MODULE HAND BOOK

STUDY PROGRAM ARCHITECTURE BACHELOR + MASTER VERSION DECEMBER 2016

Münster University of Applied Sciences

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MODULE HANDBOOK

STUDY PROGRAM ARCHITECTURE BACHELOR + MASTER

Version December 2016

| MODULES | OF THE STUDY PROGRAM BACHELOR OF ARTS - ARCHITECTURE | |
|-----------|------------------------------------------------------|-----|
| MODULE 1 | DESIGN AND DISPLAY | 12 |
| MODULE 2 | CONSTRUCTION PLANNING, URBAN PLANNING | 26 |
| MODULE 3 | CONSTRUCTION | 36 |
| MODULE 4 | GENERAL SCIENTIFC BASICS | 54 |
| MODULE 5 | HISTORY AND THEORY | 64 |
| MODULE 6 | CONSTRUCTION EXECUTION / MANAGEMENT | 72 |
| MODULE7 | ADDITIONAL SEMINAR FROM THE UNIVERSITY OFFERINGS | 80 |
| FINAL MOD | DULE SPECIALISATION AND B.A. THESIS | 84 |
| | | |
| MODULES | OF THE STUDY PROGRAM MASTER OF ARTS - ARCHITECTURE | 91 |
| MODUL2 | CONSTRUCTION PLANNING, URBAN PLANNING | 96 |
| MODUL 3 | CONSTRUCTION | 110 |
| MODUL 4 | GENERAL SCIENTIFC BASICS | 116 |
| MODUL 5 | HISTORY AND THEORY | 120 |
| MODUL 6 | CONSTRUCTION EXECUTION / MANAGEMENT | 124 |
| MODUL7 | ADDITIONAL SEMINAR FROM THE UNIVERSITY OFFERINGS | 128 |
| ELECTIVE | ELECTIVE FROM THE AREAS M1-M6 MASTER | 132 |
| THESIS | | 136 |

BACHELOR

MODULE 1 – DESIGN AND DISPLAY

MODULE 2 - CONSTRUCTION PLANNING, URBAN PLANNING

MODULE 3 – CONSTRUCTION

MODULE 4 – GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 – CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7 – ADDITIONAL SEMINAR FROM THE UNIVERSITY
OFFERINGS

FINAL MODULE - SPECIALISATION AND B.A. THESIS

MODULE 1 – DESIGN AND DISPLAY

- AESTHETIC THEORY AND PRACTICE
- FREE-STYLE DRAWING
- DISPLAY TECHNIQUES
- NEW MEDIA, CAD
- DESCRIPTIVE GEOMETRY/PERSPECTIVE
- EXPERIMENTIAL COMPOSITION

MODULE 2 – CONSTRUCTIVE PLANNING, URBAN PLANNING

MODULE 3 – CONSTRUCTION

MODULE 4 – GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 – CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7-ADDITIONAL SEMINAR FROM THE UNIVERSITY
OFFERINGS

FINAL MODULE - SPECIALISATION AND B.A. THESIS

MODULE 1 – DESIGN AND DISPLAY

BA.M1.1 ARCHITECTURAL RENDERING

BA.M1.1 DESIGN BASICS

BA.M1.1 TOOLBOX

BA.M1.2 ARCHITECTURAL RENDERING

BA.M1.2 DESIGN BASICS

BA.M1.2 TOOLBOX

Module subject: ba.m1.1 – Architectural rendering

| Semester | 1 st |
|-----------------------------------------------------|--------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / winter semester |
| Duration of the module | |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |
| Parts of the module | 1. Basics in CAD |
| | 2. Free-style drawing and Descriptive Geometry I |
| | 3. Digital Graphics Processing I |

| ECTS | 3 CP |
|----------------------------------------|-----------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 90 hours, of these are attendance: 6 SWS (hours per semester) during the lecture period |
| Teaching method | Seminar |
| Teaching language | German |
| Examination form(s) | Certificate of achievement |
| Examination time | - |
| Prerequisite for the assignment of CPs | Successful proof of achievement in all module subjects |

| Responsible for the module subject | Deanery /Ralf Westarp (Centre for Architectural Communication) |
|------------------------------------|-----------------------------------------------------------------------|
| Lecturer(s) | Changing teaching assignments for the individual module subject parts |

Module subject:

ba.m1.1 – Architectural Rendering

Learning Outcomes

Expertise:

- Knowledge of the tools of architectural representation necessary for the bachelor's program
- Knowledge of "Basics in CAD" as well as "Free-Style Drawing and Descriptive Geometry"
- Knowledge of the importance of design-related models
- Knowledge of tools necessary for digital presentations and documentation

Methodological skills:

- Ability to creatively implement visible objects and constructive ideas in drawings
- Evaluation and assessment of the presentation tools to be used during the design process.
- Consideration of the interaction of the presentation tools and individual components of the design.
- Practical application of the presentation tools.
- Assessment of the relevance of the presentation methods and presentation tools from the free sketch to the precise technical drawing
- Reflection on the importance of design-related models Social skills / Own competencies:
- Presentation of the results in analogue and digital form
- Training of critical reflection and discussion of the results

Content of the module subject

Basics in CAD:

 Basic courses for 2D and 3D drawing with practicerelevant drawing programs. Suitable programs are to be re-evaluated every semester

Freehand Drawing and Descriptive Geometry I

- Introduction to pictorial and constructive forms of pencil drawing
- Perspectives, cracks, ellipses are combined with studies of nature

Digital graphics processing

- Imparting of tools necessary for the development of digital presentations and documentation.
- Foundations of organization, image processing and image planning based on relevant digital programs

Module subject: ba.m1.1 - Design Basics

| Semester | 1 st |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / winter semester |
| | |
| Type of module | Mandatory (Note: The module subjects ba.m1.1 - ba.m1.3 Design Basics have to be taken with different professors) |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 8 CP |
|----------------------------------------|--------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 240 hours, of these are attendance: 6 SWS (hours per week) during the lecture period |
| Teaching method | Lecture / Seminar / Tutorials / poss. mandatory excursion(s) |
| Teaching language | German / English |
| Examination form(s) | Presentation |
| Examination time | 20-40 minutes per student (see BB BA Architektur §10) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | N. N. |
|------------------------------------|----------------------------------------------------------------------|
| Lecturer(s) | Prof. Blum, Prof. Hanada, Prof. Mani, Prof. Mer, Prof. Schemel, N.N. |

Learning Outcomes

Expertise:

- Knowledge of the basics of perception, aesthetics and the theory of forms necessary for the bachelor's program.
- Knowledge necessary for the bachelor's program on the basics of the conditioning of architectural space according to topological and typological aspects as well as questions of material, poetry and technology.

Methodological skills:

- Experience with the basics of the methodology of design and drafting.
- Training of multisensory perception and creative ability.
- Training of basic communication and presentation skills, e.g. free sketches, line drawings, figure ground drawings, models, use of various media, installations, performances

Social skills / Own competencies:

- Independent conceptual and creative thinking and acting.
- Training of competence, both individually and in a team.
- Training of basic architectural language skills

Content of the module subject

Methodology of architectural design and drafting in the sense of spatial, structural and tectonic relations as well as material and immaterial aspects.

The consistent development and formulation of the qualities of space is theoretically and practically practiced on the basis of basic projects with little or no functional requirements.

The demands and requirements for the conception, for instruments / tools / strategies and for scale correspond to a simple basic project.

An introduction to communication and presentation techniques takes place in content-related coherence with the respective tasks of the individual courses in Design Basics.

Module subject: ba.m1.1 - Toolbox

| Semester | 1 st |
|-----------------------------------------------------|--------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / winter semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 1 CP |
|----------------------------------------|--------------------------------------------------------------|
| Student Workload/ Attendance | 30 hours, of these are attendance: 2 SWS (hours per week) |
| Teaching method | Lecture / poss. mandatory excursion(s) |
| Teaching language | German/English |
| Examination form(s) | Certificate of achievement |
| Examination time | - |
| Prerequisite for the assignment of CPs | Obtaining the certificate of achievement |

| Responsible for the module subject | Prof. Mani |
|------------------------------------|-------------------|
| Lecturer(s) | Several lecturers |

Module subject: ba.m1.1 - Toolbox

| Learning Outcomes | Overview of the special significance of architecture-related topics: |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Right at the beginning of the study program, the lecture series offers students an insight into the diversity of architectural issues. It aims to "open students'eyes" and raise awareness for architecture by doing reflections from different perspectives. |
| Content of the module subject | For example, the following topics are covered: |
| | Communication (historical, layouts, drawings, computers, models and materials), scale, light, colour, spatial design, perception, interior design, public space, urban planning, law, management, fire safety, density, demography, sociology, sustainability, historic preservation, conversion, typologies, etc. |
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Module subject: ba.m1.2 – Architectural rendering

| Semester | 2 nd |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Semester | |
| Study degree program | Bachelor |
| Rotation of the module | Annual / summer semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | Module subject ba.m1.1 "Architectural rendering", or prior knowledge appropriate of the Bachelor's program. |
| Parts of the module | Basic 3D Modelling / Visualising |
| | 2. Free-style drawing and Descriptive Geometry |
| | 3. Digital Graphics Processing II |

| ECTS | 3 CP |
|----------------------------------------|-----------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 90 hours, of these are attendance: 6 SWS (hours per semester) during the lecture period |
| Teaching method | Seminar |
| Teaching language | German |
| Examination form(s) | Certificate of achievement |
| Examination time | - |
| Prerequisite for the assignment of CPs | Successful proof of achievement in all module subjects |

| Responsible for the module subject | Deanery /Ralf Westarp (Centre for Architectural Communication) |
|------------------------------------|-----------------------------------------------------------------------|
| Lecturer(s) | Changing teaching assignments for the individual module subject parts |

Module subject:

ba.m1.2 – Architectural rendering

Learning Outcomes

Expertise:

- Construction of 3D models.
- In-depth knowledge acquired in the first semester in the module subject "Free-Style Drawing and Descriptive Geometry II"
- Knowledge of aspects of free drawing techniques.
- Extended knowledge of image processing techniques (module subject "Digital Graphic Processing II")
- Knowledge in "Desktop Publishing"

Methodological skills:

- Ability to view buildings as a holistic 3D model
- Aptitude for the development and differentiated design of digital three-dimensional bodies and structures (module subject "Basics 3D Modelling / Visualising")
- Practical application of free drawing techniques.
- Production of a layout and execution of a proposition based on it

Social skills / Own competencies:

- Presentation of the results in analogue and digital form
- Training of critical reflection and the discussion of the results

Content of the module subject

Basic 3D Modelling / Visualising

- 3D Modelling
- 3D Visualising

Free-style Drawing and Descriptive Geometry II

- Deepening of the content taught in the first semester
- Nature studies, shadow constructions
- Drawing materials and colour

Digital Graphics Processing II

- Digital image editing
- Desktop Publishing

Module subject: ba.m1.2 - Design Basics

| Semester | 2 nd |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / summer semester |
| Duration of the module | One semester |
| Type of module | Mandatory (Note: The module subjects ba.m1.1 - ba.m1.3 Design Basics have to be taken with different professors) |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 8 CP |
|----------------------------------------|--------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 240 hours, of these are attendance: 6 SWS (hours per week) during the lecture period |
| Teaching method | Lecture / Seminar / Tutorials / poss. mandatory excursion(s) |
| Teaching language | German / English |
| Examination form(s) | Presentation |
| Examination time | 20-40 minutes per student (see BB BA Architektur §10) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | N. N. |
|------------------------------------|----------------------------------------------------------------------|
| Lecturer(s) | Prof. Blum, Prof. Hanada, Prof. Mani, Prof. Mer, Prof. Schemel, N.N. |

Learning Outcomes

Expertise:

- Extended knowledge of the basics of perception, aesthetics and the theory of forms.
- Extended knowledge of the basics of conditioning the architectural space according to topological and typological aspects as well as questions of material, poetry and technology.

