

BACHELOR

DESIGN

Module:	BAR 1.1
Entwerfen I	Architectural Design I
Brief description of content:	The students learn the basics of architectural design methods through lectures and design exercises focused on space, abstraction and form.

Module:	BAR 1.2
Entwerfen II - Basisprojekt	Architectural Design II – Base Project
Brief description of content:	The students learn conceptual thinking, form-finding and construction through the realisation, documentation and presentation of a specified small-scale design project.

Module:	BAR 1.3
Entwerfen III – Kleines Gebäude	Architectural Design III – Small Building
Brief description of content:	Through the design of a small building within an intricate context, the students acquire an understanding of the complexities of structural, spatial and programmatic relationships.

Module:	BAR 1.4
Großes Gebäude	Design Studio – Large Building
Brief description of content:	The students prepare and structure a complex program for a large building and develop their concept in an urban context. Findings from other subjects such as building theory and construction are consolidated in the design.

Module:	BAR 1.5
Entwerfen in Ensemble	Urban Design
Brief description of content:	Through an urban design project, the students learn contextual urban planning in scales ranging from house to block/city. They develop an understanding of the complexities and relationship of urban space and built form.

Module:	BAR 1.6.1
Bachelorthesis	Bachelor Thesis
Brief description of content:	The students apply and demonstrate their acquired knowledge through the completion of a complex, architectural and contextual design project.

Module:	BAR 1.6.2
Kolloquium	Colloquium
Brief description of content:	The Bachelor Thesis is presented and discussed in a scientific forum consisting of professors and peers. Critical thinking and methodology as well as presentation and presentation forms is trained.

TECHNOLOGY AND SCIENCE

Module:	BAR 2.1
Tragwerkslehre I - Grundlagen	Structural Design I - basics
Brief description of content:	The students learn the basics of various structural systems, their loadbearing capacities and their applicability. They can design, understand and calculate simple structures.

Module:	BAR 2.2
Tragwerklehre II - Materialtechnologie	Structural Design II – material technology
Brief description of content:	The students learn how to develop simple load-bearing structures in the most important building materials based on the principles of material-specific construction.

Module:	BAR 2.3
Gebäudelehre, Planungs- und Baurecht I	Building Theory / Building Law I
Brief description of content:	The students are taught the basics of building organisation (anthropometry, circulation, area, space, construction) as well as the principles of the practice of an architect, cost determination and requirements planning.

Module:	BAR 2.4
Gebäudelehre, Planungs- und Baurecht II	Building Theory / Building Law II
Brief description of content:	The students investigate typologies and analyse housing examples. The basic principles of building contracts, procurement procedure and construction management are taught in lectures.

Module:	BAR 2.5
Gebäudelehre, Planungs- und Baurecht III	Building Theory / Building Law III
Brief description of content:	The students acquire an overview of office typologies and study examples of office-based work. The basic principles of public and private law, particularly the legal effects of construction managements are taught in lectures.

Module:	BAR 2.6
Bachelorthesis-Seminar	Bachelor Thesis Seminar
Brief description of content:	The students explore and research the academic topics accompanying the Bachelor thesis.

CONSTRUCTION AND BUILDING PROCESS

Module:	BAR 3.1
Konstruieren I	Construction Technology I
Brief description of content:	The students learn the basics and standards of construction by means of planar designs in masonry. An appreciation of the impact of constructive details on the outcome is developed through manageable designs.

Module:	BAR 3.2
Konstruieren II	Construction Technology II
Brief description of content:	Students learn the basics and standards of construction by means of linear designs in timber. Combined with the acquired knowledge of construction and materials, they put their basic understanding of heated/non-heated space and weather-/moisture-proofing to use on designs.

Module:	BAR 3.3
Konstruieren III – Holzbauweisen	Construction Technology III – Timber
Brief description of content:	The course offers an introduction to the organic building material timber as well as to historical, professional and modern timber construction methods.

Module:	BAR 3.4
Konstruieren IV - Bauphysik	Construction Technology IV – building physics
Brief description of content:	The students investigate the relationship between sustainable, architectural design and construction, civil engineering and building physics through design exercises.

Module:	BAR 3.5
Konstruieren V	Construction Technology V
Brief description of content:	The students learn to design contemporary building services such as supply and disposal systems. The main focus is the fundamentals of energy-efficient construction.

Module:	BAR 3.6
Konstruieren VI	Construction Technology VI
Brief description of content:	The students learn the functional, structural and physical requirements of facade design and the building envelope.

