Study plan

Name of study plan: Architecture and Urbanism, in English

Faculty/Institute/Others:
Department:
Branch of study guaranteed by the department: Welcome page
Garantor of the study branch:
Program of study: Architecture and Urbanism
Type of study: Follow-up master full-time
Required credits: 120
Elective courses credits: 0
Sum of credits in the plan: 120
Note on the plan:

Name of the block: Compulsory courses
Minimal number of credits of the block: 109
The role of the block: Z

Code of the group: DESIGN STUDIOS NAUE
Name of the group: Design Studios NAUE
Requirement credits in the group: In this group you have to gain 76 credits
Requirement courses in the group: In this group you have to complete at least 5 courses
Credits in the group: 76
Note on the group:

Code	**Name of the course / Name of the group of courses** ***(in case of groups of courses the list of codes of their members)*** *Tutors,* ***authors*** *and guarantors (gar.)*	Completion	Credits	Scope	Semester	Role
500ATRN	**Design Studio - Comprehensive Project** *Karel Maier, Winny Maas, Henri Hubertus Achten, Vladimír Sitta, Petr Kordovský, Henry William Andrew Hanson Iv, Vladimír Soukenka, Šimon Vojtík, Vladimír Krátký, ... Henri Hubertus Achten (Gar.)*	KZ	11	0P+8C	Z	z
500ATS1	**Design Studio - Building Complex** *Winny Maas, Henri Hubertus Achten, Henry William Andrew Hanson Iv, Vladimír Soukenka, Vladimír Krátký, Luis Marques, Vladimír Sitta, Radek Kolařík, Irena Šestáková, ... Henri Hubertus Achten (Gar.)*	KZ	11	0P+8C		z
500ATVZ	**Design Studio - Independent Study** *Henri Hubertus Achten, Petr Kordovský, Henry William Andrew Hanson Iv, Vladimír Soukenka, Vladimír Krátký, Vladimír Sitta, Irena Šestáková, Marek Přikryl, Jakob Dunkl, ... Henri Hubertus Achten (Gar.)*	KZ	11	0P+8C	Z	z
500ATU	**Design Studio -Urban Design** *Winny Maas, Henri Hubertus Achten, Tomáš Efler, Vladimír Sitta, Petr Kordovský, Henry William Andrew Hanson Iv, Šimon Vojtík, Vladimír Krátký, Irena Šestáková, ... Henri Hubertus Achten (Gar.)*	KZ	13	0P+8C	L	z
500DP1	**Diploma Project** *Henri Hubertus Achten, Tomáš Efler, Vladimír Sitta, Petr Kordovský, Henry William Andrew Hanson Iv, Vladimír Soukenka, Vladimír Krátký, Vladimír Sitta, Irena Šestáková, ... Henry William Andrew Hanson Iv (Gar.)*	Z	30	0P+20C	Z,L	z

Characteristics of the courses of this group of Study Plan: Code=DESIGN STUDIOS NAUE Name=Design Studios NAUE

500ATRN	Design Studio - Comprehensive Project	KZ	11

The studio can be processed only in the following variant: ATRN variant 1 / construction project: Learning outcomes of the course unit is to acquaint the student with the problems of project design. Based on their own architectural design developed within the previous studios, students work on the project at the level of documentation for the construction.The project is processed in a spiral, where each problem has to be verified several times, always at a higher level of knowledge of context and details. Occasionally, the underlying assumptions prove unsustainable and need to be reassessed. Construction must always be feasible. Architectural design and technical solutions are continuous vessels. Any change caused by other technical solutions must be made with respect to the architectural concept of the design and the same applies the other way round. In addition to consultations with the head of the studio, expert consultations are carried out by designated employees of technical departments (15122, 15123 and 15124) within the scope of the assignment, which determines the prescribed content of ATRN. This assignment is given to students at the start of their work.

500ATS1	Design Studio - Building Complex	KZ	11

The aim is to acquaint the student of the masters program with the problems of the demanding construction complex and practical use of basic terms from the typology of civil, industrial, or agricultural buildings. The assignment may have a well-defined program or the task may be formulated as a search for the potential of the specified parcel. The result of the work is a design of a set of buildings or structures with a typologically specific and complex or multifunctional program, including the link to a specific site.

500ATVZ	Design Studio - Independent Study	KZ	11

For the Independent Study Studio it is possible to process assignments from any of the authorised specialisations acknowledged by the Chamber of Architects: architecture, urbanism and spatial planning or landscape architecture.

500ATU	Design Studio -Urban Design	KZ	13

Learning outcomes of the course unit is to acquire the ability to elaborate a project with the problems of urban design in various scales, through the practical use of knowledge and basic concepts acquired in urban subjects of study. In the analytical phase of the work the student works with information about the territory. It deals with wider relationships, physical space and its perception, use of objects and areas, flows of people, materials and energies. The output is a problem map - depiction of constraints and potentials. In the conceptual phase, the student creates a vision - use, spatial structure and granularity of the solved space - documented by a working model. The design phase solves the position of the area in the context of the city or region, floor plans indicating spatial arrangement and use, general sections or elevation views illuminating the height solution (usually on a scale up to two more detailed than floor plans), visualization of the whole axonometry), several visualizations of the main public spaces usually from the normal horizon, transport solutions including pedestrian and public transport and traffic at rest, design implementation procedure - diagrams of individual phases. An integral part of the work is a text explaining the design principles. The final model is recommended.

500DP1	Diploma Project	Z	30

Code of the group: COMPULSORY NAUE
Name of the group: Compulsory Courses NAUE
Requirement credits in the group: In this group you have to gain 33 credits
Requirement courses in the group: In this group you have to complete at least 13 courses
Credits in the group: 33
Note on the group:

Code	Name of the course / Name of the group of courses *(in case of groups of courses the list of codes of their members)* *Tutors, **authors** and guarantors (gar.)*	Completion	Credits	Scope	Semester	Role
500PAM2	**Building Technology and Management II** *Radka Pernicová, Daniela Bošová, Radka Navrátilová, Lenka Prokopová **Lenka Prokopová** Radka Navrátilová (Gar.)*	Z,ZK	3	2P+1C	Z	z
500NS5	**Building Theory V** *Michal Kohout, Ondřej Tuček, David Tichý, Pavla Melková, Filip Tittl, Noor Marji **Michal Kohout** Michal Kohout (Gar.)*	KZ	2	1P+1C	Z	z
500EKL2	**Ecology II** ***Petr Klápště***	KZ	2	2P+0C	L	z
500EKON	**Economics**	Z,ZK	3	2P+1C	L	z
500DA3-4	**History of Architecture III/IV** ***Pavel Kalina***	ZK	2	2P+0C	L	z
500TKZ1	**Landscape Architecture I-Introduction** *Radmila Fingerová **Radmila Fingerová** Radmila Fingerová (Gar.)*	Z,ZK	3	2P+1C	Z	z
500P	**Law** ***Martin Pospíšil***	ZK	2	2P+0C	L	z
500NK5	**Load - Bearing Structures V** *Markéta Vavrušková, Martin Pospíšil **Martin Pospíšil** Martin Pospíšil (Gar.)*	KZ	2	2P+1C	Z	z
500PP2	**Monument Preservation** ***Tomáš Efler***	Z,ZK	3	2P+1C	L	z
500TZI2	**Technical Infrastructure II - Urban Utilities** *Daniela Bošová, Lenka Prokopová, František Novotný, Zuzana Vyoralová, Ondřej Horák **Lenka Prokopová** Zuzana Vyoralová (Gar.)*	Z,ZK	3	2P+1C	Z	z
500UP1	**Urban Planning I** *Veronika Šindlerová, Petr Klápště, Vít Řezáč, Jakub Vorel **Veronika Šindlerová** Jakub Vorel (Gar.)*	ZK	3	2P+1C	Z	z
500U21	**Urbanism II - History**	Z,ZK	2	2P+0C	L,Z	z
500U4	**Urbanism IV - Design**	Z,ZK	3	2P+1C	L	z

