



Module Manual

Bachelor Degree Programme in Architecture (Bachelor of Arts)

**Department of Architecture
University of Applied Sciences
Wilhelmshaven / Elsfleth/ Oldenburg**

Faculty of Architecture
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Design Project I

Responsible for the module:	Prof. J. Bargholz	Module code:	BA 1.1
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	1st semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	5	Language of instruction:	German
Examination:	Portfolio	Type:	Mandatory module

Student working hours:	94 hours of self-study, 56 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- express creative ideas in simple design concepts
- deal with the basic elements of architecture, with planes, body and space.
- recognise and apply aesthetic systems and design principles
- apply depiction techniques such as models and sketches on a solution-oriented basis
- apply depiction techniques such as sketches, drawings and models as a spatial medium and use these as the solution to design assignments.

Description of the course content:

A series of small-scale practical assignments is set that focuses on planes, bodies and space; these are more abstract compositions than concrete structural design assignments. They are abstract compositions based on material, formal and topological relationships. Principles such as sequences, symmetry, opposites, rhythm, similarity etc. are recognised as design elements and practiced accordingly. The compositions are implemented as an object made of various materials. They can also be expressed as drawings and sketches.

The assignments are interrelated with module BA 6.1 Presentation and Creative Expression, and together constitute a propaedeutic unit.

The solutions to the assignments are developed in close collaboration with lecturers and are accompanied by lectures. The results are presented and defended by the respective students in the group plenum. This presentation is part of the submitted assignments.

Design Project II

Responsible for the module:	Prof. J. Bargholz	Module code:	BA 1.2
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	2nd semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours	5	Language of instruction:	German
Examination:	Portfolio	Type:	Mandatory module

Student working hours:	94 hours of self-study, 56 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- express creative ideas in simple design concepts
- handle basic architectural elements (area, body, space) in connection with function
- during design considerations incorporate the simple contextual requirements
- create an overall solution to meet various simple requirements with the aid of a graphic concept (metaphor, analogy etc.)
- apply depiction techniques such as sketches, drawings and models as a spatial medium within the context of the assignment

Description of the course content:

Several small-scale design assignments are set, initially not focusing on building design but gradually develop throughout the semester. Function and significance are introduced, and the basic elements plane, body and space become walls, ceiling and floor, constructional elements, interior, exterior and intermediate spaces etc.

The architectural project is seen in relation to an environment that mainly comprises a non-complex landscape (e.g. without any real historical, climatic or geological aspects).

The assignments, that have a reduced level of complexity, provoke a playful, graphic design approach as they are generally free from significance and therefore conventional characteristics. The aim is to evolve solutions by means of conceptual images (metaphors, analogies etc.) and not by replication.

The solutions to the assignments are developed in sketches and drawings but mainly created with models, but sketches and drawings are also used for practice purposes.

The assignments of module BA 6.2 Presentation and Creative Expression are a supplement to Design Project II as part of the propaedeutic course.

The various stages in the work of the students are continuously commented and accompanied by lectures. The results are presented and defended in the group plenum. This presentation is part of the submitted assignments.

Design Project III

Responsible for the module:	Prof. H. Sternkopf	Module code:	BA 1.3
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	3rd semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	5	Language of instruction:	German
Examination:	Design	Type:	Mandatory module

Student working hours:	94 hours of self-study, 56 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- solve a specified, manageable design assignment in the field of individual housing with a simple, contextual reference (landscape, urban)
- recognise alternative approaches to a solution,
- combine different draft parameters to a reasonable entity (synthesis)
- employ presentation techniques such as models, drawings, sketches, CAD and text within the context of the assignment

Description of the course content:

The central element of this module is a specified construction assignment. Both the site and the room arrangement are specified. Therefore assignments with a suitable topic and increasing complexity can be handled. Both contextual problems are to be solved as well as functional and spatial aspects of the building. The design is created in a dialogue with the exterior and interior space. The sites are selected so that they depict special areas. The principle approaches can be experienced in both an exemplary and striking manner and compared in mutual opposition.

In addition to assignment-related lectures, individual corrective sessions are included which are supplemented by colloquia at regular intervals. The results are then presented by the students at a subsequent public event. This presentation is part of the assignment and must be prepared accordingly.

The parallel course Architectural Typologies in Module Theory III teaches theoretical principles of individual housing. The parallel module Presentation and Creative Expression III (6.3) corresponds with the module Design Project III and therefore enables students to already create CAD-based drawings in the third semester. In addition to digital drawings, hand drawings, sketches and models are required that depict the design in a complementary manner.

Design Project IV

Responsible for the module:	Prof. B. Kaiser	Module code:	BA 1.4
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	4th semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	5	Language of instruction:	German
Examination:	Design	Type:	Mandatory module

Student working hours:	94 hours of self-study, 56 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- solve a specified design assignment in the field of individual housing or the socio-cultural infrastructure (e.g. day-care centres, schools)
- recognise alternative approaches to a solution
- weigh up different design parameters and combine these to a reasonable entity (synthesis)
- employ presentation techniques such as models, drawings, sketches, CAD and text within the context of the assignment.

Description of the course content:

A building assignment is given with a specific site and assigned use. This includes knowledge and analysis of the type designation, while the site represents the individual aspect. The design therefore seeks the solution in the interplay of typus and topos, the exterior and interior, use and context.

A site is specified with high requirements regarding urban planning and the landscape. The specifications of the assignment from the general residential viewpoint are sufficiently complex.

In addition to assignment-related lectures, corrective sessions are included which are supplemented by colloquia at regular intervals. The results are then presented by the students at a subsequent public event. This presentation is part of the assignment and must be prepared accordingly.

The parallel Presentation and Creative Expression IV module (6.4) corresponds with Design Project IV and therefore already permits the creation of CAD-based or generated designs in the fourth semester.