Methodological skills:

- Extensive experience with the basics of the methodology of designing and drafting.
- Advanced training of multisensory perception and design ability.
- Further training in communication and presentation skills, e.g. free sketches, line drawings, figure-ground drawings, small renderings, models, application of various media, installations, performances

Social skills / Own competencies:

- Independent conceptual and creative thinking and acting
- Training of competence, both individually and in a team
- Training of architectural language skills

Content of the module subject

Methodology of architectural design and drafts in the sense of spatial, structural and tectonic relations as well as material and immaterial aspects.

The consistent development and formulation of the qualities of space is practiced theoretically and practically on the basis of extended basic projects.

Introduction to communication and presentation techniques. The consistent development and differentiated formulation of such qualities of space is practiced theoretically and practically on "broader projects" with medium or without any functional requirements.

The demands and requirements for the conception, for instruments / tools / strategies and for scale correspond to a broader basic project. An introduction to communication and presentation techniques takes place in content-related coherence with the respective tasks of the individual courses in Design Basics.

Module subject: ba.m1.2 - Toolbox

| Semester | 2 nd |
|-----------------------------------------------------|--------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / summer semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 1 CP |
|----------------------------------------|-----------------------------------------------------------|
| Student Workload/ Attendance | 30 hours, of these are attendance: 2 SWS (hours per week) |
| Teaching method | Lecture / poss. mandatory excursion(s) |
| Teaching language | German/English |
| Examination form(s) | Certificate of achievement |
| Examination time | - |
| Prerequisite for the assignment of CPs | Obtaining the certificate of achievement |

| Responsible for the module subject | Prof. Mani |
|------------------------------------|-------------------|
| Lecturer(s) | Several lecturers |

Module subject: ba.m1.2 - Toolbox

| Learning Outcomes | Overview of the special significance of architecture-related topics: Right at the beginning of the study program, the lecture series offers students an insight into the diversity of architectural issues. It aims to "open students' eyes" and raise awareness for architecture by doing reflections from different perspectives |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Content of the module subject | For example, the following topics are covered: Communication (historical, layouts, drawings, computers, models and materials), scale, light, colour, spatial design, perception, interior design, public space, urban planning, law, management, fire safety, density, demography, sociology, sustainability, historic preservation, conversion, typologies, etc. |
| | |

MODULE 1 - DESIGN AND DISPLAY

MODULE 2 - CONSTRUCTION PLANNING, URBAN PLANNING

- BUILDING DESIGN
- DRAFTING OF BUILDINGS
- INTERIOR DESIGN
- SPACE PLANNING
- URBAN PLANNING
- SITE PLANNING, REGIONAL PLANNING
- LANDSCAPE PLANNING

MODULE 3 – CONSTRUCTION

MODULE 4 - GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 – CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7-ADDITIONAL SEMINAR FROM THE UNIVERSITY
OFFERINGS

FINAL MODULE - SPECIALISATION AND B.A. THESIS

MODULE 2 - CONSTRUCTION PLANNING, URBAN PLANNING

- BA.M2.4 DRAFTING
- BA.M2.4 LANDSCAPE PLANNING
- BA.M2.4 URBAN PLANNING
- BA.M2.5 DRAFTING

Module subject: ba.m2.4 - Drafting

| Semester | 4 th |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | Module subjects ba.m1.1-3 Design Basics |
| ECTS | 7 CP |
| Student Workload/ Attendance | 210 hours, of these are attendance: 5 SWS (hours per week) during the lecture period |
| Teaching method | Seminar / Tutorials / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Presentation |
| Examination time | 20-40 minutes per student (see BB BA Architektur §10) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |
| Responsible for the module subject | Prof. Schemel |
| Lecturer(s) | Prof. Blum, Prof. Hanada, Prof. Mani, Prof. Mer, Prof. Schemel, N.N. |
| Learning Outcomes | Expertise: Extended knowledge of the basics of perception, aesthetics, and the theory of forms; extended knowledge of basic parameters and framework conditions of perception and design according to topological, typological, aesthetical, constructional, building law, building technology, energetic-sustainable, economic, functional and social aspects; extended knowledge of the basics of conditioning the architectural space in terms of material and poetry. |

Methodological skills:

Extensive experience with the basics of the methodology of designing and drafting; advanced training of multisensory perception and design ability; advanced training in communication and presentation skills in terms of content and technology, e.g. free sketches, lines, figure ground drawings, site plans, floor plans, sections, views, detailed plans in all practice-relevant scales, perspectives, renderings, models, application of various media, installations; deriving and presenting design ideas in a functionally determined framework.

Social skills / Own competencies:

Extended independent conceptual and creative thinking and acting; advanced training in creative action, both individually and in a team, within a design process focused on concentration, coherence and depth; refinement of architectural language skills (gained in Design Basics I - III).

Content of the module subject

Drafting and decision-making based on subjective, precise perception and the definition of guiding concepts (driving concepts).

Formulation of design strategies. Process development of more complex spatial systems.

Architectural arguments, categories and evaluations are trained and - through selection and combination in one's own design - applied in a making, cognitive and corrective way.

All designs are practiced in accordance with competency goals in order to obtain a more consistent elaboration of an advanced design, including a more sophisticated presentation level.

The preferred subject of the drafting process in the bachelor drafts of the 4th and 5th semester are everyday typologies (e.g. living, working, exhibition, school & kindergarten). A technical optimization of the communication and presentation techniques takes place in coherence with the respective tasks of the individual Bachelor drafting courses.

Module subject: ba.m2.4 – Landscape Planning

| Semester | 4 th |
|-----------------------------------------------------|-----------------|
| Study degree program | Bachelor |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 2 CP |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 60 h, hours, of these are attendance: 2 SWS (hours per week; lecture/tutorial) during the lecture period |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Certificate of achievement in connection with ba.m2.4 Urban Planning |
| Examination time | - |
| Prerequisite for the assignment of CPs | Obtaining the certificate of achievement |

| Responsible for the module subject | Prof. Schultz-Granberg |
|------------------------------------|------------------------|
| Lecturer(s) | N.N. |

Module subject:

ba.m2.4 - Landscape Planning

Learning Outcomes

Expertise:

- Knowledge of important connections for the design of the open space, necessary for the bachelor's degree program
- Awareness of space-related spatial qualities and development of a critical understanding of the general term "green"
- Awareness of interrelationships in terms of landscape planning standards
- Basic knowledge to take into account aspects of sustainability
- Ability to handle important technical terms

Methodological skills:

- Knowledge of methods and instruments
- Mediation of process-oriented ways of thinking

Social skills / Own competencies:

- Development of interdisciplinary communication skills

Content of the module subject

In terms of content, the module subject "Landscape Planning" links the themes urban planning - public space - landscape space - landscape design and provides the students with the basic specialist knowledge in this planning field.

Guiding principles of urban planning and park design Current trends in landscape planning Elements of open space planning Functions of open spaces Public and private green

Basic concepts

Module subject: ba.m2.4 – Urban Planning

| Semester | 3 rd and 4 th |
|-----------------------------------------------------|-----------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual /Beginning in winter semester |
| Duration of the module | Two semesters |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | Module subjects ba.m1.1-3 Design Basics |

| ECTS | 4 + 6 CP |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 300 hours, of these are attendance: 6 SWS (hours per week; 2 for lecture + 4 for tutorial) during the lecture period |
| Teaching method | Lecture / Seminar / Field research / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Presentation |
| Examination time | 20-40 minutes per student (see BB BA Architektur §10) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | Prof. Schultz-Granberg |
|------------------------------------|------------------------------|
| Lecturer(s) | Prof. Schultz-Granberg, N.N. |

Module subject:

ba.m2.4 - Urban Planning

Learning Outcomes

Expertise:

- Knowledge on the complex context of the city, necessary for the Bachelor's degree program
- Sensitization to the perception of basic urban contexts
- Ability to handle important technical terms

Methodological skills:

- Location and assessment of urban phenomena
- Training of assurance in the situational application of different methods

Social skills / Own competencies:

- Development of own critical reflection
- Development and self-critical discussion of draft options
- Achieving communicative competences through division of labour in teams
- Presentation and defence of self-produced results

Content of the module subject

Imparting the basics of urban planning in the form of a cross-sectional view of the discipline from the district to the regional scale. The module course takes place over two semesters and takes place in a combination of lectures, exercises and project work.

3rd semester:

Urban planning analysis, dealing with standards and scales, urban situations and connections, teaching the basic concepts and prototypical elaboration of practice-related urban planning situations in mass models

4th semester:

Urban design methodology, independent linking of the acquired competencies from the 3rd semester in the context of an urban planning design, imparting basic knowledge in urban land use planning and in building law

Module subject: ba.m2.5 - Drafting

| Semester | 5th |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | Module subjects ba.m1.1-3 Design Basics |
| ECTS | 8 CP |
| Student Workload/ Attendance | 240 hours, of these are attendance: 5 SWS (hours per week) during the lecture period |
| Teaching method | Seminar / Tutorials / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Presentation |
| Examination time | 20-40 minutes per student/group (see BB BA Architektur §10) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |
| Responsible for the module subject | Prof. Schemel |
| Lecturer(s) | Prof. Blum, Prof. Hanada, Prof. Mani, Prof. Mer, Prof. Schemel, N.N. |
| Learning Outcomes | Expertise: Extended knowledge of the basics of perception, aesthetics and the theory of forms. Extended knowledge of basic parameters and framework conditions of perception and design according to topological, typological, aesthetic, constructional, building law, building technology, energetic-sustainable, economic, functional and social aspects. Extended knowledge of the basics of conditioning the architectural space in terms of materials and poetry. |

Module subject:

ba.m2.5 - Drafting

Learning Outcomes

Methodological skills:

 Extensive experiences with the basics of the methodology of designing and drafting; advanced training of multisensory perception and design ability; advanced training of communication and presentation skills in terms of content and technology, e.g. free sketches, line drawing, figure ground drawings; site plans, floor plans, sections, views, detailed plans in all practice-relevant scales; perspectives, renderings; models; application of various media; installations; derivation and presentation of design ideas

Social skills / Own competencies:

 Extended independent conceptual and creative thinking and acting; advanced training in creative action, both individually and in a team, within a design process based on concentration, coherence and depth; refinement of architectural language skills (gained in Design Basics I – III)

Content of the module subject

Drafting and decision-making based on subjective precise perception as well as the definition of guiding concepts (driving concepts); formulation of design strategies; process development of more complex spatial systems.

Architectural arguments, categories and evaluations are trained and - through selection and combination in one's own design - applied in a making, cognitive and corrective way. All designs are practiced in accordance with competency goals in order to obtain a more consistent elaboration of an advanced design, including a more sophisticated presentation level.

The preferred subject of the drafting process in the bachelor drafts of the 4th and 5th semester are everyday typologies (e.g. living, working, exhibition, school & kindergarten). A technical optimization of the communication and presentation techniques takes place in coherence with the respective tasks of the individual Bachelor drafting courses.

