( practical + presentation )

2

2

60 hours; Lectures 30 hours, Practicals 30 hours

3rd Semester

The content of Practicals is coordinated with Project B 3-101 Project - Contextual Urban Design.

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 3-300**

### **Building Construction 3**

Construction / Technology / Realisation

Prof. Dipl.-Ing. Johannes Fritz, Prof. Dipl.-Ing. Walter Wilking

Prof. Dipl.-Ing. Johannes Fritz, Prof. Dipl.-Ing. Walter Wilking

Summer Semester and Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 3-301 Building Construction - Solid Structures

B 3-302 Structural Design ( Solid Structures )

The module is closely linked to Project B 3-100 Project 3 and has the same learning outcomes.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>

Written Work

6

6

180 hours

3rd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

### **B 3-301**

#### **Building Construction - Solid Structures**

Construction / Technology / Realisation

Prof. Dipl.-Ing. Johannes Fritz

Prof. Dipl.-Ing. Johannes Fritz

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Get to know complex constructive interactions, particularly the varied requirements of material, construction and form. Develop basic knowledge for planning a solid structure from the foundation to the flat roof. Basic understanding of integrated constructive design and detailed planning appropriate to the materials.

Explain the overriding logic and the solid structure and its possibilities compared to other forms of construction, consider interactions between material, construction and form using examples from nature, construction and model tests.

Masonry from natural and artificial stone, comparative analysis of historical and modern forms of stonework and masonry with consideration of visual, economic and ecological aspects. Window and door openings, lintels, moisture damping and heat insulation, types of mortar and plaster, lightwells, drainage systems.

Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( Project-integrated exercises using plans and models )

4

4

120 hours; Lectures 60 hours, Practicals and preparation for test 90 hours

3rd semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 3-302**

**Structural Design ( Solid Structures )**

Construction / Technology / Realisation

Prof. Dipl.-Ing. Walter Wilking

Prof. Dipl.-Ing. Walter Wilking

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Understand the load-bearing behaviour of solid structures and reinforced concrete methods

Effectiveness of the materials in reinforced concrete with regard to load-bearing behaviour, calculation of supporting structures made from reinforced concrete, girders, ceilings, walls, shells, reinforcement layout, significance of the construction height ( static effective height ), principles of bracing

Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( calculation example on Project )

2

2

60 hours: Lectures 30 hours, Practicals 30 hours

3rd Semester



<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 3-310**

**Construction Technologies 2**

Construction / Technology / Realisation

Prof. Dipl.-Ing. Norbert Moest, Prof. Dipl.-Ing. Dieter Müller

Prof. Dipl.-Ing. Norbert Moest, Prof. Dipl.-Ing. Dieter Müller

Summer Semester and Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 3-311 Building Services, Room Climate Control Systems & Sustainability

B 3-312 Construction Physics and Energy Efficiency Standards

Master the fundamental construction physics, spatial-physiological and technical construction knowledge and the effects of the design and construction process. The aim of the module is to recognise and understand the building services and the interplay with other planning disciplines and to use the latest, energy-optimised technologies. At the same time, students will acquire the professional expertise for critical dialogue with other participants in building services planning.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>

Written Work

4

4

120 hours

3rd Semester

<b>Course</b>	<b>B 3-311</b>
<b>Title</b>	<b>Building Services, Room Climate Control Systems &amp; Sustainability</b>
<b>Subject</b>	Construction / Technology / Realisation
<b>Responsible</b>	Prof. Dipl.-Ing. Dieter Müller
<b>Lecturers</b>	Prof. Dipl.-Ing. Dieter Müller
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Interactive building technology
<b>Content</b>	Living and spatial physiology, fundamentals of heat/cold balance of buildings, complex heating systems, ventilation systems, constructive/system-integrated ventilation systems, air conditioning, structural interactions, routeing and spatial planning of building services, regenerative energy systems, DIN 4701, EnEV, DIN 4108 T 1-10
<b>Method</b>	Lectures, Practicals
<b>Mode of Assessment</b>	Written Work
<b>ECTS Credits</b>	2
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours; Lectures 30 hours, preparation for test 30 hours
<b>Schedule</b>	3rd Semester
<b>Comments</b>	Students must be familiar with the fundamentals of building services from module B 2-311 Basic Systems. The module is offered together with B 3-312 Construction Physics and Energy Efficiency Standards.

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 3-312**  
**Construction Physics and Energy Efficiency Standards**

Construction / Technology / Realisation

Prof. Dipl.-Ing. Norbert Moest

Prof. Dipl.-Ing. Norbert Moest

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Construction physics is the mathematic-scientific basis of building construction theory. Students must learn a few physical laws so that they are able to construct the different components like external walls, roofs, ... "correctly". These fundamental principles determine the design structure of the components and provide students with the ability to design a building.

The first aim of the lecture is to convey the principles of construction physics for building and insulation materials, so that students are able to calculate and assess the thermal protection effect of the most important components ( ground slab, exterior wall, window, roof, ceiling ).

Calculating the heat transfer coefficients is an essential part of this. ( U-value ), which is practised on numerous examples.

An additional aim of the course is to convey basic knowledge to enable independent compilation of the documentation showing the annual primary energy requirement. DIN 4108 Thermal Insulation in "High-Rise Buildings" from 1981 is an available tool in the construction physics context, plus the Energy Saving Ordinance ( EnEV ) of 2007.

Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Test

2

2

60 hours; Lectures 30 hours; Practicals 15 hours, exam preparation 15 hours

3rd Semester

Cross-references to B 3-311 Building Services, Room Climate Control Systems & Sustainability

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 3-400**  
**Architectural History 2**  
 Architectural History / Design Theory  
 Prof. Dr. habil. Dipl.-Ing. Thilo Hilpert  
 Prof. Dr. habil. Dipl.-Ing. Thilo Hilpert  
 Summer Semester and Winter Semester  
 1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 3-401 Classic Modernism  
 B 3-402 Design Principles of Classic Modernism  
 Continue and deepen the basics from module B 2-400 Architectural History 1 and the methodology of the design principles.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>

Written Work  
 4  
 4  
 120 hours  
 3rd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 3-401**

### **Classic Modernism**

Architectural History / Design Theory

Prof. Dr. habil Dipl.-Ing. Thilo Hilpert

Prof. Dr. habil Dipl.-Ing. Thilo Hilpert

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Main features of the architecture of Classic Modernism and important key works.

- Methods of building description ( in text and drawings )
- Modernism between 1920 and 1930 ( with works by Gropius, Le Corbusier, Mies van der Rohe etc. ) as a starting point of architectural development
- Analysis and representation ( group work ) of a selected building

Lectures with Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( building description, sketchbook, class exercise )

2

2

60 hours; Lectures 30 hours; building description 20 hours; sketchbook and follow-up 10 hours

3rd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 3-402**

### **Design Principles of Classic Modernism**

Architectural History / Design Theory

Prof. Dr. habil Dipl.-Ing. Thilo Hilpert

Prof. Dr. habil Dipl.-Ing. Thilo Hilpert

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Convey design principles on different levels - analytical appraisal and communication.

- Sketches of examples of Classic Modernism
- Practicals: notation of bodies and spaces.
- Field study: appraise architectural masterpieces ( e.g. Bauhaus Dessau, Place Stanislas Nancy, Poelzig Hochhaus Frankfurt am Main )

Individual and group exercises with Lectures

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( field study, exercises )

2

2

60 hours; Lectures 30 hours, Practicals, drawings 30 hours

3rd Semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 3-500**

### **Representation 3**

Artistic Principles / Architectural Representation / Presentation

Prof. Dipl.-Ing. Rudolf Deil, Prof. Dipl.-Ing. Joachim Kieferle

Prof. Dipl.-Ing. Rudolf Deil, Prof. Dipl.-Ing. Joachim Kieferle

Summer Semester and Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 3-501 Computer-Aided Illustration - Animation

B 3-502 Architectural Drawing

Continuation of module B 2-500 Representation 2. Advanced knowledge of analogue and digital representation techniques on the three-dimensional object and space ( real and virtual space ).

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work

4

3

120 hours

3rd Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 3-501**

### **Computer-Aided Illustration - Animation**

Artistic Principles / Architectural Representation / Presentation

Prof. Dipl.-Ing. Joachim Kieferle

Prof. Dipl.-Ing. Joachim Kieferle

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

3D visualisation and 3D animation in architectural design. Use of 3D techniques in the design process for design, inspection and communication. Learn about the necessary software.

3Da animation ( software e.g. 3D-Studio MAX ) plus virtual reality and augmented reality ( software e.g. COVISE )

Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( presentation Project )

2

2

60 hours, Lectures 30 hours; Practicals 30 hours

3rd Semester



<b>Course</b>	<b>B 3-502</b>
<b>Title</b>	<b>Architectural Drawing</b>
<b>Subject</b>	Artistic Principles / Architectural Representation / Presentation
<b>Responsible</b>	Prof. Dipl.-Ing. Rudolf Deil
<b>Lecturers</b>	Prof. Dipl.-Ing. Rudolf Deil
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Deepen abilities and skills of artistic and graphic representation. Tackle vision and visualisation with freehand graphic tools and methods of design statement in architecture, in the interior and exterior space of objects.
<b>Content</b>	Judgemental and rough sketch interpretations of the object in large and small scale on the architectural level and detailed definition of design statements with artistic techniques.
<b>Method</b>	Short Lectures / seminars, drawing excursion lasting several days
<b>Mode of Assessment</b>	Written Work ( collection of work; participation in seminars and excursion )
<b>ECTS Credits</b>	2
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours; Lectures 30 hours, Practicals 30 hours
<b>Schedule</b>	3rd Semester block week
<b>Comments</b>	

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 4-100**

### **Project 4**

Design Theory / Project Module

Prof. Dipl.-Ing. Dieter Müller

Prof. Dipl.-Ing. Dieter Müller, Prof. Dipl.-Ing. Andreas Fuchs

Summer Semester and Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

### B 4-101 Project - Morphogenetic Constructions

Building on the previous Projects 2 ( B 2-100 ) and 3 ( B 3-100 ), students should experience the character and the structural building typology interactions of morphogenetic, wide frame constructions and learn about their specific areas of use. Students can realise their design ideas in accurate, statically reviewed planning, because the teaching from module B 4-300 Building Construction 4 is integrated into the Project work. Team skills are practised through group work, and students learn when they should refer to the knowledge of specialist engineers through interdisciplinary cooperation.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work

8

6

240 hours

4th Semester

<b>Course</b>	<b>B 4-101</b>
<b>Title</b>	<b>Project - Morphogenetic Constructions</b>
<b>Subject</b>	Design Theory / Project Module
<b>Responsible</b>	Prof. Dipl.-Ing. Dieter Müller
<b>Lecturers</b>	Prof. Dipl.-Ing. Dieter Müller, Prof. Dipl.-Ing. Andreas Fuchs
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Handle morphogenetic, wide constructions
<b>Content</b>	The interrelationships between material, construction and form, as well as the influence of production methods on the design, are tested using constructively oriented design topics. The selected Project work does not necessarily have to be constructively oriented. It can also incorporate the aims using some areas of a larger, more complex design task. Particular attention is paid to realisation of the supporting structure and a selected design section from a constructive and jointing technology perspective.
<b>Method</b>	Project Design, Group Work
<b>Mode of Assessment</b>	Written Work ( drawings, model, Project presentation )
<b>ECTS Credits</b>	8
<b>Contact Hours per Week</b>	6
<b>Workload</b>	240 hours; 90 hours of group work and individual tuition; 150 hours private study on plans and models
<b>Schedule</b>	4th Semester
<b>Comments</b>	Constructive content is learnt in module B 4-301 Building Construction Steel and B 4-302 Structural Design ( Steel ).

