

# Study plan

## Name of study plan: Architektura a stavitelství - 2013

Faculty/Institute/Others:

Department:

Branch of study guaranteed by the department: Architecture and Building Engineering

Garantor of the study branch: doc. Ing. arch. Václav Dvořák, CSc.

Program of study: Architecture and Building Engineering

Type of study: Bachelor full-time

Required credits: 240

Elective courses credits: 0

Sum of credits in the plan: 240

Note on the plan:

Name of the block: Compulsory courses

Minimal number of credits of the block: 220

The role of the block: Z

Code of the group: BA20130100

Name of the group: obor Architektura a stavitelství, 1. semestr

Requirement credits in the group: In this group you have to gain 30 credits

Requirement courses in the group: In this group you have to complete at least 8 courses

Credits in the group: 30

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
129AKP	<b>Architectural composition 1</b>	Z	4	3P	Z	z
129AK1A	<b>Architectural Drawing 1A</b>	KZ	5	3C	Z	z
135GEA	<b>Geology</b> Svatoslav Chamra, Jan Schröfel, Richard Malát, Jan Valenta, Kateřina Kovářová Kateřina Kovářová Jan Valenta (Gar.)	Z,ZK	2	1P+1C	Z	z
101M1A	<b>Mathematics 1A</b> Petr Kučera, Ivana Pultarová, Milan Bořík, Václav Kelar, Monika Rencová, Martin Hála, Iva Malechová, Yuliya Namlyeyeva, Miloslav Vlasák, ..... <b>Zdeněk Skalák Zdeněk Skalák (Gar.)</b>	Z,ZK	6	2P+2C	Z,L	z
129NBUA	<b>Typology of Buildings A</b> Zuzana Pešková	Z,ZK	3	2P+1C	Z	z
105PSS	<b>Psychology and Sociology</b> Ingrid Matoušková	Z	2	2P	Z,L	z
123SHMA	<b>Building Materials</b> Alena Vimmrová, Miloš Jerman, Eva Vejmelková <b>Alena Vimmrová Alena Vimmrová (Gar.)</b>	Z,ZK	3	2P+1C	Z	z
132SMA1	<b>Structural Mechanics 1A</b> Aleš Jíra, Jan Zeman, Tomáš Janda, Tomáš Koudelka, Zdeněk Prošek, Jan Voříšek, Karel Pohl, Jan Sýkora, Anna Kučerová, ..... <b>Aleš Jíra Jan Zeman (Gar.)</b>	Z,ZK	5	2P+2C	L,Z	z

### Characteristics of the courses of this group of Study Plan: Code=BA20130100 Name=obor Architektura a stavitelství, 1. semestr

129AKP	Architectural composition 1	Z	4	The different approaches of artists, their methods and opinions are introduced by using examples from recent works. They are introduced to various criteria and different views of architecture as a complex art of building. In a broader sense, architecture is presented as art, combining a number of often conflicting requirements.
129AK1A	Architectural Drawing 1A	KZ	5	Introduction to architectural drawing, pencil rendering methods (axonometric, perspective), creating shadows, reflections in water, roofs, arches, files, objects and their surroundings, created from memory in accordance with orthogonal input. Semester is seen as a validation of the assumptions and imagination of students for the field.
135GEA	Geology	Z,ZK	2	Introduction to Geology Model of the Earth. Plate tectonics. Geological processes. Metamorphic, sedimentary processes. Lithology. Weathering. Pedology. Karst geology. Hydrogeology. Slope deformations. Risk evaluation.
101M1A	Mathematics 1A	Z,ZK	6	
129NBUA	Typology of Buildings A	Z,ZK	3	The general typological fundamentals for drafting of buildings. The compositional fundamentals of drafting. The fundamentals of sanitary, communication and subsidiary premises to relation to scale of human. Garage and parking of vehicles (stationary traffic). The drafting-requirements of buildings for usage of handicapped persons (with limitation movement ability and orientation). The design the fundamental rooms and communications from site of fire safety of buildings. The basic layout of space for housing.

105PSS	Psychology and Sociology Goals and methods of sociology. Sociological perspectives on the structure of Czech society. Local and regional sociology. Sociology of business, human resources. Harmonious development of the multiple dimensions of the human personality. Mental health and prevention of stress. Human personality in the process of socialization. Learning and teaching from a psychological point of view.	Z	2
123SHMA	Building Materials Building materials - basic course. Classification of the materials. Structure of materials. Main properties of materials. Application of materials in building constructions. Introduction to material testing.	Z,ZK	3
132SMA1	Structural Mechanics 1A	Z,ZK	5

Code of the group: BA20130200

Name of the group: obor Architektura a stavitelství, 2. semestr

Requirement credits in the group: In this group you have to gain 30 credits

Requirement courses in the group: In this group you have to complete at least 7 courses