MODULE 1 - DESIGN AND DISPLAY

MODULE 2-CONSTRUCTION PLANNING, URBAN PLANNING

MODULE 3 – CONSTRUCTION

- BUILDING CONSTRUCTION
- SUPPORTING STRUCTURE
- TECHNICAL BUILDING EQUIPMENT
- OLDER BUILDING TECHNOLOGIES
- BUILDING ENGINEERING (ABOVE GROUND)

MODULE 4 - GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 - CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7 – ADDITIONAL SEMINAR FROM THE UNIVERSITY
OFFERINGS

FINAL MODULE - SPECIALISATION AND B.A. THESIS

MODULE 3 – CONSTRUCTION

- BA.M3.2 BASICS OF STRUCTURAL DESIGN
- BA.M3.2 SUPPORTING STRUCTURES
- BA.M3.3 STRUCTURAL DESIGN SKELETON CONSTRUCTION
- BA.M3.3 SUPPORTING STRUCTURES
- BA.M3.4 STRUCTURAL DESIGN SHELL CONSTRUCTION
- BA.M3.2 HOLISTIC BUILDING SERVICES
- **BA.M3.5 CONSTRUCTION DESIGN**
- BA.M3.6 HOLISTIC BUILDING SERVICES

Module subject: ba.m3.2-Basics of Structural Design

| Semester | 1 st + 2 nd |
|-----------------------------------------------------|--------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual /Beginning in winter semester |
| Duration of the module | Two semesters |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 2 x 8 CP |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 2 x 240 hours, of these are attendance: 6 SWS (hours per week; 2 for lecture + 4 for tutorial) during the lecture period |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Presentation |
| Examination time | 20-40 minutes per student (see BB BA Architektur §10) |
| Prerequisite for the assignment of CPs | Passing the partial examination at the end of the first semester with at least 4.0 / "sufficient" |
| | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | Prof. Reichardt |
|------------------------------------|-----------------------------------------------------------------------|
| Lecturer(s) | Prof. Ebert, Prof. Reichardt, Prof. Schanné, Prof. Schilling, N.N. |

Learning Outcomes

Expertise:

- Basic technical and constructive knowledge required for the Bachelor's degree program
- Basic knowledge of the necessary architectural competencies to implement a solid construction building from the spatial idea / concept / design idea
- Basic knowledge of the connection between appearance, material, joint and detail in solid construction

Methodological skills:

- Training a holistic awareness of a problem
- Knowledge for creating solutions for problems with the own project, based on mediated basics.
- Knowledge of the appropriateness of constructive problem solving and presentation

Social skills / Own competencies:

- Training of discussion skills and critical thinking skills

Content of the module subject

Building constructive principles:

Material-compatible joining, static requirements, water tightness, vapour diffusion and condensate, air tightness, sound insulation, joining, order dimensions and construction tolerances

Construction types:

Single-shell and multi-shell (visible) solid wall constructions, openings, flat roof, pitched roof, foundations, floor, floor slabs, loggias / balconies

Joining principles and structural detailing:

Seals, windows and doors, ceiling and roof structures, stairs, sanitary rooms and kitchens

The mutual condition of design, solid construction and detail

Presentation tools:

Sketches, constructional drawings, model building, layout

Module subject: ba.m3.2 – Technical Building Equipment

| Semester | 1 st + 2 nd |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual /Beginning in winter semester |
| Duration of the module | Two semesters |
| Type of module | Elective examination / According to the students' choice, three of the module subjects ba.m3.2 TBE, ba.m3.6 TBE, ba.m4.4 Material Technology, ba.m5.2 Architectural History and ba.m5.5 Building Analysis are two be finished with a module examination and two with a certificate of achievement. |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 2 x 3 CP |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 2 x 90 hours, of these are attendance: 3 SWS (hours per week; 2 for lecture + 1 for tutorial) during the lecture period |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Module examination or certificate of achievement |
| Examination time | 90 minutes (see AT PO § 15) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient", or obtaining a certificate of achievement |

| Responsible for the module subject | Prof. Pfeil |
|------------------------------------|--------------------|
| Lecturer(s) | Prof. Pfeil, N. N. |

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ba.m3.2 - Technical Building Equipment

Learning Outcomes Expertise: - Knowledge of the fundamentals of energy technology, necessary for the Bachelor's degree program - Basic knowledge of the technical building equipment - Basic knowledge of energy-saving technologies and renewable energies Methodological skills: - Knowledge of the use of renewable energies in architecture - Understanding the potential of integrating technical building equipment in architecture Social skills / Own competencies: - Solving energetic contexts alone and in a team Content of the - Basics of energy technology (terms and laws) module subject - Renewable energies and use in building technology (solar energy, geothermal energy, biomass) - Fundamentals of heating technology - Basics of sanitary engineering; management of water and wastewater - Fundamentals of electrical engineering - Social aspects (thermal comfort, air, light)

Module subject: ba.m3.2 – Supporting Structures

| Semester | 1 st + 2 nd |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual /Beginning in winter semester |
| Duration of the module | Two semesters |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |
| ECTS | 2 x 4 CP |
| Student Workload/ Attendance | 2 x 120 hours, of these are attendance: 4 SWS (hours per week; 2 for lecture + 2 for tutorial) during the lecture period |
| Teaching method | Lecture / Tutorial / Seminar / Demonstration on structural models / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Written exam |
| Examination time | 180 minutes (see AT PO § 15) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |
| Responsible for the module subject | Prof. Dr. Jürges |
| Lecturer(s) | Prof. Dr. Jürges, N. N. |
| Learning Outcomes | Expertise: Getting to know, understanding, and applying the scientific principles of supporting structures, building materials and stability concepts Knowledge in the design of structural elements and assessment of quality and suitability, necessary for the bachelor's degree program Independently carrying out viability, fitness for purpose and durability proofs according to the generally accepted rules of technology |

Methodological skills:

- Design of structural alternatives
- Comparing and evaluating the structural alternatives

Social skills / Own competencies:

- Cooperative learning
- Productive working relationships

Content of the module subject

1st semester:

Presentation of safety theory and technical codes in construction. Introduction to the classification of structures. Compilation of the impacts for buildings with representation of the load flow and the load distribution from the roof to the foundation; fundamentals of bending theory and strength theory with proof of load-bearing capacity, proof of suitability for use, and proof of durability of flat, statically determined load-bearing systems; calculation of bearing forces, shear forces and bending moments in different load cases; design of bending beams made of steel and wood, with stress calculation and deflection calculation; presentation of stability theory; dimensioning of columns of steel and wood; principles and methods of graphic statics (Cremona diagram); computational methods for the calculation of truss forces of trusses and dimensioning of bars and connections; variants and quality of stiffening elements; methods for stabilizing primary support systems and proving the spatial stability of truss concepts for single and multi-storey buildings

2nd semester:

Structural concepts for hall support systems, dimensioning of articulated, coupled and continuous beams with calculation of the bearing forces, bending moments and guiding the stress detection; dimensioning of reinforced concrete beams, slabs and t-beams, including proof of suitability, proof of durability and load-bearing capacity; measuring of walls, pillars and supports of masonry, concrete and reinforced concrete in conventional solid constructions; dimensioning of flat ceilings, ribbed ceilings and coffered ceilings; pre-design of shallow foundations with individual foundations and strip foundations, as well as deep foundations with piles/stilts.

Module subject: ba.m3.3 – Structural Design

| Semester | 3 rd |
|-----------------------------------------------------|----------------------------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Mandatory / associated module subject: ba.m3.3 Supporting Structures |
| Prerequisite for participation (previous knowledge) | ba.m3.2 Basics of Structural Design |

| ECTS | 8 CP |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 240 hours, of these are attendance: 6 SWS (hours per week; 2 for lecture + 4 for tutorial) during the lecture period |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Presentation / module examination together with ba.m3.3 – Supporting Structures |
| Examination time | 20-40 min. per student (see BB BA Architektur § 10) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | Prof. Reichardt |
|------------------------------------|-----------------------------------------------------------------------|
| Lecturer(s) | Prof. Ebert, Prof. Reichardt, Prof. Schanné, Prof. Schilling, N.N. |

Module subject:

ba.m3.3 – Structural Design

Learning Outcomes

Expertise:

- Extended knowledge of the development of spatially and tectonically complex constructions
- Extended knowledge of the integration of structural engineering into solution finding.
- Extended knowledge of the connection of appearance, material, joining and detail in modular (order) systems
- Knowledge of design strategies in skeleton construction
- In-depth and complementary knowledge of learned design typologies and joining principles

Methodological skills:

- Learning holistic constructional strategies through integral networking of aspects of form / shape, materiality, structure, comfort, energy, ecology and economy
- Training of methods and action competences with regard to conceptual coherence of design goals and constructive detailed solutions
- Development of expedient constructive alternatives based on differentiated architectural perspectives

Social skills / Own competencies:

- Knowledge of the appropriateness of presentation and presentation techniques
- Training of teamwork

Content of the module subject

Building constructive principles:

Deepening and complementing the constructional principles: material-appropriate design, water tightness, vapour diffusion and condensate, air tightness, sound insulation, joining, order dimensions and construction tolerances; frame structures

Construction typologies, bracing:

Reinforced concrete construction (in elements), steel construction, wooden skeleton construction, hybrid constructions

Principles of joining and constructive detailing: foundation / column, column/beam, beam/ceiling, waterproofing, windows, doors and gates, glazing systems, drywall, ceiling and roof structures, sound insulation, corrosion protection, sun protection.

The mutual condition of design, solid construction and detail.

Presentation tools:

Sketches, constructional drawings, model building, layout

Module subject: ba.m3.3 – Supporting Structures

| Semester | 3 rd |
|-----------------------------------------------------|------------------------------------------------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / winter semester |
| Duration of the module | One semester |
| Type of module | Mandatory / associated module subject: ba.m3.3 Structural Design (Skeleton Construction) |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 4 CP | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|--|
| Student Workload/ Attendance | 120 h, hours, of these are attendance: 4 SWS (hours per week; 2 for lecture + 2 for tutorial) during the lecture period | |
| Teaching method | Lecture / Tutorial / poss. mandatory excursion(s) | |
| Teaching language | German | |
| Examination form(s) | Presentation / module examination together with ba.m3.3 Structural Design (Skeleton Construction) | |
| Examination time | 20 - 40 minutes per examinee (see BB BA Architektur § 10) | |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" | |

| Responsible for the module subject | Prof. Dr. Jürges |
|------------------------------------|-------------------------|
| Lecturer(s) | Prof. Dr. Jürges, N. N. |

Module subjects: ba.m3.3 – Supporting Structures

| Leaning Outcomes | L | earning. | Outcomes |
|------------------|---|----------|----------|
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Expertise:

Getting to know, understanding and evaluating spatial structures; knowledge of an integrative structural design with the leading relevant fields of architecture; knowledge of the transfer of the solution methods of flat load-bearing systems to spatially complex load-bearing structures

Methodological skills:

Consolidation of knowledge through development of alternative support systems; Knowledge of the symbiosis via the combination of the subject areas building construction and structural engineering

Social skills / Own competencies:

Training of interdisciplinary thinking; cooperative learning; productive working relationships; learning conflict management in the workgroups

Content of the module subject

1. Lecture:

Presentation of the overall concepts of the following primary structures: bending beams, underbody beams, truss girders, frames, arches, cable structures, folding structures, shells, membrane structures, foundations / construction in groundwater

2. Tutorial:

Calculation and dimensioning a stiffening system.

Dimensioning of joints in timber and steel constructions.

Dimensioning and calculation of frames and arches with viability verification and proof of stability.

Preliminary design of cable structures and membrane structures. Pre-design of foundation components.

2. Structural Design:

Choice of a primary structure, a secondary structure and determination of the stiffening system.

Preparation of static calculation and preliminary design for the primary and secondary structure with load composition, bearing forces and internal force calculation, cross sections and material, stress analyzes, deflection checks, definition of the manufacturing sequence, design sketches for the main structure, structural model for the primary structure and the stiffening concept, position plans for all structural elements

Module subject: ba.m3.4 – Structural Design(Shell)

| Semester | 4 th | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--|
| Study degree program | Bachelor | |
| Rotation of the module | Every semester | |
| Duration of the module | One semester | |
| Type of module | Mandatory | |
| Prerequisite for participation (previous knowledge) | ba.m3.2Basics of Structural Design ba.m3.2 Structural Design (Skeleton Construction) | |
| ECTS | 7 CP | |
| Student Workload/ Attendance | 210 h hours, of these are attendance: 5 SWS (hours per week; 2 for lecture + 3 for tutorial) during the lecture period | |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) | |
| Teaching language | German | |
| Examination form(s) | Presentation | |
| Examination time | 20 - 40 minutes (see BB BA Architektur §10) | |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" | |
| Responsible for the module subject | Prof. Reichardt | |
| Lecturer(s) | Prof. Ebert, Prof. Reichardt, Prof. Schanné, Prof. Schilling, N.N. | |
| Learning Outcomes Expertise: - Extended knowledge of the development of sparand tectonically more complex constructions - Knowledge of the integration of home automatic an integrated solution finding by additional consideration of energetic factors regarding technical, constructional and aesthetic issues. - Advanced knowledge of mastering constructions geometries - Extended knowledge of the relationship betwee appearance, energy requirements, material, construction, and detail. | | |

 Deepening and supplementing of learned construction typologies and joining principles.

