

Department-groups abbreviations legend:

A = Historical Principles
B = Design and Visualisation
C = Construction
D = Structural Engineering
E = Urban Planning

M01 Interdisciplinary lecture series (A-E): “Advanced Architectural Studies – What can architecture achieve?” (2CP)

Every Professor of the Faculty of Architecture (FB 15) presents his/her individual position to a common subject in rotation in the form of a lecture. The headline for this series is “What can architecture achieve?”. The students document their activity on the subject by replying in written form to questions relevant to each lecture.

M02 Compulsory course: Historical Principles (A) (3CP)

Architectural analysis and theory are exemplified by posing relevant diachronic questions within the framework of a series of lectures supported by exercises in the form of seminars. Methodology of academic research is practiced through seminar papers and written assignments.

M03 Compulsory course: Design and Visualisation (B) (3CP)

This course goal is the development of an individual design approach. Traditionally visual, sculptural and digital design media are to be employed with equal emphasis. A superordinate architectural subject is to be handled with the help of all three media.

M04 Compulsory course: Construction and Technology (C1) (3CP)

Conveyance of methodology and knowledge that facilitate constructing “further, higher and more efficiently”. Innovative strategies for design and construction using modern technologies and building materials are conveyed through several independent lecture groups and corresponding exercises.

M05 Compulsory course: Construction and Technology (C2) (3CP)

Previous knowledge on building envelope and structural technology is to be systematically furthered in combination with energy efficient building technologies. The relationships and interdependencies between building structure, shell and technology, are to be conveyed to the students against the backdrop of a variety of utilisations, demands and climatic end conditions. Knowledge and skills are to be tested through exercises.

M06 Compulsory course: Building Typology (D) (3CP)

Conveyance of building typological parameters viewed in the context of the respective architectural developments and their corresponding conditions. Development of new, contemporary building typologies in the context of such developments. Testing of acquired knowledge through exercises carried out independently.

M07 Compulsory course: Urban Planning (E) (3CP)

The focus of the course lies with the dynamics of urban structures, their uses and functions, and their spatial consequences. Queries concerning urban technology, infrastructure and mobility are analysed utilising the examples of various European cities. With the help of a typological classification of European cities typical functions and uses are demonstrated in the context of their spatial development. As a consequence, contemporary changes and elements of a sustainable urban development are highlighted. Typological studies concerning specific urban situations are to be carried out and supported by short-term design exercises (Stegreif).

M08 Compulsory course: Impromptu Design (Stegreif) (A-E) (3CP)

Exercises carried out in a short amount of time are referred to as "Stegreif". Their goal is the fast development of experimental approaches to specific questions and their cogent presentation in unattended, contest-like conditions in a time frame from 2 up to a maximum of 14 days. Such an exercise is generally worth 1 CP. The evaluation of the results takes place during a colloquium, in which the students are called upon to explain and present their design concepts. Students may pick four distinct exercises (Stegreif) out of the ones offered by each of the departments of the Faculty of Architecture. The median grade resulting from the four chosen exercises poses the final grade for this compulsory course module.

M09 Design Exercise I Structural Engineering (C D) (12CP)

A structural engineering design exercise is to be carried out as an autonomously developed project. Central aspects of this course are status analysis, determining a design theme and concept defined especially by the parameters "sustainably" and "building culture", as well as developing a justifiable design in an attended teaching environment. The requirements posed to the students include presentation of the analysis and its results, communication of the derivation process of the concept as regards to content and form, as well as its transition into an effective individual design that is to be developed by the student. Methodology is evaluated during a minimum of 2 assessments. Ultimately the students are called upon to hand in and digitally present their design in the form of illustrations, architectural models and explanatory text passages.

M10 Design Exercise I Urban Planning (E) (12CP)

Survey and urban analysis of a manageable urban site. Demanded from the students is: a critical examination of the site; the assignment and the autonomously determined design demands and goals; and an independently developed approach through the use of suitable design methods. The requirements posed to the students include presentation of the analysis and its results, communication of the derivation process of the concept as regards to content and form, as well as its transition into an effective individual design that is to be developed by the student. Methodology is evaluated during a minimum of 2 assessments. Ultimately the students are called upon to hand in and digitally present their design in the form of illustrations, architectural models and explanatory text passages.

