

## Study plan

**Name of study plan: U itelství stavebních p edm t pro st ední školy - prezen ní forma studia**

Faculty/Institute/Others:

Department:

Branch of study guaranteed by the department: Welcome page

Garantor of the study branch:

Program of study: Training Teachers of Building Courses at Higher Secondary Schools

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: Studijní plán pro prezen ní formu studia od akademického roku 2025/2026

Name of the block: Compulsory courses

Minimal number of credits of the block: 51

The role of the block: Z

Code of the group: NU202502

Name of the group: U itelství, povinné p edm ty - oborová didaktika

Requirement credits in the group: In this group you have to gain at least 27 credits

Requirement courses in the group: In this group you have to complete at least 5 courses

Credits in the group: 27

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) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
123DSMV	<b>Didactics of Building Materials and their Practical Teaching</b>	Z,ZK	6	2P+2C	Z	z
132MVSM	<b>Methodology of Teaching Structural Mechanics in Examples</b>	Z,ZK	6	2P+2C	Z	z
154DGPM	<b>Didactics of Land Surveying and Instrumental Measurement</b>	Z,ZK	6	2P+2C	L	z
124MVPS	<b>Didactics of Building Structures and of Building Physics</b>	Z,ZK	6	2P+2C	L	z
123SPDP	<b>Semester Project of Diploma Thesis</b>	Z	3	4B	Z	z

**Characteristics of the courses of this group of Study Plan: Code=NU202502 Name=U itelství, povinné p edm ty - oborová didaktika**

123DSMV	Didactics of Building Materials and their Practical Teaching	Z,ZK	6
132MVSM	Methodology of Teaching Structural Mechanics in Examples	Z,ZK	6
154DGPM	Didactics of Land Surveying and Instrumental Measurement	Z,ZK	6
124MVPS	Didactics of Building Structures and of Building Physics	Z,ZK	6
In the introduction, the subject is focused on the theoretical side of the didactics of professional teaching. Students will get to know the RVP and ŠVP educational programs, teaching methods, key competencies, goals, didactic principles and resources. Emphasis is placed on the phases of the lesson, the preparation of the teacher for the lesson, methods of knowledge assessment and the creation of a didactic test. A significant part of the teaching focuses on the practical explanation of the didactics of selected issues of building construction, specifically structural systems of buildings, vertical and horizontal load-bearing structures, stairs, foundation structures, substructure, protection against ground moisture and expansion of load-bearing structures. The expanding part is the issue of building physics (thermal protection of buildings, sun exposure, daylighting, building acoustics), which is either not taught at all, or only to a limited extent, in high schools with a focus on construction.			
123SPDP	Semester Project of Diploma Thesis	Z	3

Code of the group: NU202504

Name of the group: U itelství, povinné p edm ty - praxe

Requirement credits in the group: In this group you have to gain at least 24 credits

Requirement courses in the group: In this group you have to complete at least 3 courses

Credits in the group: 24

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) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
123PPPR	<b>Propedeutics of Pedagogical Practice</b>	KZ	6	2P+2C	L	z
123SPPR	<b>Continuous Teaching Practice</b>	KZ	15	450XH	Z	z
123RPPR	<b>Reflection of Teaching Practice</b>	Z	3	1P+1C	Z	z

**Characteristics of the courses of this group of Study Plan: Code=NU202504 Name=U itelství, povinné p edm ty - praxe**

123PPPR	Propedeutics of Pedagogical Practice	KZ	6
123SPPR	Continuous Teaching Practice	KZ	15
123RPPR	Reflection of Teaching Practice	Z	3

Name of the block: Compulsory courses in the program

Minimal number of credits of the block: 51

The role of the block: P

Code of the group: NU202501

Name of the group: U itelství, povinné p edm ty - u itelská propedeutika

Requirement credits in the group: In this group you have to gain at least 24 credits

Requirement courses in the group: In this group you have to complete at least 6 courses

Credits in the group: 24

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) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
32MC-P-U SP-01	<b>Role of Teachers in Modern Society</b>	ZK	3	2P+0C		P
32MC-P-PEDO-01	<b>General Pedagogy</b>	Z,ZK	5	2P+1C		P
32MC-P-PSEP-01	<b>Psychology in Educational Process</b>	Z,ZK	5	2P+1C		P
32MC-P-ODID-01	<b>General Didactics</b>	Z,ZK	5	2P+1C		P
32MC-P-MSVV-01	<b>Social Science Research Methods</b>	Z,ZK	3	1P+1C		P
32MC-P-PEDS-01	<b>Social Pedagogy</b>	ZK	3	2P+0C		P