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 4-300**

### **Building Construction 4**

Construction / Technology / Realisation

Prof. Dipl.-Ing. Dieter Müller, Prof. Dipl.-Ing. Walter Wilking

Prof. Dipl.-Ing. Dieter Müller, Prof. Dipl.-Ing. Walter Wilking

Summer Semester and Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 4-301 Building Construction

B 4-302 Structural Design ( Steel )

Building on the previous Projects 2 ( B 2-100 ) and 3 ( B 3-100 ), students should experience the character and the structural building typology interactions of morphogenetic, wide frame constructions and learn about their specific areas of use. Students can realise their design ideas in accurate, statically reviewed planning, because the teaching from module B 4-300 Building Construction 4 is integrated into the Project work. Team skills are practised through group work, and students learn when they should refer to the knowledge of specialist engineers through interdisciplinary cooperation.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work

6

6

180 hours

4th semester of course

<b>Course</b>	<b>B 4-301</b>
<b>Title</b>	<b>Building Construction - Steel Constructions, Façade Systems</b>
<b>Subject</b>	Construction / Technology / Realisation
<b>Responsible</b>	Prof. Dipl.-Ing. Dieter Müller
<b>Lecturers</b>	Prof. Dipl.-Ing. Dieter Müller
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Steel constructions, peculiarities when constructing with the materials steel, metal/glass façades
<b>Content</b>	<p>History of steel construction, structural principles, typical supporting structures, semi-finished steel products, rolled-steel sections, pipe sections, MSH sections, extruded profiles, steel casting</p> <p>Typical steel building joint connections of the different steel profiles and sheets, bracing systems</p> <p>Special steel constructions, steel composite constructions, fire protection in steel buildings, large-area cladding in glass, sheet metal, sandwich panels, production techniques, special technologies.</p>
<b>Method</b>	Lectures, Project-integrated Practicals, Paper
<b>Mode of Assessment</b>	Written Work ( Project-integrated exercises using plans and models ), short papers
<b>ECTS Credits</b>	4
<b>Contact Hours per Week</b>	4
<b>Workload</b>	120 hours; Lectures 30 hours, Practicals and papers 90 hours
<b>Schedule</b>	4th Semester of course
<b>Comments</b>	Students must have basic construction knowledge from module B 1-301 Building Construction & Structural Design, B 2-301 Building Construction and <b>B 3-302</b> Structural Design ( Reinforced Concrete ). The module is offered together with <b>B 4-302</b> Structural Design ( Steel ).

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 4-302**  
**Structural Design ( Steel )**  
 Construction / Technology / Realisation  
 Prof. Dipl.-Ing. Walter Wilking  
 Prof. Dipl.-Ing. Walter Wilking  
 Summer Semester and Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Tackle the load-bearing behaviour of steel constructions  
 Material behaviour when pressed, pulled and bent, simple static systems, continuous systems, frame structures, arches, large span widths, steel ceiling systems ( troughed sheeting ), shoring, lightweight supporting structures, joints  
 Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( calculation example using a Project )  
 2  
 2  
 60 hours: Lectures 30 hours, Practicals 30 hours  
 4th Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 4-310**

**Construction Technologies 3**

Construction / Technology / Realisation

Prof. Dipl.-Ing. Norbert Moest, Prof. Dipl.-Ing. Günter Weber

Dipl.-Ing. ( FH ) Franciscus Gall, Dipl.-Ing. (FH) Mario Miscioscia

Summer Semester and Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 4-311 Building Services - Daylight - Artificial Light, Electrotechnical Systems

B 4-312 Construction Physics - Sound

Students learn the specific effects of the building services and spatial disciplines of light and sound protection planning, as well as room acoustics. They gain the skills to have a qualified dialogue with the appropriate specialist consultants.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>

Tests and Written Work

4

4

120 hours

4th Semester

<b>Course</b>	<b>B 4-311</b>
<b>Title</b>	<b>Building Services - Daylight - Artificial Light, Electrotechnical Systems</b>
<b>Subject</b>	Construction / technology / realisation
<b>Responsible</b>	Prof. Dipl.-Ing. Günter Weber
<b>Lecturers</b>	Dipl.-Ing. ( FH ) Franciscus Gall
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Learn the basic terms and aspects of light planning. Become aware of the interrelationships between visual perception, light and space.
<b>Content</b>	<p>To achieve qualified dialogue with specialist consultants and with consideration of light technology as an integral part of architecture, the following topics are covered:</p> <ul style="list-style-type: none"> <li>• Physics of light</li> <li>• History of lighting</li> <li>• Lamps and light</li> <li>• Quantitative design criteria / dimensioning of light</li> <li>• Daylight redirection</li> <li>• New light techniques</li> <li>• Light applications</li> </ul>
<b>Method</b>	Lectures, Demonstration in the Room Lab
<b>Mode of Assessment</b>	Test
<b>ECTS Credits</b>	2
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours; Lectures 30 hours, preparation for test 30 hours
<b>Schedule</b>	4th semester
<b>Comments</b>	



<b>Course</b>	<b>B 4-312</b>
<b>Title</b>	<b>Construction Physics - Sound</b>
<b>Subject</b>	Construction / Technology / Realisation
<b>Responsible</b>	Prof. Dipl.-Ing. Norbert Moest
<b>Lecturers</b>	Dipl.-Ing. (FH) Mario Miscioscia
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	An architect must have a basic knowledge of room acoustics to be able to had a dialogue with the specialist consultant. This enables the architect to create a design that already incorporates solution approaches to create good acoustic conditions. This also applies to sound protection - one of the most frequent construction defects - the problems of which the architect must tackle in planning and execution and also must solve in simple cases.
<b>Content</b>	In addition to conveying the fundamentals of sound and the construction physics interactions, the theoretically developed themes are demonstrated and made "audible" in practical demonstrations in a completely equipped lab with standards-compliant test benches. The course also covers building inspection requirements in accordance with DIN 4109 "Sound Protection in the High-Rise", standards-compliant measuring procedure to determine the level of soundproofing and standardised impact sound pressure level, formulation of the most important acoustic parameters and their measurement, plus regular references to practical construction examples. The particular focus is on ensuring that the architectural students gain the practical skills to incorporate sound protection and spatial acoustics during the design and planning phase.
<b>Method</b>	Lectures, Lab Presentations
<b>Mode of Assessment</b>	Test, Written Work ( lab attendance certificate )
<b>ECTS Credits</b>	2
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours; Lectures 25 hours, lab presentation with private study 15 hours, Practicals 5 hours, exam preparation 15 hours
<b>Schedule</b>	4th Semester
<b>Comments</b>	Students can create lab records in groups on a voluntary basis, which are evaluated, tested and added to the test as a bonus.

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 4-400**  
**Architectural History 3**  
 Architectural History / Design Theory  
 Prof. Dr.-Ing. Corinna Rohn  
 Prof. Dr.-Ing. Corinna Rohn  
 Summer Semester and Winter Semester  
 1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 4-401 Architectural History - 1900 to 1500  
 B 4-402 Fundamentals of Historic Preservation 1 - Architectural Surveys  
 Building on the experience from module B 2-400 Architectural History 1 and B 3-400 Architectural History 2, knowledge is expanded across the whole spectrum and its urban planning context. Students acquire specialist and key expertise for assessment and dimensional capture and documentation of existing historical architecture under consideration of historic preservation aspects.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work, Tests, Papers  
 6  
 5  
 180 hours  
 4th Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 4-401**  
**Architectural History - 1900-1500**  
 Architectural History / Design Theory  
 Prof. Dr.-Ing. Corinna Rohn  
 Prof. Dr.-Ing. Corinna Rohn  
 Summer Semester and Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Knowledge of European architecture and its builders in connection to the relevant conditions of the time; space and form theory, definition of essential architectural jargon; knowledge of the essential forms of construction, practise historical-critical approaches to work.  
 Architectural examples from the Late Middle Ages to the Renaissance, Baroque, Classicism and Historicism. Classification in historical and biographical conditions.  
 Seminars, Practicals, excursion

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Paper, Test  
 2  
 2  
 60 hours; Lectures 30 hours, preparation for test 30 hours  
 4th Semester

<b>Course</b>	<b>B 4-402</b>
<b>Title</b>	<b>Fundamentals of Historic Preservation 1 - Architectural Surveys</b>
<b>Subject</b>	Architectural History / Design Theory
<b>Responsible</b>	Prof. Dr.-Ing. Corinna Rohn
<b>Lecturers</b>	Prof. Dr.-Ing. Corinna Rohn
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	4 contact hours per week ( 1 block week + preparation and follow-up )
<b>Aim</b>	Analysis of existing building fabric through dimensional capture and damage identification. Get to know commonly used historical constructions and materials.
<b>Content</b>	Architectural surveys of a straightforward object on horizontal and vertical image planes. Creation of a room data sheet with details of construction. Produce a building specification.
<b>Method</b>	Dimensional capture and graphic documentation; preparatory lecture on the fundamentals of dimensioning.
<b>Mode of Assessment</b>	Written Work ( set of plans comprising ground plan, sectional drawings etc.; room data sheet and photographic documentation; building specification )
<b>ECTS Credits</b>	4
<b>Contact Hours per Week</b>	3
<b>Workload</b>	120 hours; architectural survey on site approx. 50 hours, Lectures and preparation approx. 30 hours, private study approx. 40 hours
<b>Schedule</b>	4th Semester
<b>Comments</b>	Block Course, 1 week on the object

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 4-600**  
**Construction Management 1**  
 Construction Management  
 Prof. Dr.-Ing. Ulrich Schütz  
 Prof. Dr.-Ing. Ulrich Schütz  
 Summer Semester and Winter Semester  
 1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 4-601 Cost-Effective Construction Planning  
 Introduction to construction management  
 This course teaches students methodical skills and systems of rules for cost-effective planning.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>

Written Work and Papers  
 4  
 3  
 120 hours, Lectures 30 hours, Practicals, preparation, colloquium 90 hours  
 4th Semester

<b>Course</b>	<b>B 4-601</b>
<b>Title</b>	<b>Cost-Effective Construction Planning</b>
<b>Subject</b>	Construction Management
<b>Responsible</b>	Prof. Dr.-Ing. Ulrich Schütz
<b>Lecturers</b>	Prof. Dr.-Ing. Ulrich Schütz
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	The course teaches students methodical skills with regard to the client's most important goals for cost-effective planning. This includes: <ul style="list-style-type: none"> <li>• Land utilisation planning ( DIN 277, gif, II. Residential Space Ordinance - WoFlV )</li> <li>• Cost estimations ( DIN 276, DIN 18960 )</li> <li>• Scheduling ( knowledge of Project flows, methodical expertise in network planning )</li> </ul>
<b>Content</b>	Students work in Project groups on a design for a high-rise Project that one of them has created in the course of a Project. They create a feasibility study for this Project, which shows the client's most important goals ( from an economic perspective ): <ul style="list-style-type: none"> <li>• Space codification and surveying - then review of space efficiency</li> <li>• Rough assessment of compliance with the specifications from the building planning</li> <li>• Rough cost estimation by usage area in reference to DIN 276</li> <li>• Framework time scheduling across all phases from the client's first thoughts to commissioning and first time use</li> </ul>
<b>Method</b>	Lectures, Practicals, Colloquiums
<b>Mode of Assessment</b>	Written Work and Papers ( presentation of work at the end of the block course )
<b>ECTS Credits</b>	4
<b>Contact Hours per Week</b>	3
<b>Workload</b>	120 hours, Lectures 30 hours, Practicals, preparation, colloquium 90 hours
<b>Schedule</b>	4th Semester
<b>Comments</b>	

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 5-100**

### **Project Spatial Design**

Design Theory

Prof. Dipl.-Ing. Günter Weber

Prof. Dipl.-Ing. Günter Weber, N.N.

Summer Semester and Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 5-101 Project Spatial Design, Designing Interior Situations

B 5-102 Interior Design

The experience from Project modules B 2-100, B 3-100 and B 4-100 is expanded through practical exercises on spatial design. Advanced knowledge with regard to the interactions between interiors and the user, as well as between the spatial arrangement of elements and the individual's capacity to act. Ability to analyse design concepts arising from complex interior situations. Awareness of quantitative and qualitative aspects of the material.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>

Written Work

12

8

360 hours

5th Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 5-101**

### **Project Spatial Design - Designing Interior Situations**

Design Theory

Prof. Dipl.-Ing. Günter Weber

Prof. Dipl.-Ing. Günter Weber, N.N.