Methodological skills:

- Learning holistic constructional strategies through integral networking of aspects of form / shape, materiality, structure, comfort, energy, ecology and economy
- Training of methods and action competences with regard to conceptual coherence of design goals and constructive detailed solutions
- Development of expedient constructive alternatives based on differentiated architectural perspectives
 Social skills / Own competencies:
- Knowledge of the appropriateness of presentation and presentation techniques
- Training of teamwork

Content of the module subject

Building constructive principles:

Material compatibility, water tightness, vapour diffusion and condensate, air tightness, sound insulation, joining, design supporting detail, mass and construction tolerances

Construction typologies, bracing:

Multi-shell (elemental) wall constructions, openings in flat roof and pitched roof

Joining principles and constructive detailing:

Multi-layered (elemental) wall constructions, openings in flat roofs and pitched roofs; joining principles and constructional detailing under various material aspects: waterproofing, windows and doors, ceiling and roof structures, various elemental shell materials such as prefabricated reinforced concrete, natural stone slabs, ceramic slabs, glass, metal, wood, copper, fibre cement, HPL boards, plastic, paper; the mutual prerequisite of design and building services (solar profits, passive house standards); building shell and sustainability (sustainable material choice) as well as detail Presentation tools:

Sketches, constructional drawings, model building, layout.

Module subject: ba.m3.5 – Construction Design

| Semester | 5 th | |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--|
| Study degree program | Bachelor | |
| Rotation of the module | Every semester | |
| Duration of the module | One semester | |
| Type of module | Mandatory | |
| Prerequisite for participation (previous knowledge) | ba.m3.2Basics of Structural Design ba.m3.3 Structural Design (Skeleton Construction) ba.m3.4 Structural Design (Shell Construction) | |

| ECTS | 8 CP | |
|----------------------------------------|--------------------------------------------------------------------------------------|--|
| Student Workload/ Attendance | 240 hours, of these are attendance: 5 SWS (hours per week) during the lecture period | |
| Teaching method | Introduction lecture / Seminar / poss. mandatory excursion(s) | |
| Teaching language | German | |
| Examination form(s) | Presentation | |
| Examination time | 20 - 40 minutes per student (see BB BA Architektur §10) | |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" | |

| Responsible for the module subject | Prof. Reichardt |
|------------------------------------|-----------------------------------------------------------------------|
| Lecturer(s) | Prof. Ebert, Prof. Reichardt, Prof. Schanné, Prof. Schilling, N.N. |

Learning Outcomes

Expertise:

- Advanced knowledge of integrative planning of the overall structure: concept, topos, context, use, space, structure, infrastructure, materiality, frame, energy, filling, detail
- In-depth knowledge of the development of spatially and tectonically complex constructions
- Integrative consideration of energetic, technical, constructional and aesthetic factors as strategies for strengthening one's own concept.
- In-depth knowledge of the learned design typologies and principles of joining

Methodological skills:

- In-depth knowledge of strategies for concept finding.
- Knowledge of application and transformation of the basics learned so far to one's own design.
- Learning holistic constructional strategies through integral networking of aspects of form/shape, materiality, structure, comfort, energy, ecology and economy
- Methodological and practical competence with regard to conceptual coherence of design goals and constructive detailed solutions
- Development of expedient constructive alternatives based on differentiated architectural perspectives
- Development of a holistic planning competence in terms of appearance, energetic requirements, material, construction, inclusion and detail with the aim of a holistic complete work.

Social skills / Own competencies:

- Adequacy of depiction and presentation techniques

Content of the module subject

- Research, step-by-step development of design and constructional special questions, variant evaluation.
- Construction principles in the context of larger or more complex construction tasks
- Construction typologies according to individual needs.
- Joining principles and constructive detailing according to individual needs
- The prerequisite of design, materiality and construction
- Presentation tools: sketches, constructional drawings, simulation techniques, model making, layout

Module subject: ba.m3.6 - Technical Building Equipment

| Semester | 5 th + 6 th | |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Study degree program | Bachelor | |
| Rotation of the module | Annual / winter semester | |
| Duration of the module | Two semesters | |
| Type of module | Elective examination / According to the students' choice, three of the module subjects ba.m3.2 TBE, ba.m3.6 TBE, ba.m4.4 Material Technology, ba.m5.2 Architectural History, and ba.m5.5 Building Analysis are two be finished with a module examination and two with a certificate of achievement. | |
| Prerequisite for participation (previous knowledge) | - | |

| ECTS | 2 x 3 CP | |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--|
| Student Workload/ Attendance | 180 hours, of these are attendance: 3 SWS (hours per week; 2 for lecture + 1 for tutorial) during the lecture period | |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) | |
| Teaching language | German | |
| Examination form(s) | Module examination or certificate of achievement. | |
| Examination time | 90 minutes (see AT PO § 15) | |
| Prerequisite for the passing the examination with at least 4.0 / "sufficient" or obtaining a certificate of achieve | | |

| Responsible for the module subject | Prof. Pfeil |
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| Lecturer(s) | Prof. Pfeil, N. N. |

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ba.m3.6 - Technical Building Equipment

Learning Outcomes

Expertise:

- Recording and evaluating the energy flows and the energy balance of buildings
- Passive house, zero energy building, plus energy building
- Conception of ventilation systems and their influence on the architectural design
- Integration of active components of the technical building equipment in the building shell
- Energy concepts and integrated technical building equipment in the context of sustainability certification

Methodological skills:

- Holistic strategies for energy-efficient buildings
- Sustainable energy concepts
- Planning organization for the implementation of integrated technical building equipment (integral planning)
- Learning the components of integral planning (interfaces, actors and procedures)
- Principles for the creation of sustainable energy concepts

Social skills / Own competencies:

- Solving energetic contexts alone and in a team

Content of the module subject

- Basics of the energy balance of a building
- Basics of requirements and concepts for passive houses
- Zero-energy houses and plus-energy houses
- Basics of ventilation and air conditioning
- Integral planning (interfaces, actors and procedures)
- Components of the technical building equipment and the requirements of the integration into the building shell
- Sustainable energy concepts

MODULE 1 – DESIGN AND DISPLAY

MODULE 2 – CONSTRUCTIVE PLANNING, URBAN PLANNING

MODULE 3 – CONSTRUCTION

MODULE 4 – GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 – CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7-ADDITIONAL SEMINAR FROM THE UNIVERSITY
OFFERINGS

FINAL MODULE - SPECIALISATION AND B.A. THESIS

MODULE 4 – GENERAL SCIENTIFIC BASICS

BA.M4.4 MATERIAL TECHNOLOGY

BA.M4.4 BUILDING PHYSICS I

BA.M4.5 BUILDING PHYSICS II

BA.M4.6 FOREIGN LANGUAGE

Module subject: ba.m4.4 – Material Technology

| Semester | 3 rd + 4 th | |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Study degree program | Bachelor | |
| Rotation of the module | Annual /Beginning in winter semester | |
| Duration of the module | Two semesters | |
| Type of module | Elective examination / According to the students' choice, three of the module subjects ba.m3.2 TBE, ba.m3.6 TBE, ba.m4.4 Material Technology, ba.m5.2 Architectural History and ba.m5.5 Building Analysis are two be finished with a module examination and two with a certificate of achievement. | |
| Prerequisite for participation (previous knowledge) | _ | |

| ECTS | 2 x 3 CP |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 2 x 90 hours, of these are attendance: 1 SWS (hours per week) in lectures + 0.5 SWS in seminars / tutorials / excursion(s) |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Module examination or certificate of achievement. |
| Examination time | 90 minutes (see AT PO § 15) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" or obtaining a certificate of achievement |

| Responsible for the module subject | Prof. Thesing |
|------------------------------------|----------------------|
| Lecturer(s) | Prof. Thesing, N. N. |

Module subject:

ba.m4.4 – Material Technology

Learning Outcomes

Expertise:

- Basic design, technical and constructive knowledge of all materials relevant to the construction process and necessary for the Bachelor's degree program
- Knowledge of origin / extraction / production, processing and construction, mathematical and evaluating units of properties, applications, design options and aspects of the sustainable use of materials.

Methodological skills:

- Sensitized perceptive competence: "Sense/Feeling for material".
- Judgment regarding the proper use of material.
- Planning competences as a connection between appearance, material, construction and sustainability.
- Adequacy of problem solving and representation in relation to the planning task.

Social skills / Own competencies:

- Independent use of literature and databases
- Independent development of content
- Teamwork skills
- Presentation and expressiveness in free speech, construction of experiments and model making
- Holistic awareness of the problem

Content of the module subject

History and future:

Use and production of materials, economical aspects, sustainability aspects, and recycling

Technology:

Material-related properties: measurable properties of materials, performance reviews and comparisons, areas of application

Layout:

Phenomenal properties of materials:

Material in the hierarchy of perception, material meaning, material composition, connection between form, measure and material connection, connection between phenomenon and material quality.

Generalist architectural approach:

Showing the connection between concept, design, materiality and detail

Module subject: ba.m4.4 – Building Physics I

| Semester | 4 th |
|-----------------------------------------------------|----------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / Summer semester |
| Duration of the module | One semester |
| Type of module | Certificate of achievement |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 2 CP |
|----------------------------------------|-------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 60 hours, of these are attendance: 2 SWS (hours per week) during the lecture period |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Certificate of achievement. |
| Examination time | 60 minutes (see AT PO § 15) |
| Prerequisite for the assignment of CPs | Obtaining a certificate of achievement |

| Responsible for the module subject | Prof. Pfeil |
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| Lecturer(s) | Teaching is done by freelance lecturers |

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ba.m4.4 - Building Physics I

Learning Outcomes

Expertise:

- Knowledge of the relevant basics for winter and summer thermal insulation necessary for the Bachelor's degree program
- Knowledge of the condensation moisture protection (diffusion behaviour) of the materials or constructions
- Basic knowledge of the sustainable use of building materials
- Knowledge of amortization considerations based on case studies

Content of the module subject

Thermal building physics

Thermal conductivity
Heat transfer coefficients and thermal transmittance values
Thermal bridges, air tightness
Energy Saving Ordinance
Existing buildings

Connection points for domestic efficiency

Module subject: ba.m4.5 – Building Physics II

| Semester | 5 th |
|-----------------------------------------------------|----------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / winter semester |
| Duration of the module | One semester |
| Type of module | Certificate of achievement |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 2 CP |
|----------------------------------------|-------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 60 hours, of these are attendance: 2 SWS (hours per week) during the lecture period |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Certificate of achievement. |
| Examination time | 60 minutes (see AT PO § 15) |
| Prerequisite for the assignment of CPs | Obtaining a certificate of achievement |

| Responsible for the module subject | Prof. Pfeil |
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| Lecturer(s) | Teaching is done by freelance lecturers |

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ba.m4.5 - Building Physics II

Learning Outcomes

Expertise:

- Knowledge of the relevant basics of acoustics, necessary for the Bachelor's degree program
- Knowledge of the requirements for materials or constructions
- Basic knowledge of the sustainable use of building materials

Methodological skills:

 Dealing with case studies in the fields of new construction and construction in existing buildings

Content of the module subject

Construction acoustics:

Physical principles

Airborne sound insulation

Impact sound insulation

Requirements and documentation (reference to DIN 4109)

Room acoustics:

Psychoacoustics

Physical principles

Sound propagation

Sound absorption and sound reflection

Reverberation time

Requirements and documentation (reference to DIN 18041)

Module subject: ba.m4.6 – Foreign Language

| Semester | 6 th |
|-----------------------------------------------------|----------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Certificate of achievement |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 2 CP |
|----------------------------------------|-------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 60 hours, of these are attendance: 3 SWS (hours per week) during the lecture period |
| Teaching method | Seminar-like lessons |
| Teaching language | Depending on the foreign language (English, Italian, Spanish, Chinese, Dutch, etc.) |
| Examination form(s) | Certificate of achievement |
| Examination time | - |
| Prerequisite for the assignment of CPs | Obtaining a certificate of achievement |

| Responsible for the module subject | Deanery |
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| Lecturer(s) | Teaching is done by several lecturers |

| Module subjection | ect: ba | .m4.6 – Fo | reign l | Language |
|-------------------|---------|------------|-----------|----------|
| Widduic Subj | JUI. DU | | n Gigii i | Language |

| Learning Outcomes | Expertise: Basic knowledge of a foreign language (partly professional / subject-related terms) Methodological skills: Ability to communicate in a foreign language |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Content of the module subject | Language lessons Language exercises Regular offer: - English - Advanced English - Italian - Advanced Italian - Spanish - Advanced Spanish - Dutch - Chinese Insofar as desired by the students, other languages are taught, with a minimum of 6 participants |