Characteristics of the courses of this group of Study Plan: Code=COMPULSORY NAUE Name=Compulsory Courses NAUE

500PAM2	Building Technology and Management II	Z,ZK	3

The aim of the lectures is preparation of the future architect for his role as a project designer and manager starting from the building investment programme up to the operational stage. One of the lectures´ points of view is the impact of architectural and structural design on its building technology and implementation stages. The other point of view explains the opposite process - the impact of a particular building technology and staging upon the architectural and structural design. The lectures´ content is the process starting with investment programme, the way how different building technology systems are being implemented, their staging and coordination during architectural and structural detailing, the conception of implementation staging already within architectural preparatory work.

500NS5	Building Theory V	KZ	2

TYPE is the fundamental compositional element of the build environment: the most effective and comprehensible answer to a common task and situation. At the same time, it is important to understand that every assignment and place in space and time contains a potential for a certain degree of uniqueness. To brings forth this potential means not only to optimize the design in practical terms, but it also allows a better orientation of a user. Variating types is thus not only the most effective designing method, but it also results in overall comprehensibility of the build environment: TYPE IS COOL! The aim of the course is to learn how to design environment which is effective, understandable and yet stimulating through the appropriate use of the TYPICAL and ATYPICAL. The course consists of series of six lectures and six seminars coming in fortnight pairs touching on different themes connected to systematization of the build environment.

500EKL2	Ecology II	KZ	2

Ecological problems become limiting factors in today's world. Concepts such as ecology, environment, natural resources, ecological crisis, environmental pillar of sustainable development should become specific and graspable for the graduate. The course is divided into blocks: Fundamentals of General Ecology, Natural Resources Characteristics, Use, Damage, Protection, Basics of Landscape Ecology and Nature Conservation, Use of Environmental Knowledge in Designing Buildings and Towns (Building Biology, Ecosystem Approach) to the environment.

500EKON	Economics	Z,ZK	3
Decision-making in building projects consists of both economic and non-economic criteria for design and its implementation, e.g. income-expenditures or cost-benefit analysis. Both general mathematical formulas, algorithms and the lecturer´s expertise and skills will develop the student´s knowledge of how to identify optimal strategies and to predict the outcome of strategic interactions within the project life cycle. Seminars are devoted to practical problems in the form of a case study "Create your own business in CZ by buying and refurbishing existing premises" (prefeasibility study) with emphasis on the construction work cost and architect´s design team costing and pricing. Thus following crucial information is inevitable: total initial project costs, operating/manufacturing project costs in use, project life-time schedule, financing, externalities (EIA, IPPC) and CZ business environment assessment (PEST analysis) and construction work estimating (the bill of quantities, elemental cost analysis. The aim of the course: to furnish students/participants with adequate tools and techniques for competent assessment and strategic decision about capital investment projects under competitive and co-operative post-modern conditions.			
500DA3-4	History of Architecture III/IV	ZK	2
The aim of the course is to analyse the basic features of Baroque religious architecture, its formal language, its social background and its technology. Students should acquire the capacity to read Baroque architecture according to the theoretical principles of the age of its origin. Contents: Renaissance architecture - introduction. Art and architecture around 1600. The triumph of the church - art and architecture after the battle at the White Mountain. Tendencies in Prague art and architecture in the second half of the 17th century. High Baroque church as a Gesamtkunstwerk. St Nicholas Church and the churches of the Lesser Quarter. The decay of the Baroque world. St Michael´s mystery - problems of monument care and the use of monuments.			
500TKZ1	Landscape Architecture I-Introduction	Z,ZK	3
This course is about obtaining knowledge through sharing and developing ideas regarding the history of garden art and landscape architecture and contemporary trends of landscape architecture worldwide. Students write essays, make site research in Prague (historical gardens, parks, public spaces) and make PowerPoint presentation concerning landscape architecture in their country.			
500P	Law	ZK	2
Czech legal system in the context of European and international law: Constitutional system (Legislative Power - Executive Power- Juidical Power; Legal system of acts, decrees, governmental regulations, standards; Regions and Municipalities; Public Law Private Law; Substantive Law Procedural Law) / Building Act and broader legal context / Space and urban planning / Building code / Administrative procedures according to the Building Act; general and special building authorities / External state authorities in administrative procedures according to the Building Act / General technical requirements on structures / Technical standards / Competencies and duties of professionals according to the Building Act (activities of authorized persons, other persons with regulated activities and activities of authorized inspectors) / Heritage preservation / Charter of Architectural Education / Academic and professional recognition of education / Bologna process and European higher education area / Authorisation Act / Competencies and duties of chambers / Competencies and duties of authorised persons / Legal conditions of independent performance of the architectural profession / Contract between architect and client (as a private or a business person), design costs / Responsibility for a design of a building or a structure, authors supervision of the construction.			
500NK5	Load - Bearing Structures V	KZ	2
Load-bearing structures made of various materials; types and forms of historical and contemporary structures; examples of load-bearing structures according to prevailing exposition of load and according to their typology.			
500PP2	Monument Preservation	Z,ZK	3
This course provides an introduction to the philosophy, ethic, methods and practices of the conservation of monuments, historic buildings, urban ensembles and landscapes in their historic development and current state. It gives basic information on historical and archaeological survey and documentation of monuments, their listing and legal protection in the Czech Republic. The current state of conservation practice, inclusive of the technological aspects will be demonstrated with selected illustrative cases. Attention will also be paid to the international context and collaboration in these fields.			
500TZI2	Technical Infrastructure II - Urban Utilities	Z,ZK	3
Service systems form the technical infrastructure of settlements and urbanised space. They supply by mass and energy and carry out their transport as well as the transmission of information. They also remove wastes and ensure their recycling and final disposal. In addition, the energy systems are enriched by alternative resources of energy and the principles of sustainable development are discussed.			
500UP1	Urban Planning I	ZK	3
In the course of Urban Planning I, we teach students on how the cities were planned from ancient times to the present and how discipline itself have evolved in the course of time. By using the real examples, we describe urban planning as a complex process with numerous feedbacks that evolves in time and involves various actors with different values and interests and resources. The course presents general principles and concepts of European spatial planning and planning system in the Czech Republic providing students with practical insight into relevant planning documents, legislation and institutions. Special lectures focus on actual topics: planning of urban ecosystems and participatory planning. At the end of the semester students will be evaluated based on the presentation and discussion of their seminar work via TEAMS or in classroom. In their seminar works students will analyse and critically evaluate selected case of planning process in one of the following domains: Urban mobility, Housing, Public services, Ecosystems, Economic activities, Cultural heritage.			
500U21	Urbanism II - History	Z,ZK	2
The obligatory subject concentrates on the basis for understanding of problems of historical experience followed by topics concerning perception, evaluation and use of urban space, concept and compositional problems in issues concerning various scales of urban areas. Practical examples concentrate on the analysis of morphology of selected urban spaces. Passing of this subject is a condition for understanding basic principles of urban design.			
500U4	Urbanism IV - Design	Z,ZK	3
Students will acquire information concerning urban design, morphology, topography and typology of settlement structures, relations between mass, space and activities in settlements, forms and structure of public space, infrastructure influences on an urban fabric, new tendencies. What are the questions of today that require the search for answers? Next theme is suburbanisation and different types of urbanistic low-rise formations and buildings, inclusive the problem of "urban sprawl". The last theme is countryside, villages and settlements in open space, historical and regional points of view, the nature of landscape frame within cadastre limits. Changes (transformations) within the countryside during the last century, namely in agriculture technologies, housing, transportation etc. Within the whole subject theoretical background will be combined with practical field studies.			