Project Design and Detail I

Responsible for the module:	Prof. H. Stridde	Module code:	BA 1.5
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	5th semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	6	Language of instruction:	German
Examination:	Design	Type:	Mandatory module

Student working hours:	83 hours of self-study, 67 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- recognise the mutual dependencies between design and construction
- formulate a concept suitable for the assignment and implement its construction through to design details
- combine the knowledge and skills previously acquired in the various subjects in one project design
- develop supporting constructions with suitable material and effective static calculations, taking the spatial effects into account
- employ presentation techniques such as models, drawings, sketches, CAD and text within the context of the assignment.

Description of the course content:

This module includes a small-scale design assignment within a simple urban planning and landscape context with simple usage requirements. The clarity of the assignment serves to underline its main aim, which is the continuous examination of the relationship between design and construction as reciprocally influential processes.

The constructive detail is evolved from the design concept and is examined and adapted on the basis of its technical constructional accuracy and compatibility with the specified conceptual draft. During processing there are no time limits for the individual steps "concept-design-structure-detail" to experience the processuality of the design procedure. The design must be presented as both a model and in drawings.

The content required for the assignment is conveyed in ancillary lectures and corrective sessions. The results are then presented and defended by the students at a subsequent event. This presentation is part of the assignment and must be prepared accordingly.

In the Project Design and Detail I module the knowledge acquired from modules BA 1.1-1.4 and BA 4.1-4.9 is combined.

Urban Design

Responsible for the module:	Dr. F. Pantel	Module code:	BA 2.1
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	5th semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	5	Language of instruction:	German
Examination:	Design	Type:	Mandatory module

Student working hours:	94 hours of self-study, 56 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- use the basic elements to create an urban environment such as streets, squares and building structures
- record the dimensions of urban spaces
- understand the principle complexity of urban correlations
- develop functional and spatial constellations in small-scale urban development designs
- employ presentation techniques such as models, drawings, sketches, CAD and text within the context of the assignment

Description of the course content:

The basic principles of urban spaces are examined in small-scale, manageable preliminary practical seminars. These practical assignments have a low level of complexity and focus on topics such as streets, squares and urban structures from functional, creative and sociological viewpoints, and in particular on the conflicting constraints of public and private spaces as a central element of contemporary urban culture.

The preliminary practical seminars culminate in an urban planning concept, the planning area of which includes problematic urban zones (periphery, urban wastelands etc.). The scope of the assignment is manageable, but its complexity is sufficient. The design must be presented as both a model and in drawings.

The design work is accompanied by assignment-related lectures and corrective sessions. The results are then presented and defended by the students at a subsequent event, if applicable with external experts. This presentation is part of the assignment and must be prepared accordingly.

Module BA 3.4 Theory IV with the Urban Planning lectures provides a foundation for this module.

Theory I

Responsible for the module:	Prof. Dr. L. Beckmann	Module code:	BA 3.1
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	1st semester
Credit points:	2 CP	No. of participants:	
Weekly semester hours:	2	Language of instruction:	German
Examination:	Written examination¹	Type:	Mandatory module

Student working hours:	28 hours self-study, 22 hours lectures
Course form:	Lectures and free work

Competence goals:

When students have completed the module, they can

- recognise the widely varied landscape of modern, contemporary architecture
- understand the pluralistic expression of contemporary architecture as a response to the social reality of modern industrial societies
- differentiate, describe, categorise and compare temporal, design and structural features of modern architecture as well as operative persons

Description of the course content:

History of architecture 1: This series of lectures serves as an introduction to the varied field of contemporary architecture and focuses on the conditionality and dependence of architectural design on social and personal concepts. The aim is to present and experience architecture in all its significance as an essential medium that influences social reality. In addition the students' aesthetic and structural sense, their "architectural eye" is trained. During the lectures selected examples are used to present and illustrate the theory of the respective topics.

¹ As specified in the Examination Regulations, other forms of examination are also possible depending on the respective assignment.

Theory II

Responsible for the module:	Prof. Dr. L. Beckmann	Module code:	BA 3.2
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	2nd semester
Credit points:	2 CP	No. of participants:	
Weekly semester hours:	2	Language of instruction:	German
Examination:	Written examination²	Type:	Mandatory module

Student working hours:	28 hours self-study, 22 hours lectures
Course form:	Lectures and free work

Competence goals:

When students have completed the module, they can

- identify architectural solutions from their inception to the beginning of the industrial revolution and comprehend their dependence on material, building technology and social developments
- differentiate, describe, categorise and compare temporal, design and structural features as well as operative persons

Description of the course content:

History of architecture 2: The lectures convey the history of architecture from its beginnings through to the industrial revolution in chronological order. They focus on the presentation of individual buildings as examples and urban development. The emphasis is placed on stylistic, technical and typological aspects of architectural developments depending on the social processes of the respective time. During the lectures selected examples are used to present and illustrate the theory of the respective problems.

² As specified in the Examination Regulations, other forms of examination are also possible depending on the respective assignment.

Theory III

Responsible for the module:	Prof. Dr. L. Beckmann	Module code:	BA 3.3
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	3rd semester
Credit points:	6 CP	No. of participants:	
Weekly semester hours:	6	Language of instruction:	German
Examination:	Written examination³	Type:	Mandatory module

Student working hours:	83 hours, 67 hours lectures
Course form:	Lectures and free work

Competence goals:

When students have completed the module, they can

- apply general knowledge about architectural typologies
- interpret the typology of housing in correspondence with urban design and social concepts
- identify architectural solutions from the industrial revolution to the beginning of the 20th century and comprehend their dependence on material, building technology and social developments
- differentiate, describe, categorise and compare temporal, design and structural features as well as operative persons
- describe planning law principles and explain the interaction between building design and building regulations

Description of the course content:

History of architecture 3: The history of architecture from the industrial revolution through to the beginning of the 20th century is dealt with. Individual examples of buildings and the historical developments of European towns are presented. The emphasis is on stylistic, technical and typological aspects of the development of architecture depending on the social processes of the respective era.