- MODULE 1 DESIGN AND DISPLAY
- MODULE 2 CONSTRUCTIVE PLANNING, URBAN PLANNING
- MODULE 3 CONSTRUCTION
- MODULE 4 GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

- CONSTRUCTION HISTORY
- ARCHITECTURAL HISTORY
- ART HISTORY
- DESIGN HISTORY
- BUILDING SURVEY
- RENOVATION / PRESERVATION

MODULE 6 - CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7-ADDITIONAL SEMINAR FROM THE UNIVERSITY
OFFERINGS

FINAL MODULE - SPECIALISATION AND B.A. THESIS

MODULE 5 – HISTORY AND THEORY

BA.M5.2 ARCHITECTURAL HISTORY
BA.M5.3 ARCHITECTURAL HISTORY
BA.M5.5 BUILDING ANALYSIS

Module subject: ba.m5.2 – Architectural History

| Semester | 1 st + 2 nd |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / beginning in winter semester |
| Duration of the module | Two semesters |
| Type of module | Elective examination / According to the students' choice, three of the module subjects ba.m3.2 TBE, ba.m3.6 TBE, ba.m4.4 Material Technology, ba.m5.2 Architectural History and ba.m5.5 Building Analysis are two be finished with a module examination and two with a certificate of achievement. |
| Prerequisite for participation (previous knowledge) | _ |

| 2 x 3 CP |
|-------------------------------------------------------------------------------------------------------------------------------|
| 2 x 90 hours, of these are attendance: 2 SWS (hours per week; 2 for lecture + 2 for tutorial) during the lecture period |
| Lecture / poss. mandatory excursion(s) |
| German |
| Module examination or certificate of achievement. |
| 120 minutes (see AT PO § 15) |
| Passing the examination with at least 4.0 / "sufficient" or obtaining a certificate of achievement |
| |

| Responsible for the module subject | Prof. Dr. Bürklin |
|------------------------------------|--------------------------|
| Lecturer(s) | Prof. Dr. Bürklin, N. N. |

Module subject:

ba.m5.2 – Architectural History

Learning Outcomes

Expertise:

- Knowledge on the history of architecture, its cultural, social and political dimensions, necessary for the Bachelor's degree program
- Knowledge of the most important accompanying theories
- Knowledge of the design, functional and spatial aspects of architecture in history
- Knowledge of epoch-wide architectural themes

Methodological skills:

- Classification and interpretation of architecture in a historical and contemporary context
- Assessment of the historical and contemporary significance of architectural creation and evaluation of architecture in cultural and social contexts
- Analysis and evaluation of epoch-crossing principles of composition, interior design and spatial organization

Social skills / Own competencies:

- Independent use of literature
- Independent development of content
- Training of judgment

Content of the module subject

History of architecture, its cultural, social and political dimensions from its inception to the beginning of rational modernity.

Theories of architecture from its inception to the beginning of rational modernity.

History of the creative, functional and spatial aspects of architecture.

Module subject: ba.m5.3 – Architectural History

| Semester | 3 rd |
|-----------------------------------------------------|----------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / winter semester |
| Duration of the module | One semester |
| Type of module | Certificate of achievement |
| Prerequisite for participation (previous knowledge) | _ |

| ECTS | 3 CP |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 90 hours, of these are attendance: 3 SWS (hours per week; 1 for lecture + 2 for tutorial) during the lecture period |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Certificate of achievement. |
| Examination time | - |
| Prerequisite for the assignment of CPs | Obtaining a certificate of achievement |

| Responsible for the module subject | Prof. Dr. Bürklin |
|------------------------------------|--------------------------|
| Lecturer(s) | Prof. Dr. Bürklin, N. N. |

Module subject:

ba.m5.3 – Architectural History

Learning Outcomes

Expertise:

- Knowledge on the history of architecture, its cultural, social and political dimensions, necessary for the Bachelor's degree program
- Knowledge of the most important accompanying theories
- Knowledge of the design, functional and spatial aspects of architecture in history
- Knowledge of epoch-wide architectural themes
- Knowledge of the formal construction of functional, spatial and constructive requirements

Methodological skills:

- Classification and interpretation of architecture in a historical and contemporary context
- Assessment of the historical and contemporary significance of architectural creation and evaluation of architecture in cultural and social contexts
- Analysis and evaluation of epoch-crossing principles of composition, interior design and spatial organization
- Summarize and evaluate important functional, spatial and constructive requirements of architecture
- Representation of the functional, spatial and constructive requirements of architecture

Social skills / Own competencies:

- Independent use of literature
- Independent development of content
- Training of judgment
- Teamwork and social skills / interaction

Content of the module subject

History of architecture since rational modernity, its cultural, social and political dimensions.

Theories of architecture since rational modernism.

History of the creative, functional and spatial aspects of architecture since rational modernism.

Module subject: ba.m5.2 – Building Analysis

| Semester | 4 th + 5 th |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| - | |
| Study degree program | Bachelor |
| Rotation of the module | Annual / beginning in winter semester |
| Duration of the module | Two semesters |
| Type of module | Elective examination / According to the students' choice, three of the module subjects ba.m3.2 TBE, ba.m3.6 TBE, ba.m4.4 Material Technology, ba.m5.2 Architectural History and ba.m5.5 Building Analysis are two be finished with a module examination and two with a certificate of achievement. |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 2 x 3 CP |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 90 hours, of these are attendance: 2 SWS (hours per week; 2 for lecture + 2 for tutorial) during the lecture period |
| Teaching method | Lecture / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Module examination or certificate of achievement. |
| Examination time | 120 minutes (see AT PO § 15) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient", or obtaining a certificate of achievement |

| Responsible for the module subject | Prof. Thesing |
|------------------------------------|----------------------|
| Lecturer(s) | Prof. Thesing, N. N. |

Learning Outcomes

Expertise:

- Knowledge of the history and typology of construction, necessary for the Bachelor's degree program
- Knowledge of the design, functional and spatial aspects of architecture
- Knowledge of construction, material and types of joining
- Knowledge of the methodological foundations of the preservation of monuments and the preservation of historical substance

Methodological skills:

- Classification and interpretation of architecture in the historical and contemporary context
- Assessment of the architectural and contemporary significance of historical buildings and evaluation of architecture in the cultural and social context
- Inventory, analysis and evaluation of historical buildings

Social skills / Own competencies:

- Independent, respectful handling of historical buildings
- Training analytical skills
- Training of judgment

Content of the module subject

Analysis of construction, material, type of joints and functionality of historical buildings

Gaining an impression of the art, cultural and architectural history of the decades

Dealing with historical buildings: Starting with the on-site measurements of a building onto the inventory and the respectful handling of old buildings.

MODULE 1 – DESIGN AND DISPLAY

MODULE 2 – CONSTRUCTIVE PLANNING, URBAN PLANNING

MODULE 3 – CONSTRUCTION

MODULE 4 – GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 – CONSTRUCTION EXECUTION / MANAGEMENT

- CONSTRUCTION ORGANISATION
- PROJEKT MANAGEMENT
- CONSTRUCTION MANAGEMENT
- CONSTRUCTION LAW / INTERNATIONAL CONSTRUCTION LAW
- FACILITY MANAGEMENT

MODULE 7-ADDITIONAL SEMINAR FROM THE UNIVERSITY
OFFERINGS

FINAL MODULE - SPECIALISATION AND B.A. THESIS

MODULE 6 - CONSTRUCTION MANAGEMENT

BA.M6.5 CONSTRUCTION MANAGEMENT

BA.M6.6 CONSTRUCTION MANAGEMENT

BA.M6.6 FACILITY MANAGEMENT

Module subject: ba.m6.5 – Construction Management

| Semester | 5 th |
|-----------------------------------------------------|--------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / winter semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 4 CP |
|----------------------------------------|-----------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 120 hours, of these are attendance: 2 SWS (hours per week; lecture) during the lecture period |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Written exam |
| Examination time | 90 minutes (see AT PO § 15) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | Prof. Weischer |
|------------------------------------|-----------------------|
| Lecturer(s) | Prof. Weischer, N. N. |

Module subject:

ba.m6.5 – Construction Management

Learning Outcomes

Expertise:

- Knowledge of the essential aspects of public and private building law necessary for the Bachelor's degree program
- Knowledge of the content of the BauGB (Federal Building Code), the BauNVO (Federal Land Utilisation Ordinance) and PlanzVO (Notation Symbol Ordinance) as well as the state building regulations
- Extended consideration of the contents and the realisation of planning of the binding land-use planning
- Knowledge of questions of private building law, in particular of all fundamental problems of contract design in construction and the contents of the three parts of the VOB (German Construction Contract Procedures)

Methodological skills:

 Knowledge of the explanation and application of public and private building law

Content of the module subject

Part 1

Public construction law Construction management

Part 2

Private construction law and contract design in construction

Module subject: ba.m6.6 – Construction Management

| Semester | 5 th |
|-----------------------------------------------------|--------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / summer semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 8 CP |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 240 hours, of these are attendance: 2 SWS (hours per week) for lecture and 2 SWS (hours per week) for tutorial during the lecture period |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Written exam |
| Examination time | 90 minutes (see AT PO § 15) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | Prof. Weischer |
|------------------------------------|-----------------------|
| Lecturer(s) | Prof. Weischer, N. N. |

| Module | subject: |
|--------|----------|
| Moduic | Subject. |

ba.m6.6 - Construction Management

Learning Outcomes

Expertise:

- Knowledge of the basic implementation of a construction project from initiation, through organization, cost and deadline management to quality management, necessary for the Bachelor's degree program
- Knowledge of the construction project organization (project participants, organization charting, project responsibilities, etc.)
- Cost management (costing based on components and trade-related cost distribution, as well as cost tracking and cost control and related tools)
- Appointment management (methodologies and tools)
- Quality management (specification, room book, tender, awarding, billing, etc.)

Methodological skills:

- Independent preparation of a construction project based on a project and organization manual.
- Methodology of creating a project manual
- Development of a project structuring (establishment of a project structure plan)

Content of the module subject

Principles in the methodology

Applicable tools of the project organization and the cost, deadline and quality management

Standard technical and legal bases of the description of quantities and qualities

Fee law for architects and engineers

Module subject: ba.m6.6 – Facility Management

| Semester | 6 th |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Annual / winter semester |
| Duration of the module | One semester |
| Type of module | Certificate of achievement |
| Prerequisite for participation (previous knowledge) | Previous participation in the module subject ba.m6.5 Construction Management is recommended |

| ECTS | 3 CP |
|----------------------------------------|----------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 90 hours, of these are attendance: 2 SWS (hours per week) during the lecture period |
| Teaching method | Lecture / Seminar / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Certificate of achievement. |
| Examination time | - |
| Prerequisite for the assignment of CPs | Obtaining a certificate of achievement |

| Responsible for the module subject | Prof. Rotermund |
|------------------------------------|------------------------|
| Lecturer(s) | Prof. Rotermund, N. N. |

Module subject:

ba.m6.6 - Facility Management

Learning Outcomes

Expertise:

- Knowledge of factors influencing the operation of the building and development of methods of future building management necessary for the Bachelor's degree program
- Consideration of future building operation in the design

Methodological skills:

- Interpretation capability of architectural designs in terms of life-cycle costs
- Classification of the services of the future building operation (after completion)
- Assessment of (cost) effectiveness of individual execution details
- Knowledge of the interaction of planning participants in integral planning

Social skills / Own competencies:

- Independent processing of a topic area
- Researching Facility Management contents
- Presentation of the results in the course