Name of the block: Elective courses
Minimal number of credits of the block: 11
The role of the block: V

Code of the group: ELECTIVE NAUE
Name of the group: Elective Courses NAUE
Requirement credits in the group: In this group you have to gain at least 11 credits
Requirement courses in the group:
Credits in the group: 11
Note on the group:

Code	Name of the course / Name of the group of courses *(in case of groups of courses the list of codes of their members)* *Tutors,* ***authors*** *and guarantors (gar.)*	Completion	Credits	Scope	Semester	Role
500CAD3	**Computer Aided Design III** *Henri Hubertus Achten, Šimon Prokop, Ivana Vinšová* ***Henri Hubertus Achten*** *Ivana Vinšová (Gar.)*	KZ	2	0P+2C		v
500CAD4	**Computer Aided Design IV** *Henri Hubertus Achten, Šimon Prokop* ***Henri Hubertus Achten*** *Henri Hubertus Achten (Gar.)*	KZ	2	0P+2C	L	v
500PG1	**Computer Graphics I** *Stanislav Moravec, Kateřina Sýsová* ***Stanislav Moravec*** *Kateřina Sýsová (Gar.)*	KZ	2	0P+2C	Z,L	v
500SAT	**Contemporary Architecture**	ZK	2	2P+0C	L	v
500DC1	**Design Computing I - BIM** *Aleš Marek, Martin Bukovský, Ondřej Vápeník, Vít Wasserbauer* ***Aleš Marek*** *Aleš Marek (Gar.)*	KZ	2	1P+1C	Z	v
500DC2	**Design Computing II - Architecture** *Henri Hubertus Achten* ***Henri Hubertus Achten*** *Henri Hubertus Achten (Gar.)*	KZ	2	1P+1C	Z	v
500DC3	**Design Computing III - Geometry** *Šimon Prokop, Jiří Šrubař* ***Jiří Šrubař*** *Martin Pospíšil (Gar.)*	KZ	2	1P+1C	Z	v
500ATV	**Design Studio - Elective** *Henri Hubertus Achten, Vladimír Soukenka, Vladimír Sitta, Jan Jakub Tesař, Michal Kohout, Veronika Šindlerová, Radmila Fingerová Henri Hubertus Achten (Gar.)*	KZ	4	0P+4C		v
500DS	**Diploma Seminar** *Henri Hubertus Achten, Tomáš Efler, Petr Kordovský, Henry William Andrew Hanson Iv, Vladimír Soukenka, Vladimír Krátký, Luis Marques, Vladimír Sitta, Václav Girsa, ... Václav Girsa (Gar.)*	KZ	2	0P+2C	Z	v
500EKL3	**Ecology III - Social Ecology** *Petr Klápště* ***Petr Klápště*** *Petr Klápště (Gar.)*	KZ	2	2P+0C	Z	v
500DA1-2	**History of Architecture I/II** *Pavel Kalina Pavel Kalina (Gar.)*	ZK	2	2P+0C	Z	v
500I2	**Interior-History of Interior**	ZK	2	2P+0C	L	v
500I3	**Interior-History of Theatre** *Veronika Šindelář Kastlová* ***Veronika Šindelář Kastlová***	ZK	2	2P+0C	Z	v
500TKZ3	**Landscape Architecture III - Technology**	KZ	2	2P+0C	L	v
500DA5	**History of Architecture Modern Architecture** *Vladimír Šlapeta Petr Vorlík (Gar.)*	ZK	2	2P+0C	Z	v
500SU	**Smart Urbanism** *Jakub Vorel* ***Jakub Vorel*** *Jakub Vorel (Gar.)*	Z,ZK	2	2P+0C	L	v
500CAD5	**Spatial Informatics** *Daniel Franke, Jiří Čtyroký* ***Daniel Franke*** *Daniel Franke (Gar.)*	KZ	2	1P+1C	Z	v
599STN	**Residency** ***Irena Šestáková***	Z				v
500TA1	**Theory of Architecture and Esthetics** *Jana Tichá, Jiří Tourek* ***Jana Tichá*** *Jana Tichá (Gar.)*	KZ	2	1P+1C		v
500UP2	**Urban Planning II** ***Jakub Vorel***	KZ	2	1P+1C	L	v
500U31	**Urbanism III - Theory** *Irena Fialová, Kateřina Čechová* ***Irena Fialová*** *Irena Fialová (Gar.)*	KZ	2	1P+1C	Z	v
599WS1	**Workshop** *Jiří Šrubař*	Z				v
599WS2	**Workshop**	Z				v
599WS3	**Workshop**	Z				v

Characteristics of the courses of this group of Study Plan: Code=ELECTIVE NAUE Name=Elective Courses NAUE

500CAD3	Computer Aided Design III	KZ	2

"CAD III is a course where you get to know the basics of scripting. The students will learn the basics of algorithmic modeling in the Grasshopper a graphical scripting environment. They will learn to create their own set of digital tools for efficient work and discover the advantages of this modeling approach compared to traditional manual methods. Alongside small recap exercises the basic principles of generative and parametric modeling are illustrated on examples during the classes. Each demonstration is discussed in the context of a design issue, e.g. a skyscraper, urban planning, optimization of structures, facade components and others. Some lessons then focus on digital fabrication problems related to 3D printing, CNC milling or the effective use of laser cutting"

500CAD4	Computer Aided Design IV	KZ	2

The CAD4-Scripting course is intended for students who want to learn how to model algorithmically, rather than merely operate traditional CAD tools through manual repetitive clicking. It introduces the fundamentals of procedural and generative modeling in the visual scripting environment Grasshopper. The aim of the course is to equip students with the ability to develop their own set of digital tools, enabling them to design architectural structures and systems more efficiently and flexibly. Instruction is conducted primarily through dialogue, with a strong emphasis on active collaboration. Core principles are derived together with students, fostering deeper understanding and greater independence in the design process. Each session is built around a specific design challenge (e.g. skyscraper design, riverside urbanism, structural optimization, façade components), and some assignments also address digital fabrication methods such as 3D printing, CNC milling, and laser cutting. The course is primarily intended for beginners in the field of parametric and generative design. However, for advanced students who have already completed CAD 3 Scripting, an individual plan is available. This plan focuses on an independently developed project under the guidance of the instructor. The approach builds on the proven concept of CAD 3, allowing talented students to achieve a high level of autonomy within a single semester.