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Ability to create interior design concepts. Deliberate use of material, colour, structure, texture within an overall concept. Use of artificial and natural light as an integral part of the design. Learn the particular types of representation of the morphogenetic construction ( colour and material collage, interior model, developed view of walls, reflected ceiling plans ... )

Development of design tasks with an interior focus. Discussion of the aspects of space allocation and overcrowding, plus routeing and hierarchisation. Treatment of the architectural element of stairs under consideration of conceptual, functional and choreographical aspects. Specific discussion of the functional and atmospheric requirements of interior spaces ( work, sport, sales, health, gastronomy ... )

Project Design, Excursions, Workshops

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Drawings, interior model, colour and material collage, oral presentation

8

6

240 hours; 90 hours of group work and individual tuition; 150 hours private study on plans and models

5th Semester



<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 5-102**

### **Interior Design**

Interior Design Theory / Project Module

Prof. Dipl.-Ing. Günter Weber

Prof. Dipl.-Ing. Günter Weber

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Demonstrate the specific requirement profile based on the constituent factors of the space ( space and form - spatial differentiation - spatial connections - space-limiting elements ). Advanced discussion of themes of interior routeing, plus the interrelationships of material, colour, texture and structure.

Students will acquire advanced knowledge with regard to the interactions between the interior and the user, as well as between the spatial arrangement of elements and the individual's capacity to act. Ability to analyse design concepts arising from complex interior situations. Awareness of quantitative and qualitative aspects of the material. Presentation of innovative material applications of the morphogenetic construction in conjunction with changing themes ( e.g. working environments, learning environments, stairwells ... ).

Lectures, course-related Exercises

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( course-related exercises )

4

2

120 hours; Lectures 30 hours, Practicals, preparation for class exercises 90 hours

5th Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 5-200**

### **Building Theory 2**

Building Theory / Architectural Design / Urban Design

Prof. Dipl.-Ing. Volker Kleinekort

Prof. Dipl.-Ing. Volker Kleinekort

Summer Semester and Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 5-201 Building Theory 2 - Public Structures

B 5-202 Urban Planning - Rural/Urban Space

The module Building Theory 2 links the themes of public building - urban planning - rural space and gives students the specialist skills for architects and rural architects in this planning field. The course ensures that students have an understanding beyond purely architecture-specific planning content and are able to use their knowledge in related planning tasks.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>

Written Work ( building analysis, attendance and notes )

4

4

120 hours

5th Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 5-201**

### **Building Theory 2 - Public Structures**

Building Theory / Architectural Design / Urban Design

Prof. Dipl.-Ing. Volker Kleinekort

Prof. Dipl.-Ing. Volker Kleinekort

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Learn the typologies in the field of school construction, museums, sport and transport facilities.

Understand the congruence between usage and structural design. Acquisition of basic knowledge in conjunction with spatial, structural and constructive aspects. Typological and analytical consideration of various construction tasks using prominent architectural examples. Convey the legalities of building typology.

Lectures

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( building analysis )

2

2

60 hours, Lectures 30 hours, building analysis and follow-up 30 hours

5th Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 5-202**

**Urban Planning - Rural/Urban Space**

Building Theory / Architectural Design / Urban Design

Prof. Dipl.-Ing. Volker Kleinekort

Prof. Dipl.-Ing. Volker Kleinekort

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Planning in the urban context incorporating open spaces

- Changing objectives of urban planning in the 19th and 20th century
- Current trends in urban planning
- Elements of urban planning and open space planning
- Function of open spaces
- Public and private green
- Materials of open space planning

Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( total marks from individual exercises )

2

2

60 hours; Lectures 30 hours, Practicals 30 hours

5th semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 5-300**

### **Building Construction 5**

Construction / Technology / Realisation

Prof. Dipl.-Ing. Andreas Fuchs, Prof. Dr.-Ing. Ulrich Schütz

Prof. Dipl.-Ing. Andreas Fuchs, Prof. Dr.-Ing. Ulrich Schütz

Summer Semester and Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 5-301 Construction with Prefabricated Elements

B 5-302 High-Rise Construction Processes

The aim of the module is to extend the previously learnt abilities of the modules

- Building Construction 1 - General Fundamentals
- Building Construction 2 - Timber
- Building Construction 3 - Reinforced Concrete
- Building Construction 4 - Steel, Façades

by designing and building with industrially produced modular systems.

By combining the lesson content of "High-Rise Construction Processes", students' knowledge of construction methodology is expanded and the effects of planning decisions on costs, schedules and production flow are demonstrated. This gives students the opportunity to practise an integrated approach and learn more about all essential themes of building construction.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Papers, Test and Written Work

8

7

240 hours

5th Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 5-301**

### **Construction with Prefabricated Elements**

Construction / Technology / Realisation

Prof. Dipl.-Ing. Andreas Fuchs

Prof. Dipl.-Ing. Andreas Fuchs

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Students will learn the main features of designing and building with modular construction systems and apply these in-depth to a straightforward design task. They should acquire the ability to work with systems and to integrate complex requirements in the area of conflict between design aims, realisation strategies and cost limitations in a design concept.

Students are taught the basic types of construction with prefabricated building systems: panel and frame construction plus modular construction. The problem areas of force conduction, thermal bridge-free building envelopes that are appropriate for the materials involved, plus joining technology are covered for the different interactions.

Lectures, Practicals, Paper

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Papers and written Work ( exercises )

4

4

120 hours, Lectures 30 hours. Practicals 90 hours

5th Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 5-302**

### **High-Rise Construction Processes**

Construction / Technology / Realisation

Prof. Dr.-Ing. Ulrich Schütz

Prof. Dr.-Ing. Ulrich Schütz

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Students are taught skills with regard to the construction flow on the building site, work preparation and supervision on building sites. Knowledge of the workflow on building sites is not only a prerequisite for activities in site management, but also in general for cost-effective planning and construction.

- The involved parties in building Projects, role of the architect and his/her obligations
- Explanation of the layout/content VOB/C
- Earthworks / foundations / demolition of buildings / material recycling
- Building site equipment / lifting gear
- Work preparation
- Formwork and scaffolding / concrete production and processing
- Finishing crafts

Practical examples are used to demonstrate how the choice of materials and construction principles affect the construction cycle, the site logistics and the cost and scheduling situation ( when must planning be completed? ).

Lectures

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Test

4

3

120 hours, Lectures 60 hours, Practicals 60 hours

5th Semester

<b>Course</b>	<b>B 5-400</b>
<b>Title</b>	<b>Architectural History 4</b>
<b>Subject</b>	Architectural History / Design Theory
<b>Responsible</b>	Prof. Dr.-Ing. Corinna Rohn
<b>Lecturers</b>	Prof. Dr.-Ing. Corinna Rohn
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester

<b>Courses</b>	B 5-401 Architectural History - 1500 - Classical Antiquity B 5-402 Fundamentals of Historic Preservation 2 - Building Preservation
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<b>Learning Outcomes</b>	The aim of the module is, in addition to expanding the whole spectrum of historical buildings with regard to the increasing significance of building in existing structures ( contemporary and historic structures ), to recognise the value of one's own architecture and to assess its quality with regard to the existing context. Students will be given the skills to implement the requirements of historic preservation.
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<b>Mode of Assessment</b>	Test, Paper, Written Work
<b>ECTS Credits</b>	4
<b>Contact Hours per Week</b>	4
<b>Total Workload</b>	120 hours
<b>Schedule</b>	5th Semester



<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 5-401**

**Architectural History - 1500 - Classical Antiquity**

Architectural History / Design Theory

Prof. Dr.-Ing. Corinna Rohn

Prof. Dr.-Ing. Corinna Rohn

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Knowledge of European architecture and its builders in connection to the relevant conditions of the time; space and form theory, definition of essential architectural jargon; knowledge of the essential forms of construction, practise historical-critical approaches to work.

Architectural examples from Antiquity through early Christendom, to Mediaeval construction, classification in the historical and biographical conditions.

Lectures, Excursions

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Test

2

2

60 hours, Lectures 30 hours, preparation for test 30 hours

5th Semester

One rotation of 5 semesters leads through a complete cycle of history.

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 5-402**

**Fundamentals of Historic Preservation 2 - Building Preservation**

Architectural History / Design Theory

Prof. Dr.-Ing. Corinna Rohn

Dipl.-Ing. Günther Stanzl

Summer Semester and Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Knowledge of the tradition of value conservation, of the term "historic building" and its definition in the legislation, the requirements and consequences of historic preservation measures. Master the construction techniques of preservation measures. Knowledge of inventory.

- History of historic preservation
- Theory of historic preservation
- Methods of building preservation practice, law on historic buildings

Lectures; Paper; Practicals on Objects; Excursions

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>

Paper and Written Work ( class exercises and work at home )

2

2

60 hours; Lectures / papers 30 hours, follow-up / excursions 30 hours

5th Semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **B 6-100**

### **Bachelor Thesis**

Design Theory, Project Modules

tbc

tbc

Summer Semester and Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

B 6-101 Bachelor's Thesis

The Bachelor's Thesis is an examination paper that completes the Bachelor's course. It should show that the candidate is able to work through a problem in his/her specialism independently and using scientific methods within a specified period.  
Solve a Project task from the fields of urban planning, high-rise or a Project in construction management.

The theme is chosen from the specialist areas of the Bachelor's course

The work is supervised by random sampling, there are 3 available appointments

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Written Work and Oral Examination ( final colloquium )

18

3

540 hours

6th Semester

<b>Module</b>	<b>B 6-500</b>
<b>Title</b>	<b>Representation 4</b>
<b>Subject</b>	Artistic Principles / Architectural Representation / Presentation
<b>Responsible</b>	iwib
<b>Lecturers</b>	Prof. Dipl.-Ing. Joachim Kieferle, iwib
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Courses</b>	B 6-501 Presentation Techniques B 6-502 Computer-Aided Illustration - Simulation
<b>Learning Outcomes</b>	The skills acquired through the prior Project presentation are deepened during the final semester.
<b>Mode of Assessment</b>	Written Work
<b>ECTS Credits</b>	4
<b>Contact Hours per Week</b>	4
<b>Total Workload</b>	120 hours
<b>Schedule</b>	6th Semester

<b>Course</b>	<b>B 6-501</b>
<b>Title</b>	<b>Presentation Techniques</b>
<b>Subject</b>	Artistic Principles / Architectural Representation / Presentation
<b>Responsible</b>	Prof. Joachim Kieferle
<b>Lecturers</b>	Dr. med. Bernd Ditter, Studienzentrum
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Seminar to optimise the students' own communication.
<b>Content</b>	<p>"Do not try to achieve effects that are not in your nature" ( Tucholsky )</p> <p>The students own communication skills are uncovered and developed in this seminar through numerous practical exercises. The aim is to enable students to present their own ideas and concepts authentically and appropriately.</p> <p>This also includes recognising body language signs.</p>
<b>Method</b>	Seminars, Practicals
<b>Mode of Assessment</b>	Presentation
<b>ECTS Credits</b>	2
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours
<b>Schedule</b>	6th Semester
<b>Comments</b>	

<b>Module</b>	<b>B 6-502</b>
<b>Title</b>	<b>Computer-Aided Illustration - Simulation</b>
<b>Subject</b>	Artistic Principles / Architectural Representation / Presentation
<b>Responsible</b>	Prof. Dipl.-Ing. Joachim Kieferle
<b>Lecturers</b>	Prof. Dipl.-Ing. Joachim Kieferle
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	1 Semester
<b>Learning Outcomes</b>	Get to know and evaluate different data for the Project description. Digital production options for parts, direct connection of CAM systems to CAD.
<b>Content</b>	Digital data models of buildings, digital planning and production methods ( CAD/CAM )
<b>Method</b>	Lectures, Practicals
<b>Mode of Assessment</b>	Written Work ( seminar work )
<b>ECTS Credits</b>	2
<b>Contact Hours per Week</b>	2
<b>Total Workload</b>	60 hours, Lectures 20 hours, Practicals 40 hours
<b>Schedule</b>	6th Semester
<b>Comments</b>	This course is continually adapted to the latest developments due to the short development cycles in IT.