Credits in the group: 30

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
129AK2A	Architectural Drawing 2	KZ	4	3C	L	z
129ATK	Architectural Composition Studio Zuzana Pešková	KZ	5	4C	Z,L	z
124KP1	Building Structures 1 Čtislav Fiala	Z,ZK	5	3P+1C	Z,L	z
101KGA1	Constructive Geometry A Iva Malechová, Iva Křívková, Jozef Bobok, Iva Slámová, Hana Lakomá Iva Malechová Iva Malechová (Gar.)	Z,ZK	5	2P+2C	L,Z	z
101M2A	Mathematics 2A Petr Kuera, Ivana Pultarová, Václav Kelar, Monika Rencová, Iva Malechová, Zdeněk Skalák, Iva Křívková, Martin Soukenka, Jozef Bobok, ..... Petr Kuera Petr Kuera (Gar.)	Z,ZK	4	2P+2C	L,Z	z
129NB2A	Typology of buildings 2A Jana Hoická	Z,ZK	5	2P+2C	L	z
129PGA1	Architectural CAD Modelling 1 Zuzana Pešková	Z	2	2C	L,Z	z

Characteristics of the courses of this group of Study Plan: Code=BA20130200 Name=obor Architektura a stavitelství, 2. semestr

129AK2A	Architectural Drawing 2 Practicing drawing according seen bodies and objects. Model still life, character motion study, study drawings of trees in the exteriors in the historic city center. Pencil and crayon technology. Developing students' creative thinking.	KZ	4
129ATK	Architectural Composition Studio Students will learn by the simple abstract tasks to apply the knowledge gained, notably in the Architectural composition course 1st and 2nd Principles of space composition and volume of space. Idea and form a simple abstract surface and spatial composition. Physical model as a form of verification of space composition. Semester project.	KZ	5
124KP1	Building Structures 1	Z,ZK	5
101KGA1	Constructive Geometry A	Z,ZK	5
101M2A	Mathematics 2A	Z,ZK	4
129NB2A	Typology of buildings 2A Lectures and tuitions in the area of residential buildings and buildings for tourism and catering. Lectures consist of development of concepts and principles of habitation and designing of the above types of objects. Characteristics of particular typological styles and forms of buildings with the emphasis on contemporary solutions and their future development. Evaluation of qualitative, spatial and functional differences of habitation in particular sorts of buildings in towns and villages. The impacts on the environment, including the creation of the country. The relationship of architectural forms and structures. Related regulations and standards.	Z,ZK	5
129PGA1	Architectural CAD Modelling 1 The students became acquainted with instrumental equipment of specific CAD system in this course. The filing of this course is: 2D-projection, 3D-model (visual of real and presentation), characteristics and use, definition of working place, work with library, drawing walls, board, windows, door, sanitary equipment, furniture etc.. The knowledge is use in a small project which is important to finish this course.	Z	2

Code of the group: BA20130300

Name of the group: obor Architektura a stavitelství, 3. semestr

Requirement credits in the group: In this group you have to gain 28 credits

Requirement courses in the group: In this group you have to complete at least 8 courses

Credits in the group: 28

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
129ATAZ	Elementary architectural design studio	KZ	5	4C	Z	z

129DE1	<b>History of Architecture 1</b> <i>Jana Hoická</i>	Z,ZK	4	2P+1C	Z	z
124KP2	<b>Building structures 2</b> <i>Jiří Pazderka</i>	Z,ZK	5	2P+2C	Z	z
101M3A	<b>Mathematics 3A</b> <i>Václav Kelar, Monika Rencová, Iva Malechová, Miloslav Vlasák, Zdeněk Skalák, Martin Soukenka, Jozef Bobok, Aleš Někvienda, František Bubeník, ..... Jozef Bobok Jozef Bobok (Gar.)</i>	Z,ZK	4	1P+2C	Z	z
129NB3	<b>Typology of Buildings 3</b> <i>Zuzana Pešková</i>	Z	2	2P	Z	z
129PGA2	<b>Architectural CAD Modelling 2</b> <i>Zuzana Pešková</i>	Z	2	2C	Z	z
132PRA	<b>Strength of Materials A</b> <i>Aleš Jíra, Karel Pohl, Karolína Jandová, Vít Šmilauer, Eva Novotná, Jan Trejbal, Luboš ehounek Vít Šmilauer Vít Šmilauer (Gar.)</i>	Z,ZK	4	1P+2C	Z,L	z
124SFA1	<b>Building Physics 1A</b>	Z	2	1P+1C	Z	z

**Characteristics of the courses of this group of Study Plan: Code=BA20130300 Name=obor Architektura a stavitelství, 3. semestr**