**Characteristics of the courses of this group of Study Plan: Code=NU202501 Name=U itelství, povinné p edm ty - u itelská propedeutika**

32MC-P-U SP-01	Role of Teachers in Modern Society	ZK	3
32MC-P-PEDO-01	General Pedagogy	Z,ZK	5
32MC-P-PSEP-01	Psychology in Educational Process	Z,ZK	5
32MC-P-ODID-01	General Didactics	Z,ZK	5
32MC-P-MSVV-01	Social Science Research Methods	Z,ZK	3
32MC-P-PEDS-01	Social Pedagogy	ZK	3

Code of the group: NU202503

Name of the group: U itelství, povinné p edm ty - oborové

Requirement credits in the group: In this group you have to gain at least 18 credits

Requirement courses in the group: In this group you have to complete at least 5 courses

Credits in the group: 18

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) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
133SK1U	<b>Building Structures 1</b>	ZK	3	2P	L	P
122PRSU	<b>Planning and Implementation of Projects</b>	ZK	3	2P	L	P
127ASKU	<b>Architecture, Settlements and Landscape</b> <i>Ji í Kupka</i>	Z,ZK	6	2P+2C	L	P
134SK2U	<b>Building Structures 2</b>	ZK	3	2P	Z	P
124KOCU	<b>Exercises in Building Construction</b>	ZK	3	2C	Z	P

**Characteristics of the courses of this group of Study Plan: Code=NU202503 Name=U itelství, povinné p edm ty - oborové**

133SK1U	Building Structures 1	ZK	3
This course aims to provide understanding of the specifics of concrete and concrete structures with respect to the didactics of lecturing concrete structures.			
122PRSU	Planning and Implementation of Projects	ZK	3
127ASKU	Architecture, Settlements and Landscape	Z,ZK	6
134SK2U	Building Structures 2	ZK	3
124KOCU	Exercises in Building Construction	ZK	3
The course is focused on practicing the design and drawing of building structures, including their assessment from the point of view of building physics. Students will become familiar with and/or improve in structural designs of buildings, preliminary dimensioning and drawing of building structures. They will learn basic building physics calculations in the field of thermal protection of buildings, building acoustics, sun exposure and daylighting.			

Code of the group: NU202509

Name of the group: U ítelství, diplomová práce

Requirement credits in the group: In this group you have to gain at least 9 credits

Requirement courses in the group: In this group you have to complete at least 1 course

Credits in the group: 9

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) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
123DPUC	Diploma Thesis	Z	9		Z,L	P

Characteristics of the courses of this group of Study Plan: Code=NU202509 Name=U ítelství, diplomová práce

123DPUC	Diploma Thesis	Z	9
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Name of the block: Compulsory elective courses

Minimal number of credits of the block: 9

The role of the block: S

Code of the group: NU202505PV

Name of the group: U ítelství, povinn volitelné p edm ty - p edm ty v angli tin

Requirement credits in the group: In this group you have to gain at least 6 credits

Requirement courses in the group: In this group you have to complete at least 2 courses

Credits in the group: 6

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) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
126YCON	Construction Contracting <i>Aleš Tomek, Radan Tomek Aleš Tomek Aleš Tomek (Gar.)</i>	Z,ZK	4	4P	L	s
32ME-P-PRSK-01	Presentation and Communication Skills	ZK	4	0P+4C		s

Characteristics of the courses of this group of Study Plan: Code=NU202505PV Name=U ítelství, povinn volitelné p edm ty - p edm ty v angli tin

126YCON	Construction Contracting	Z,ZK	4
As every project manager in construction business has to be a contract manager at the same time, understanding the contract - respectively contracting in general - is a must. Course of Construction Contracting is oriented on current business practices and methods, management techniques and understanding general legal principles, codes and regulations. It is about doing business in construction using standard procurement systems and applying given types of contracts, respectively standard contracts (e.g. FIDIC). Lectures are based on the real practice experience of both course's lecturers and various case studies are studied and solved in the course.			
32ME-P-PRSK-01	Presentation and Communication Skills	ZK	4

Code of the group: NU202507PV

Name of the group: U ítelství, povinn volitelné p edm ty - oborová didaktika

Requirement credits in the group: In this group you have to gain at least 3 credits