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**B 6-600**

**Construction Management 2**

Construction Management

Prof. Dr.-Ing. Ulrich Schütz

Prof. Dr.-Ing. Ulrich Schütz

Summer Semester and Winter Semester

Work Placement and approx. 3 dates ( block course )

<b>Courses</b>
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B 6-601 Construction Management 2 - Preparing for Professional Practice

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Papers

4

2

120 hours

6th Semester

<b>Course</b>	<b>B 6-601</b>
<b>Title</b>	<b>Preparing for Professional Practice</b>
<b>Subject</b>	Construction Management
<b>Responsible</b>	Prof. Dr.-Ing. Ulrich Schütz
<b>Lecturers</b>	Prof. Dr.-Ing. Ulrich Schütz
<b>Rotation</b>	Summer Semester and Winter Semester
<b>Duration</b>	approx. 3 - 4 block courses
<b>Aim</b>	The course helps to prepare students for professional practice
<b>Content</b>	<p>Students learn about Project organisation ( interaction of architect - client - specialist consultant - authorities ), workflows ( planning and approval flows ), possible contractual configurations and the essential regulations, in order to aid their transition and orientation in professional practice.</p> <p>Project participants, Project workflow and the essential regulations ( HOAI - fee structure for architects and engineers, GRW - competition guidelines, and VOF - contracting rules for freelance services plus VOB/A to VOB/C and VOL - contracting rules for construction services ).</p> <p>Project completion models ( specialist trades, general contractors and coordinating contractors ) different types of construction contracts ( unit price contracts, global lump-sum contracts, detailed lump-sum contracts )</p> <p>New Project methods ( GMP models - guaranteed maximum price, PPP models - public-private partnership, construction management and partnering models )</p>
<b>Method</b>	Seminar Instruction
<b>Mode of Assessment</b>	Papers
<b>ECTS Credits</b>	4
<b>Contact Hours per Week</b>	2
<b>Workload</b>	120 hours, Lectures 30 hours, preparation for paper 90 hours
<b>Schedule</b>	6th Semester
<b>Comments</b>	



**Programme Structure**

**Master of Architecture | Building in Existing Structures**

## Module Overview Master

### Architecture I Building in Existing Structures

#### 1st Semester Master's programme

- Introduction
- Project development/creation of a feasibility study, methodical procedure

M1	Module	Subject	No.	Course	Prof.	Method	Credits	Contact	Workload	CNW F	CNW	
30	M 1-100	Project M 1	7101	Project Analysis/Feasibility study	Fuchs	P	3	3	180	1	0,200	
60					Dr. Rohm							
90					Dr. Schütz							
120												
150												
180												
210	M 1-610	ProjectManagement 1	7601	Project Development Methods and tools of Project Development in Existing Building and Revitalisations		S	6	3	180	1	0,150	
240												
270												
300												
330												
360					Dr. Schütz							
390	M 1-200	Transformations	7201	Transformations Strategies and attitudes in handling built history		V	2	2	120	0,5	0,017	
420					Ü	2						
450												
480												
510					Weber							4
540												
570	M 1-800	Methodology 1	7801	Methods and Techniques Architectural Survey, Research, Documentation Modern Quantity Surveying Techniques, Room Data Sheets			V	2	2	180	0,5	0,017
600					Ü	2						
630												
660					Dr. Rohm/Jost							
690												
720												
750	M 1-810	Methodology 2	7811	Strategies and Concepts in Historic Preservation	Dr. Rohm		V	6	2	180	1	0,100
780					Ü	2						
810												
840												
870					Dr. Rohm		6					
900					W		S					
									<b>30</b>	<b>24</b>	<b>900</b>	<b>0,917</b>

#### 2nd Semester Master's programme

- Project Revitalisation 1

Focus of building preservation, revitalisation, implementation of the feasibility study from M1

M2	Module	Subject	No.	Course	Prof.	Method	Credits	Contact	Workload	CNW F	CNW		
30	M 2-100	Project M 1-2	8101	Revitalisation - Building in Existing Structures	Fuchs	P	6	6	360	1	0,400		
60					Dr. Rohm								
90					Dr. Schütz								
120													
150													
180													
210	M 2-700	Metamorphosis 1	8701	Building Construction Building Envelope Structural Design Supporting Structures in Existing Buildings		Ü	2	2	120	0,5	0,050		
240					Fuchs	V						2	
270													
300					Wilking	V							4
330													
360													
390	M 2-710	Metamorphosis 2	8711	Materials Science Usage Appropriate to the Materials		V	2	2	120	0,5	0,017		
420					Ü	2							
450													
480													
510													
540													
570													
600	M 2-500	Visualisation	8501	Representation Visualisation/Representation	Fuchs	Ü	4	2	120	1	0,100		
630					Kieferle	Ü							
660													
690													
720													
750					Dell							4	
780	W	Elective Module M 2-4					S	2	2	180	1	0,133	
810					NN	2							
840													
870					NN		6						
900													
									<b>30</b>	<b>28</b>	<b>900</b>	<b>1,200</b>	

## Module Overview Master Building in Existing Structures/Revitalisation

### 3rd Semester Master's programme

- Project Revitalisation

Focus  
urban restructuring/urban renewal

M2	Module	Subject	No.	Course	Prof.	Method	Credits	Contact	Workload	CNW F	CNW									
80	M 3-100	Project M 3-1	9101	Revitalisation 2 - Urban Restructuring / Urban Renewal	Kleinert	P	6	540		1	0,400									
82																				
84																				
86																				
88																				
90																				
92																				
94																				
96																				
98																				
100																				
102																				
104																				
106																				
108	M 3-400	Urban Restructuring	9401	Urban Restructuring	Kleinert	U	18	2	180	0,33	0,033									
110						V						2	0,33	0,011						
112																				
114																				
116																				
118																				
120	M 3-400	Urban Restructuring	9401	Urban Restructuring	Kleinert	S	6	2	180	1	0,133									
122																				
124	M 3-400	Urban Restructuring	9402	Urban Development	Kleinert	S	6	2	180	1	0,133									
126																				
128	W	Elective Module M 5-7			NN	S	6	2	180	1	0,133									
130																				
132																				
134																				
136	W	Elective Module M 5-7			NN	S	6	2	180	1	0,133									
138																				
140	W	Elective Module M 5-7			NN	S	6	2	180	1	0,133									
142																				
144	W	Elective Module M 5-7			NN	S	6	2	180	1	0,133									
146																				
148																				
150																				
152																				
154																				
156																				
158																				
160																				
162																				
164																				
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172																				
174																				
176																				
178																				
180																				
182																				
184																				
186																				
188																				
190																				
							30	18	900		0,977									

### 3rd Semester, alternative programme

- Project Revitalisation 2

Focus on building preservation, contextual design, optimised energy-conscious design, building in existing structures

M2	Module	Subject	No.	Course	Prof.	Method	Credits	Contact	Workload	CNW F	CNW									
80	M 3-110	Project M 3-2	9111	Revitalisierung 3 - Reshaping	Moest	P	6	540		1	0,400									
82																				
84																				
86																				
88																				
90																				
92																				
94																				
96																				
98																				
100																				
102																				
104																				
106																				
108	M 3-700	Metamorphosis 3	9701	Energy-Conscious Design	Müller	S	18	3	180	1	0,200									
110																				
112																				
114																				
116																				
118																				
120	M 3-700	Metamorphosis 3	9702	Architectural Design in Context	Müller	S	6	3	180	1	0,200									
122																				
124	W	Elective Module M 5-7			Moest	S	6	2	180	1	0,133									
126																				
128																				
130																				
132	W	Elective Module M 5-7			NN	S	6	2	180	1	0,133									
134																				
136	W	Elective Module M 5-7			NN	S	6	2	180	1	0,133									
138																				
140	W	Elective Module M 5-7			NN	S	6	2	180	1	0,133									
142																				
144																				
146																				
148																				
150																				
152																				
154																				
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172																				
174																				
176																				
178																				
180																				
182																				
184																				
186																				
188																				
190																				
							30	18	900		1,200									

**Module Overview Master  
Building in Existing  
Structures/Revitalisation**

**4th Semester Master's programme**

- Master's Thesis

M3	Module	Subject	No.	Course	Prof.	Method	Credits	Contact	Workload	CNW F	CNW
30	M 4-100	Thesis	9000	Master's Thesis		S		2	900	1	0,033
66					ALL						
96											
120											
150											
180											
210											
240											
270											
300											
330											
360											
390											
420											
450											
480											
510											
540											
570											
600											
630											
660											
690											
720											
750											
780											
810											
840											
870											
900											
							30	2	900		0,033

<b>Module</b>
<b>Titel</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 1-100****Project M 1**

Construction Management / Project Development

Prof. Dr.-Ing. Ulrich Schütz

Prof. Dr.-Ing. Rohn, Prof. Dr.-Ing. Ulrich Schütz, Prof. Dipl.-Ing. Andreas Fuchs

Summer Semester or Winter Semester

approx. 15 sessions

<b>Courses</b>
<b>Learning Outcomes</b>

M 1-100 Project - Project Analysis/Feasibility Study, associated with:

M 1-610 Project Development - Methods and Tools of Project Development in New Buildings and Existing Structures

Students learn the methodical and analytical procedure for a Project and feasibility study. The following work stages are systematically taught:

Building research:

- Understand and appraise a historical building
- Create the planning documents
- Evaluating the materials
- Constructive evaluation of future usage

Project development:

- Cost-effective and usage-specific Project development
- Economic evaluation of the historical building fabric
- Economic evaluation of future usage

A Project study is compiled in writing at the end of the semester. This forms the task for the design in M 2-100

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Paper and Written Work

6 ( module M 1-100 )

3

180 hours

1st Master's semester

<b>Module</b>	<b>M1-610</b>
<b>Title</b>	<b>Project Development</b>
<b>Subject</b>	Methods and Tools of Project Development in New Buildings and Existing Structures Construction Management / Law
<b>Responsible</b>	Prof. Dr.-Ing. Ulrich Schütz
<b>Lecturers</b>	Prof. Dr.-Ing. Ulrich Schütz
<b>Rotation</b>	Summer Semester or Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Structured working and the right methodical approach to Project development as an important new field of activity for architects. There is a particular focus on construction tasks in the existing building fabric ( building in existing structures ), which require architects to have specific knowledge, especially in the management field. The Lectures present the workflow of a Project ( develop - plan - build - operate ) and a structured approach in particular. This gives the students a manual showing them where architects can apply their specific expertise. The individual stages are covered using practical examples.
<b>Content</b>	Basic principles and workflow of Project development Participants / the Architect's tasks Property check ( appraisal, due diligence inspection, building fabric analysis ) development of usage concepts Building planning with suitable calculation models, partly for the usage concepts Cost planning and scheduling, return calculations Peculiarities of design contracts, tenders/award of contract/billing Execution of construction work - building without interrupting operations
<b>Method</b>	Lectures / Practicals / Assignment
<b>Mode of Assessment</b>	Written Work ( short test and evaluation of an assignment )
<b>ECTS Credits</b>	6
<b>Contact Hours per Week</b>	3
<b>Total Workload</b>	180 hours
<b>Schedule</b>	1st Master's semester
<b>Comments</b>	See also Project M 1-100

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 1-200****Transformations**

Visual Communication / Architectural Design / Urban Design

Prof. Dipl.-Ing. Günter Weber

Prof. Dipl.-Ing. Günter Weber

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Discussion of the specific problems of building in existing structures. Learn analysis methods to appraise the spatial, structural and design qualities of the existing structures. Ability to develop designs that can bridge the field of conflict between old and new under consideration of the basic functional, technical and economic conditions.

Presentation of different architectural approaches when dealing with existing building fabrics. Explanation of architectural strategies that assist the students both in the methodology of the approach and in the sense of its own applicability. Documentation of the principles using selected national and international Projects.