Planning law: This deals with the structure of building planning laws and building regulations as well as the principles of urban land use planning and the urban land use planning procedures, urban development content and links with the Federal Land Utilisation Ordinance; the admissibility of building plans, conditions for exceptions and exemptions including building approval and notification procedures. Special attention is paid to the inclusion of nature and the landscape in the urban land use plans.

Architectural typologies and residential architecture 1: This series of lectures is held by several lecturers and focuses on the history and sociology of housing and typologies of residential architecture. Topics such as facades, provision of services, functional structures etc., elementary architectural phenomena such as light, materials, space, limits etc. are examined.

The Module Theory III teaches the history of architecture, building design and planning law as a complementary unit. This shows students the correlations between the various disciplines of architecture. The respective topics are presented with suitable examples in lectures. All three fields of study are examined in the joint written examination.

³ As specified in the Examination Regulations, other forms of examination are also possible depending on the respective assignment.

Theory IV

Responsible for the module:	Prof. Dr. L. Beckmann	Module code:	BA 3.4
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	4th semester
Credit points:	6 CP	No. of participants:	
Weekly semester hours:	6	Language of instruction:	German
Examination:	Course work⁴	Type:	Mandatory module

Student working hours:	83 hours self-study, 67 hours lectures
Course form:	Lectures and free work

Competence goals:

When students have completed the module, they can

- apply specific architectural knowledge
- identify architectural solutions from the beginning of the 20th century to the present and comprehend their dependence on material, building technology and social developments
- differentiate, describe, categorise and compare temporal, design and structural features as well as operative persons
- describe the foundations of urban development
- explain selected urban development concepts and models

Description of the course content:

History of architecture 4: This module teaches the history of architecture from the beginning of the 20th century to the present and presents it chronologically using individual buildings and urban development as examples. Stylistic, technical and typological aspects are examined in relation to social processes of the respective era. In addition the module focuses on outstanding personalities in the field of architecture and architectural trends such as Metabolism, Structuralism etc.

Urban Planning Theory: The lectures focus mainly on the constituent parameters of towns rather than treating urban phenomena in historic and chronological order. The emphasis is placed on the architectural elements, on space and volume, square and street, function and density in interaction with social factors. In addition, the lectures alternately focus on main topics such as urbanity, urban perception and the public and private spheres.

Architectural typologies and residential architecture 2: The lectures are held by several lecturers and deal with different typologies of buildings of the socio-cultural infrastructure. The building typologies are regarded from functional, economic, design, energy and space-creation viewpoints with their dependence on social and urban planning contexts.

The Module Theory IV teaches the history of architecture, architectural typologies and urban planning as a complementary unit. This shows students the correlations between the various disciplines of architecture and urban design. The respective topics are presented with suitable examples in lectures. All three fields of study are examined in the joint written examination.

⁴ As specified in the Examination Regulations, other forms of examination are also possible depending on the respective assignment.

Theory V

Responsible for the module:	Prof. Dr. L. Beckmann	Module code:	BA 3.5
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	5th semester
Credit points:	6 CP	No. of participants:	
Weekly semester hours:	6	Language of instruction:	German
Examination:	Written examination⁵	Type:	Mandatory module

Student working hours:	83 hours self-study, 67 hours lectures
Course form:	Lectures and free work

Competence goals:

When students have completed the module, they can

- understand theoretical approaches with which architecture is methodically described, explained and evaluated
- describe the links between cultural expression with social developments and upheavals
- recognise the relativity and characteristics of existing architecture from theoretical standpoints
- recognise the varied and reciprocal relationships and influences, feedback and anticipation processes that occur within the different cultural expressions and equally with reference to economic, political and social conditions

Description of the course content:

Architectural theory: This series of lectures focuses on various approaches to architectural concepts and implementation. In addition to investigating major personalities in the field of architecture, it provides insight into the chronology of architectural theory as well as selected thematic constellations that enliven the architectural discourse.

Art and cultural history: This series of lectures mainly deals with the various arts (painting, sculpture, film etc.), the interfaces with architecture and their mutual influences. This subject supplements architectural theory by viewing architecture, its development and interpretation from the viewpoint of the arts.

Architecture and geometry: This series of lectures takes a look at geometry as an important structural and categorisation system for architecture. The connections between dimensions, numbers, proportions and architecture and its interpretation are presented in a chronological and historical context and illustrated by examples of important individuals in the field of architecture and also specific phenomena.

Module BA 3.5 comprises a series of lectures with various lecturers in alternating topic groups. The module examines the question of legitimation and purpose of various architectural solutions in a pluralistic present without an architectural canon. This unit provides orientation options and draws attention to the necessity of an architectural discourse. All three fields of study are examined in the joint written examination.

⁵ As specified in the Examination Regulations, other forms of examination are also possible depending on the respective assignment.

Structural Design I

Responsible for the module:	Prof. J. Arendt	Module code:	BA 4.1
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	1st semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	5	Language of instruction:	German
Examination:	Course work	Type:	Mandatory module

Student working hours:	94 hours, 56 hours of lectures and supervision of practical assignments as well as free work
Course form:	

Competence goals:

When students have completed the module, they can

- Comprehend and apply simple design and construction principles
- Recognise the links between design and structural design to satisfy low requirements regarding the building physics
- Examine the correlations between constructions that must satisfy low requirements with regard to the building physics and the development of space and buildings in the planning process
- Identify and implement this dependency in the planning process
- Apply presentation techniques that are suitable for the assignment

Description of the course content:

Lectures focus on the principles of simple structural design and convey the principles of structural design and the development of details in relation to design concepts. The following topics related to solid construction are dealt with: Foundations, single external walls, bearing and non-bearing interior walls, ceilings, floor structures, flat roofs, simple window and door designs (wood), installations (bathroom, WC, kitchen).

