

Czech Technical University in Prague

Faculty of Architecture
Department of Science and Research
Thákurova 9, 166 34 Praha 6
tel.: +420 224 356 228,
E-mail: katerina.cechova@fa.cvut.cz

PhD Courses

Within the study block students are expected to pass four compulsory courses (two compulsory for all branches and two compulsory based on the study branch, which can also be selected from master degree studies in case it is necessary), two compulsory-optional courses, a language preparation and submit the written study of their thesis. It is possible to study additional optional courses, which can be selected from any other university.

The Study block („studijní blok“) is planned in the Individual Study Plan for the period of two years, maximum length of the study block is 6 semesters for full-time study students and 9 semesters for the combined study students. In comparison with the courses for Czech students, which are usually organized in blocks of lectures, the courses in English are usually given in the form of consultations. Therefore the students are asked to get in touch with the lecturers at the beginning of the semester to be taught. If not mentioned bellow, contacts to teachers and guarantors are available at <https://www.fa.cvut.cz/Cz/Lide>

Students in collaboration with their tutor specify the selection of courses in their individual study plan – in paper form and in electronic version www.kos.cvut.cz – and write the selected subjects into index (study book).

For general rules concerning study of courses at the CTU see *Study and Examination Regulations for Students of CTU in Prague*.

Course name	Course code	Semester	Exam	Guarantor
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Compulsory Courses

Courses compulsory for all branches of study

Methods of Scientific Research	521DZVP	W	ex	Prof. Ing. Karel Maier, CSc.
Philosophy and Sociology	513DFS5	S	ex	Mgr. M.A. Martina Sedláková, Assoc. Prof. PhDr. Oldřich Ševčík, CSc.

Linguistic Preparation

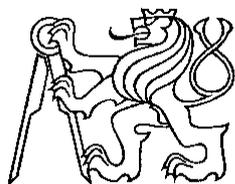
One of the following language courses is compulsory

English Language	526DOJA	W / S	ex	PhDr. Kateřina Valentová
French Language	526DOJF	W / S	ex	Mgr. Ing. Zuzana Krýzlová
German Language	526DOJN	W / S	ex	Mgr. Ing. Zuzana Krýzlová
Italian Language	526DOJI	W / S	ex	PhDr. Kateřina Valentová

Compulsory Branch-related Courses

Two other compulsory subjects are selected with regard to the specific branch of study

History of architecture	513DDAR	W	ex	prof. PhDr. Pavel Kalina, CSc.
Issues of Contemporary Architectural Design	513DSAT	S	ex	Ing. arch. Petr Vorlík, PhD



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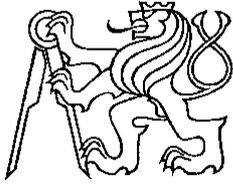
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Issues of Architectural Theory and History	513DTDA	S	ex	prof. PhDr. Pavel Kalina, CSc.
Restoration and Conservation of Historic Buildings	514DHS7	S	ex	prof. Ing. arch. Akad. arch. Václav Girsá; PhDr. Josef Štulc
Informatics for Engineers	516DINF	S	ex	assoc. Prof. Dr.Ir. Henri Achten
Urban Design	519DURB	W	ex	assoc. Prof. Ing.arch. Jan Jehlík
Ecology	521DEK3	S	ex	prof. Ing. Petr Sklenička, CSc., Henry W. A. Hanson IV, M.A., AIA, ASLA
Theories of Spatial Planning	521DUP	S	ex	prof. Ing.arch. Karel Maier, CSc.
Architecture and Structural Detailing	523DPSO	S	ex	prof. Ing. Miloslav Pavlík, CSs.
New structures of buildings	523DNK6	W	ex	prof. Ing. Miloslav Pavlík, CSs.

Compulsory-optional Courses

There are another two subjects, which are compulsory-objective

History of architecture	513DDAR	W	ex	prof. PhDr. Pavel Kalina, CSc.
Issues of Contemporary Architectural Design	513DSAT	S	ex	Ing. arch. Petr Vorlík, PhD
Surveying of Historical Buildings	513DSHP	S	ex	Assoc. prof. Ing. Rykl Michael Ph.D.; Ing. arch. Petr Vorlík, PhD
Theory of Architecture	513DTA3	S	ex	Mgr. M.A. Martina Sedláková
Issues of Architectural Theory and History	513DTDA	S	ex	prof. PhDr. Pavel Kalina, CSc.
CAD	516DCAD	W	ex	assoc. Prof. Dr.Ir. Henri Achten
Informatics for Engineers	516DINF	S	ex	assoc. Prof. Dr.Ir. Henri Achten
Economics and Spatial Planning Development Management	519DEK3	W	ex	prof. Ing.arch. Karel Maier, CSc.
Urban Design	519DURB	W	ex	assoc. Prof. Ing.arch. Jan Jehlík
Ecology	521DEK3	S	ex	prof. Ing. Petr Sklenička, CSc., Henry W. A. Hanson IV, M.A., AIA, ASLA
Information Technology and Modelling for Land Development	521DGIS	W	ex	prof. Ing.arch. Karel Maier, CSc.
Methods of Statistics	521DSTA	S	ex	assoc. prof. Ing. arch. Vorel Jakub Ph.D.
Theories of Spatial Planning	521DUP	S	ex	prof. Ing.arch. Karel Maier, CSc.
New structures of buildings	523DNK6	W	ex	prof. Ing. Miloslav Pavlík, CSs.
Enclosing Shells	523DOPL	S	ex	prof. Ing. Miloslav Pavlík, CSs.
Architecture and Structural Detailing	523DPSO	S	ex	prof. Ing. Miloslav Pavlík, CSs.
Physics of Buildings	524DSF3	W	ex	Ing. Daniela Bošová, Ph.D.