HISTORY, THEORY AND SOCIETY

Module:	BAR 4.1
Architekturzeichnung, Bau- und Kunstgeschichte	Architectural Drawing Skills, Art and Building History
Brief description of content:	The basics of architectural drawing, representation and project communication are taught through drawing and presentation exercises. The students can test and communicate conceptual spatial ideas through sketching. An introduction to Art and Building History is given in lectures.

Module:	BAR 4.2.1
Baugeschichte I	Building History I
Brief description of content:	The topic of this module is the historical development of construction methods and buildings. Building culture, innovations and milestones as well as selected architectural works frame the lectures. An understanding of earlier construction methods and design frameworks is important not only for restoration and conservation, but can also serve as a basis for the development of modern architecture.

Module:	BAR 4.2.2
Kunstgeschichte I	Art History I
Brief description of content:	The students develop an understanding for the position of architecture within a historical, social and artistic Framework through lectures in Art history. They also gain an insight in academic work methods. Art in different eras and important architectural styles are discussed.

Module:	BAR 4.3.1
Baugeschichte II	Building History II
Brief description of content:	The students investigate historical styles and the traditional and constructional features of buildings through research. A deeper investigation into building history that can involve themes as materials, construction methods, urban development, design principles and certain eras.

Module:	BAR 4.3.2
Kunstgeschichte II	Art History II
Brief description of content:	Further research in the field of art history can involve themes as certain styles and eras, ornament, cultural history, a broader view on movements and the influence on art and culture on architecture and architects.

Module:	BAR 4.4
Kontext in Stadt und Architektur I	Design and strategies in Urban Space I
Brief description of content:	The students learn about the history of urban design, urban planning and design principles as well as building survey basics.

Module:	BAR 4.5
Kontext in Stadt und Architektur II	Design and strategies in Urban Space II
Brief description of content:	The students learn the basics of spatial organisation (positive and negative space). They gain insight in architectural heritage and the qualities and possibilities of existing building substance.

Module:	BAR 4.6
Kontext in Stadt und Architektur III	Design and strategies in Urban Space III
Brief description of content:	The students acquire basic knowledge of theoretical, architectural schools of thoughts within urban design and urban planning, as well as in building law.

REPRESENTATION, FORM DESIGN AND CONTEXT

Module:	BAR 5.1
Analoge und digitale Darstellungen I	Analogue & Digital Representation I
Brief description of content:	The students gain insight in the basics of colour theory as well as the historical and contemporary principles and philosophy of colour. They also learn the proper use of CAAD and the basics of visualisation and presentation in order to integrate these tools in their own design process.

Module:	BAR 5.2
Analoge und digitale Darstellungen II	Analogue & Digital Representation II
Brief description of content:	The students learn the basics and principles of perspective. They work with image editing and desktop publishing in order to utilise computer-aided architectural visualisation and presentation techniques in their design and planning process.

Module:	BAR 5.3
Digitale Darstellungsformen	Digital Architectural Representation
Brief description of content:	The students learn to work creatively and efficiently with the computer in the design process. They acquire an overview of different computer-aided, architectural visualisation and conceptual design techniques. Manipulation of concepts and design as a process play an important role. A physical representation of the digital model is investigated. The students develop complex 3D-form and contemporary presentations through various exercises.

INTERDISCIPLINARY AND ELECTIVE MODULES

Module:	BAR PM1+2
Interdisziplinäre Projektwoche	InterPro - Interdisciplinary Project Week
Brief description of content:	Inter-and transdisciplinary project work(shops) within the design department. The students have the opportunity to work intensively with professors and students from the other branches of design (communication design, interior architecture, fashion, intermedia design, gemstone and jewellery design) for a week on common projects.

Module:	BAR EX
Exkursion	Excursion
Brief description of content:	In excursions to exciting regions/cities within Europe current design trends and buildings from different styles and eras which show exemplary spatial qualities are explored in an international context on location.

Module:	BAR WM1 (elective)
Darstellungsstrategien	Representation Methods
Brief description of content:	The students specialise in representation, media and layout techniques in all scales. They develop strategies to best represent their designs.

Module:	BAR WM2 (elective)
Präsentationsstrategien	Presentation Methods
Brief description of content:	The students specialise in presentation and communication of design projects. Concepts are visualised in diagrammes and communicated through rhetoric strategies.

Module:	BAR WM3 (elective)
Tragwerksentwicklung	Structural concepts
Brief description of content:	The students develop material-specific structural systems with the support of experimental, calculative-analytical and computer-aided methods.