In conjunction with the lectures students complete assignments in a process of mentoring and assessment. These assignments concentrate on practising the types of presentation that can suitably convey constructional and design facts and information. Presentation of the results is an element of the course.

Structural Analysis and Design I

Responsible for the module:	M. Ortmann	Module code:	BA 4.2
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	1st semester
Credit points:	4 CP	No. of participants:	42
Weekly semester hours:	2	Language of instruction:	German
Examination:	Portfolio⁶	Type:	Mandatory module

Student working hours:	78 hours of self-study, 22 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- recognise the main static systems
- determine the bearing forces and internal forces
- comprehend the principles of the new safety concept
- carry out initial cross-section assessment und calculation
- acquire basic knowledge for intensifying structural design skills
- communicate basic knowledge of supporting structures and insight into calculation and assessment methods with a view to interdisciplinary cooperation

Description of the course content:

This series of lectures focuses on the principles of structures and their forms. The following topics are included: Simple static systems, supporting elements and their relationships with the building, principles of structural design.

The lectures are accompanied by assignments that are discussed and evaluated in a compulsory presentation. The assignments concentrate on the design and assessment of a structure or a structural element.

⁶ As specified in the Examination Regulations, other forms of examination are also possible depending on the respective assignment.

Material and Design I

Responsible for the module:	K. Wert	Module code:	BA 4.3
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	1st semester
Credit points:	6 CP	No. of participants:	
Weekly semester hours:	4	Language of instruction:	German
Examination:	Written examination⁷	Type:	Mandatory module

Student working hours:	105 hours self-study, 45 hours lectures
Course form:	Lectures and free work

Competence goals:

When students have completed the module, they can

- state the principle of building physics in the field of thermal insulation and moisture protection
- assess the main technical thermal and moisture protection situations
- calculate the heat transmission coefficient and specific heat transmission loss
- carry out and reproducing calculations in accordance with Glaser
- recognise the dependency between the building design and the building physics as well as the material requirements and stating the main materials of construction for the design and construction of the building

Description of the course content:

Building physics 1: This series of lectures focuses on the topics of heat and moisture protection, protection against driving rain and energy conservation as well as the generally recognised codes of practice (DIN 4108).

Heat and moisture protection: Principles of building physics, criteria for a pleasant interior climate, minimum thermal insulation, surface condensation / thermal bridges / mould formation, water vapour diffusion in the cross-section of the building, thermal insulation on buildings. Protection against driving rain: Capillary water transport, component ventilation / convective processes. Energy savings: Energy conservation regulations, component-related principles (basic principles, calculation methods), air-tight building shell, thermal insulation for winter and summer, passive utilisation of solar energy (heat radiation, heat storage), measurement methods, calculation methods, regulations

Materials science 1: The lectures deal with the production, composition and properties of the building materials and their effective use in building structures based on these. The technical, aesthetic and ecological aspects that determine the selection of materials for certain tasks within the limits of the building are also presented as well as applicable regulations and conditions.

Bricks, natural stone, ceramic materials, mineral based building materials, binding agents, plaster, floating screed, concrete (reinforced and pre-stressed concrete), steel, non-ferric metals.

As an alternative to a written examination it is also possible to prepare a course paper on the main topics of the course that are discussed and evaluated at a compulsory presentation. The examination includes the content of both fields of study.

⁷ As specified in the Examination Regulations, other forms of examination are also possible depending on the respective assignment.

Structural Design II

Responsible for the module:	Prof. J. Arendt	Module code:	BA 4.4
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	2nd semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	5	Language of instruction:	German
Examination:	Portfolio	Type:	Mandatory module

Student working hours:	94 hours of self-study, 56 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- comprehend and apply the principles of framework structures
- recognise the links between design and structural design on framework structures
- examine the correlations between framework structures and the development of space and buildings in the planning process
- apply presentation techniques that are suitable for the assignment

Description of the course content:

The lectures deal with the principles of frame constructions, with the main focus on wooden frame constructions. Conveying the principles of structural design and the development of details in relation to design concepts. The following topics related to wood frame construction are dealt with: Constructional systems (supports, beams, struts), exterior and interior wall constructions, ceiling constructions, angled roof constructions and roof coverings, window and door constructions, large format glazing, installations in a frame construction (bathroom, WC, kitchen).

Assignments (specific design assignments) are completed by students in conjunction with the lectures in a process of mentoring and assessment. The students present the results. The presentation is an element of the course.

Structural Analysis and Design II

Responsible for the module:	M. Ortmann	Module code:	BA 4.5
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	2nd semester
Credit points:	4 CP	No. of participants:	42
Weekly semester hours:	2	Language of instruction:	German
Examination:	Portfolio⁸	Type:	Mandatory module

Student working hours:	78 hours of self-study, 22 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- comprehend and present elementary information with regard to supporting structures and their loads
- recognise the correlations between the building design and the supporting structure
- describe and interpret the calculation and dimensioning methods
- independently determine the typical profile sections for the subsequent design on the basis of the geometries
- recognise and apply the relationship between the architectural design and the static requirements

Description of the course content:

The series of lectures deals with the principles of the architectural design in relation to the static requirements. The following topics are included: Determination of the typical profile sections dimensions as the basis for subsequent design (roof, support and ceiling dimensions), interlace knowledge acquired in theory and practice, the principles of supporting structure design, stability characteristics, recognising deformation as a basis, examples of calculation and determination of effective span widths, special material properties. The lectures are accompanied by assignments that are discussed and evaluated in a compulsory presentation. The assignments concentrate on the design and assessment of a structure or a structural element.

⁸ As specified in the Examination Regulations, other forms of examination are also possible depending on the respective assignment.