Requirement courses in the group: In this group you have to complete at least 1 course

Credits in the group: 3

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) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
32MC-P-TECR-01	Impacts of Information Technology on Society	Z,ZK	3	1P+1C		s
32MC-P-DLAB-01	Didactics of Laboratories	KZ	3	0P+2C		s

Characteristics of the courses of this group of Study Plan: Code=NU202507PV Name=U itelství, povinn volitelné p edm ty - oborová didaktika

32MC-P-TECR-01	Impacts of Information Technology on Society	Z,ZK	3
32MC-P-DLAB-01	Didactics of Laboratories	KZ	3

Name of the block: choice of courses from a compulsory group of courses

Minimal number of credits of the block: 9

The role of the block: SA

Code of the group: NU202506PV

Name of the group: U itelství, povinn volitelné p edm ty - u itelská propedeutika

Requirement credits in the group: In this group you have to gain at least 6 credits

Requirement courses in the group: In this group you have to complete at least 2 courses

Credits in the group: 6

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) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
32MC-P-SPKO-01	Social and Pedagogical Communication	KZ	3	0P+2C		SA
32MC-P-PSHY-01	Psycho-hygiene Aspects of Teaching Profession	Z,ZK	3	1P+1C		SA
32MC-P-RIZZ-01	Risk Behavior of Pupils	KZ	3	1P+1C		SA
32MC-P-OSPN-01	Personality: Pathology and Normality	KZ	3	1P+1C		SA

Characteristics of the courses of this group of Study Plan: Code=NU202506PV Name=U itelství, povinn volitelné p edm ty - u itelská propedeutika

32MC-P-SPKO-01	Social and Pedagogical Communication	KZ	3
32MC-P-PSHY-01	Psycho-hygiene Aspects of Teaching Profession	Z,ZK	3
32MC-P-RIZZ-01	Risk Behavior of Pupils	KZ	3
32MC-P-OSPN-01	Personality: Pathology and Normality	KZ	3

Code of the group: NU202508PV

Name of the group: U itelství, povinn volitelné p edm ty - oborové stavební

Requirement credits in the group: In this group you have to gain at least 3 credits

Requirement courses in the group: In this group you have to complete at least 1 course

Credits in the group: 3

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) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
124YRHS	Reconstruction of Historical Building Structures <i>Tomáš ejka, Radek Zígler, Ji í Witzany Ji í Witzany Ji í Witzany (Gar.)</i>	Z	2	1P+1C	L	SA
134YPOD	Fire Resistance of Steel and Timber Structures <i>Zden k Sokol Zden k Sokol Zden k Sokol (Gar.)</i>	Z	2	1P+1C	L	SA
127UKKO	Urban and Landscape Design <i>Zuzana Pešková, Ivan Vorel, Ji í Kupka Ji í Kupka Zuzana Pešková (Gar.)</i>	ZK	3	2P	L	SA
129TSTP	Traditional Building Technologies and Crafts <i>Ji í Pošmourný, Mat j Bohá , Klára Kroftová Klára Kroftová Klára Kroftová (Gar.)</i>	ZK	3	2P	L	SA

Characteristics of the courses of this group of Study Plan: Code=NU202508PV Name=U itelství, povinn volitelné p edm ty - oborové stavební