500PG1	Computer Graphics I	KZ	2

The course is made specially for foreign students. In the Computer Graphics course students will learn to work with current means of graphic design. Usually, each house is very different and there leader of the course introduces new topic. Programming is taught and also classical programs like Photoshop, Illustrator, and InDesign might be used. The graphic content of the work will be linked to the experience of Prague or other city in case of EUROTEQ students. The final goal of the work is to make a collaboratively authored poster, book, game, film with the students' personal impression of the City and the given topic. Students will learn image processing, typography, editing, and layouts in various softwares.

500SAT	Contemporary Architecture	ZK	2

Lectures explaining the main streams of architecture development of the post-WW II period of the 20th century in Czechoslovakia and Central Europe with the emphasis on the issues of globalisation, contemporary societies and cities. The lectures are accompanied with excursions in Prague, Brno, Hradec Králové etc. Contents: From CIAM to Stalinism and back. Czech Architecture after the WWII. German Architecture after the WWII. Finnish Architecture. Austrian Architecture. Alvar Aalto. Hans Scharoun. Socialist housing after WWII. Karel Hubáček and the SIAL Group. Czech Architecture after 1989. Young generation in the Czech Republic.

500DC1	Design Computing I - BIM	KZ	2

BIM (Building Information Modeling and the process of managing information about buildings) is a contemporary method of designing, constructing, and managing buildings that uses digital models and collaboration between all parties involved throughout the entire life cycle of a building. The course deals with the concept (digital representation of the physical and functional properties of a building), basic principles, tools, applications, platforms, and context of this method (Czech, European, and global) from both a theoretical and practical perspective in the fields of architecture, engineering, and construction. Students will learn about the advantages and challenges of BIM in various phases of the building life cycle and the possibilities of integrating BIM with other technologies such as GIS, IoT, VR/AR, parametric design, and artificial intelligence. Students will try working with BIM software and solve individual architectural design tasks based on prepared digital building models. The aim of the course is to develop students' skills and competencies in using BIM for architectural design and analysis, including project management. The course thus contributes to students' knowledge of the advantages and effective use of BIM in architectural practice, including the context of an integrated approach to building design with the aim of designing highly efficient and sustainable buildings.

500DC2	Design Computing II - Architecture	KZ	2

In this course contemporary architecture is studied through the lens of computational methods. It is shown how in the past 30 years the relationship between architecture, theory, materials, and computation has transformed. Principles of parametric design, performative design, and generative design are presented and discussed in-depth through cases of key buildings and architects. Special attention is devoted to interactive architecture. A number of contemporary key issues in architectural theory are brought in relation with computational approaches. Practical application in this course is tested through Arduino prototyping. Arduino enables the creation of interactive structures using sensors, controllers, and Processing programming language. By creating a number of interactive applications students will learn the basic technological principles of interactive architecture. Keywords - contemporary design methodology, advanced parametric design, rapid prototyping, AI, robotics, automation, simulation, analysis, optimization, CAD / CAM, data mining, advanced data processing.

500DC3	Design Computing III - Geometry	KZ	2

Architectural modeling can no longer be done without computational geometry, which simplifies 3D work and speeds up design procedures. Whether traditional handmade design or sophisticated generational design, they rely on the capabilities that contemporary CAAD modeling software brings. Understanding the geometric principles and procedures in this environment gives architects the freedom to create. In addition, a well-educated architect gains the opportunity to rationalize his work and eventually reuse existing problems through a parametric approach to modeling. In this way, multiple design options can be tested. Thanks to the generative model, various types of optimization can be applied within the design - it can be anything from the level of sunshine of all residential spaces, to the sag in the structure to any area and volume ratios. Thanks to multi-criteria optimization, solutions can be found which, moreover, fulfill several such criteria at the same time. In this course, practical applications are tested using Grasshopper (which works with Rhinoceros modeling software) and Dynamo (based on Revit software). Keywords - advanced geometry in architecture, mathematically described geometric objects, use of scripting.

500ATV	Design Studio - Elective	KZ	4

The assignment can be processed into tasks from the currently offered topics of the obligatory studios in the relevant semester. In addition to the topics specified in the compulsory studios, ATV allows a wider choice of tasks such as conceptual studio, art studio, industrial design studio, furniture or exhibition design studio, interior design studio, BIM studio or ATRN follow-up studio, spatial and strategic planning studio or studio landscape architecture. In the framework of ATV it is also possible to solve surveys for urban design studio or as a historical building survey for studio assignments in the PP module. The assignment of ATV can also be determined individually, by agreement with the head of the studio, according to the specific interest of the student.

500DS	Diploma Seminar	KZ	2

The diploma seminar represents the initial step leading to the diploma project, which is elaborated in the following semester. The purpose of the diploma seminar is to analyse the wider scope of the topic on which the award of the diploma thesis will be based. By working on the diploma seminar the student will be able to gain insight into professional issues connected with his future diploma project in the form of a research project, within which the diploma thesis will be developed. The diploma seminar precedes the diploma project and can be processed in the following variants: Analysis of the territory of the future diploma project - in which case the student should not be acquainted with the specific program of the diploma project. Search for the program and typology of the future diploma project - in which case the student should not know the specific place of the diploma project. Optional other variants are possible in agreement with the studio tutor and the dean approvement.

500EKL3	Ecology III - Social Ecology	KZ	2

Social Ecology: The subject deals with the relationship of man and the environment in landscape and settlements. It acquaints students with selected methods of socio-ecological research and participation of citizens in the formation of the rural environment, the city and its socio-spatial structure. The theoretical part of the subject is based on concrete practical examples, which are processed by the students and present them during the semester.

500DA1-2	History of Architecture I/II	ZK	2

The aim of the course is to trace the most important features of Gothic cathedral architecture including its social context and building technology. Students should acquire the ability to interpret Gothic architecture according to its geometrical design and social function. Contents: The origins of Christian architecture. The Romanesque basilica. Gothic cathedrals in Western Europe. The beginnings of Gothic architecture in Bohemia. Gothic Cathedral of St Vitus: Matthew of Arras and Peter Parler. Architecture in use: liturgy and veneration of relics in the cathedral. Architecture and visual arts: sculpture and painting in the cathedral. Town and the Cathedral. Emmaus Monastery and the New Town of Prague.