Material and Design II

Responsible for the module:	K. Wert	Module code:	BA 4.6
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	2nd semester
Credit points:	6 CP	No. of participants:	
Weekly semester hours:	4	Language of instruction:	German
Examination:	Written examination⁹	Type:	Mandatory module

Student working hours:	105 hours self-study, 45 hours lectures
Course form:	Lectures and free work

Competence goals:

When students have completed the module, they can

- recognise principles of scientific principles as a requirement for the assessment of sound insulation and room acoustics
- calculate, document and verify simple sound insulation requirements
- identify fire protection requirements and outline solutions for preventative fire protection problems
- state the construction materials required for design and construction of the building
- recognise the correlations between the building design, the sound insulation and fire protection requirements and the materials
- recognise and discuss the correlations between the building design and the building physics as well as the materials

Description of the course content:

Building physics 2: The lectures deal with the topics of room acoustics and noise insulation of buildings, whereby the emphasis is placed on the use of requirements for room acoustics and noise insulation in the building design. The following topics are included:

- physical acoustic principles: Sound waves / sound field / speed of sound, acoustic quality. Room acoustics: Sound reflection / sound absorption / resonance time, sound absorbers / room geometry.
- sound insulation in building construction: Protection against air-borne noise, protection against footfall sound protection, sound protection in solid structures, in framework structures, in building facility equipment.
- sound insulation in urban construction: Noise protection measures. Applicable measurement methods, calculation methods, regulations.
- principles of fire protection, external and internal partitioning, escape and emergency routes, requirements of the state building laws with regard to the materials of construction and components

Materials science 2: The lectures deal with the production, composition and properties of the building materials and their effective use in building structures based on these. The technical, aesthetic and ecological aspects that determine the selection of materials for certain tasks within the limits of the building are also presented as well as applicable regulations and conditions. Organic building materials, wood, plastics, insulating materials, sealing materials, glass.

As an alternative to an examination it is also possible to complete course papers on main topics of the course that are discussed and evaluated at a compulsory presentation. The examination includes the content of both fields of study.

⁹ As specified in the Examination Regulations, other forms of examination are also possible depending on the respective assignment.

Structural Design III

Responsible for the module:	Prof. P. Fank	Module code:	BA 4.7
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	3rd semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	5	Language of instruction:	German
Examination:	Portfolio or design	Type:	Mandatory module

Student working hours:	94 hours of self-study, 56 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- comprehend and apply complex structural designs (mixed building structures)
- recognise the links between design and structural design to satisfy high functional requirements and also high requirements regarding the building physics
- examine the correlations between constructions that must satisfy high requirements with regard to the building physics and the development of space and buildings in the planning process
- use suitable presentation techniques such as models, drawings, sketches, CAD and text in accordance with the assignment

Description of the course content:

The lectures deal with complex designs and details that must satisfy higher requirements regarding the function and building physics. This focusses on conveying the principles of structural design and the development of details in relation to design concepts.

The following topics are included: Cellar and foundations, double exterior wall constructions with large-area window and façade constructions, curtain wall façades, mobile partition walls, office and wall units, ceiling constructions, floor structures, flat and angled roofs with roof installations (skylights and penetrations), green roofs, balconies, patios, lifts, installations (bathroom, WC, kitchen, heating, ventilation).

Alongside the lectures students must complete an assignment (specific design assignment, e.g. small office building or similar) with plans and models which is monitored in corrective sessions. Presentation of the design is an element of the course.

Building Technology and Structural Design

Responsible for the module:	Prof. G. Seegräber	Module code:	BA 4.8
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	3rd semester
Credit points:	6 CP	No. of participants:	
Weekly semester hours:	4	Language of instruction:	German
Examination:	Course work¹⁰	Type:	Mandatory module

Student working hours:	105 hours of self-study, 45 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- state elementary knowledge of technical building installations and apply this for representation in architectural plans
- recognise the dependencies between building technology and the spatial building structure and implement these dependencies in the design process
- discuss relevant systems of building technology in the interdisciplinary collaboration with consultant specialists involved in the construction and planning process

Description of the course content:

Lectures discuss the components, networks and installation principles of the electrical, sanitary, heating, ventilation and air conditioning equipment in the context of structural implementation.

Electrical installations: Natural light/artificial light, electrical installations in buildings, electrical installation planning, safety devices for the electrical system, European installation bus, galvanic isolation and earthing

Sanitary installations: Water supply and drainage systems, prewall installations, use of rainwater and mains water, dimensioning aids

Heating installations: Heat generation and venting systems, heat storage and pipe networks, single radiators, heating areas and control equipment, heat requirements and dimensioning aids

Ventilation installations: Natural ventilation, ventilation shafts, mechanical ventilation, heat exchangers, heat recovery, ventilation and air conditioning systems, building cooling systems

Alongside lectures a course paper is required for the four main topics.

¹⁰ As specified in the Examination Regulations, other forms of examination are also possible depending on the respective assignment.

Structural Design IV

Responsible for the module:	Prof. A. Finkeldey	Module code:	BA 4.9
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	4th semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	5	Language of instruction:	German
Examination:	Portfolio or design	Type:	Mandatory module

Student working hours:	94 hours of self-study, 56 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- comprehend and apply wide-span structural designs
- recognise the links between design and structural design for wide-span structures (hall structures)
- examine the correlations between wide-span structures and the development of space and buildings in the planning process
- use suitable presentation techniques such as models, drawings, sketches, CAD and text in accordance with the assignment

Description of the course content:

The lectures deal with the principles and specific material properties of wide-span constructions. This focusses on conveying the principles of structural design and the development of details in relation to design concepts.

The following topics are included: Exterior walls with façade systems for halls and their openings, interior walls, interior structures, installations, doors in industrial buildings, ceilings and floors, flat and angled roofs, roof structures, skylights, penetrations, light and heavy roof coverings.

In conjunction with the lectures students must - in a process of mentoring and assessment - complete an assignment (specific design assignments, e.g. market hall, community centre or similar) with plans and models. The students present the results. The presentation is an element of the course.