<b>124YRHS</b>	<b>Reconstruction of Historical Building Structures</b>	<b>Z</b>	<b>2</b>
In the period from the second half of the 19th century by 1960, more than 250 thousand of two- to five-story brick apartment (mainly rental) houses in traditional brick technology were constructed in the Czech Republic. Brick buildings from this period were built according to regulations, building codes and laws from the turn of the 19th and 20th centuries. Multi-storey brick tenement houses do not meet the current thermal, acoustic and other requirements, the requirements of a dynamically developing society to the required extent, and in many cases require regeneration and modernization interventions, including the replacement of non-compliant and out-of-date structures and equipment enabling their further use. The course is focused on the current issue of renewal, reconstruction and modernization of brick multi-storey rental apartment buildings, on historical structures and materials, the issue of degradation and aging of structures and materials of historic brick residential buildings, their residual life, failures and reconstruction of historical buildings and their parts. Furthermore, the course is focused on the issue of improving the well-being of the internal environment, the replacement of finishing structures, opening fillings, etc. as an integral part of the modernization of these buildings.			
<b>134YPOD</b>	<b>Fire Resistance of Steel and Timber Structures</b>	<b>Z</b>	<b>2</b>
The class gives introduction to fire modeling, fire safety and fire resistance of steel, steel-concrete composite and timber structural elements.			
<b>127UKKO</b>	<b>Urban and Landscape Design</b>	<b>ZK</b>	<b>3</b>
The course introduces selected chapters from urban and landscape composition and the theory of urbanism as a basis for urban and landscape design (city image, city environment, perception, landscape composition, composed landscape, cultural landmarks, the phenomenon of the garden in the historical context, etc.). The aim of the course is a comprehensive view of urban and landscape design as a creation of the environment. A theoretical basis and a sound analysis of existing towns and landscapes are subsequently a prerequisite for successful practical design. This extends the content of the basic urban planning courses from the Bachelor's degree. Theoretical issues are complemented by examples from history and examples of various urban analyses. It focuses mainly on the development of the urban form of Prague, its selected districts (Dejvice, Karlín), aspects of their planning (regulatory commissions) and some specific issues (high-rise buildings). The basic set of lectures is complemented by several extension topics by invited external speakers.			
<b>129TSTP</b>	<b>Traditional Building Technologies and Crafts</b>	<b>ZK</b>	<b>3</b>
The lecture series of the course focuses on the construction and design practices of traditional urban construction, selected crafts related to the topic at hand and also on the methodological proposal of the procedure of sensitive conservation restoration of the affected details of historical buildings. The lectures will include exemplary examples of restoration and presentations by practitioners focused on particular thematic areas. The lectures will focus on the following building professions.			

## List of courses of this pass:

<b>Code</b>	<b>Name of the course</b>	<b>Completion</b>	<b>Credits</b>
<b>122PRSU</b>	<b>Planning and Implementation of Projects</b>	<b>ZK</b>	<b>3</b>
<b>123DPUC</b>	<b>Diploma Thesis</b>	<b>Z</b>	<b>9</b>
<b>123DSMV</b>	<b>Didactics of Building Materials and their Practical Teaching</b>	<b>Z,ZK</b>	<b>6</b>
<b>123PPPR</b>	<b>Propedeutics of Pedagogical Practice</b>	<b>KZ</b>	<b>6</b>
<b>123RPPR</b>	<b>Reflection of Teaching Practice</b>	<b>Z</b>	<b>3</b>
<b>123SPDP</b>	<b>Semester Project of Diploma Thesis</b>	<b>Z</b>	<b>3</b>
<b>123SPPR</b>	<b>Continuous Teaching Practice</b>	<b>KZ</b>	<b>15</b>
<b>124KOCU</b>	<b>Exercises in Building Construction</b>	<b>ZK</b>	<b>3</b>
The course is focused on practicing the design and drawing of building structures, including their assessment from the point of view of building physics. Students will become familiar with and/or improve in structural designs of buildings, preliminary dimensioning and drawing of building structures. They will learn basic building physics calculations in the field of thermal protection of buildings, building acoustics, sun exposure and daylighting.			
<b>124MVPS</b>	<b>Didactics of Building Structures and of Building Physics</b>	<b>Z,ZK</b>	<b>6</b>
In the introduction, the subject is focused on the theoretical side of the didactics of professional teaching. Students will get to know the RVP and ŠVP educational programs, teaching methods, key competencies, goals, didactic principles and resources. Emphasis is placed on the phases of the lesson, the preparation of the teacher for the lesson, methods of knowledge assessment and the creation of a didactic test. A significant part of the teaching focuses on the practical explanation of the didactics of selected issues of building construction, specifically structural systems of buildings, vertical and horizontal load-bearing structures, stairs, foundation structures, substructure, protection against ground moisture and expansion of load-bearing structures. The expanding part is the issue of building physics (thermal protection of buildings, sun exposure, daylighting, building acoustics), which is either not taught at all, or only to a limited extent, in high schools with a focus on construction.			
<b>124YRHS</b>	<b>Reconstruction of Historical Building Structures</b>	<b>Z</b>	<b>2</b>
In the period from the second half of the 19th century by 1960, more than 250 thousand of two- to five-story brick apartment (mainly rental) houses in traditional brick technology were constructed in the Czech Republic. Brick buildings from this period were built according to regulations, building codes and laws from the turn of the 19th and 20th centuries. Multi-storey brick tenement houses do not meet the current thermal, acoustic and other requirements, the requirements of a dynamically developing society to the required extent, and in many cases require regeneration and modernization interventions, including the replacement of non-compliant and out-of-date structures and equipment enabling their further use. The course is focused on the current issue of renewal, reconstruction and modernization of brick multi-storey rental apartment buildings, on historical structures and materials, the issue of degradation and aging of structures and materials of historic brick residential buildings, their residual life, failures and reconstruction of historical buildings and their parts. Furthermore, the course is focused on the issue of improving the well-being of the internal environment, the replacement of finishing structures, opening fillings, etc. as an integral part of the modernization of these buildings.			
<b>126YCON</b>	<b>Construction Contracting</b>	<b>Z,ZK</b>	<b>4</b>
As every project manager in construction business has to be a contract manager at the same time, understanding the contract - respectively contracting in general - is a must. Course of Construction Contracting is oriented on current business practices and methods, management techniques and understanding general legal principles, codes and regulations. It is about doing business in construction using standard procurement systems and applying given types of contracts, respectively standard contracts (e.g. FIDIC). Lectures are based on the real practice experience of both course's lecturers and various case studies are studied and solved in the course.			
<b>127ASKU</b>	<b>Architecture, Settlements and Landscape</b>	<b>Z,ZK</b>	<b>6</b>
<b>127UKKO</b>	<b>Urban and Landscape Design</b>	<b>ZK</b>	<b>3</b>
The course introduces selected chapters from urban and landscape composition and the theory of urbanism as a basis for urban and landscape design (city image, city environment, perception, landscape composition, composed landscape, cultural landmarks, the phenomenon of the garden in the historical context, etc.). The aim of the course is a comprehensive view of urban and landscape design as a creation of the environment. A theoretical basis and a sound analysis of existing towns and landscapes are subsequently a prerequisite for successful practical design. This extends the content of the basic urban planning courses from the Bachelor's degree. Theoretical issues are complemented by examples from history and examples of various urban analyses. It focuses mainly on the development of the urban form of Prague, its selected districts (Dejvice, Karlín), aspects of their planning (regulatory commissions) and some specific issues (high-rise buildings). The basic set of lectures is complemented by several extension topics by invited external speakers.			