500I2	Interior-History of Interior	ZK	2

The history of interior and furniture as a constant transformation of the relationship between aesthetic feeling and technological innovation of material processing and development. Relation between the technological and design possibilities of shaping to the resulting aesthetic effect. Time stamps of craft and expression. Typical attributes and milestones of individual epochs and their relation to material culture. Presentation of exhibition stands. Design and construction of current assembly systems.

500I3	Interior-History of Theatre	ZK	2

This subject focuses on the development of the architecture of theatre buildings and production areas. Attention is focused on the logic of the relation between the building typology and the development of the theatre, as a medium. Media that express the cultural and social tendencies of their time. These aspects then influence the formation of the scenic space and its technical equipment. Seminar work, which analyses historical theatre building and contemporary theatre building and, compares the different needs of the production space. Part of the course includes excursions to Czech theatre buildings and a visit to Laterna magika.

500TKZ3	Landscape Architecture III - Technology	KZ	2

The central theme of the course is the understanding of landscape, urban structure, urban greenery and public space - natural and landscape elements of the residential environment of settlements - in the context of technical, technological and architectural solutions. Using examples of specific locations and directly in the field, the course will provide students with an overview of the complex perception of the urban and landscape environment, including an introduction to urban, architectural, technical and technological principles in the work of an architect, with the aim of shaping the utility and residential aspects of public space from an aesthetic, functional and developmental point of view.

500DA5	History of Architecture Modern Architecture	ZK	2
This course explores the tradition of modern architecture of 20th century in the Czech Republic and Central Europe with international interactions and influences. The lectures are accompanied with excursions in Prague, Brno, Hradec Králové etc. Contents: Czech Jugendstil and early modernism. Czech Cubism. The National Style and the Dutch influence. Josef Gočár. Kamil Roškot. Adolf Loos. Josip Plečnik. Czech Functionalism. Czechoslovak Werkbund and the Baba housing exhibition. Interactions with Bauhaus and Le Corbusier. Prague modern urban culture. Brno - a city of Modern Architecture. Zlín - the Baťa industrial city			
500SU	Smart Urbanism	Z,ZK	2
In the course Smart Urbanism we illustrate how technological innovation has affected cities from history to the present, and on that basis we discuss future challenges and implications for urban planning and management. We focus in particular on the relationship of technological innovation to urban metabolism, urban morphology, land use, urban ecosystems, demography, mobility and urban society, and the way cities are understood and managed through data and information technology.			
500CAD5	Spatial Informatics	KZ	2
Planning is vastly dependent on the creation, gathering and evaluation of spatial data and information. The course is focused on introducing students to the information technologies used in the planning process. The main topics are an introduction to the leading Geographic Information System (GIS) solutions, principles of GIS functionality, GIS data and data models and, specifically, the basics of the spatial analyses used for urban planning. During the course, students elaborate the seminar paper targeted to GIS analysis or GIS data processing in relation with a selected urban planning problem. The course is led with an accent on the practical training in working with GIS software in a computer lab. The software used in this course is ESRI ArcGIS Desktop			
599STN	Residency	Z	
500TA1	Theory of Architecture and Esthetics	KZ	2
The aim of the course is to introduce to the theory of architecture. The key concepts of the 20th century and contemporary architecture and their interpretation are emphasized in a wider cultural context. The relationship between architectural discourse and architectural creation is taken into account. The starting point is the theory of modernity, but the course is focused on the theory of architecture of the second half of the 20th century which has been influenced by structuralism, semiotics, phenomenology and poststructuralism. Also the contemporary approaches, reflecting the shift in new technological possibilities in architecture and society, are included. In connection with the architectural themes, the students are also acquainted with the key concepts of aesthetics, which are relevant to the architectural discourse.			
500UP2	Urban Planning II	KZ	2
Principles of urban planning as an intentional way of influencing urban change. Overview of the discipline of planning and its role in society. Methodology of plan-making. Opening session. Man and the environment. Planning, the environment and designing. Project will be discussed. Planning methodology I. Urban composition. Mental map. Planning methodology II. Surveys for planning. Land-use. Planning methodology III. Land-use plan, legal limits, plan-making. Deadline: survey drafts. Instruction for Constraints and Potentials Map. Topical lecture a case of development. Project site analysis. SWOT analysis. Identification of issues for Strategy. Tutoring, discussion of strategies. Mock hearing of strategies. Local planning. Planning and zoning regulations. Final presentation.			
500U31	Urbanism III - Theory	KZ	2
Sustainable development is the governing paradigm of the 21st century. It has long been at the heart of most urban development debates. We are increasingly aware that providing a good quality of life is the right of even the most vulnerable social groups, as the environment directly affects their health. This paradigm shift requires a more holistic approach to urban development. The question remains, how can it be successfully implemented in practice? What kind of urban theories can we use to ensure this development? The subject introduces the student to the most important urban theories of the 20th and 21st centuries. It shows the emergence and transformation of urban development debates, theories and experiments against the background of their social and economic development. Students are guided to develop their critical thinking: to recognise, analyse, evaluate and understand the impact of urban theories on the city through concrete case studies.			
599WS1	Workshop	Z	
599WS2	Workshop	Z	
599WS3	Workshop	Z	

List of courses of this pass:

Code	Name of the course	Completion	Credits
500ATRN	Design Studio - Comprehensive Project	KZ	11
The studio can be processed only in the following variant: ATRN variant 1 / construction project: Learning outcomes of the course unit is to acquaint the student with the problems of project design. Based on their own architectural design developed within the previous studios, students work on the project at the level of documentation for the construction.The project is processed in a spiral, where each problem has to be verified several times, always at a higher level of knowledge of context and details. Occasionally, the underlying assumptions prove unsustainable and need to be reassessed. Construction must always be feasible. Architectural design and technical solutions are continuous vessels. Any change caused by other technical solutions must be made with respect to the architectural concept of the design and the same applies the other way round. In addition to consultations with the head of the studio, expert consultations are carried out by designated employees of technical departments (15122, 15123 and 15124) within the scope of the assignment, which determines the prescribed content of ATRN. This assignment is given to students at the start of their work.			
500ATS1	Design Studio - Building Complex	KZ	11
The aim is to acquaint the student of the masters program with the problems of the demanding construction complex and practical use of basic terms from the typology of civil, industrial, or agricultural buildings. The assignment may have a well-defined program or the task may be formulated as a search for the potential of the specified parcel. The result of the work is a design of a set of buildings or structures with a typologically specific and complex or multifunctional program, including the link to a specific site.			
500ATU	Design Studio -Urban Design	KZ	13
Learning outcomes of the course unit is to acquire the ability to elaborate a project with the problems of urban design in various scales, through the practical use of knowledge and basic concepts acquired in urban subjects of study. In the analytical phase of the work the student works with information about the territory. It deals with wider relationships, physical space and its perception, use of objects and areas, flows of people, materials and energies. The output is a problem map - depiction of constraints and potentials. In the conceptual phase, the student creates a vision - use, spatial structure and granularity of the solved space - documented by a working model. The design phase solves the position of the area in the context of the city or region, floor plans indicating spatial arrangement and use, general sections or elevation views illuminating the height solution (usually on a scale up to two more detailed than floor plans), visualization of the whole axonometry), several visualizations of the main public spaces usually from the normal horizon, transport solutions including pedestrian and public transport and traffic at rest, design implementation procedure - diagrams of individual phases. An integral part of the work is a text explaining the design principles. The final model is recommended.			
500ATV	Design Studio - Elective	KZ	4
The assignment can be processed into tasks from the currently offered topics of the obligatory studios in the relevant semester. In addition to the topics specified in the compulsory studios, ATV allows a wider choice of tasks such as conceptual studio, art studio, industrial design studio, furniture or exhibition design studio, interior design studio, BIM studio or ATRN follow-up studio, spatial and strategic planning studio or studio landscape architecture. In the framework of ATV it is also possible to solve surveys for urban design studio or as			

a historical building survey for studio assignments in the PP module. The assignment of ATV can also be determined individually, by agreement with the head of the studio, according to the specific interest of the student.