Lectures, Design Discussion in small groups, Excursions

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work within Project M3

4

3

120 hours, Lectures incl. follow-up 30 hours, private study and discussion 90 hours

1st Master's semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 1-800****Methodology 1**

Methods and Techniques

Prof. Dr.-Ing. Corinna Rohn

Prof. Dr.-Ing. Corinna Rohn, Dipl.-Ing. Jens Jost

Summer Semester or Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

M 2-801 Methods and Techniques

M 2-802 Inventory

Comprehensive expansion of the themes of quantity surveying, construction documentation, building analysis, historic evaluation and classification

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Written Work

6

6

180 hours

1st Master's semester



<b>Course</b>	<b>M 1-801</b>
<b>Title</b>	<b>Methods and Techniques - Architectural Survey, Research, Documentation of Existing Structures, Modern Quantity Surveying Techniques, Room Data Sheets</b>
<b>Subject</b>	Methods and Techniques
<b>Responsible</b>	Prof. Dr.-Ing. Corinna Rohn
<b>Lecturers</b>	Prof. Dr.-Ing. Corinna Rohn, Dipl.-Ing. Jens Jost
<b>Rotation</b>	Summer Semester or Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Knowledge of different quantity survey, presentation and evaluation methods, classification of historic structures in architectural history, develop text comprehension and create building specifications
<b>Content</b>	The focus of the course is an intensive discussion of a building, a city area, a city or region. Construction cycles and development of the building will be considered and theoretically reconstructed through precise observation - a quantity survey or room data sheet. Students will work on classifying the object in the historical context based on literature work and knowledge of comparative examples. Knowledge of the peculiarities and the significance of the building are the foundations of an "appraisal", a classification in terms of cultural history and in the urban context. Object-specific application of modern quantity survey and documentation techniques - e.g. introduction to tachymeter surveying, laser scans, photo rectification and in various survey programmes, are given a particular focus in the practical exercise.
<b>Method</b>	Lectures, Practicals on the Object, Excursions
<b>Mode of Assessment</b>	Written Work ( submission of differentiated papers )
<b>ECTS Credits</b>	4
<b>Contact Hours per Week</b>	4
<b>Workload</b>	120 hours
<b>Schedule</b>	1st Master's semester

<b>Course</b>	<b>M 1-802</b>
<b>Title</b>	<b>Inventory of Building Ensembles</b>
<b>Subject</b>	Inventory, Building Specification, Exploitation of Archival Sources
<b>Responsible</b>	Prof. Dr.-Ing. Corinna Rohn
<b>Lecturers</b>	Prof. Dr.-Ing. Corinna Rohn, Dipl.-Ing. (FH) Jens Jost
<b>Rotation</b>	Summer Semester or Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Archive research and local observation convey an overview of the historic fabric of a building. Historical values of the countryside/city will be summed up using the examples of monument topography. Introduction to archive research and usage of sources relevant to architectural history
<b>Content</b>	Exploitation of architectural history sources, their legibility and translation into our current understanding are at the centre of this seminar. The archival research is also used to produce historical references that also demonstrate the construction cycle of individual quarters or cities. Together with a short description of the corresponding buildings, students will also work on an inventory, which combines individual observations and information.
<b>Method</b>	Lectures / Practicals
<b>Mode of Assessment</b>	Written Work ( submission of independent work on the historical sources of an object )
<b>ECTS Credits</b>	2
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours, Lectures 15 hours; Practicals/archive work 30 hours; private study 15 hours
<b>Schedule</b>	1st Master's semester
<b>Comments</b>	

<b>Module</b>	<b>M 1-810</b>
<b>Title</b>	<b>Methodology 2</b>
<b>Subject</b>	Working in Historical Preservation
<b>Responsible</b>	Prof. Dr.-Ing. Corinna Rohn
<b>Lecturers</b>	tbc, Dipl.-Ing. Jens Jost
<b>Rotation</b>	Summer Semester or Winter Semester
<b>Duration</b>	1 Semester
<b>Courses</b>	M 2-811 Strategies in Historic Preservation M 2-812 City Heritage Site, Cultural Landscapes
<b>Learning Outcomes</b>	Advanced knowledge of the organisation and working focuses in historic preservation
<b>Mode of Assessment</b>	Written Work
<b>ECTS Credits</b>	6
<b>Contact Hours per Week</b>	6
<b>Total Workload</b>	180 hours
<b>Schedule</b>	1st Master's semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 1-811****Strategies and Concepts in Historic Preservation**

Working in Historical Preservation

Prof. Dr.-Ing. Corinna Rohn

tbc, Dipl.-Ing. (FH) Jens Jost

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Knowledge of the organisation and focuses of work in applied historical preservation, planning strategies when dealing with protected buildings

Presents and deepens the varying scope of the individual public authorities' remit with regard to historical preservation. This covers the different methods and tasks of practical historical preservation in the fields of building, art, garden and landscape preservation, monuments of technical and industrial history and of urban and settlement structures. The focus here is on how to deal with these objects in practice from a historical and preservation perspective. The legal aspects of historical preservation and the organisation and role of the preservation authorities are presented using case studies.

Seminars, Practicals about the Object, Excursions

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( submission of differentiated papers )

2

2

60 hours

1st Master's Semester

<b>Course</b>	<b>M 1-812</b>
<b>Title</b>	<b>Historical Preservation of Cultural Landscapes</b>
<b>Subject</b>	History, Tradition, Conservation of Value
<b>Responsible</b>	Prof. Dr.-Ing. Corinna Rohn
<b>Lecturers</b>	Prof. Dr.-Ing. Corinna Rohn, Dipl.-Ing. Jens Jost
<b>Rotation</b>	Summer Semester or Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Learn about interconnected cultural spaces - from the individual monument to the city/landscape.
<b>Content</b>	To deepen knowledge of cultural substance and a conscious awareness of the landscapes and cities of our developed environment, individual cultural landscapes are presented and discussed in this seminar with reference to their historical values, but also how to handle them. The seminar covers both individual architectural monuments and city and landscape connections. There is a focus in this context on regional building culture, but city topography, urban redevelopment, and the UNESCO "World Heritage" Project are also looked at in detail.
<b>Method</b>	Lectures / Practicals
<b>Mode of Assessment</b>	Written Work ( submission of independent work on the historical sources of an object )
<b>ECTS Credits</b>	4
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours, Lectures 15 hours; Practicals/archive work 30 hours; private study 15 hours
<b>Schedule</b>	1st Master's Semester
<b>Comments</b>	

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 2-100**  
**Project M 1-2     Revitalisation, Building in Existing Structures**  
 Project Module  
 Prof. Dipl.-Ing. Andreas Fuchs, Prof. Dr.-Ing. Rohn  
 Prof. Dipl.-Ing. Andreas Fuchs, Prof. Dr.-Ing. Rohn, Prof. Dr.-Ing. Schütz  
 Summer Semester or Winter Semester  
 1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

M 2-101 Revitalisation 1 - Revitalisation, Building in Existing Structures  
 associated with:  
 M 2-700 Metamorphosis 1  
 M 2-710 Metamorphosis 2  
 Responsible handling of existing / historical structures

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Written Work  
 12 (Module M 2-101)  
 6  
 360 hours, 60 hours tuition, 300 hours private study  
 2nd Master's Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 2-101**  
**Revitalisation 1 - Revitalisation, Building in Existing Structures**  
 Project Module  
 Prof. Dipl.-Ing. Andreas Fuchs, Prof. Dr.-Ing. Rohn  
 Prof. Dipl.-Ing. Andreas Fuchs, Prof. Dr.-Ing. Rohn, Prof. Dr.-Ing. Schütz  
 Summer Semester or Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Responsible handling of existing structures is developed based on a Project study and Project development in the 1st Master's semester. The design includes both the possibility of transforming the existing structure and its function, as well as retaining, increasing or supplementing this as required.

Project work, individual tuition, presentation

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( design submission at the end of the semester )  
 12  
 6  
 360 hours, 60 hours tuition, 300 hours private study  
 2nd Master's Semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 2-700**  
**Metamorphosis 1**  
 Construction / Technology / Realisation  
 Prof. Dipl.-Ing. Andreas Fuchs, Prof. Dipl.-Ing. Walter Wilking  
 Prof. Dipl.-Ing. Andreas Fuchs, Prof. Dipl.-Ing. Walter Wilking  
 Summer Semester or Winter Semester  
 1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

M 2-701 Building Construction  
 M2-702 Structural Design  
 Understanding of construction methods on existing/historical buildings.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Test, Written Work  
 4  
 4  
 120 hours  
 2nd Master's Semester



<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 2-701**  
**Metamorphosis 1 - Building Construction**  
 Construction / Technology / Realisation  
 Prof. Dipl.-Ing. Andreas Fuchs  
 Prof. Dipl.-Ing. Andreas Fuchs  
 Summer Semester or Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

The content of this course covers building techniques and building construction of past centuries to the present day. These are evaluated and possibilities for optimisation / reshaping are presented in the practical part of the course.

Construction and shell of different building types in relation to usage and build year.

- Housing developments
- Urban residential buildings
- Industrial buildings
- Cultural buildings

Lectures, Analyses, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Test, Written Work  
 2  
 2  
 60 hours, Lectures 30 hours, private study/analyses/Practicals 30 hours  
 2nd Master's Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 2-702**  
**Metamorphosis 1 - Supporting Structures**  
 Construction / Technology / Realisation  
 Prof. Dipl.-Ing. Walter Wilking  
 Prof. Dipl.-Ing. Walter Wilking  
 Summer Semester or Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Understanding of construction methods on existing/historical buildings, manufacturing processes of constructions, methods of craftsmanship.  
 History of construction from the pyramids to the start of the 20th century, considering the development of the art of engineering and calculation methods ( basics of mathematics and physics etc. ), development of the manufacturing methods for erecting buildings.  
 Lectures, Practicals, Excursions

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work  
 2  
 2  
 60 hours, Lectures 30 hours, private study 30 hours  
 2nd Master's Semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 2-710**  
**Metamorphosis 2 - Materials Science**  
 Construction / Technology / Realisation  
 Prof. Dipl.-Ing. Andreas Fuchs  
 Prof. Dipl.-Ing. Andreas Fuchs  
 Summer Semester or Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Get to know materials and their usage in historical buildings  
 Ceramic materials  
 Timber, framing and solid structures  
 Glazing  
 Metals  
 Plaster and coatings  
 Lectures and Seminars, Written Work on the Individual Topics.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Written Work  
 4  
 4  
 120 hours, 30 hours tuition, 90 hours private study  
 2nd Master's Semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 2-500**  
**Representation and Visualisation**  
Artistic Principles / Architectural Representation / Presentation  
Prof. Dipl.-Ing. Rudolf Deil, Prof. Dipl.-Ing. Joachim Kieferle  
Prof. Dipl.-Ing. Rudolf Deil, Prof. Dipl.-Ing. Joachim Kieferle  
Summer Semester or Winter Semester  
1 Semester

<b>Courses</b>
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M 2-501 Presentation - Visualisation / Presentation  
M 2-502 Architectural Drawing

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Written Work  
4  
4  
120 hours  
2nd Master's Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 2-501**  
**Presentation / Visualisation**  
 Artistic Principles / Architectural Representation / Presentation  
 Prof. Dipl.-Ing. Joachim Kieferle  
 Prof. Dipl.-Ing. Joachim Kieferle  
 Summer Semester or Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Visualisation and simulation as an analysis and evaluation tool, and to develop variations in existing buildings. Evaluating the strengths and weaknesses, and the suitability of the tools.  
 Simulation and planning tools for working in existing buildings.  
 Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( Project-related task )  
 2  
 2  
 60 hours, Lectures 30 hours; Practicals 30 hours  
 2nd Master's Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 2-502**  
**Architectural Drawing**  
 Artistic Principles / Architectural Representation / Presentation  
 Prof. Dipl.-Ing. Rudolf Deil  
 Prof. Dipl.-Ing. Rudolf Deil  
 Summer Semester or Winter Semester  
 1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Conscious appreciation of graphic and artistic interpretations of historic architectural prospects on selected objects from architectural history.

Ability to create a graphic and artistic illustration of historic architectural objects in the field of historic building and landscape preservation using manual presentation techniques and methods.

Judgemental and rough sketch interpretations of historical buildings on an area, object and detailed level, in relation to the "Gestalt" ( unified whole ) theory of visual perception.

Seminar Practicals / Excursions

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( collection of drawings / works documentation )  
 2  
 2  
 60 hours, seminar Practicals with presentation 35 hours, excursions 25 hours  
 2nd Master's Semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **M 3-100**

### **Project M 3-1**

Project Module

Prof. Dipl.-Ing. Volker Kleinekort

Prof. Dipl.-Ing. Volker Kleinekort

Summer Semester or Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

M 3-101 Project - Urban Revitalisation Processes associated with:

M 3-400 Urban Restructuring

Redeveloping existing buildings requires a different methodology to "the new" - a qualitative analysis of the context is part of the design process. Formulation of the scope of work is becoming an increasingly significant part of the work of urban planners and architects. The idea is to incorporate a definition of a city's usage and programme definition as a strategic part of the design.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Written Work

18

6

540 hours

3rd Master's Semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

### **M 3-101**

#### **Revitalisation 2 - Urban Restructuring / Urban Renewal**

Project Module

Prof. Dipl.-Ing. Volker Kleinekort

Prof. Dipl.-Ing. Volker Kleinekort, NN

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Realise urban ideals in urban concepts, adapt conventional abilities, integrated deliberation of different technical content and strategic realisation in individual stages and measures.