Content of the module subject

- Facility management
- Distinction between Facility Management / Building Management
- Service areas of technical, infrastructural and commercial building management
- Basics of life-cycle management
- Differentiation of utilization / operating / redevelopment / life-cycle costs
- Organizational forms and performance contents of the building operation
- Practical examples of Facility Management
- Deepening of individual emphases in group work

MODULE 1 – DESIGN AND DISPLAY

MODULE 2 – CONSTRUCTIVE PLANNING, URBAN PLANNING

MODULE 3 – CONSTRUCTION

MODULE 4 - GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 – CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7-ADDITIONAL SEMINAR FROM THE UNIVERSITY OFFERINGS

FINAL MODULE - SPECIALISATION AND B.A. THESIS

MODULE7-ADDITIONAL SEMINAR FROM THE UNIVERSITY OFFERINGS

BA.M7.5 ADDITIONAL SEMINAR
BA.M7.6 ADDITIONAL SEMINAR

Module subject: ba.m7.5 and ba.m7.6 – Additional seminar

| Semester | 5 th /6 th |
|-----------------------------------------------------|----------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Certificate of achievement |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 2 CP |
|----------------------------------------|-------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 60 hours, of these are attendance: 2 SWS (hours per week) during the lecture period |
| Teaching method | Seminar / poss. mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Certificate of achievement. |
| Examination time | - |
| Prerequisite for the assignment of CPs | Obtaining a certificate of achievement |

| Responsible for the module subject | Deanery |
|------------------------------------|--------------------------------|
| Lecturer(s) | Several professors / lecturers |

Learning Outcomes

Expertise:

Depending on the course content:

- Good and understandable formulation of texts
- Scientific writing; indexing, footnotes, citations, sources, etc.
- Layout expertise in plans, publications and books using InDesign
- Body control, body language, good presentation skills
- Knowledge of software, e.g. BIM (Building Information Modelling)
- Special competence in software, e.g. scripting / programming

Methodological skills:

- Assessment and interpretation of scientific texts
- Analysis and evaluation of interdisciplinary fields of knowledge

Social skills / Own competencies:

- Independent use of literature
- Independent development of content
- Training of judgment
- Interdisciplinary work

Content of the module subject

The supplementary seminars offer a wide range of courses for students in the 5th semester.

After prior consultation with the examination office, students have the choice to study topics / module subjects / modules from other departments or faculties, e.g. at the University of Münster or at the Art Academy of Münster.

The MSA offers their supplementary seminars as a partial preparatory to the bachelor's thesis or to provide the opportunity to acquire in-depth knowledge in certain areas.

Alternating examples:

- Writing about architecture / scientific work
- Presentation design with InDesign (edit a book)
- Body language and presentation skills
- Software courses, e.g. Rhinoscript and Grasshopper

MODULE 1 – DESIGN AND DISPLAY

MODULE 2 – CONSTRUCTIVE PLANNING, URBAN PLANNING

MODULE 3 – CONSTRUCTION

MODULE 4 – GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 – CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7— ADDITIONAL SEMINAR FROM THE UNIVERSITY
OFFERINGS

FINAL MODULE - SPECIALISATION AND B.A. THESIS

FINAL MODULE - SPECIALISATION AND B.A. THESIS

BA.V.6 SPECIALISATION

B.A. THESIS WITH ORAL EXAMINATION (VIVA)

Module subject: ba.V.6 – Specialisation

| Semester | 6 th |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Every semester / individual supervision is possible after consultation |
| Duration of the module | Average 11 weeks Start at the beginning of the lecture period |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | Completed mandatory examinations of semester 1 - 4 At least two of the five required electives (at least one as module examination (MP) and one as proof of achievement (LN)) Proof of 140 credit points (CP) |

| ECTS | 4 CP |
|----------------------------------------|---------------------------------------------------------------|
| Student Workload/ Attendance | 120 hours, of these are attendance: 4 SWS (hours per week) |
| Teaching method | Seminar-like lessons/poss.mandatory excursion(s) |
| Teaching language | German |
| Examination form(s) | Studio work + Presentation |
| Examination time | 20 – 40 minutes (see BB BA Architektur § 10) |
| Prerequisite for the assignment of CPs | Passing the certificate of achievement |

| Responsible for the module subject | Examination Board |
|------------------------------------|-------------------|
| Lecturer(s) | Every professor |

ba.V.6 - Specialisation

Learning Outcomes

Expertise:

- In-depth subject-specific knowledge according to topic

Methodological skills:

- Analysis, collection, classification, evaluation and interpretation of scientific findings in the chosen field of specialisation.
- Presentation of the acquired knowledge in book form i.e. in a freely chosen or predefined documentation

Social skills / Own competencies:

- Independent preparation of the knowledge developed under instruction
- Ability to present with discourse

Content of the module subject

Working on a special field in the area of architecture and doing critical processing, investigation and interpretation with the methods of scientific analysis.

At least 3 different specialisations are offered by the MSA every semester. The student is free to choose a topic and to work on it individually under the guidance of a supervising professor.

Module subject: ba.Thesis with oral examination (Viva)

| Semester | 6 th |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Study degree program | Bachelor |
| Rotation of the module | Every semester / individual supervision is possible |
| Duration of the module | 8 weeks |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | Completed mandatory examinations of semester 1 - 4 At least two of the five required electives (at least 1 as module examination (MP) and 1 as proof of achievement (LN)) Proof of 140 credit points (CP) Successful completion of the specialisation module |

| ECTS | 8 CP |
|----------------------------------------|---------------------------------------------------------------------|
| Student Workload/ Attendance | 240 hours, no attendance requirement |
| Teaching method | Own performance by student |
| Teaching language | German |
| Examination form(s) | Documents (in written and digital form) and oral examination (viva) |
| Examination time | Usually 30 minutes (see BB BA Architektur §10) |
| Prerequisite for the assignment of CPs | Passing the final module with at least 4.0 / "sufficient" |

| Responsible for the module subject | Examination Board |
|------------------------------------|------------------------------------------------------------------------------------------------|
| Lecturer(s) | All professors (the supervising professor) of the prior specialisation (module subject ba.V.6) |

| Modu | le si | ubied | ct: |
|------|-------|-------|-----|
| | | | |

ba. Thesis with oral examination (Viva)

Learning Outcomes

The bachelor thesis is intended to show that the examinee is capable of independently realizing a practice-oriented task in the field of architecture within 8 weeks, both in terms of its technical details and in interdisciplinary contexts according to scientific, creative-artistic and practical methods.

Content of the module subject

The bachelor's thesis is an independent, scientific study in which a practice-oriented task in the field of building is dealt with in its technical details as well as in the interdisciplinary contexts according to scientific, creative-artistic and practical methods.

With the bachelor thesis, the candidate should professionalize themselves in a special subject area, which usually builds on the topic of the specialisation.

The Bachelor thesis is documented in book form as well as

in digital form and presented to the examiners during the

oral examination.

MASTER

MODULES OF THE MASTER STUDY PROGRAM

MODULES 2 - 7

ELECTIVE

MASTER THESIS

MODULE 2 - CONSTRUCTION PLANNING, URBAN PLANNING

MODULE 3 – CONSTRUCTION

MODULE 4 - GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 - CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7 – ADDITIONAL SEMINAR FROM THE UNIVERSITY
OFFERINGS

ELECTIVE - ELECTIVE FROM THE AREAS M1 - M6

MASTER THESIS

MODULE 2- CONSTRUCTION PLANNING, URBAN PLANNING

- BUILDING DESIGN
- DRAFTING OF BUILDINGS
- INTERIOR DESIGN
- SPACE PLANNING
- URBAN PLANNING
- LOCAL AND REGIONAL PLANNING
- LANDSCAPE DESIGN
- MODULE 3 CONSTRUCTION
- MODULE 4 GENERAL SCIENTIFIC BASICS
- MODULE 5 HISTORY AND THEORY
- MODULE 6 CONSTRUCTION EXECUTION / MANAGEMENT
- MODULE 7 ADDITIONAL SEMINAR FROM THE UNIVERSITY OFFERINGS

ELECTIVE - ELECTIVE FROM THE AREAS M1 - M6

MASTER THESIS

MODULE 2 – CONSTRUCTION PLANNING, URBAN PLANNING

MA.M2.1 SUMMARY DRAFT

MA.M2.1 URBAN PLANNING

MA.M2.2 DRAFTING

MA.M2.3 DRAFTING

Module subject: ma.m2.1 – Impromptu drafts I, II and III

| Semester | 1 st |
|-----------------------------------------------------|--------------------------|
| Study degree program | Master |
| Rotation of the module | Annual / winter semester |
| Duration of the module | 3 - 4 weeks |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 6 CP |
|----------------------------------------|--------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | about 150 hours, of these are about 5 days attendance in form of an excursion to the exchange location |
| Teaching method | Workshop / excursion |
| Teaching language | Usually English / German |
| Examination form(s) | Presentation |
| Examination time | 20-30 minutes (see BB MA Architektur §10) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | Deanery |
|------------------------------------|---------------------------|
| Lecturer(s) | Different guest lecturers |

Learning Outcomes

Expertise:

 Time and decision management under tightened (shortened) conditions

Methodological skills:

 Time and decision management under tightened (shortened) conditions

Social skills / Own competencies:

- Fast adaptation to a culturally and geographically interesting environment
- Working independently in a group or as an individual
- Foreign language skills

Content of the module subject

Short, four week design projects in culturally and geographically interesting locations across Europe; supervised by a group of renowned international lecturers of very different architectural orientation and beliefs from academic and professional fields.

Execution scheme:

- About a week of research and concept work on site;
- After that, about three weeks of independent work on the draft;
- Public presentation in the fourth week and examination by the guest lecturer(s) and other lecturers.

Module subject: ma.m2.1 – Urban planning

| Semester | 1 st |
|-----------------------------------------------------|--------------------------|
| Study degree program | Master |
| Rotation of the module | Annual / winter semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 2 CP |
|----------------------------------------|-------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 60 hours, of these are attendance: 2 SWS (hours per week) during the lecture period |
| Teaching method | Lecture / poss. mandatory excursion |
| Teaching language | German |
| Examination form(s) | Certificate of achievement. |
| Examination time | - |
| Prerequisite for the assignment of CPs | Obtaining a certificate of achievement |

| Responsible for the module subject | Prof. Schultz-Granberg |
|------------------------------------|-----------------------------------------------------------------|
| Lecturer(s) | Prof. Schultz-Granberg and possibly guest lecturer(s), N. N. |

Module subject:

ma.m2.1 – Urban planning

Learning Outcomes

Expertise:

- Deepening of basic knowledge of urban planning issues in relation to current challenges in the design of the built environment as well as related methodological approaches
- Extended knowledge of contemporary positions and current trends

Methodological skills:

- Locating and assessing urban planning relationships beyond the spatial context to social conditions
- Learning the references regarding urban historical and theoretical knowledge

Social skills / Own competencies:

- Independent accumulation and development of knowledge for the formation of one's own attitude
- Critical reflection of various, sometimes controversial positions

Content of the module subject

With a view to current tendencies and trends in the development of our environment, forward-looking concepts are discussed; methods and instruments linked to them are examined and then connected to the existing knowledge of urban theory and urban research.

Different points of view regarding a super-ordinate topic are compared and discussed. The accumulated knowledge is processed and presented in a separate approach, using the form of an exercise.