Module:	BAR WM4 (elective)
Kontext Architektur und Landschaft	Context Architecture and Landscape
Brief description of content:	Theoretical discussion of Landscape Architecture as a means of expanding the field of architectural and urban design.

Module:	BAR WM5 (elective)
Kulturelle Kompetenz	Cultural competence
Brief description of content:	The students learn about the occupational profile of architects in Europe through international and cultural activities which put architecture in a socio-cultural context.

Module:	BAR WM6 (elective)
Sondergebiete der Gebäudelehre	Special Topics in Building Theory
Brief description of content:	Contemporary typological, social, constructive, technical and spatial issues of Building Theory are thoroughly researched.

Module:	BAR WM7 (elective)
Zeichnen für Architekten	Freehand architectural Drawing
Brief description of content:	The students learn how to display 3-dimensional architectural objects in sketches and axonometric/perspective drawings with different techniques in order to communicate their projects and concepts.

Module:	BAR WM8 (elective)
Entwurfsstrategien	Design Methods
Brief description of content:	Design strategies are developed through design experiments and investigation/exploration of methodologies.

Module:	BAR WM9 (elective)
Sonderthemen im historischen Kontext	Special Topics in Historical Context
Brief description of content:	Design exercises and conceptual topics of building survey and development in historical context

Module:	BAR WM10 (elective)
Sonderthemen der Technologie	Technology in Architecture
Brief description of content:	The students learn about special topics such as bionics or industrial buildings. They study the application of biological methods and systems found in nature to the design of engineering systems and architecture as well as the basics of spatial and (long-span) structural systems.

Module:	BAR WM11 (elective)
Entwerfen in Holzbauweisen	Design in Timber
Brief description of content:	Advanced competence and knowledge of timber constructions and timber engineering as well as its application to architectural designs.

Module:	BAR WM12 (elective)
BIM	Building Information Modeling
Brief description of content:	The students acquire competence in Building Information Modelling through simple design exercises that also cover multidisciplinary and team work.

Module:	BAR WM13 (elective)
Campus credits	Campus credits
Brief description of content:	The students participate in extra-curricular activities, which generate architectural, but also interdisciplinary competence. Examples are involvement and organization of lecture series and conferences, as well as the planning and realization of exhibitions.

Module:	BAR WM14 (elective)
Sonderthemen der Architektur	Special Topics in Architecture
Brief description of content:	Planning and realisation of an architectural project.

Module:	BAR WM15 (elective)
Dokumentation, Reflexion	Documentation, Reflection
Brief description of content:	The students research and document academic themes. The students reflect upon their own architectural positions and professional and didactic skills within the framework of tutoring.

MASTER

DESIGN

Module:	MAR 1.1
Entwurfsprojekt – Grundlagen	Preliminary Design Project
Brief description of content:	The students formulate a concept based on analysis and contextual parameters. The conceptual and structural approaches to this concept within the „context city“ represent an introduction to the framework within which the „Design project“ is developed.

Module:	MAR 1.2
Entwurfsprojekt	Design Project
Brief description of content:	Through the framework of a design project the students develop an understanding of topics/themes, interdependencies and place. They also learn to analyse and understand the brief of a virtual or real situation. Critique and discussion occur within the „visiting critics“ format, where international acting professionals partake.

Module:	MAR 1.3
Vertiefungsprojekt	Design Project – specialisation
Brief description of content:	Based on interest and their „Design Project“, the students choose a specialisation area within the offered directions of study and finalise their design. The themes are: Urban context, computational design, architectural space, historical context, material science, integral planning/technology and construction.

Module:	MAR 1.4
Masterthesis	Master Thesis
Brief description of content:	The design of an architectural, constructive design project in the context of a european city with the possibility of an individual and/or thematic specialisation.

CONSTRUCTION, TECHNOLOGY AND BUILDING PROCESS
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Module:	MAR 2.1
Sonderthemen der Konstruktion	Special Topics in Construction
Brief description of content:	Issues of sustainability and energy efficiency are treated theoretically and with regards to their application in building.

Module:	MAR 2.2
Konzeptionelles Entwerfen	Conceptual Design
Brief description of content:	Through design and programming/scripting exercises the students gain insight in creative methods for the design and assessment of (solution) variants. Different conceptual approaches are investigated and theoretically anchored. The students are equipped with conceptual strategies that can be applied to their design work.