M11h and s. Intensified Design Structural Engineering (C D) or Urban Planning (E) (19CP)

Referring to the parameters of M09 and M10, a Structural Engineering or Urban Planning design exercise must be autonomously intensified and developed further by the student.

- Structural Engineering: this further development can include any of the "classical fields" as construction, structural frame, technology, energy efficiency or essential questions in typology. Also possible is further examination of design methodology or the use of experimental artistic strategies.
- Urban Planning: further queries in the fields of typology, infrastructure, transformation of the existing urban environment or project development. Also possible is the handling of rather fundamental and theoretical aspects like relevant social and cultural facets of the exercise. Alternatively, questions concerning design methodology, planning and implementation strategies can be explored.

M12 Extra-faculty course (4 CP)

An individually elected course from the curricula of other faculties of the TU Darmstadt. Compare to the actual description on the certificate.

M13 Elective course (A-E) (4 CP)

And individually elected course, usually in the form of a seminar, each with varying thematic focus in the A to E departments. Compare to the actual description on the certificate.

M14 Elective course (A-E) (4 CP)

As M 13

M15 Elective course (A-E) (4 CP)

As M 13

M16 Elective course (A-E) (4 CP)

As M 13

M17 Elective course (A-E) (4 CP)

As M 13

M18 Study I: Theoretical-Analytical Approach (A) 4CP

Independent use of academic research methods as regards to analysis of spatial interrelations and exercises in an architectural-theoretical context. Composition of a presentational poster according to academic standards.

M19 Study II: Artistic-Creative Approach (B) 4CP

Selection of a suitable design and illustration approach concerning an assigned task in regards to art and architecture.
Handling of an urban planning or structural engineering exercise utilising adequate illustration tools as well as explaining and classifying the chosen design and illustration approach. Presentation as a Stegreif design.

M20h and s. Study III: Structural-Design Approach (C D E) 4CP

Structural Engineering exercise

Highlighting methods to develop and substantiate an independent design approach and attitude. Develop integrated structural concepts utilising technological, constructive and typological knowledge. Consideration of the urban context. Presentation as a Stegreif design.

Urban Planning exercise

Highlighting methods to approach complex urban planning problems utilising the appropriate design methodology. Consideration of both urban and structural typological aspects. Urban analysis, evaluation and concept development. Analysis and illustration of spatial features and their consequences for building typology in the form of a Stegreif design.

M21h and s. Master Thesis (C D E) 18CP

Module M21h (Structural Engineering Thesis) encompasses the independent and unattended development of a design in competition-like conditions. Utilisation of acquired techniques and methods of analysis and concept development is expected, as well as their implementation to develop a Structural Engineering design that poses an adequate spatial and design-relevant solution. The emphasis of this exercise lies on the following: determining a design theme and concept defined especially by the parameters "sustainably" and "building culture", presentation of the analysis of its results, coherent derivation of the concept as regards to content and form and finally implementation of these processes into an architectural design and its development. The concept and analytical results are evaluated during an assessment meeting between the students and the issuing department of the thesis. Students are called upon to present their design in the form of illustrations, architectural models as well as explanatory text passages. Oral presentation of the thesis during a colloquium in front of the board of examiners.

Module 21s (Urban Planning Thesis) encompasses the independent and autonomous development of an approach concerning an issued urban planning relevant problem. Utilisation of acquired techniques and methods of analysis as well as idea and concept development is expected. An individual approach and position are expected which enable: a critical examination of the issued exercise; the relative planning area; and the historical and cultural context. These factors are to be encompassed into the planning goals and processes.

An adequate presentation of the students' design in the form of illustrations, architectural models and explanatory text passages is expected. Oral presentation of the thesis during a colloquium in front of the board of examiners.