Students should acquire the ability to consider and design the simple individual object ( architecture ) within its complex context ( city ). The core of the approach is to develop a concept that responds to the set questions and to questions developed by the architect, but also to questions inherent to the location and its spatial-social context.

Location analyses; usage programmes; actor constellations' traffic infrastructures ( plus associated development stages ). Integration of technical planning, such as sound protection and landscape architecture, as well as communication processes with other planning participants.

Strategic design.

Urban development scenarios - design Projects as case studies - research by design.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Totak workload</b>
<b>Schedule</b>

Written Work ( Project work )

18

6

540 hours, 90 hours tuition, 450 hours private study

3rd Master's Semester



<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 3-400**  
**Urban Restructuring**  
 Urban Development and Building Theory  
 Prof. Dipl.-Ing. Volker Kleinekort  
 Prof. Dipl.-Ing. Volker Kleinekort  
 Summer Semester or Winter Semester  
 1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

M 3-401 Urban Restructuring  
 M 3-402 Urban Development  
 Students acquire an integrated understanding, practise the interaction of urban development, urban restructuring and the strategic-design themes of the urban context.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Written Work  
 6  
 6  
 180 hours  
 3rd Master's Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 3-401**

**Urban Restructuring**

Urban Development and Building Theory

Prof. Dipl.-Ing. Volker Kleinekort

Prof. Dipl.-Ing. Volker Kleinekort

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

The Urban Restructuring course considers: who are the key agents in urban restructuring Projects? What design, picture and spoken language is used? Which shifts in political practices do the Projects in a city incorporate? What spatial concepts and ideals of the city are pursued in this context? How does a building development connect to the existing urban concept - spatially? In every day urban life? And then: how can such mechanisms be utilised from a design perspective!

Analysis methods in the urban space; location evaluations, evaluation and potentials of existing buildings; feasibility studies.

( is normative-design oriented ) case studies on the topic and their Projections on other spaces.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work

4

2

120 hours, Lectures 60 hours, private study 60 hours

3rd Master's Semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

**M 3-402**

**Urban Development**

Urban Development and Building Theory

Prof. Dipl.-Ing. Volker Kleinekort

Prof. Dipl.-Ing. Volker Kleinekort

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

The aim of the course is to provide an overview of the backgrounds, strategies, topics and design tools of urban development and to give an insight into current trends. The spatial focus ranges from the individual area to the regional context.

Lectures on urban development; post-industrial landscapes; architectural discourse; residential buildings and property development.

( has a descriptive orientation ) Analyses on programme and process development for development and transformation processes.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>

Paper, Test

2

2

60 hours, Lectures 30 hours, preparation for paper/test 30 hours

3rd Master's Semester

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## M 3-110

### Project M 3-2 - Revitalisation/Reshaping

Project Module

Prof. Dipl.-Ing. Dieter Müller, Prof. Dipl.-Ing. Norbert Moest

Prof. Dipl.-Ing. Dieter Müller, Prof. Dipl.-Ing. Norbert Moest

Summer Semester or Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

M 3-111 Revitalisation / Reshaping

Students deepen their experience and expertise in the complex interaction of contextual architectural design in planning terms. Analysis of specific problems in planning and building in existing structures with consideration of energy and ecological objectives.

The ability to realise design concepts holistically and on an interdisciplinary basis is deepened.

Courses M 3-201 Energy-Conscious Design and M 3-202 Architectural Design in Context are linked to the Project in terms of content.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Written Work

18

6

540 hours

3rd Master's semester

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

### **M 3-111**

#### **Revitalisation 2 - Building in Existing Structures / Reshaping**

Project Module

Prof. Dipl.-Ing. Norbert Moest, Prof. Dipl.-Ing. Dieter Müller

Prof. Dipl.-Ing. Norbert Moest, Prof. Dipl.-Ing. Dieter Müller

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

The Project is linked to courses M 3-201 Energy-Conscious Design and M 3-202 Architectural Design in Context.

The Project brings together different planning requirements into one integrated design.

The aim of the Project is to consider, supplement and integrate existing building fabrics. The design approaches should be developed based on the established urban concept and the spatial and artistic qualities of the existing structure. The dialogue between old and new is the basis of the development planning. Consideration should also be given to constructive and energy-efficient renovation.

Project Work in Seminar Form

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>

Written Work, Papers ( design plans and models ) and Presentation

18

6

540 hours; 90 hours of group work and individual tuition/ 450 hours private study on plans and models

3rd Master's Semester

<b>Module</b>	<b>M 3-700</b>
<b>Title</b>	<b>Metamorphosis 3</b>
<b>Subject</b>	Visual Communication / Energy-optimised Design / Contextual Design
<b>Responsible</b>	Prof. Dipl.-Ing. Dieter Müller, Prof. Dipl.-Ing. Norbert Moest
<b>Lecturers</b>	Prof. Dipl.-Ing. Dieter Müller, Prof. Dipl.-Ing. Norbert Moest
<b>Rotation</b>	Summer Semester or Winter Semester
<b>Duration</b>	1 Semester

<b>Courses</b>	M 3-201 Energy-Conscious Design M 3-202 Architectural Design in Context
<b>Learning Outcomes</b>	See module M 3-100

<b>Mode of Assessment</b>	Written Work
<b>ECTS Credits</b>	6
<b>Contact Hours per Week</b>	6
<b>Workload</b>	180 hours
<b>Schedule</b>	3rd Master's Semester

<b>Course</b>	<b>M 3-701</b>
<b>Title</b>	<b>Energy-Conscious Design</b>
<b>Subject</b>	Visual Communication / Energy-optimised Design / Contextual Design
<b>Responsible</b>	Prof. Dipl.-Ing. Dieter Müller
<b>Lecturers</b>	Prof. Dipl.-Ing. Dieter Müller
<b>Rotation</b>	Summer Semester or Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Tackle the problems of energy-conscious redevelopment and the design consequences when building in existing structures.
<b>Content</b>	<p>Spatial physiology of existing buildings, methods of existing building analysis, thermographic strategies for improved thermal efficiency of the building envelope and its effects in terms of construction physics; the use of innovative insulation and envelope strategies is particularly encouraged.</p> <p>Materialisation and constructive realisation of redevelopment measures Regenerative energy systems, DIN 4701, DIN 4108 Part 1-10, EnEV, DIN V 18599.</p> <p>BKI Energieplaner ( and/or other software applications ) for the creation of a building's energy balance, consideration of a building's overall energy balance.</p>
<b>Method</b>	Seminars and Practicals, Project-related or Project-integrated.
<b>Mode of Assessment</b>	Written Work ( seminars and Practicals, Project-related or Project-integrated )
<b>ECTS Credits</b>	3
<b>Contact Hours per Week</b>	3
<b>Workload</b>	90 hours, Lectures 30 hours, Practicals/analyses and documentation 60 hours
<b>Schedule</b>	3rd Master's Semester
<b>Comments</b>	Students must have an understanding of building services, room climate control systems, construction physics and energy efficiency standards from modules B 2-311, B 3-311 and B 3-312, or be able to demonstrate an equivalent knowledge level

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **M 3-702**

### **Architectural Design in Context**

Visual Communication / Energy-optimised Design / Contextual Design

Prof. Dipl.-Ing. Norbert Moest

Prof. Dipl.-Ing. Norbert Moest

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Contextual versus Anti-Contextual Design in Existing Structures

Architectural design in existing structures requires a personal architectural mindset. This mindset is required both with regard to the built urban context and the pre-existing building structures.

The aforementioned architectural approach is developed and trained by analysing model examples on an urban development and object level.

Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( course-related exercises in Project M3, design plans and models )

3

3

90 hours, Lectures 15 hours; Practicals 75 hours

3rd Master's Semester



<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## **M 4-100**

### **Master's Thesis**

Design Theory / Project Module

tbc

tbc

Summer Semester or Winter Semester

1 Semester

<b>Courses</b>
<b>Learning Outcomes</b>

### M 4-101 Thesis

The Master's Thesis is an examination paper that completes the Master's course. It should show that the candidate is able to work through a problem in his/her specialism independently and using scientific methods within a specified period.

Independent completion of an assignment from the field of building in existing structures /revitalisation with a focus on high-rise, urban development and construction management, firm establishment of the assignment, source research, formulation of the assignment objective, written work/plan representation/model and presentation

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>

Written Work, Plan Preparation, Presentation, Model etc.

30

4

900 hours

4th Master's Semester



<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Architectural Photography

Artistic Principles / Architectural Representation / Presentation

Prof. Dipl.-Ing. Andreas Fuchs

Jörg Hempel

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Convey basic theoretical and practical knowledge of architectural photography

History of architectural photography, famous architectural photographers, architectural photography in art, occupational image and modes of operation, technical peculiarities, model photography, overview of camera technique, fees and copyright, requirements on digital images, basic knowledge of picture editing, printing and presentation.

The course consists of a mix of theoretical explanation and joint practical exercises. The aim is to solve two practical tasks: photography of an architectural model and a public building.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Practical Exercise ( photo portfolio )

2

2

60 hours, Lectures 20 hours, Practicals 40 hours

Elective on the Bachelor's and Master's course

The course is offered as a block course - compact phase.

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Architectural Trends

Artistic Principles / Architectural Representation / Presentation

Prof. Dipl.-Ing. Norbert Moest

Prof. Dipl.-Ing. Norbert Moest

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Discussion of Current Architectural Trends

When you deal with architecture you are dealing with your memory, with what you have seen, with the images in your head. Architecture cannot emerge without the images you have stored. What we design bears the echo of what we have seen.

Pictures are a form of experience. Students are trained in the thought process by analysing built architecture and through excursions. The process of thinking is not abstract, but works with spatial images. The process uses images of the places and spaces we have at our disposal, which we remember. The process of architectural design is to seek coherent ( example ) images.

Seminars and Excursions

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( excursion brochure )

2

2

60 hours

Elective on the Bachelor's and Master's course

<b>Course</b>	<b>Elective Module</b>
<b>Title</b>	<b>Image and Plan Editing - Photoshop</b>
<b>Subject</b>	Artistic Principles / Architectural Representation / Presentation
<b>Responsible</b>	Prof. Dr.-Ing. Corinna Rohn
<b>Lecturers</b>	Dipl.-Ing. ( FH) Katja Nowak-Größchen
<b>Rotation</b>	Summer Semester or Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Advanced work with the picture editing programme Photoshop. The aim is confident use for editing and the compilation of sketches, plans and photographic portfolios drawn by hand.
<b>Content</b>	Digitalising, editing, illustrating, presenting. Even though the use of a computer as a drawing tool may seem to remove the need for manual creation of plans, hand illustration and rapid sketching is still unavoidable for architects. This module seeks to link digital drawing with the PC medium and, at the same time, demonstrate the possibilities and limits of the method. The focus here is on development of drawings, image montage and restitution.
<b>Method</b>	Lectures, Practicals
<b>Mode of Assessment</b>	Written Work ( practical course-related exercise )
<b>ECTS Credits</b>	2
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours, Lectures 30 hours, Practicals 30 hours
<b>Schedule</b>	Elective on the Bachelor's and Master's course
<b>Comments</b>	Admission requirements: successful completion of module B 1-503 Computer-Aided Illustration, maximum number of participants 20

<b>Course</b>	<b>Elective Module</b>
<b>Title</b>	<b>Representation Techniques for Construction Documents</b>
<b>Subject</b>	Artistic Principles / Architectural Representation / Presentation
<b>Responsible</b>	Prof. Dr.-Ing. Corinna Rohn
<b>Lecturers</b>	Dipl.-Ing. Jens Jost
<b>Rotation</b>	Summer Semester or Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Select and use an object-specific, best-suited representation technique for the building documentation. Professional archiving of the results.
<b>Content</b>	Representation of analogue and digital documentation techniques. Practical introduction to, e.g. two-dimensional CAD drawings, 3D modelling, the use of geo-information systems or editing of scanned drawings using picture editing software.
<b>Method</b>	Lectures and Practicals
<b>Mode of Assessment</b>	Written Work ( digital drawing or digital model )
<b>ECTS Credits</b>	2
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours, Lectures 20 hours; Practicals 30 hours, presentation in the seminar 10 hours
<b>Schedule</b>	Elective on the Bachelor's or Master's course
<b>Comments</b>	Admission requirements: basic knowledge of AutoCAD