500ATVZ	Design Studio - Independent Study	KZ	11

For the Independent Study Studio it is possible to process assignments from any of the authorised specialisations acknowledged by the Chamber of Architects: architecture, urbanism and spatial planning or landscape architecture.

500CAD3	Computer Aided Design III	KZ	2

"CAD III is a course where you get to know the basics of scripting. The students will learn the basics of algorithmic modeling in the Grasshopper a graphical scripting environment. They will learn to create their own set of digital tools for efficient work and discover the advantages of this modeling approach compared to traditional manual methods. Alongside small recap exercises the basic principles of generative and parametric modeling are illustrated on examples during the classes. Each demonstration is discussed in the context of a design issue, e.g. a skyscraper, urban planning, optimization of structures, facade components and others. Some lessons then focus on digital fabrication problems related to 3D printing, CNC milling or the effective use of laser cutting"

500CAD4	Computer Aided Design IV	KZ	2

The CAD4-Scripting course is intended for students who want to learn how to model algorithmically, rather than merely operate traditional CAD tools through manual repetitive clicking. It introduces the fundamentals of procedural and generative modeling in the visual scripting environment Grasshopper. The aim of the course is to equip students with the ability to develop their own set of digital tools, enabling them to design architectural structures and systems more efficiently and flexibly. Instruction is conducted primarily through dialogue, with a strong emphasis on active collaboration. Core principles are derived together with students, fostering deeper understanding and greater independence in the design process. Each session is built around a specific design challenge (e.g. skyscraper design, riverside urbanism, structural optimization, façade components), and some assignments also address digital fabrication methods such as 3D printing, CNC milling, and laser cutting. The course is primarily intended for beginners in the field of parametric and generative design. However, for advanced students who have already completed CAD 3 Scripting, an individual plan is available. This plan focuses on an independently developed project under the guidance of the instructor. The approach builds on the proven concept of CAD 3, allowing talented students to achieve a high level of autonomy within a single semester.

500CAD5	Spatial Informatics	KZ	2

Planning is vastly dependent on the creation, gathering and evaluation of spatial data and information. The course is focused on introducing students to the information technologies used in the planning process. The main topics are an introduction to the leading Geographic Information System (GIS) solutions, principles of GIS functionality, GIS data and data models and, specifically, the basics of the spatial analyses used for urban planning. During the course, students elaborate the seminar paper targeted to GIS analysis or GIS data processing in relation with a selected urban planning problem. The course is led with an accent on the practical training in working with GIS software in a computer lab. The software used in this course is ESRI ArcGIS Desktop

500DA1-2	History of Architecture I/II	ZK	2

The aim of the course is to trace the most important features of Gothic cathedral architecture including its social context and building technology. Students should acquire the ability to interpret Gothic architecture according to its geometrical design and social function. Contents: The origins of Christian architecture. The Romanesque basilica. Gothic cathedrals in Western Europe. The beginnings of Gothic architecture in Bohemia. Gothic Cathedral of St Vitus: Matthew of Arras and Peter Parler. Architecture in use: liturgy and veneration of relics in the cathedral. Architecture and visual arts: sculpture and painting in the cathedral. Town and the Cathedral. Emmaus Monastery and the New Town of Prague.

500DA3-4	History of Architecture III/IV	ZK	2

The aim of the course is to analyse the basic features of Baroque religious architecture, its formal language, its social background and its technology. Students should acquire the capacity to read Baroque architecture according to the theoretical principles of the age of its origin. Contents: Renaissance architecture - introduction. Art and architecture around 1600. The triumph of the church - art and architecture after the battle at the White Mountain. Tendencies in Prague art and architecture in the second half of the 17th century. High Baroque church as a Gesamtkunstwerk. St Nicholas Church and the churches of the Lesser Quarter. The decay of the Baroque world. St Michael´s mystery - problems of monument care and the use of monuments.

500DA5	History of Architecture Modern Architecture	ZK	2

This course explores the tradition of modern architecture of 20th century in the Czech Republic and Central Europe with international interactions and influences. The lectures are accompanied with excursions in Prague, Brno, Hradec Králové etc. Contents: Czech Jugendstil and early modernism. Czech Cubism. The National Style and the Dutch influence. Josef Gočár. Kamil Roškot. Adolf Loos. Josip Plečnik. Czech Functionalism. Czechoslovak Werkbund and the Baba housing exhibition. Interactions with Bauhaus and Le Corbusier. Prague modern urban culture. Brno - a city of Modern Architecture. Zlín - the Baťa industrial city

500DC1	Design Computing I - BIM	KZ	2

BIM (Building Information Modeling and the process of managing information about buildings) is a contemporary method of designing, constructing, and managing buildings that uses digital models and collaboration between all parties involved throughout the entire life cycle of a building. The course deals with the concept (digital representation of the physical and functional properties of a building), basic principles, tools, applications, platforms, and context of this method (Czech, European, and global) from both a theoretical and practical perspective in the fields of architecture, engineering, and construction. Students will learn about the advantages and challenges of BIM in various phases of the building life cycle and the possibilities of integrating BIM with other technologies such as GIS, IoT, VR/AR, parametric design, and artificial intelligence. Students will try working with BIM software and solve individual architectural design tasks based on prepared digital building models. The aim of the course is to develop students' skills and competencies in using BIM for architectural design and analysis, including project management. The course thus contributes to students' knowledge of the advantages and effective use of BIM in architectural practice, including the context of an integrated approach to building design with the aim of designing highly efficient and sustainable buildings.

500DC2	Design Computing II - Architecture	KZ	2

In this course contemporary architecture is studied through the lens of computational methods. It is shown how in the past 30 years the relationship between architecture, theory, materials, and computation has transformed. Principles of parametric design, performative design, and generative design are presented and discussed in-depth through cases of key buildings and architects. Special attention is devoted to interactive architecture. A number of contemporary key issues in architectural theory are brought in relation with computational approaches. Practical application in this course is tested through Arduino prototyping. Arduino enables the creation of interactive structures using sensors, controllers, and Processing programming language. By creating a number of interactive applications students will learn the basic technological principles of interactive architecture. Keywords - contemporary design methodology, advanced parametric design, rapid prototyping, AI, robotics, automation, simulation, analysis, optimization, CAD / CAM, data mining, advanced data processing.