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Other Courses included in the Individual Study Plan

Written study submission		W/S	ex	tutor
Architecture – Theory and Design	STDAAT			
Urban Design and Spatial Planning	STDUUP			
History of Architecture and Monument Conservation	STDDAPP			
Architecture, Building and Technology	STDAST			
State Doctoral Examination		W/S	ex	Chairman of ORO
Architecture – Theory and Design	SZDAAT			
Urban Design and Spatial Planning	SZDUUP			
History of Architecture and Monument Conservation	SZDDAPP			
Architecture, Building and Technology	SZDAST			
Dissertation thesis		W/S	defence	Chairman of ORO

Description of Compulsory Courses

Methods of Scientific Research

(code: 521DZVP)

Guarantor: Prof. Ing. arch. Karel Maier, CSc.

Lecturer: Prof. Ing.arch. Karel Maier, CSc.

Lecturer's contact: maier@fa.cvut.cz, office number 614

Aim:

The lectures and theme-focused discussions will provide basic orientation in the nature, purpose, objectives and method of scientific research. The sessions will help doctoral students to formulate the subject and prepare the methodology for their doctoral study and the subsequent doctoral dissertation. The general principles of research work are in explications specified in the specific conditions for particular doctoral study branches at the Faculty of Architecture. Students will receive general information on the process of scientific research project preparation and implementation and will apply this information to the preparation of their own doctoral dissertation.

Outline:

Introduction to the philosophy of science. General information on the methods of scientific research, functions of modern science, types of scientific law, types of explanation,



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explorative vs. confirmative research, role of hypothesis, definition of concept, interrelation between theory and empirical research. Methodology of research. Types of experimental design, scientific observation, adequate formulation of scientific question and partial hypothesis, Questionnaire-based methods, basics of empirical data statistical processing. Practical information for preparing a dissertation. Work with literature, typical structure of research reports, correct quotation of sources. Basic orientation in reason, aims, use and methods of scientific research. The sessions will help the students to identify the subject and methodology for their doctoral study and dissertation. The general principles of research work are specified in the conditions for the study areas of architecture, urban design and planning.

Philosophy and Sociology

(code: 513DFS5)

Guarantor: Assoc. Prof. PhDr. Oldřich Ševčík, CSc.

Lecturer: Mgr. M.A. Martina Sedláková

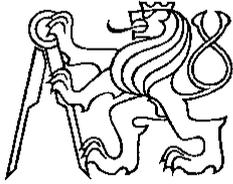
Lecturer's contact: martina.sedlakova@fa.cvut.cz, office number 742

Aim:

Social and cultural history of Europe from the 17th century until the present time and its links with the evolution of architecture. The birth of modern science and the new concept of the world: the Enlightenment and the Modern Era project, from the traditional estate-based feudal society to the modern citizen-based society, the modern society and changes in the social structure. 19th century: first stage of industrialization, growth of horizontal and vertical mobility of population, growth of population and its concentration in cities. Basic typology of structures in 19th century industrial society. Technical innovation: philosophical and sociological self-reflection of 19th century industrial society. First World War and the crisis of civic society; completion of the Modern Art programme; philosophical and sociological diagnoses of 20th century development.

Outline:

Social and cultural history of the European society from the beginning until nowadays and its relations to the evolution of architecture. Birth of modern science and new concept of the world: the Enlightenment and the Modern Era project, from the traditional estate-based feudal society to the modern citizen-based society, the modern society and changes in its social structure. 19th century: the first stage of industrialization, growth of horizontal and vertical mobility of population, growth of population and its concentration in cities. Crisis and typology of the city rebuilding. Basic typology of structures in the 19th century industrial society: structures petrifying the national and social identity of modern national states (parliaments, stock exchanges, national museums, theatres etc.); engineering structures – factories, communication networks (railway stations, railways); Technical innovations: philosophical and sociological self-reflection of 19th century industrial society (late German Enlightenment, Marx, Nietzsche, positivism etc.); World War I and the crisis of civic society; completion of the Modern Art programme; philosophical and sociological diagnoses of the 20th century development (industrial and post-industrial age, modernism and post-modernism, information societies).