129TSTP	Traditional Building Technologies and Crafts	ZK	3
The lecture series of the course focuses on the construction and design practices of traditional urban construction, selected crafts related to the topic at hand and also on the methodological proposal of the procedure of sensitive conservation restoration of the affected details of historical buildings. The lectures will include exemplary examples of restoration and presentations by practitioners focused on particular thematic areas. The lectures will focus on the following building professions.			
132MVSM	Methodology of Teaching Structural Mechanics in Examples	Z,ZK	6
133SK1U	Building Structures 1	ZK	3
This course aims to provide understanding of the specifics of concrete and concrete structures with respect to the didactics of lecturing concrete structures.			
134SK2U	Building Structures 2	ZK	3
134YPOD	Fire Resistance of Steel and Timber Structures	Z	2
The class gives introduction to fire modeling, fire safety and fire resistance of steel, steel-concrete composite and timber structural elements.			
154DGPM	Didactics of Land Surveying and Instrumental Measurement	Z,ZK	6
32MC-P-DLAB-01	Didactics of Laboratories	KZ	3
32MC-P-MSV-01	Social Science Research Methods	Z,ZK	3
32MC-P-ODID-01	General Didactics	Z,ZK	5
32MC-P-OSPN-01	Personality: Pathology and Normality	KZ	3
32MC-P-PEDO-01	General Pedagogy	Z,ZK	5
32MC-P-PEDS-01	Social Pedagogy	ZK	3
32MC-P-PSEP-01	Psychology in Educational Process	Z,ZK	5
32MC-P-PSHY-01	Psycho-hygiene Aspects of Teaching Profession	Z,ZK	3
32MC-P-RIZZ-01	Risk Behavior of Pupils	KZ	3
32MC-P-SPKO-01	Social and Pedagogical Communication	KZ	3
32MC-P-TECR-01	Impacts of Information Technology on Society	Z,ZK	3
32MC-P-U SP-01	Role of Teachers in Modern Society	ZK	3
32ME-P-PRSK-01	Presentation and Communication Skills	ZK	4

For updated information see <http://bilakniha.cvut.cz/en/FF.html>

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