500DC3	Design Computing III - Geometry	KZ	2

Architectural modeling can no longer be done without computational geometry, which simplifies 3D work and speeds up design procedures. Whether traditional handmade design or sophisticated generational design, they rely on the capabilities that contemporary CAAD modeling software brings. Understanding the geometric principles and procedures in this environment gives architects the freedom to create. In addition, a well-educated architect gains the opportunity to rationalize his work and eventually reuse existing problems through a parametric approach to modeling. In this way, multiple design options can be tested. Thanks to the generative model, various types of optimization can be applied within the design - it can be anything from the level of sunshine of all residential spaces, to the sag in the structure to any area and volume ratios. Thanks to multi-criteria optimization, solutions can be found which, moreover, fulfill several such criteria at the same time. In this course, practical applications are tested using Grasshopper (which works with Rhinoceros modeling software) and Dynamo (based on Revit software). Keywords - advanced geometry in architecture, mathematically described geometric objects, use of scripting.

500DP1	Diploma Project	Z	30
500DS	Diploma Seminar	KZ	2

The diploma seminar represents the initial step leading to the diploma project, which is elaborated in the following semester. The purpose of the diploma seminar is to analyse the wider scope of the topic on which the award of the diploma thesis will be based. By working on the diploma seminar the student will be able to gain insight into professional issues connected with his future diploma project in the form of a research project, within which the diploma thesis will be developed. The diploma seminar precedes the diploma project and can be processed in the following variants: Analysis of the territory of the future diploma project - in which case the student should not be acquainted with the specific program of the diploma

project. Search for the program and typology of the future diploma project - in which case the student should not know the specific place of the diploma project. Optional other variants are possible in agreement with the studio tutor and the dean approvement.

500EKL2	Ecology II	KZ	2

Ecological problems become limiting factors in today's world. Concepts such as ecology, environment, natural resources, ecological crisis, environmental pillar of sustainable development should become specific and graspable for the graduate. The course is divided into blocks: Fundamentals of General Ecology, Natural Resources Characteristics, Use, Damage, Protection, Basics of Landscape Ecology and Nature Conservation, Use of Environmental Knowledge in Designing Buildings and Towns (Building Biology, Ecosystem Approach) to the environment.

500EKL3	Ecology III - Social Ecology	KZ	2

Social Ecology: The subject deals with the relationship of man and the environment in landscape and settlements. It acquaints students with selected methods of socio-ecological research and participation of citizens in the formation of the rural environment, the city and its socio-spatial structure. The theoretical part of the subject is based on concrete practical examples, which are processed by the students and present them during the semester.

500EKON	Economics	Z,ZK	3

Decision-making in building projects consists of both economic and non-economic criteria for design and its implementation, e.g. income-expenditures or cost-benefit analysis. Both general mathematical formulas, algorithms and the lecturer´s expertise and skills will develop the student´s knowledge of how to identify optimal strategies and to predict the outcome of strategic interactions within the project life cycle. Seminars are devoted to practical problems in the form of a case study "Create your own business in CZ by buying and refurbishing existing premises" (prefeasibility study) with emphasis on the construction work cost and architect´s design team costing and pricing. Thus following crucial information is inevitable: total initial project costs, operating/manufacturing project costs in use, project life-time schedule, financing, externalities (EIA, IPPC) and CZ business environment assessment (PEST analysis) and construction work estimating (the bill of quantities, elemental cost analysis. The aim of the course: to furnish students/participants with adequate tools and techniques for competent assessment and strategic decision about capital investment projects under competitive and co-operative post-modern conditions.

500I2	Interior-History of Interior	ZK	2

The history of interior and furniture as a constant transformation of the relationship between aesthetic feeling and technological innovation of material processing and development. Relation between the technological and design possibilities of shaping to the resulting aesthetic effect. Time stamps of craft and expression. Typical attributes and milestones of individual epochs and their relation to material culture. Presentation of exhibition stands. Design and construction of current assembly systems.

500I3	Interior-History of Theatre	ZK	2

This subject focuses on the development of the architecture of theatre buildings and production areas. Attention is focused on the logic of the relation between the building typology and the development of the theatre, as a medium. Media that express the cultural and social tendencies of their time. These aspects then influence the formation of the scenic space and its technical equipment. Seminar work, which analyses historical theatre building and contemporary theatre building and, compares the different needs of the production space. Part of the course includes excursions to Czech theatre buildings and a visit to Laterna magika.

500NK5	Load - Bearing Structures V	KZ	2

Load-bearing structures made of various materials; types and forms of historical and contemporary structures; examples of load-bearing structures according to prevailing exposition of load and according to their typology.

500NS5	Building Theory V	KZ	2

TYPE is the fundamental compositional element of the build environment: the most effective and comprehensible answer to a common task and situation. At the same time, it is important to understand that every assignment and place in space and time contains a potential for a certain degree of uniqueness. To brings forth this potential means not only to optimize the design in practical terms, but it also allows a better orientation of a user. Variating types is thus not only the most effective designing method, but it also results in overall comprehensibility of the build environment: TYPE IS COOL! The aim of the course is to learn how to design environment which is effective, understandable and yet stimulating through the appropriate use of the TYPICAL and ATYPICAL. The course consists of series of six lectures and six seminars coming in fortnight pairs touching on different themes connected to systematization of the build environment.

500P	Law	ZK	2

Czech legal system in the context of European and international law: Constitutional system (Legislative Power - Executive Power- Juidical Power; Legal system of acts, decrees, governmental regulations, standards; Regions and Municipalities; Public Law Private Law; Substantive Law Procedural Law) / Building Act and broader legal context / Space and urban planning / Building code / Administrative procedures according to the Building Act; general and special building authorities / External state authorities in administrative procedures according to the Building Act / General technical requirements on structures / Technical standards / Competencies and duties of professionals according to the Building Act (activities of authorized persons, other persons with regulated activities and activities of authorized inspectors) / Heritage preservation / Charter of Architectural Education / Academic and professional recognition of education / Bologna process and European higher education area / Authorisation Act / Competencies and duties of chambers / Competencies and duties of authorised persons / Legal conditions of independent performance of the architectural profession / Contract between architect and client (as a private or a business person), design costs / Responsibility for a design of a building or a structure, authors supervision of the construction.

500PAM2	Building Technology and Management II	Z,ZK	3

The aim of the lectures is preparation of the future architect for his role as a project designer and manager starting from the building investment programme up to the operational stage. One of the lectures´ points of view is the impact of architectural and structural design on its building technology and implementation stages. The other point of view explains the opposite process - the impact of a particular building technology and staging upon the architectural and structural design. The lectures´ content is the process starting with investment programme, the way how different building technology systems are being implemented, their staging and coordination during architectural and structural detailing, the conception of implementation staging already within architectural preparatory work.