Project Design and Detail II

Responsible for the module:	Prof. B. Kaiser	Module code:	BA 4.10
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	6th semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	6	Language of instruction:	German
Examination:	Design	Type:	Mandatory module

Student working hours:	83 hours of self-study, 67 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- formulate a design that is suitable for the assignment and implement it in a corresponding, detailed structural design
- develop supporting constructions with suitable material and effective static calculations, taking the spatial effects into account
- examine the individual design parameters and combine these to an all-round solution
- use suitable presentation techniques such as models, drawings, sketches, CAD and text in accordance with the assignment

Description of the course content:

This module features building assignments with higher requirements for use, the contexts of which are urban and landscape problem zones. This can be either a new build or the conversion of an existing building. The emphasis of the assignment is on constant monitoring of the links between the conceptual and structural design as mutually influencing processes. The constructive detail is evolved from the design concept and is examined and adapted on the basis of its technical constructional accuracy. The design must be presented in drawings and as a model.

The knowledge necessary for the assignment is taught in ancillary lectures. The design process occurs in conjunction with mentoring and assessment session. The results are then presented by the students at a subsequent event. This presentation is part of the assignment and must be prepared accordingly.

In the Project Design and Detail II module the knowledge acquired from modules BA 1.1-1.5 and BA 4.1-4.9 is combined.

Project Design, Detail & Building Technology

Responsible for the module:	Prof. K. Luckmann	Module code:	BA 4.11
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	6th semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	6	Language of instruction:	German
Examination:	Design	Type:	Mandatory module

Student working hours:	83 hours of self-study, 67 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- combine previously acquired knowledge and skills (module BA 4.8) in one project design
- recognise the interdependencies of sustainable building technology, the structural design and the detail in a building design
- examine the individual design parameters and combine these to an all-round solution
- use suitable presentation techniques such as models, drawings, sketches, CAD and text in accordance with the assignment

Description of the course content:

The conceptual approach and implementation in the practical planning process are examined further on the basis of a technically-oriented, sustainable and manageable design assignment.

The assignment has a simple urban/landscape context. The scope includes small-scale aspects such as energy optimisation, compactness, orientation and zoning of the building, the layout organisation, taking the technical infrastructure into account as well as the structural design and detail which is ready for implementation.

Structural systems such as solid structures, frame structures and lightweight structures combined with the appropriate building technology are dealt with. The design is illustrated by means of calculations, drawings and models.

The content required for the assignment is conveyed in ancillary lectures, excursions and/or presentations. The design process occurs in conjunction with mentoring and assessment session. The presentation of the results is an element of the assignment and the basis of assessment.

Planning and Construction Management

Responsible for the module:	Prof. Dr. C. Schramm	Module code:	BA 5.1
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	4th semester
Credit points:	6 CP	No. of participants:	42
Weekly semester hours:	6	Language of instruction:	German
Examination:	Portfolio¹¹	Type:	Mandatory module

Student working hours:	83 hours of self-study, 67 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- apply the scope of services in accordance with the HOAI
- carry out the area, cost and fee calculations
- state the basic principles for funding construction projects
- apply the principles of the VOB parts A, B and C
- recognise project and facility management as tasks of the architect

Description of the course content:

The lectures focus on the following:

- overview of the professional profile of an architect
- the institutions involved in planning and construction
- introduction to the calculation of areas and volume of buildings in compliance with DIN 277
- presentation of DIN 276, cost planning, control and management
- fee calculation (principles of the HOAI - Fee Structure for Architects and Engineers)
- basic funding terms
- introduction to the VOB/A - German Construction Contract Procedures (tender, award of contract, accounting)
- use of the VOB as a tool for construction managers (VOB/B,C and DIN 18299)
- project and facility management as a tasks of the architect
- scheduling from the viewpoint of the project participants
- user cost of buildings in compliance with DIN 18960

Practical seminars on the individual topics are held alongside the lectures. Various sub-assignments have to be completed based on an existing design. This module conveys the basic knowledge required for modules BA 5.2 and MA P.1.

¹¹ As specified in the Examination Regulations, other forms of examination are also possible depending on the respective assignment.

Project Design, Detail Design and Implementation

Responsible for the module:	Prof. Dr. C. Schramm	Module code:	BA 5.2
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	5th semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	4	Language of instruction:	German
Examination:	Design¹²	Type:	Mandatory module

Student working hours:	94 hours of self-study, 45 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- combine previously acquired knowledge and skills in one project
- recognise the qualitative links between the design, planning and tender.
- elaborate plans that are ready for implementation
- compile descriptions of the technical specifications

Description of the course content:

An existing design is handled in more detail. The emphasis is on the development of implementation plans and compilation of technical specifications.

The following is included: Compilation of technical specifications (structure, text elements, determination of quantities, preliminary remarks, contract conditions) using computer programmes, implementation planning 1:50 (metric scale) as a basis for quantity calculations, determination of main facts and figures for preparing tender.

The following must be submitted: Plans drawn up with the necessary detail which are ready for implementation, quantity calculation, compilation of the building specification, technical specifications. The content required for this assignment is taught at ancillary lectures (further study of the VOB/A, necessary knowledge for drawing up technical specifications) in conjunction with mentoring and assessment sessions. The results are then presented by the students at a subsequent event.

¹² As specified in the Examination Regulations, other forms of examination are also possible depending on the respective assignment.

Presentation and Creative Expression I

Responsible for the module:	Prof. J. Bargholz	Module code:	BA 6.1
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	1st semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	6	Language of instruction:	German
Examination:	Portfolio	Type:	Mandatory module

Student working hours:	83 hours of self-study, 67 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- apply general principles of geometrical presentation techniques for three-dimensional views and the development of metal images
- use lines as a constituent part of drawings
- creatively interpret and implement two and three-dimensional compositions, referring to aesthetic and structural systems
- independently expand their observational habits and their spatial perception
- express their creativity

Description of the course content:

Descriptive geometry 1: Principles of geometric, spatial thinking in a series of practical seminars. Various parallel projections (floor plans, axonometric projections), determination of real variables, penetrations are practised in drawings and models.