Module subject: ma.m2.2 – Drafting

| Semester | 2 nd |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Study degree program | Master |
| Rotation of the module | Annual / summer semester; in the winter semester after consultation with the lecturer(s) |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | 3 completed module subjects "ma.m.2.1 Impromptu drafts I, II and III" Participation in the accompanying module subject "Structural Design" |

| ECTS | 12 CP |
|----------------------------------------|--------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 360 hours, of these are attendance: 6 SWS (hours per week) during the lecture period |
| Teaching method | Seminar / poss. mandatory excursion |
| Teaching language | German / English |
| Examination form(s) | Presentation |
| Examination time | ca. 20-40 minutes (see BB MA Architektur § 10) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | N. N. |
|------------------------------------|----------------------------------------------------------------------|
| Lecturer(s) | Prof. Blum, Prof. Hanada, Prof. Mani, Prof. Mer, Prof. Schemel, N.N. |

Learning Outcomes

Expertise:

- In-depth knowledge of design competences through the widest possible synthesis and multidisciplinary approach
- In-depth understanding of the conceptual, technical and procedural complexity of design
- Sound knowledge of the possibilities of strategic and methodological genesis of architectural form and space within diversified content contexts

Methodological skills:

- In-depth knowledge of the application and perception of the conceptual, technical and procedural complexity of designing
- Content reduction and focus on genuine architectural qualities
- Refinement of the communication and presentation skills by e.g.
 - Professionally expanded discussions
 - Transmitter-Receiver specific presentations as well as dealing with professionals from the same area or other fields, for example:
 - Various specialist planners
 - Economic areas (economic development, investors, project developers ...)
 - Subject / product related, construction industry, interest groups (DGNB ...)
 - Artistic areas (scenographers, curators, artists ...)
 - Specific builders

Social skills / Own competencies:

- Training your own architectural attitude
- Interdisciplinary, network-oriented thinking

Content of the module subject

At the centre of conceptual conflicts are the scientific broadening and deepening in conceptual thinking, acting and designing, by e.g. specifically controlled:

- research-based work
- methodical-based work
- experimental work.

Design in its specific architectural-theoretical and architectural-practical dimension.

Design in the context of different building cultures.

Design as a multidisciplinary context through thematic integration and / or cooperation with

- other professionals
- other participants involved in the construction
- other disciplines.

Preferred subject of drafting in the 2nd and 3rd semester master theses are

- functional.
- representative, or
- symbolically

more complex and different building typologies.

From the architectural approaches of the parallel course ma.m2.2 and the qualitative tectonics of the given design structure, a suitable framework will be developed. Since each building will have an integrated structure, the supporting framework is also part of the design. Based on formulated structural alternatives, the most efficient solution has to be developed according to technical criteria. Decision criteria for the evaluation of these complex load-bearing structures are developed on models in connection with dimensioning procedures.

After giving keynote speeches on scientific methods for assessing the stability, load capacity, serviceability, durability and recyclability of structures in the first 4 weeks, a seminar will provide guiding on the independent development of a suitable structural model.

Technical refinement of the communication and presentation techniques by e.g. drawings:

All relevant CAD architectural drawings with different complex programs and all relevant scales, site plans (e.g. also urban development master plans), floor plans, sections, views, facade sections, detail drawings, perspectives, renderings, diagrams

E.g. working models, presentation models, computer models E.g. installations

Module subject: ma.m2.3 – Drafting

| Semester | 3 rd |
|-----------------------------------------------------|-----------------------------------------------------------------------|
| Study degree program | Master |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | 3 completed module subjects "ma.m.2.1 Impromptu drafts I, II and III" |

| ECTS | 12 CP |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 360 hours, of these are attendance: 6 SWS (hours per week) weekly during the lecture period |
| Teaching method | Seminar / poss. mandatory excursion |
| Teaching language | German / English |
| Examination form(s) | Presentation |
| Examination time | ca. 20-40 minutes (see BB MA Architektur § 10) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | N. N. |
|------------------------------------|----------------------------------------------------------------------|
| Lecturer(s) | Prof. Blum, Prof. Hanada, Prof. Mani, Prof. Mer, Prof. Schemel, N.N. |

Learning Outcomes

Expertise:

- In-depth knowledge of design competences through the widest possible synthesis and multidisciplinary approach
- In-depth understanding of the conceptual, technical and procedural complexity of design
- Sound knowledge of the possibilities of strategic and methodological genesis of architectural form and space within diversified content contexts

Methodological skills:

- In-depth knowledge of the application and perception of the conceptual, technical and procedural complexity of designing
- Content reduction and focus on genuine architectural qualities
- Refinement of the communication and presentation skills by e.g.
 - Professionally expanded discussions
 - Transmitter-Receiver specific presentations as well as dealing with professionals from the same area or other fields, for example:
 - Various specialist planners
 - Economic areas (economic development, investors, project developers ...)
 - Subject / product related, construction industry, interest groups (DGNB ...)
 - Artistic areas (scenographers, curators, artists ...)
 - Specific builders

Social skills / Own competencies:

- Training your own architectural attitude
- Interdisciplinary, network-oriented thinking

Content of the module subject

At the centre of conceptual conflicts are the scientific broadening and deepening in conceptual thinking, acting and designing, by e.g. specifically controlled:

- research-based work
- methodical-based work
- experimental work.

Design in its specific architectural-theoretical and architectural-practical dimension.

Design in the context of different building cultures.

Design as a multidisciplinary context through thematic integration and / or cooperation with

- other professionals
- other participants involved in the construction
- other disciplines.

Preferred subject of drafting in the 2nd and 3rd semester master theses are

- functional.
- representative, or
- symbolically

more complex and different building typologies.

From the architectural approaches of the parallel course ma.m2.2 and the qualitative tectonics of the given design structure, a suitable framework will be developed. Since each building will have an integrated structure, the supporting framework is also part of the design. Based on formulated structural alternatives, the most efficient solution has to be developed according to technical criteria. Decision criteria for the evaluation of these complex load-bearing structures are developed on models in connection with dimensioning procedures.

After giving keynote speeches on scientific methods for assessing the stability, load capacity, serviceability, durability and recyclability of structures in the first 4 weeks, a seminar will provide guiding on the independent development of a suitable structural model.

Technical refinement of the communication and presentation techniques by e.g. drawings:

All relevant CAD architectural drawings with different complex programs and all relevant scales, site plans (e.g. also urban development master plans), floor plans, sections, views, facade sections, detail drawings, perspectives, renderings, diagrams

E.g. working models, presentation models, computer models E.g. installations

MODULE 2 - CONSTRUCTION PLANNING, URBAN PLANNING

MODULE 3 – CONSTRUCTION

- STRUCTURAL DESIGN
- SUPPORTING STRUCTURE
- TECHNICAL BUILDING EQUIPMENT
- OLD BUILDING TECHNOLOGIES
- BUILDING ENGINEERING (ABOVE GROUND)

MODULE 4 - GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 - CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7 – ADDITIONAL SEMINAR FROM THE UNIVERSITY OFFERINGS

ELECTIVE - ELECTIVE FROM THE AREAS M1 - M6

MODULE 3 – CONSTRUCTION

MA.M3.2 STRUCTURAL DESIGN

Module subject: ma.m3.2 – Construction

| Semester | 2 nd |
|-----------------------------------------------------|-----------------|
| Study degree program | Master |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 7 CP |
|----------------------------------------|---------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 210 hours, of these are attendance: 4 SWS (hours per week) weekly during the lecture period |
| Teaching method | Seminar / poss. mandatory excursion |
| Teaching language | German |
| Examination form(s) | Presentation |
| Examination time | ca. 20-40 minutes (see BB MA Architektur § 10) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | Prof. Reichardt |
|------------------------------------|-----------------------------------------------------------------------|
| Lecturer(s) | Prof. Ebert, Prof. Reichardt, Prof. Schanné, Prof. Schilling, N.N. |

Learning Outcomes

Expertise:

- Development of spatially and tectonically complex constructions within specific specialisation topics
- Holistic consideration of energetic, technical, constructional and aesthetic factors of the project.
- Application of constructive principles, design typologies and principles of joining to the individual design
- Creation of a holistic planning concept in appearance, energetic requirements, material, construction, arrangement and detail with the aim to design a holistic oeuvre

Methodological skills:

- In-depth knowledge of the application and perception of the conceptual, technical and procedural complexity of designing
- Content reduction and focus on genuine architectural qualities
- Refinement of the communication and presentation skills by e.g.
 - Professionally expanded discussions
 - Transmitter-Receiver specific presentations as well as dealing with professionals from the same area or other fields, for example:
 - Various specialist planners
 - Economic areas (economic development, investors, project developers ...)
 - Subject / product related, construction industry, interest groups (DGNB ...)
 - Artistic areas (scenographers, curators, artists ...)
 - Specific builders

Social skills / Own competencies:

 Independent integration of different disciplines in the solution finding process

Content of the module subject

Imparting skills via seminars, reviews and presentations, both individually and in a team.

Contents:

- Boundaries of construction, energy, economy, logistics and materiality.
- Special sustainability aspects such as dismantling and materials research.
- Visions of the future and technology transfer:
 - Transferring principles of technological manufacturing of industrial goods to the construction process of buildings
 - Influence of digital planning technologies on constructive systems, detailing, and workflow of building processes
 - Effects of novel material technologies on building design and construction

MODULE 2 – CONSTRUCTION PLANNING, URBAN PLANNING

MODULE 3 - CONSTRUCTION

MODULE 4 – GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 - CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7 – ADDITIONAL SEMINAR FROM THE UNIVERSITY OFFERINGS

ELECTIVE - ELECTIVE FROM THE AREAS M1 - M6

MODULE 4 – GENERAL SCIENTIFIC BASICS

MA.M4.1.1 GENERAL SCIENTIFIC BASICS
MA.M4.2.1 GENERAL SCIENTIFIC BASICS

Module subject: ma.m4.1.1 and ma.m4.2.1

| Semester | 1 st |
|-----------------------------------------------------|----------------------------|
| Study degree program | Master |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Certificate of achievement |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 2 x 3 CP |
|----------------------------------------|------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 2 x 90 hours, of these are attendance: 2 SWS (hours per week) weekly during the lecture period |
| Teaching method | Seminar / poss. mandatory excursion |
| Teaching language | German |
| Examination form(s) | Certificate of achievement. |
| Examination time | - |
| Prerequisite for the assignment of CPs | Obtaining a certificate of achievement |

| Responsible for the module subject | Deanery |
|------------------------------------|--------------------------------|
| Lecturer(s) | Several professors / lecturers |

Module subject:

General scientific basics

Learning Outcomes

Expertise:

Well-founded subject-specific knowledge depending on the topic

Methodological skills:

- In-depth knowledge in the assessment and interpretation of scientific texts
- Sound analysis and evaluation of interdisciplinary fields of knowledge

Social skills / Own competencies:

- Independent and collaborative development of content
- Teamwork and social skills / interaction
- Critical reflection
- Presentation of developed content

Content of the module subject

The module m4 is offered via seminars to students; the seminars convey basic scientific knowledge from different disciplines, which can certainly play a role in the architectural practice.

Examples:

- Physics: Thermal building simulation
- Communication science: communication from different perspectives discussion, negotiation, presentation
- Business: Basics of company formation and corporate governance
- Culture: More than a catch phrase intercultural competence
- Medicine: Shelters during disasters and crises
- Geoinformatics: GIS laboratory
- Basics of Life Cycle Management
- Fundamentals of Sustainability, according to DGNB

- MODULE 2 CONSTRUCTION PLANNING, URBAN PLANNING
- MODULE 3 CONSTRUCTION
- MODULE 4 GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

- CONSTRUCTION HISTORY
- ARCHITECTURAL HISTORY
- ART HISTORY
- DESIGN HISTORY
- BUILDING SURVEY
- RENOVATION / PRESERVATION
- MODULE 6 CONSTRUCTION EXECUTION / MANAGEMENT
- MODULE 7 ADDITIONAL SEMINAR FROM THE UNIVERSITY
 OFFERINGS

ELECTIVE - ELECTIVE FROM THE AREAS M1 - M6

MODULE 5 – HISTORY AND THEORY

MA.M5.2 ARCHITECTURAL HISTORY
MA.M5.3 ARCHITECTURAL HISTORY

Module subject: ma.m5.2 and ma.m5.3

| Semester | 2 nd / 3 rd |
|-----------------------------------------------------|-----------------------------------|
| Study degree program | Master |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 2 x 5 CP |
|----------------------------------------|-------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 2 x 150 hours, of these are attendance: 4 SWS (hours per week) weekly during the lecture period |
| Teaching method | Seminar / poss. mandatory excursion |
| Teaching language | German |
| Examination form(s) | Will be announced at the beginning of the semester |
| Examination time | Depending on the examination form: See BB MA Architektur §10 See AT PO§15 |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | Prof. Dr. Bürklin |
|------------------------------------|--------------------------------------------------|
| Lecturer(s) | Prof. Dr. Bürklin, Prof. Mer, Prof. Thesing N.N. |