500PG1	Computer Graphics I	KZ	2

The course is made specially for foreign students. In the Computer Graphics course students will learn to work with current means of graphic design. Usually, each house is very different and there leader of the course introduces new topic. Programming is taught and also classical programs like Photoshop, Illustrator, and InDesign might be used. The graphic content of the work will be linked to the experience of Prague or other city in case of EUROTEQ students. The final goal of the work is to make a collaboratively authored poster, book, game, film with the students' personal impression of the City and the given topic. Students will learn image processing, typography, editing, and layouts in various softwares.

500PP2	Monument Preservation	Z,ZK	3

This course provides an introduction to the philosophy, ethic, methods and practices of the conservation of monuments, historic buildings, urban ensembles and landscapes in their historic development and current state. It gives basic information on historical and archaeological survey and documentation of monuments, their listing and legal protection in the Czech Republic. The current state of conservation practice, inclusive of the technological aspects will be demonstrated with selected illustrative cases. Attention will also be paid to the international context and collaboration in these fields.

500SAT	Contemporary Architecture	ZK	2

Lectures explaining the main streams of architecture development of the post-WW II period of the 20th century in Czechoslovakia and Central Europe with the emphasis on the issues of globalisation, contemporary societies and cities. The lectures are accompanied with excursions in Prague, Brno, Hradec Králové etc. Contents: From CIAM to Stalinism and back. Czech Architecture after the WWII. German Architecture after the WWII. Finnish Architecture. Austrian Architecture. Alvar Aalto. Hans Scharoun. Socialist housing after WWII. Karel Hubáček and the SIAL Group. Czech Architecture after 1989. Young generation in the Czech Republic.

500SU	Smart Urbanism	Z,ZK	2

In the course Smart Urbanism we illustrate how technological innovation has affected cities from history to the present, and on that basis we discuss future challenges and implications for urban planning and management. We focus in particular on the relationship of technological innovation to urban metabolism, urban morphology, land use, urban ecosystems, demography, mobility and urban society, and the way cities are understood and managed through data and information technology.

500TA1	Theory of Architecture and Esthetics	KZ	2
The aim of the course is to introduce to the theory of architecture. The key concepts of the 20th century and contemporary architecture and their interpretation are emphasized in a wider cultural context. The relationship between architectural discourse and architectural creation is taken into account. The starting point is the theory of modernity, but the course is focused on the theory of architecture of the second half of the 20th century which has been influenced by structuralism, semiotics, phenomenology and poststructuralism. Also the contemporary approaches, reflecting the shift in new technological possibilities in architecture and society, are included. In connection with the architectural themes, the students are also acquainted with the key concepts of aesthetics, which are relevant to the architectural discourse.			
500TKZ1	Landscape Architecture I-Introduction	Z,ZK	3
This course is about obtaining knowledge through sharing and developing ideas regarding the history of garden art and landscape architecture and contemporary trends of landscape architecture worldwide. Students write essays, make site research in Prague (historical gardens, parks, public spaces) and make PowerPoint presentation concerning landscape architecture in their country.			
500TKZ3	Landscape Architecture III - Technology	KZ	2
The central theme of the course is the understanding of landscape, urban structure, urban greenery and public space - natural and landscape elements of the residential environment of settlements - in the context of technical, technological and architectural solutions. Using examples of specific locations and directly in the field, the course will provide students with an overview of the complex perception of the urban and landscape environment, including an introduction to urban, architectural, technical and technological principles in the work of an architect, with the aim of shaping the utility and residential aspects of public space from an aesthetic, functional and developmental point of view.			
500TZI2	Technical Infrastructure II - Urban Utilities	Z,ZK	3
Service systems form the technical infrastructure of settlements and urbanised space. They supply by mass and energy and carry out their transport as well as the transmission of information. They also remove wastes and ensure their recycling and final disposal. In addition, the energy systems are enriched by alternative resources of energy and the principles of sustainable development are discussed.			
500U21	Urbanism II - History	Z,ZK	2
The obligatory subject concentrates on the basis for understanding of problems of historical experience followed by topics concerning perception, evaluation and use of urban space, concept and compositional problems in issues concerning various scales of urban areas. Practical examples concentrate on the analysis of morphology of selected urban spaces. Passing of this subject is a condition for understanding basic principles of urban design.			
500U31	Urbanism III - Theory	KZ	2
Sustainable development is the governing paradigm of the 21st century. It has long been at the heart of most urban development debates. We are increasingly aware that providing a good quality of life is the right of even the most vulnerable social groups, as the environment directly affects their health. This paradigm shift requires a more holistic approach to urban development. The question remains, how can it be successfully implemented in practice? What kind of urban theories can we use to ensure this development? The subject introduces the student to the most important urban theories of the 20th and 21st centuries. It shows the emergence and transformation of urban development debates, theories and experiments against the background of their social and economic development. Students are guided to develop their critical thinking: to recognise, analyse, evaluate and understand the impact of urban theories on the city through concrete case studies.			
500U4	Urbanism IV - Design	Z,ZK	3
Students will acquire information concerning urban design, morphology, topography and typology of settlement structures, relations between mass, space and activities in settlements, forms and structure of public space, infrastructure influences on an urban fabric, new tendencies. What are the questions of today that require the search for answers? Next theme is suburbanisation and different types of urbanistic low-rise formations and buildings, inclusive the problem of "urban sprawl". The last theme is countryside, villages and settlements in open space, historical and regional points of view, the nature of landscape frame within cadastre limits. Changes (transformations) within the countryside during the last century, namely in agriculture technologies, housing, transportation etc. Within the whole subject theoretical background will be combined with practical field studies.			
500UP1	Urban Planning I	ZK	3
In the course of Urban Planning I, we teach students on how the cities were planned from ancient times to the present and how discipline itself have evolved in the course of time. By using the real examples, we describe urban planning as a complex process with numerous feedbacks that evolves in time and involves various actors with different values and interests and resources. The course presents general principles and concepts of European spatial planning and planning system in the Czech Republic providing students with practical insight into relevant planning documents, legislation and institutions. Special lectures focus on actual topics: planning of urban ecosystems and participatory planning. At the end of the semester students will be evaluated based on the presentation and discussion of their seminar work via TEAMS or in classroom. In their seminar works students will analyse and critically evaluate selected case of planning process in one of the following domains: Urban mobility, Housing, Public services, Ecosystems, Economic activities, Cultural heritage.			
500UP2	Urban Planning II	KZ	2
Principles of urban planning as an intentional way of influencing urban change. Overview of the discipline of planning and its role in society. Methodology of plan-making. Opening session. Man and the environment. Planning, the environment and designing. Project will be discussed. Planning methodology I. Urban composition. Mental map. Planning methodology II. Surveys for planning. Land-use. Planning methodology III. Land-use plan, legal limits, plan-making. Deadline: survey drafts. Instruction for Constraints and Potentials Map. Topical lecture a case of development. Project site analysis. SWOT analysis. Identification of issues for Strategy. Tutoring, discussion of strategies. Mock hearing of strategies. Local planning. Planning and zoning regulations. Final presentation.			
599STN	Residency	Z	
599WS1	Workshop	Z	
599WS2	Workshop	Z	
599WS3	Workshop	Z	

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