Free drawing 1: This series of practical seminars deals with the principles of drawing, lines and their use in design, creating structures, depiction of light and dark and their effective use in creating shapes. Abstract assignments are mainly used to this purpose. Great value is placed on the sheet structure as a composition exercise.

Three-dimensional design 1: The transition from two-dimensional to three-dimensional figures is practiced in several practical seminars. Various materials train the perception of different types of material and their possible expression. These focus on abstract assignments dealing with areas, bodies and spatial compositions.

The practical seminars in all sections of the module are accompanied by lectures and the individual results are offered for joint discussion in a short presentation.

Presentation and Creative Expression II

Responsible for the module:	Prof. J. Bargholz	Module code:	BA 6.2
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	2nd semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	6	Language of instruction:	German
Examination:	Portfolio	Type:	Mandatory module

Student working hours:	83 hours of self-study, 67 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- describe and apply different presentation techniques and their use for design creative expression
- apply different spatial presentation techniques
- implement spatial perception in correspondence with body and form
- apply aesthetic structures in architectural correlation
- independently expand their observational habits
- express their creativity
- use drawing as a technical, analytic medium

Description of the course content:

Descriptive geometry 2: The individual practical seminars deal with central perspectives and multiple-point perspective. Various media such as sketches, computer graphics, bound drawings as well as photographs and models are used. Geometric specifications are taken that serve as a pivot and tool for design, drafting and development.

Free drawing 2: Various methods of presentation (axonometries, perspectives) are experienced and practised at various supervised, practical seminars. Sketching of three-dimensional objects serves as a method of analysing forms and as a means of capturing and depicting spatial conditions, both as individual objects and urban spaces. The depiction of shadow and structure as a means of emphasis is used and practised.

Three-dimensional design 2: A series of practical seminars focuses on the depiction of bodies and their topological conditions in relation to one another. Spaces and intermediate spaces are created and analysed. Both additive and subtractive design approaches are tested. The practical seminars are abstract compositions in which various materials are used.

The practical sessions in all sections of the Presentation and Creative Expression II module are accompanied by lectures and the individual results are offered for joint discussion in a short presentation.

Presentation and Creative Expression III

Responsible for the module:	Prof. J. P. Thiessen	Module code:	BA 6.3
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	3rd semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	4	Language of instruction:	German
Examination:	Portfolio	Type:	Mandatory module

Student working hours:	105 hours of self-study, 45 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- apply basic knowledge and skills in using 2D image processing and presentation programmes for own designs
- investigate initial digital 3D presentation techniques
- explore their colour perception and use colour as a design element
- analyse and apply the principles of colour perception with regard to architecture (area, body, space)
- recognise theoretical colour systems and apply these within the framework of "colour in architecture".
- understand and employ digital and analogue presentation methods as a supplementary tool in architectural design and analysis within the framework of the assignment

Description of the course content:

CAD 1: The introduction to computer-aided design is a series of hands-on "learning by doing" lectures and practical seminars. Students must complete a series of small-scale assignments dealing with two-dimensional drawing to scale, image processing and presentation on a computer. The assignments focus on an architectural problem such as individual aspects of an on-going design or separate specific design assignments or assignments dealing with an aspect of colour design in an architectural concept.

The introduction to three-dimensional digital drawing and depiction comprises exercises during which the architectural/geometric objects are created, analysed and depicted in either monochrome or polychrome form with intuitive drawing methods. The practical seminars are based on the knowledge acquired in modules BA 6.1 and BA 6.2 and examine this in greater detail.

Colour design 1: This series of practical assignments focuses on the principles of colour design. Colour blends, expression and the effect of colours as well as their reciprocal influences are included in the practical seminars. An introduction to the different colour theories based on their use in architecture facilitates planning and design related decisions. The colour design assignments establish a link with architecture by means of problems concerning specific phenomena connected with the relationship between colour and architecture.

The practical seminars of both subjects of module BA 6.3 are accompanied by lectures conveying the necessary theoretical knowledge. The results of the individual exercises are offered for discussion in a short presentation. The links between CAD and colour design can be dealt with selectively at various practice sessions.

Presentation and Creative Expression IV

Responsible for the module:	Prof. J. P. Thiessen	Module code:	BA 6.4
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	4th semester
Credit points:	6 CP	No. of participants:	28
Weekly semester hours:	4	Language of instruction:	German
Examination:	Portfolio	Type:	Mandatory module

Student working hours:	105 hours of self-study, 45 hours of lectures and practical seminar supervision
Course form:	Lectures, supervised practical seminars and free work

Competence goals:

When students have completed the module, they can

- express their spatial perception by creating three-dimensional models with the aid of digital media
- implement concepts in digital forms, from the basic compilation through to the finished presentation
- further general and specific knowledge about form-colour-body-design within the framework of architecturally based experimental fields
- intensify their colour perception and use colour as an architectural means of expression in a selective and competent manner

Description of the course content:

CAD 2: Further instruction in computer-aided design comprises a series of hands-on "learning by doing" lectures and practical seminars. A design assignment from Design Project IV (BA 1.4) or individual aspects are digitally processed. Further instruction is given in the field of 2D drawing as well as the principles of 3D drawing, whereby spatial perception is selectively trained by the complex and exact input of spatial models. The data which can be exported from the CAD programmes are processed with layout and DTP software and used to create an overall presentation. Colour theory is also taught in relation to digital colour systems (RGB/CMYK/LAB etc.) and also used in various programme categories. Students are also given an introduction to the creation of web pages (and their export) from various programmes.