Module:	MAR 2.3
Konstruktion und Bauweisen im internationalen Vergleich	International Construction and Building
Brief description of content:	The students research and compare contemporary, international building constructions and can recognise and take into consideration important parameters thereof. These are integrated in their own design projects.

Module:	MAR 2.4
Konstruktion und Bauphysik	Construction and Building Physics
Brief description of content:	Through lectures, excursions and design exercises current construction methods and materials are communicated. Building physics play an integral part of this module and the students consider building physics and construction details.

HISTORICAL CONTEXT AND ARCHITECTURAL THEORY

Module:	MAR 3.1.1
Historischer Kontext, Theorie und Gesellschaft I - Baugeschichte	Historical Context, Theory and Society I - Building history
Brief description of content:	In this module, the history and theory of Architecture, built heritage conservation and social sciences are intensively and academically researched and studied.

Module:	MAR 3.1.2
Historischer Kontext, Theorie und Gesellschaft I - Kunstgeschichte	Historical Context, Theory and Society I – Art history
Brief description of content:	The students expand their understanding for the position of architecture within a historical, social and artistic Framework through lectures in Art history. They research topics academically.

Module:	MAR 3.2.1
Historischer Kontext, Theorie und Gesellschaft – Baugeschichte II	Historical Context, Theory and Society – Building history II
Brief description of content:	The students acquire knowledge of important contemporary positions in the architectural and theoretical debate through texts and scientific analysis/assessment of existing buildings.

Module:	MAR 3.2.2
Historischer Kontext, Theorie und Gesellschaft – Kunstgeschichte II	Historical Context, Theory and Society – Art history II
Brief description of content:	Further academic research in the field of art history and architecture can involve themes as certain styles and eras, ornament, cultural history, a broader view on movements and the influence on art and culture on architecture and architects.

Module:	MAR 3.4
Masterthesis-Seminar	Master Thesis Seminar
Brief description of content:	The students define, research and acquire necessary and complimentary background information to their Master thesis topic.

HISTORICAL CONTEXT AND ARCHITECTURAL THEORY

Module:	MAR 4.1
General Principles of the European City	Leitbilder europäische Stadt
Brief description of content:	The students analyse and reflect upon the important parameters of the contemporary european city, its processing and development and its architecture

Module:	MAR 4.4
Internationales Projektmarketing	International Project Marketing
Brief description of content:	International strategies for project development and marketing are covered and the students can recognise and utilise important parameters of project generation, planning and marketing.

ELECTIVE MODULES

Module:	MAR WM1
Digitale Entwurfsmethodik	Computational Design Methods
Brief description of content:	The students develop competence in parametric/generative design methods and gain insight in the theoretical, architectural fundamentals of computational design.

Module:	MAR WM2
Digitale Konstruktionsmethoden	Digital Fabrication
Brief description of content:	The students research and experiment with digital fabrication ("digital chain") in theory and practice. They learn the use of advanced construction software.

Module:	MAR WM3
Kommunikation und Präsentation	Communication and Presentation
Brief description of content:	The students reflect upon their own architectural positions and professional and didactic skills within the framework of tutoring. Communication and presentation techniques are practised.

Module:	MAR WM4
Bauforschung	Building Survey
Brief description of content:	The students survey, register and evaluate historical buildings. They are trained in methods of conservation and the documentation process.

Module:	MAR WM5
Gebäudeanalyse	Building Analysis
Brief description of content:	Analysis and representation of qualitative and spatial building parameters.

Module:	MAR WM6
Darstellungs- und Präsentationsformen	Architectural Representation and Presentation
Brief description of content:	The students learn and experiment with strategies for an optimised design presentation. They investigate different media and publication/communication channels.

Module:	MAR WM7
Entwurfsmethodik	Design Techniques
Brief description of content:	Design strategies are developed through design experiments and investigation/exploration of methodologies.

Module:	MAR WM8
Tragwerksoptimierung	Structural Optimisation
Brief description of content:	The students develop material-specific structural systems with the support of experimental, calculative-analytical and computer-aided methods.

Module:	MAR WM9
Architektur und Landschaft	Architecture and Landscape
Brief description of content:	Landscape Architecture as a means of expanding the field of Architectural and Urban Design.

Module:	MAR WM10
Digitale Fertigungstechniken Holz	Digital Fabrication in Timber
Brief description of content:	The students acquire professional competence in CAD/CAM-processes and digital fabrication with special regards to the material timber

Module:	MAR WM11+12
Sondergebiete der Architektur	Special Themes in Architecture
Brief description of content:	Planning and realisation of an architectural project.