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Professional Foreign Language for Doctoral Students

(code: 526DOJA, 526DOJF, 526DOJN)

Guarantor: PhDr. Kateřina Valentová

Lecturer: PhDr. Kateřina Valentová

Lecturer's contact: valentova@fa.cvut.cz, office number 207

Aim:

On the basis of the admission procedure students are recommended or obliged to improve their knowledge of foreign language skills essential for the research. The courses are taught as classes on different language levels, which are individually recommended to any student on the basis of the entrance test results.

Distinguished language level classes

Professional English – Intermediate

A two-semester course intended for students graded “C”, “D” or “E” at the entrance examination, an optional course for the other students. The course develops the existing knowledge of general and generally technical language in communicative situations and stylistic forms with regard to practical usage in profession. The course is aimed at practicing difficult grammar issues and building coherent vocabulary areas.

Professional English – Advanced

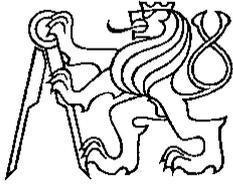
A two-semester course intended for doctoral students on the advanced level, a follow-up to the intermediate course. The course develops the knowledge of technical language and also focuses on the preparation for the final language examination. Within his/her branch the graduate shall be able to communicate in a foreign language in both oral and written forms, read technical literature, watch professional lectures, prepare and deliver a presentation.

Professional German – Advanced

A two-semester course intended for doctoral students on the advanced level. The course develops the knowledge of technical language and also focuses on the preparation for the final language examination. Within his/her branch the graduate shall be able to communicate in a foreign language in both oral and written forms, read technical literature, watch professional lectures, prepare and deliver a presentation. Students graded “A” or “B” at the entrance examination can decide to take the final language examination without the preceding course attendance, during the first year of doctoral study.

Professional French – Advanced

A two-semester course intended for doctoral students on the advanced level. The course develops the knowledge of technical language and also focuses on the preparation for the final language examination. Within his/her branch the graduate shall be able to communicate in a foreign language in both oral and written forms, read technical literature, watch professional



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lectures, prepare and deliver a presentation. Students graded “A” or “B” at the entrance examination can decide to take the final language examination without the preceding course attendance, during the first year of doctoral study.



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Description of (selected) Compulsory Branch-related Courses

Issues of Architectural Theory and History

(code: 513DSAT)

Guarantor: Prof. Ing. Pavel Kalina, CSc., Doc. PhDr. Pavel Vlček

Lecturer: Prof. Ing. Pavel Kalina, CSc.

Lecturer's contact: kalina@fa.cvut.cz, office number 734

Aim:

Concepts in architecture and urban planning, theoretical basics. Explanation of tectonics, stereotomy, etc. Classicism in the history of architecture and urban planning. Historical styles and their possible interpretation. Order as an expression of confidence versus mannerist illusion demonstrated on historical styles. Style come-backs and their specific position in the Industry Age: the Age of Enlightenment and the secularization of society. Urban planning concepts related to the major political transformations taking place in the 19th century; social utopia vs. reconstruction of large cities. Abstraction in architecture as the first rejection of historical heritage. Consequences. Modernism as a 20th century doctrine. Late Modernism. End of the Enlightenment and Post-modernist principles.

Outline:

Scientific concepts in the history and theory of architecture. Dealing with sources and literature (heuristics), criticism and interpretation of sources. Outline of architectural theories in the past and their reception in current scientific research. Relation between style and ornament, issues of style transformation, the terms "classical", "mannerist" and "baroque", the terms "revival" and "survival", basic interpretation models in the history of architecture, formulation of essential questions in a work of art interpretation.

Ecology

(code: 521DEK3)

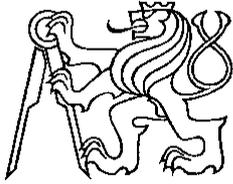
Guarantor: Prof. Ing. Petr Sklenička, CSc.

Lecturer: Henry W. A. Hanson IV, M.A., AIA, ASLA

Lecturer's contact: hhanson@gis.cvut.cz, hhanson@hdg-ltd.com, office number 611

Aim:

The course will be rendered by a number of prominent specialists of diverse education and approach, which will allow a wider view and many-sided perception of a particular issue. Concept of sustainable development. The significance of ecology (social ecology) for an architect. Social sustainability. Human being, urban and natural landscape. Urban and rural (sub)cultures. Spiritual dimension of landscape. Landscape ecology, production and nonproduction functions of landscape. Landscape character. Ecological and energetically sustainable building. Projects with public participation.



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Outline:

Explanation of the theory of ecology and its practical application as an important condition of thinking and working in this particular field. Ecology as a global problem: philosophical view, theory, etc. Selected parts of landscape ecology. Legislation and its practical application in the Czech Republic, European Union, etc. The concept of sustainable development. The significance of ecology / social ecology for an architect. Social and environmental sustainability. Human being, urban and natural landscape. Urban and rural (sub)cultures. Spiritual dimension of landscape. Landscape ecology, production and non-production function of landscape. Landscape character. Ecological and energetically sustainable building. Public participation.