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Fundamentals of Model Building

Artistic Principles / Architectural Representation / Presentation

Prof. Dipl.-Ing. Dieter Müller

Prof. Dipl.-Ing. Dieter Müller, M.Eng. Dipl.-Ing. Jens Schmidt

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Model Building Techniques

Model building materials for architectural modelling, conceptual model building techniques, introduction to model building techniques, basic tools/tool techniques

Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Practical Exercise ( model )

2

2

60 hours, Lectures 10 hours, Practicals 50 hours

Elective on the Bachelor's course

<b>Course</b>	<b>Elective Module</b>
<b>Title</b>	<b>Plan Representation</b>
<b>Subject</b>	Artistic Principles / Architectural Representation / Presentation
<b>Responsible</b>	Prof. Dipl.-Ing. Johannes Fritz
<b>Lecturers</b>	Prof. Dipl.-Ing. Johannes Fritz
<b>Rotation</b>	Summer Semester or Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Ability to create a plan drawing with existing and imagined architectural objects using techniques of linked representation at different illustration levels and in different scales. Master the representation of buildings and their sections using the applicable standards of plan representation methodology and content. Convey awareness of the debate over plan graphics with illustrative methods for design and working drawings and by using the extras of dimensioning / labelling in accordance with standards and regulations on construction drawings/layout.
<b>Content</b>	Learn about and practise representation of architectural objects with plotting instrument and material, sign vehicle and repertoire Learn how to produce scale drawings when representing building sections and structures by drawing type and content ( layout, ground plan, sectional drawings, elevations, details ).
<b>Method</b>	Lectures with selected examples, Practicals - individually and in small groups, course-related exercises.
<b>Mode of Assessment</b>	Course-related Exercises, Work Portfolio on the Object
<b>ECTS Credits</b>	2
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours, Lectures 30 hours, practical individually and in small groups 20 hours, presentation with preparation 10 hours
<b>Schedule</b>	Elective on the Bachelor's course
<b>Comments</b>	Concentration of teaching and teaching content on introductory, fundamental content for simple plan representation. Group division - fundamentals of CAAD



<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Spatial Drawing

Artistic Principles / Architectural Representation / Presentation

Prof. Dipl.-Ing. Ernst Ulrich Scheffler

Prof. Dipl.-Ing. Ernst Ulrich Scheffler

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Presentation of spatial interrelationships on an urban, building and furniture scale

Freehand drawings of straight-line and curved bodies  
Practising confident drawing

Seminars

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( portfolio submission at the end of the semester )

2

2

60 hours, Practicals 55 hours, follow-up 5 hours

Elective on the Bachelor's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Stegreif Project “Experimental Architecture”

Artistic Principles / Architectural Representation / Presentation

Prof. Dipl.-Ing. Joachim Kieferle

Prof. Dipl.-Ing. Joachim Kieferle

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Discussion of the term "architecture", deepening personal engagement with architecture and design work through conscious exceeding of the limits of "classical architecture".

Work on free design themes, which consciously deviate from "classic architectural tasks".

Examples from past semesters:

- Written discussion of a topic
- "Pasta à la Corbusier" - transferring the design approaches of a famous architect to another discipline
- Spacehotel - architecture in zero gravity.

Lectures, Free Design Exercise

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work, Papers ( design exercise and presentation )

2

2

60 hours, Lectures 30 hours, Practicals 30 hours

Elective on the Bachelor's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Stegreif Project “International”

Artistic Principles / Architectural Representation / Presentation

Prof. Dipl.-Ing. Joachim Kieferle

Prof. Dipl.-Ing. Joachim Kieferle

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Quickly develop and present a design idea. Learn and present in a foreign language.

Small design task, which should be complete in around 3 days. The task is set by an international guest lecturer in consultation with a professor from Hochschule **RheinMain** and monitored jointly during this period. Lectures are also offered by international guest lecturers. The lesson will be in the language of the guest lecturer.

Examples from past semesters:

- Prof. Cheng ( Oregon, USA ): The Beauty of Shadows
- Prof. Bechtold ( Harvard, USA ): Tensile Structures
- Prof. Ham ( Deakin, AU ): Music Room

Lectures, Individual Tuition, Presentation

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work, Papers ( design exercise and presentation )

2

2

60 hours, Lectures 15 hours, Practicals 45 hours

Elective on the Bachelor's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Advanced Visualisation and Drafting Methodology

Artistic Principles / Architectural Representation / Presentation

Prof. Dipl.-Ing. Joachim Kieferle

Prof. Dipl.-Ing. Joachim Kieferle

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Use different visualisation techniques in architectural design, animation, morphogenetic design processes.

Advanced work with visualisation programmes like 3D Studio MAX. Animation techniques in visualisation, light and shadow effects. Evaluating visualisations. Designing with algorithms.

Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( practical course-related exercise )

2

4

120 hours, Lectures 50 hours, Practicals 70 hours

Elective on the Bachelor's or Master's course

This course is continually adapted to the latest developments due to the short development cycles in IT.

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Impromptu Design

Visual Communication / Architectural Design / Urban Design

Prof. Dipl.-Ing. Norbert Moest

tbc ( whole faculty, assistant lecturers, variable )

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

The compulsion to make a quick decision on a design concept heightens the students' discernment. The problems are inevitably reduced to the principle issues. Non-essential matters are recognised as such. thanks to many highly varied tasks during the course students cannot rest on their laurels and are continually forced to review and expand their formal repertoire.

Due to the necessity of conveying the essentials of an idea quickly, all students develop a corresponding presentation method. There are no limits on personal creativity in terms of diagrams, perspective sketches, interior views, models and much more.

Small designs with different themes, e.g.

- Emergency centre on an island
- Observation tower for a lifeguard
- Glacial relief in the quarry
- Exhibition construction for a gravity lift on a peak
- Guesthouse on, against, next to a wall

Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Practical Work ( 3 impromptu designs )

2

2

60 hours

Elective on the Bachelor's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Space and Light

Visual Communication / Architectural Design / Urban Design

Prof. Dipl.-Ing. Günter Weber

Prof. Dipl.-Ing. Günter Weber

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Acquire advanced knowledge with regard to qualitative and quantitative aspects of the light. Ability to develop lighting concepts. Discussion of the effects of natural and artificial light. Use light as a "building materials" and a design resource.

Presenting different types of light and lighting in the Room Lab. Introduction to the latest trends in light technology. Treatment of specific presentation methods. Excursions on architectural theory, literature and lighting art. Analytical consideration of example buildings.

Lectures, Practicals in the Room Lab, Excursions

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Practical Work ( exercises in the Room Lab and presentation )

2

2

60 hours

Elective on the Bachelor's and Master's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Architecture Criticism

Architectural History / Design Theory

Prof. Dipl.-Ing. Dieter Müller

Dipl.-Ing. ( FH ) Christoph Bodenbach

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Discussion of the methods of architecture promotion

Like every cultural creation, architecture is subject to criticism. While criticism of film, theatre, literature and the visual arts is obvious, criticism of architecture often remains hidden. Architecture criticism only takes place in a few major daily newspapers in the German-speaking public media - otherwise there is usually only a report if something spectacular is involved. Architecture criticism in the specialist media is also often limited to a description accompanying a highly stylised photo. The seminar seeks answers to the question "What should, what can architecture criticism achieve?"

Seminars and Practicals, Excursion

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work

2

2

60 hours, Lectures 30 hours, private study 30 hours

Elective on the Bachelor's/Master's course

Students should have a basic knowledge of architectural history and theory.

<b>Course</b>	<b>Elective Module</b>
<b>Title</b>	<b>Selected Chapters in Architectural History / Design Theory</b>
<b>Subject</b>	Architectural History / Design Theory
<b>Responsible</b>	Prof. Dr.-Ing. Corinna Rohn
<b>Lecturers</b>	Prof. Dr.-Ing. Corinna Rohn, Dipl.-Ing. Jens Jost
<b>Turnus</b>	Summer Semester or Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Convey historical references within a period of architectural history. Analysis of historical buildings.
<b>Content</b>	Introduction to the methodology of architectural history research; discussion of historic buildings as a historical source.
<b>Method</b>	Seminars, Excursions
<b>Mode of Assessment</b>	Written Work ( submission of independent work on an architectural history theme of a specific object )
<b>ECTS Credits</b>	2
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours, Lectures, seminar introduction 20 hours, private study 30 hours; presentation in seminar 10 hours
<b>Schedule</b>	Elective on the Bachelor's and Master's course
<b>Comments</b>	



<b>Course</b>	<b>Elective Module</b>
<b>Title</b>	<b>Construction Research, Analysis &amp; Specifications</b>
<b>Subject</b>	Methodology of Architectural Surveys
<b>Responsible</b>	Prof. Dr.-Ing. Klaus Nohlen
<b>Lecturers</b>	Dipl.-Ing. ( FH ) Katja Nowak-Größchen, Dipl.-Ing ( FH ) Martino La Torre
<b>Rotation</b>	Summer Semester or Winter Semester
<b>Duration</b>	1 Semester
<b>Aim</b>	Independent creation of a building specification, contextual historical classification and building phase analysis
<b>Content</b>	The results of the observations, which are made about a selected historical building as part of a construction research analysis, are collated in a building specification and a suitable graphical presentation ( system and phase plans ). The focus is on systematic, structured representation of the observations and results.
<b>Method</b>	Lectures, Practicals on the Object
<b>Mode of Assessment</b>	Written Work
<b>ECTS Credits</b>	2
<b>Contact Hours per Week</b>	2
<b>Workload</b>	60 hours, Lectures 15 hours, Practicals 45 hours
<b>Schedule</b>	Elective module from 4th Bachelor's semester and Master's course
<b>Comments</b>	Admission requirements: basic knowledge of architectural surveys 1 B 4-402, historic preservation, CAD and picture editing programmes. Maximum group size 10 students

<b>Module</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Industry and Functional Building - History and Usage

Architectural History / Design Theory

Prof. Dr. habil. Thilo Hilpert

tbc

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Development trends of work, life, culture and conversion of functional buildings that are no longer useful

History of industry and functional building; changes in life and work; potential for conversion; identification and flexibility

Lectures

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Total Workload</b>
<b>Schedule</b>
<b>Comments</b>

Test, Paper

2

2

60 hours

Elective on the Master's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Scientific Working

Architectural History / Research

Prof. Dr.-Ing. Corinna Rohn

Prof. Dr.-Ing. Corinna Rohn

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Production of a building specification, classification of a developed phenomenon/connection, integration in the research literature, citation skills

Students write their own small texts that are discussed and analysed in class. As an extension of the practical work on an architectural survey or the architectural analysis, a comprehensive and neutral building specification and classification will be developed using small exercises. This is performed for selected sections of a building. Students will also practise dealing with specialist literature, and research in library catalogues and literature databases.

Seminars, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work

2

2

60 hours

Elective on the Bachelor's or Master's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Fire Protection

Construction / Construction Technologies / Realisation

Prof. Dipl.-Ing. Michael Kühne

Dipl.-Ing. Volker Rossel

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

After successful completion students will be able to create a fire protection concept and perform a fire protection assessment.

Fire protection concepts in accordance with DIN 4109 and the building regulations. Escape routes. Fire protection assessment. Fire protection concepts.

The relevant regulations and assessment concepts are discussed with the help of an LCD and overhead Projector.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work

2

2

60 hours, Lectures 30 hours, private study 30 hours

Elective on the Bachelor's or Master's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Lightweight Supporting Structures

Construction / Construction Technologies / Realisation

Prof. Dipl.-Ing. Johannes Fritz

Prof. Dipl.-Ing. Johannes Fritz

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Fundamentals of lightweight structures

Constructive principles for lightweight supporting structures.