Colour design 2: Several assignments are given to further knowledge of colour theory by practical use and to train colour perception. The course focuses on the role of colour in everyday architectural surroundings from the aspects of *Prägnanz* as part of the Gestalt theory and reference of colours to space in the context of buildings and urban environments, of colour dimensions and colour theory in developed and landscape contexts. Furthermore factors for the aesthetic assessment of colour design in architectural exterior spaces, on buildings (daylight variability) and in interiors are evolved.

The practical seminars of both subjects of module BA 6.4 are accompanied by lectures that convey the necessary theoretical knowledge. The results of the individual exercises are offered for discussion in a short presentation. The links between CAD and colour design can be dealt with selectively at various practice sessions.

Elective module I

Elective module

Responsible for the module:	Prof. J. Arendt	Module code:	BA 7.1
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	3rd - 6th semester
Credit points:	6 CP	No. of participants:	
Examination:	Will be announced in good time before the start of the semester	Language of instruction:	

Student working hours:	150 hours
Course form:	Depending on the respective module

Students must attend two or more freely selectable modules from the available elective modules of the Faculty of Architecture with a total of at least 12 credit points. Modules attended at other universities and faculties can also be accepted if they are conducive to the aims of the Bachelor of Arts in Architecture programme. The Examination Board decides if these are acceptable. The competence goals and the type of examination will be announced in good time before the beginning of the semester.

Elective module II

Elective module

Responsible for the module:	Prof. J. Arendt	Module code:	BA 7.2
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	3rd - 6th semester
Credit points:	6 CP	No. of participants:	
Examination:	Will be announced in good time before the start of the semester	Language of instruction:	

Student working hours:	150 hours
Course form:	Depending on the respective module

Students must attend two or more freely selectable modules from the available elective modules of the Faculty of Architecture with a total of at least 12 credit points. Modules attended at other universities and faculties can also be accepted if they are conducive to the aims of the Bachelor of Arts in Architecture programme. The Examination Board decides if these are acceptable. The competence goals and the type of examination will be announced in good time before the beginning of the semester.

Bachelor's thesis

Responsible for the module:	Prof. J. Arendt	Module code:	BA 8.0
Offered in the Degree Programme:	Architecture, BA	Offered in semester:	6th semester
Credit points:	12 CP	No. of participants:	
Examination:	Design, colloquium open to students and members of the university	Language of instruction:	German

Student working hours:	297 hours of self-study, 3 hours of supervision and colloquium,
Course form:	mentoring and assessment sessions, colloquium and free work

Competence goals:

When students have completed the module, they can

- establish complex relationships between interiors and exteriors, form and function, colour and material, design and significance, taking technical requirements into account, to create a holistic design
- present their design with the available presentation tools (exhibition)
- explain and defend the evolved solution based on sound reason using both language and imagery

Description of the course content:

A design assignment with an acceptable scope and degree of complexity is set. The topic of the Bachelor's Thesis focuses on the change of use and therefore redesign of an existing building or, if dealing with an original or newly designed architectural structure, discusses a problematic urban or landscape situation (wasteland, periphery).

The design must be presented in drawings, models and with the aid of a computer in a suitable scale at a colloquium open to students and members of the university.

Annex: Bachelor of Arts in Architecture Curriculum

Module groups	1st semester	2nd semester	3rd semester	4th semester	5th semester	6th semester
Design Project	BA 1.1 Design Project I	BA 1.2 Design Project II	BA 1.3 Design Project III	BA 1.4 Design Project IV	BA 1.5 Project Design & Detail I	BA 7.2 Elective module II
Credit points / weekly hours	6 / 5	6 / 5	6 / 5	6 / 5	6 / 6	6 / 2-6
Urban Design					BA 2.1 Urban Design	
Credit points / weekly hours					6 / 5	
Theory of Design and Urban Design	BA 3.1 Theory I History of Architecture	BA 3.2 Theory II History of Architecture	BA 3.3 Theory III History of Architecture, Planning Law, Architectural Typologies	BA 3.4 Theory IV History of Architecture, Planning Law, Architectural Typologies	BA 3.5 Theory V Theory of Architecture, History of Art, Geometry	
Credit points / weekly hours	2 / 2	2 / 2	6 / 6	6 / 6	6 / 6	
Structural Design and Building Engineering	BA 4.1 Structural Design I	BA 4.4 Structural Design II	BA 4.7 Structural Design III	BA 4.9 Structural Design IV		BA 4.10 Project Design & Detail II
Credit points / weekly hours	6 / 5	6 / 5	6 / 5	6 / 5		6 / 6
Structural Design and Building Engineering	BA 4.2 Structural Analysis and Design I	BA 4.5 Structural Analysis and Design II				BA 4.11 Project Design, Detail & Building Technology
Credit points / weekly hours	4 / 2	4 / 2				6 / 6
Structural Design and Building Engineering	BA 4.3 Material and Design I Building physics, materials science	BA 4.6 Material and Design II Building physics, materials science	BA 4.8 Building technology and structural design Building technology			
Credit points / weekly hours	6 / 4	6 / 4	6 / 4			
Planning and Construction Management				BA 5.1 Planning and Construction Management	BA 5.2 Project Design, Detail Design and Implementation	
Credit points / weekly hours				6 / 6	6 / 4	
Design and Architectural Presentation	BA 6.1 Presentation and Creative Expression I Geometry, Drawing, Creative Expression	BA 6.2 Presentation and Creative Expression II Geometry, Drawing, Creative Expression	BA 6.3 Presentation and Creative Expression III CAD, Colour	BA 6.4 Presentation and Creative Expression IV CAD, Colour		BA 8.0 Bachelor's Thesis
Credit points / weekly hours	6 / 6	6 / 6	6 / 4	6 / 4		
Elective Modules & Bachelor Thesis					BA 7.1 Elective module I	
Credit points / weekly hours					6 / 2-6	12
Total CP / Weekly hours	30 / 24	30 / 24	30 / 24	30 / 26	30 / 21 + elective module	30 / 12 + elective mod. + BA