Module subject: Architectural History

| Learning C | outcomes |
|------------|----------|
|------------|----------|

Expertise:

- In-depth and critical knowledge of selected topics of history and theory of architecture
- Sound knowledge of the cultural, social and political dimensions of architecture
- Knowledge of selected design, functional and spatial aspects of architecture
- Extended knowledge of the complex relationships of functional, spatial and constructive requirements
- In-depth knowledge of the theoretical and ideological aspects of space

Methodological skills:

- Detailed understanding of historical relationships
- Critical questioning of social and cultural correlations of society, technology, science and architecture
- Integrative knowledge of functional, spatial and constructive requirements of architecture
- Development of super-ordinate historical and theoretical contexts
- Creative thinking and implementation of the issues raised

Social skills / Own competencies:

- Independent and collaborative development of content
- Teamwork and social skills / interaction
- Critical reflection
- Presentation of developed contents

Content of the module subject

Selected topics of history and theory of architecture

Cultural, social and political aspects of architecture

Selected topics of history and theory of the creative, functional and spatial aspects of architecture

- MODULE 2 CONSTRUCTION PLANNING, URBAN PLANNING
- MODULE 3 CONSTRUCTION
- MODULE 4 GENERAL SCIENTIFIC BASICS
- MODULE 5 HISTORY AND THEORY

MODULE 6 – CONSTRUCTION EXECUTION / MANAGEMENT

- CONSTRUCTION ORGANISATION
- PROJEKT MANAGEMENT
- CONSTRUCTION MANAGEMENT
- CONSTRUCTION LAW / INTERNATIONAL CONSTRUCTION LAW
- FACILITY MANAGEMENT
- MODULE 7 ADDITIONAL SEMINAR FROM THE UNIVERSITY
 OFFERINGS

ELECTIVE - ELECTIVE FROM THE AREAS M1 - M6

MODULE 6 – CONSTRUCTION EXECUTION / MANAGEMENT

MA.M6.3 PROJECT MANAGEMENT

Module subject: ma.m6.3 – Project Management

| Semester | 3 rd |
|-----------------------------------------------------|-----------------|
| Study degree program | Master |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 7 CP |
|----------------------------------------|------------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 210 hours, of these are attendance: 2 SWS (hours per week; lecture) weekly during the lecture period |
| Teaching method | Lecture / seminar / poss. mandatory excursion |
| Teaching language | German |
| Examination form(s) | Presentation and oral examination |
| Examination time | ca. 20 minutes (see AT PO§16) |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | Prof. Weischer |
|------------------------------------|-----------------------|
| Lecturer(s) | Prof. Weischer, N. N. |

Module subject: ma.m6.3 – Project Management

Learning Outcomes

Expertise:

- In-depth knowledge of the basic implementation of project development, from initiation, site analysis, development calculations and profitability analyzes to the feasibility study
- Development calculations and their financial mathematical foundations
- In-depth knowledge of the basics and importance of the real estate industry in Germany and other European countries
- Knowledge of the methods and processes of project development (analyzes of location, competition, risk, economy, etc)
- Knowledge of the basics and procedures of valuation in Germany and other European countries
- Introduction to construction and real estate financing
- Specialisation in questions of construction project management and areas of specialisation of the construction company

Methodological skills:

- Creating a business plan

Content of the module subject

Basics of the real estate industry, the construction project development, the construction financing and the valuation of real estate.

As part of a manageable, self-selected project, a project development is simulated, from the feasibility study with micro and macro site analysis, to development / residual calculation as well as marketing.

Real estate economics and financial mathematical methods Cost, appointment and organization management MODULE 2 – CONSTRUCTION PLANNING, URBAN PLANNING

MODULE 3 - CONSTRUCTION

MODULE 4 - GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 - CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7 – ADDITIONAL SEMINAR FROM THE UNIVERSITY OFFERINGS

ELECTIVE - ELECTIVE FROM THE AREAS M1 - M6

MODULE7 – ADDITIONAL SEMINAR FROM THE UNIVERSITY OFFERINGS

MA.M7.2 ADDITIONAL SEMINAR
MA.M7.3 ADDITIONAL SEMINAR

Module subject: ma.m7.2 and ma.m7.3 – Additional seminar

| Semester | 2 nd and 3 rd |
|-----------------------------------------------------|-------------------------------------|
| Study degree program | Master |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Certificate of achievement. |
| Prerequisite for participation (previous knowledge) | - |

| ECTS | 2 x 2 CP |
|----------------------------------------|------------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 2 x 60 hours, of these are attendance: 2 SWS (hours per week) weekly during the lecture period |
| Teaching method | Lecture / seminar / poss. mandatory excursion |
| Teaching language | Usually German (at times English) |
| Examination form(s) | Certificate of achievement. |
| Examination time | - |
| Prerequisite for the assignment of CPs | Obtaining a certificate of achievement |

| Responsible for the module subject | Deanery |
|------------------------------------|--------------------------------|
| Lecturer(s) | Several professors / lecturers |

| Module subject: | ma.m7.2 and ma.m7.3 – Additional seminar |
|-----------------|------------------------------------------|
| | |

| Learning Outcomes Expertise: - Extended subject-specific knowledge depending on the topic Social skills / Own competencies: - Independent and collaborative development of content - Teamwork and social skills / interaction - Critical reflection - Conversation and discussion about the developed content The courses of the module subject ma.m7.2/.3 are a manifold, changing and specialized seminar offer to the students from and for the practice. Examples: - Architectural films – cinematic design - Basics of monument preservation - Sustainable aspects in spatial planning - Successfully applying public construction law and planning law - Construction law up-to-date – Innovations in the VOB and the HOAI 2009 - and more - Students can also receive credits (on their own initiative) for compatible services in the higher education landscape (University of Münster / Art Academy of Münster) | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| module subject manifold, changing and specialized seminar offer to the students from and for the practice. Examples: Architectural films – cinematic design Basics of monument preservation Sustainable aspects in spatial planning Successfully applying public construction law and planning law Construction law up-to-date – Innovations in the VOB and the HOAI 2009 and more Students can also receive credits (on their own initiative) for compatible services in the higher education landscape | Learning Outcomes | Extended subject-specific knowledge depending on the topic Social skills / Own competencies: Independent and collaborative development of content Teamwork and social skills / interaction Critical reflection |
| Architectural films – cinematic design Basics of monument preservation Sustainable aspects in spatial planning Successfully applying public construction law and planning law Construction law up-to-date – Innovations in the VOB and the HOAI 2009 and more Students can also receive credits (on their own initiative) for compatible services in the higher education landscape | | manifold, changing and specialized seminar offer to the |
| Basics of monument preservation Sustainable aspects in spatial planning Successfully applying public construction law and planning law Construction law up-to-date – Innovations in the VOB and the HOAI 2009 and more Students can also receive credits (on their own initiative) for compatible services in the higher education landscape | | Examples: |
| | | Basics of monument preservation Sustainable aspects in spatial planning Successfully applying public construction law and planning law Construction law up-to-date – Innovations in the VOB and the HOAI 2009 and more Students can also receive credits (on their own initiative) for compatible services in the higher education landscape |

MODULE 2 – CONSTRUCTION PLANNING, URBAN PLANNING

MODULE 3 - CONSTRUCTION

MODULE 4 - GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 - CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7 – ADDITIONAL SEMINAR FROM THE UNIVERSITY OFFERINGS

ELECTIVE - ELECTIVE FROM THE AREAS M1 - M6

ELECTIVE - ELECTIVE FROM THE AREAS M1 - M6

MA.WM.1 - ELECTIVE

MA.WM.2 - ELECTIVE

MA.WM.3 - ELECTIVE

Module subject: ma.wm.1, 2 and 3 – Elective

| Semester | 1 st , 2 nd and 3 rd |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Study degree program | Master |
| Rotation of the module | Every semester |
| Duration of the module | One semester |
| Type of module | Mandatory |
| Prerequisite for participation (previous knowledge) | From the fields M1 - M6, a total of 3 elective module subjects are to be taken in the Master's program. A maximum of two elective module subjects may come from one module area (see Master Examination Regulations § 12 Abs. 3) |

| ECTS | 4 CP |
|----------------------------------------|---------------------------------------------------------------------------------------------------|
| Student Workload/ Attendance | 120 hours, of these are attendance: 4 SWS (hours per week) weekly during the lecture period |
| Teaching method | Seminar / poss. mandatory excursion |
| Teaching language | German |
| Examination form(s) | Will be announced at the beginning of the semester |
| Examination time | - |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" |

| Responsible for the module subject | Deanery |
|------------------------------------|--------------------------------|
| Lecturer(s) | Several professors / lecturers |

| Module subject: | ma.wm.1, 2 and 3 – Elective |
|-----------------|-----------------------------|
| | |

| Learning Outcomes | Expertise: - In-depth expertise in each respective topic Methodological skills: - Application of related topics in the core competencies Social skills / Own competencies: - In-depth independent research - Teamwork |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Content of the module subject | Special topics from the areas of modules m1-m6 (design and presentation, building design and planning, construction, general scientific principles, history and theory, building construction and construction management). Examples: - Architectural communication, creating your own homepage - Experiments of space-creating art - Design-related lighting design in theory and practice - Digital Fabrication - Climate and Urban Research: "Form follows Climate - Parametric Urbanism" + "Ideal Patterns" - Sustainability aspects in high-rise construction - Construction with textile building materials - Art History: Beyond painting and sculpture - Designing Terragni: The Danteum, the divine comedy and the fascist modernity - Risk management for architects (from a legal perspective) - Calculation and optimization of life cycle costs - Building in public space - etc. |

MODULE 2 – CONSTRUCTION PLANNING, URBAN PLANNING

MODULE 3 – CONSTRUCTION

MODULE 4 – GENERAL SCIENTIFIC BASICS

MODULE 5 – HISTORY AND THEORY

MODULE 6 - CONSTRUCTION EXECUTION / MANAGEMENT

MODULE 7 – ADDITIONAL SEMINAR FROM THE UNIVERSITY OFFERINGS

ELECTIVE - ELECTIVE FROM THE AREAS M1 - M6

MASTER THESIS

MA.TH.4 - MASTER THESIS

Module subject: ma.th.4 – Master Thesis

| Semester | 4th | | |
|-----------------------------------------------------|-----------------------------------------|--|--|
| Study degree program | Master | | |
| Rotation of the module | Every semester | | |
| Duration of the module | 18 weeks | | |
| Type of module | Mandatory | | |
| Prerequisite for participation (previous knowledge) | See Master Examination Regulations § 14 | | |

| ECTS | 28 CP (share of the total grade of the Master's program) + 2 CP Thesis seminar (handing in of the thesis + supervision of the scientific work by the supervising professor) | | | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Student Workload/ Attendance | 840 hours / 60 hours; no attendance required | | | |
| Teaching method | Own performance by student | | | |
| Teaching language | Usually German | | | |
| Examination form(s) | Documents (in written and digital form) and oral examination (viva) | | | |
| Examination time | Usually 30 - 45 minutes (See Master Examination Regulations § 13 and § 15) | | | |
| Prerequisite for the assignment of CPs | Passing the examination with at least 4.0 / "sufficient" | | | |

| Responsible for the module subject | Examination Board |
|------------------------------------|-------------------|
| Lecturer(s) | Every professor |

Module subject: ma.th.4 – Master Thesis

Learning Outcomes

Based on the scientific fundamentals acquired in the Master's program and the knowledge of the Bachelor's program, the Master's thesis will considerably broaden and deepen the knowledge of other selected subject areas. Dealing with a complex problem, scientific peculiarities, theories and processes are prepared in an integrative way, defined in the overarching contexts, and reinterpreted in relation to specific questions.

The Master's thesis is intended to document the artistic skills and technical knowledge of the candidate – skills which are required to complete an architectural planning task.

Content of the module subject

A complex architectural topic in its cultural, spiritual, historical, social, economic and environmental context must be scientifically recorded and examined under the guidance of the supervising professor.

The achievements to be developed by the examinee, independently and on the basis of scientific methodology, are intended to suggest a proposed solution of overall architectural quality at the interface of artistic vision, sociopolitical relevance and technical feasibility.