Interaction of form and load-bearing behaviour of simply curved, synclastic and anticlastic planes. Design methodology for architects: Form finding methods, particularly simple modelling techniques for the preliminary design, in which constructive and artistic aspects are developed jointly in inseparable unity from the start. Increasingly precise form finding methods for step-by-step form optimisation. Development of principle details. Graphic realisation of the model tests, manually and using CAD.

Lectures, Practicals ( drawings, models ) or Papers

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Course-related Exercises

2

2

60 hours, Lectures 30 hours; Practicals 30 hours

Elective on the Bachelor's and Master's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Material Samples

Construction / Construction Technologies / Realisation

Prof. Dipl.-Ing. Andreas Fuchs

Prof. Dipl.-Ing. Andreas Fuchs

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Advanced Knowledge of Materials for Architecture

Comprehensive knowledge of materials is required to translate a design into constructed architecture. The acquired basic knowledge of materials from Materials Science 1 and 2 is deepened in this seminar. Students research material properties, create materials samples and document usage possibilities.

Seminars

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work

2

2

60 hours, research 45 hours, presentation 15 hours

Elective on the Bachelor's and Master's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Misuse of Standards

Construction / Construction Technologies / Realisation

Prof. Dipl.-Ing. Walter Wilking

Prof. Dipl.-Ing. Walter Wilking

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Appraisal of so-called regulations when dealing with old buildings

Old buildings would have to be knocked down according to new standards, use too much energy, would not be allowed to exist etc. - but nevertheless fulfil their function faultlessly. Often the fabric of the building is systematically destroyed by redevelopment ostensibly intended to meet standards The aim is to demonstrate when standards are useful and when they can actually be harmful.

Lectures

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Papers

2

2

60 hours, Lectures 30 hours, private study 30 hours

Elective on the Master's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Architectural Concrete ( Fair Faced concrete )

Construction / Construction Technologies / Realisation

Prof. Dipl.-Ing. Dieter Müller

Prof. Dipl.-Ing. Dieter Müller

Summer semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Fundamentals of construction and design to create structures fair faced concrete

Deepen knowledge of the architectural effect and the technology of building with fair faced concrete by means of seminars on selected works. The elective also includes workshops at formwork manufacturers and Project execution firms, plus excursions to selected buildings.

Lectures, Seminars, Excursions

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work

2

2

60 hours, Lectures 10 hours, Practicals 20 hours, excursions

Elective on the Bachelor's or Master's course



<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Execution Planning

Construction / Technology / Realisation

Prof. Dr.-Ing. Ulrich Schütz

tbc

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Introduction to execution planning, the "construction manual" for a building, by drawing up large-scale plans ( floor plans, sectional drawings and elevations in 1:50, details from 1:20 to 1:1 ).

Overview of the information and figures to be described for the applicable scales in the working and detailed drawings, such as measurements, material specifications, details of quality and composition, tolerances and working notes. Supplementary trade-specific issues and the planning documents of leading manufacturers and the most important DIN standards are incorporated in the planning process.

In conjunction with explanations of the planning process, the elective also explains that working plans form the basis for bills of quantities and the tender documents.

Lectures and Papers

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Papers and Written Work

2

2

60 hours

Elective on the Bachelor's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Construction Ecology - Ecology and Sustainability of Materials

Construction / Construction Technologies / Realisation

Prof. Dipl.-Ing. Johannes Fritz

Prof. Dipl.-Ing. Johannes Fritz

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Convey the fundamentals of ecological construction. Understand complex interrelationships and interactions between people, the natural and built environment and the resulting demands on the design and execution of buildings.

Convey the basic terminology: limits of ecology and construction ecology, the unity of people, the natural and built environment. Consider ecological building principles using examples from nature and architectural history. Significance of an understanding of nature for construction - as a subjugation of nature or in harmony with it. Interaction people - building: fundamentals for natural living in buildings, basic physical and psychological needs for living, working, regeneration. Requirements on the space that can be seen, heard and smelt, healthy living, sustainability of building materials. Interaction building - environment: integrating the building into the surrounding nature and landscape. Effects on the ecosystem, climate ( e.g. CO2 emissions/greenhouse effect ) and ecological cycles. Explain the basic terminology and examples of sustainable planning, resource-friendly construction, energy-efficient construction, minimising primary energy, use of greenfield land and countryside oversettlement, nature-oriented constructions and building methods. Possibilities for retrospective ecological upgrading to existing buildings.

Lectures, Practicals, Papers

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( course-related exercises )

2

2

60 hours, Lectures 30 hours, Practicals 30 hours

Elective on the Master's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Historic Supporting Structures

Historic Construction Technologies

Prof. Dipl.-Ing. Walter Wilking

Prof. Dipl.-Ing. Walter Wilking

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Understand the construction types of historic buildings, manufacturing processes of constructions, methods of craftsmanship

History of construction from the pyramids to the start of the 20th century, considering the development of the art of engineering and calculation methods ( basics of mathematics and physics etc. ), development of the manufacturing methods for the erection of supporting structures.

Lectures

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work ( class exercise )

2

2

60 hours, Lectures 30 hours, preparation and private study 30 hours

Elective on the Master's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Planning and Building Contracts

Construction Management / Law

Prof. Dr.-Ing. Ulrich Schütz

Prof. Dr.-Ing. Ulrich Schütz

Summer Semester or Winter Semester

Block Course

<b>Aim</b>
<b>Content</b>
<b>Method</b>

The first part of the course explains the contractual regulation of a design assignment, fee issues in accordance with HOAI ( Honorarordnung für Architekten und Ingenieuren ) and the procedure for the architect selection process ( competition or VOF selection procedure ). The second part of the course covers the process and legal basis for creating a tender, the award of contract and billing for construction works.

- Fee structure for architects and engineers ( Honorarordnung für Architekten und Ingenieure - HOAI )
- Structure and content of design contracts
- Principles and guidelines for competition ( RPW )
- Contracting rules for freelance services ( Verdingungsordnung für freiberufliche Leistungen - VOF )
- Legal basis of a building contract
- Creating a technical specification
- Tender and award of construction services
- Billing for construction services
- Acceptance
- Final certificate

Lectures, Practicals

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Paper ( presentation of work at the end of the block course )

2

2

60 hours, Lectures 30 hours, Practicals 30 hours

Elective on the Master's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Work and Services Contract Law for Architects and Engineers

Construction Management / Law

Prof. Dr.-Ing. Stefan Plaum

Prof. Dr. Christian Lührmann

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Explain the legal fundamentals of a work and services contract, i.e. either a construction contract between the client and construction firm/craftsman or a design contract between the client and architect/engineer from a legal perspective.

Building contracts based on the VOB and the BGB: legal basis for tender and award of contract, conclusion of contract, essential content of the contracting rules for construction services ( Verdingungsordnung für Bauleistungen - VOB/B ).

Design contracts based on the fee structure for architects and engineers ( Honorarordnung für Architekten und Ingenieure - HOAI ) and the German Civil Code ( BGB ), the designer's authority and obligations, liability issues, fee issues, current case law.

Seminar instruction

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Oral Exam ( "Fachgespräch" at the end of the semester )

2

2

60 hours, 30 contact hours and 30 hours of private study

Elective on the Bachelor's and Master's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Urban Research

Urban Development / Building Theory

Prof. Dipl.-Ing.Volker Kleinekort

Prof. Dipl.-Ing.Volker Kleinekort

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Alongside design as a main discipline in the study of architecture, it is also essential for students to "get to know" different and intercultural aspects of the own research field.

The seminar aims to enable students to "consider and recognise" urban phenomenon. The spatial focus ranges from the individual area to the regional context.

Create a scientific article and, after editorial revision, present the findings in the form of a scientific poster.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Practical Exercise

2

2

60 hours, Lectures 20 hours, Practicals 40 hours

Elective on the Bachelor's or Master's course

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### English for Architects

Key Qualifications

Dipl.-Übersetzer Dirk Jordan

Dipl.-Übersetzer Dirk Jordan

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Training in communicative English skills, as well as general and specialist spoken and written skills through regular active participation and preparation at home.

- Discussion of professional themes in pairs and groups
- Intensive study of texts using authentic sources
- Expansion of professional terminology knowledge, incl. compiling a specialist architectural glossary together.
- Exercises on the main features of the technical professional language ( e.g. word formation examples using prefixes and suffixes )
- Repetition of selected grammatical structures
- Definition of relevant specialist terminology
- Exercises to improve aural comprehension

Communicative course using diverse authentic materials ( e.g. pertinent print media, textbooks, specialist books, Internet ).

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Papers and Test

2

2

60 hours

Elective on the Bachelor's and Master's course

Requirement: good English skills

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### French for Architects 1

Key Qualifications

Bert Weiss

Bert Weiss

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Develop the specialist terminology, specialist professional communication ( describe construction forms, critical opinion on contemporary French architecture ), knowledge on famous buildings and architects in France.

Students work with specialist texts ( incl. Philippe Cros: Les Styles en architectures, Toulouse ( Milan ) ISBN: 978-2-7459-1787-7 ) and film documents ( Architectures , ARTE Video 19955 - 2005 ) on architectural history ( Romanesque, Gothic, Renaissance ) and Modernism ( Pierre Chareau, Le Corbusier, Jean Prouvé, Richard Rogers / Renzo Piano, I.M. Pei, J.O. v. Spreckelsen, Jean Nouvel, Santiago Calatrava, Christian de Portzamparc ) and on current urban Projects ( Euralille, Euroméditerranée, Seine-Arche etc. ).

Regular participation, short presentations ( on French buildings or architects ) and completion of work outside class are expected with regard to efficient learning.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Presentation, Test

2

2

60 hours

Elective on the Bachelor's and Master's course

4 year's school French is a prerequisite for preparation for study at the partner university Ecole Nationale Supérieure d'Architecture de Strasbourg and a work placement in France



<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### French for Architects 2

Key Qualifications

Bert Weiss

Bert Weiss

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content</b>
<b>Method</b>

Develop the specialist terminology, specialist professional communication ( describe construction forms, critical opinion on contemporary French architecture ), knowledge on famous buildings and architects in France.

Students work with specialist texts ( incl. Philippe Cros: Les Styles en architectures, Toulouse ( Milan ) ISBN: 978-2-7459-1787-7 ) and film documents ( Architectures , ARTE Video 19955 -2005 ) on architectural history ( Romanesque, Gothic, Renaissance ) and Modernism ( Pierre Chareau, Le Corbusier, Jean Prouvé, Richard Rogers / Renzo Piano, I.M. Pei, J.O. v. Spreckelsen, Jean Nouvel, Santiago Calatrava, Christian de Portzamparc ) and on current urban Projects ( Euralille, Euroméditerranée, Seine-Arche etc. ).

Regular participation, short presentations ( on French buildings or architects ) and completion of work outside class are expected with regard to efficient learning.

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Presentation, Test

2

2

60 hours

Elective on the Bachelor's and Master's course

Builds on E - French for Architects 1

<b>Course</b>
<b>Title</b>
<b>Subject</b>
<b>Responsible</b>
<b>Lecturers</b>
<b>Rotation</b>
<b>Duration</b>

## Elective Module

### Study Centre

Key Qualifications

Prof. Dr.-Ing. Ulrich Schütz

tbc

Summer Semester or Winter Semester

1 Semester

<b>Aim</b>
<b>Content/Method</b>

Studying does not just mean acquiring extensive, up-to-date contemporary knowledge. Studying also means preparing for professional life. This requires additional methodical, social and personal skills. Working successfully in a team, communicating adequately, handling conflicts constructively - abilities in these areas are also crucial to professional and personal success.

The Study Centre is a permanent fixture of Wiesbaden University of Applied Sciences. It organises seminars, informational events and special Projects on key qualifications. Available seminars include:

- Introduction to libraries - training in information expertise
- Dealing with conflicts,
- Strategies to tackle a fear of public speaking
- Learning techniques,
- Job application training,
- Presenting with PowerPoint,
- Communication training
- Scientific writing,
- Networking,
- Time management

<b>Mode of Assessment</b>
<b>ECTS Credits</b>
<b>Contact Hours per Week</b>
<b>Workload</b>
<b>Schedule</b>
<b>Comments</b>

Written Work

2

2

60 hours

Elective on the Bachelor's and Master's course

The seminars offered by the Study Centre can be recognised as elective on the Bachelor's or Master's course. Consultation with the Chair of the Examination Committee and the Dean may be required before allocation of the seminars.