129ATAZ	Elementary architectural design studio	KZ	5
129DE1	History of Architecture 1 Lectures are covering the development of the concept of ancient architecture (layout, spatial and structural), style and composition chronologically. Detailed analysis of selected monuments important for development of architecture within periods of interest is part of the lectures. Within tuitions are read topics specified towards issues of Czech architecture.	Z,ZK	4
124KP2	Building structures 2 Staircases, sloping ramps, lift shafts - structural and material solutions, statical principles, load, requirements. Building foundations - foundation conditions, types of foundations, principles, requirements. Substructure - statical principles, load, requirements, dilatation gaps, waterproofing. Dilatation of bearing structures - thermal expansion, foundations subsidence. Roof truss systems.	Z,ZK	5
101M3A	Mathematics 3A	Z,ZK	4
129NB3	Typology of Buildings 3 Lectures and tuitions in the area of community buildings. The course deals with classification, purpose, functions, zoning and building program of complexes of buildings; it researches functional relations and their layout formation. It finds relations among area sizes and volumes of exterior and interior spaces. The course covers principles and requirements for particular or integrated typological forms of buildings including fundamental issues of hygiene, comfortable environment, security, fire safety and technical, structural, urban, ecological and economical aspects. Typological kinds: buildings for culture, business and services, religious buildings, medical buildings, buildings for seniors.	Z	2
129PGA2	Architectural CAD Modelling 2 The students became acquainted with instrumental equipment of specific CAD system in this course. The filing of this course is: 2D-projection, 3D-model (visual of real and presentation), characteristics and use, definition of working place, work with library, drawing walls, board, windows, door, sanitary equipment, furniture etc.. The knowledge is use in a small project which is important to finish this course.	Z	2
132PRA	Strength of Materials A	Z,ZK	4
124SFA1	Building Physics 1A	Z	2

Code of the group: BA20130400

Name of the group: obor Architektura a stavitelství, 4. semestr

Requirement credits in the group: In this group you have to gain 28 credits

Requirement courses in the group: In this group you have to complete at least 7 courses

Credits in the group: 28

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
129ATA1	<b>Design Studio 1</b> <i>Petr Lédl</i>	KZ	8	6C	L	z
129DE2A	<b>History of Architecture 2</b> <i>Rudolf Pošva</i>	ZK	3	2P	L	z
124KPA3	<b>Building Structures 3A</b> <i>Blaž Stibrková</i>	Z,ZK	4	2P+1C	L	z
135MZA	<b>Soil mechanics and foundation engineering</b> <i>Jan Záleský, Josef Jettmar, Jan Salák Jan Záleský Jan Záleský (Gar.)</i>	Z,ZK	4	2P+2C	L	z
129NB4	<b>Typology of Buildings 4</b> <i>Jana Hoická</i>	Z	2	2P	L	z
124SFA2	<b>Building Physics 2</b> <i>Zbyněk Svoboda</i>	Z,ZK	3	1P+1C	L	z
132SMA2	<b>Structural Mechanics 2A</b> <i>Aleš Jíra, Vít Šmilauer, Luboš ehounek, Stanislav Šulc Vít Šmilauer Vít Šmilauer (Gar.)</i>	Z,ZK	4	1P+2C	Z,L	z

**Characteristics of the courses of this group of Study Plan: Code=BA20130400 Name=obor Architektura a stavitelství, 4. semestr**

129ATA1	Design Studio 1	KZ	8
129DE2A	History of Architecture 2	ZK	3
124KPA3	Building Structures 3A	Z,ZK	4
135MZA	Soil mechanics and foundation engineering	Z,ZK	4

129NB4	Typology of Buildings 4	Z	2
Buildings for sport and relaxation, administration, education. Classification, purpose, function, structure and building program. Operational links and disposition of their expression. Relationships between square parameters to the volumes of external and internal spaces. Requirements for discrete or integrated typological types of buildings, including the key issues and relationships hygiene and environmental well-being, security and fire protection. Building technical, engineering, town planning, environmental and economic aspects. Sustainable development concepts and principle, development ideas and current trends.			
124SFA2	Building Physics 2	Z,ZK	3
132SMA2	Structural Mechanics 2A	Z,ZK	4

Code of the group: BA20130500

Name of the group: obor Architektura a stavitelství, 5. semestr

Requirement credits in the group: In this group you have to gain 30 credits

Requirement courses in the group: In this group you have to complete at least 7 courses

Credits in the group: 30

Note on the group: BA20120500 #

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
129ATV2	<b>Design Studio 2</b> Zuzana Pešková	KZ	8	6C	Z,L	z
133BZA1	<b>Concrete and Masonry Structures in Architecture 1</b> Hana Hanzlová, Karel Šeps <b>Hana Hanzlová</b> Hana Hanzlová (Gar.)	Z,ZK	5	3P+1C	Z	z
129DE3	<b>History of Architecture 3</b> Jana Ho ícká	Z,ZK	4	2P+1C	Z	z
124KPA4	<b>Building Structures 4A</b> Šárka Šílarová	Z,ZK	3	2P+1C	Z	z
129NB5A	<b>Typology of Buildings 5</b> Jana Ho ícká	Z	4	2P+1C	Z	z
124SF3	<b>Building Physics 3</b> Jan Ka ka	Z,ZK	2	1P+1C		z
125TBA1	<b>Building Services Systems 1</b> Karel Kabele, Stanislav Frolík, Ilona Koubková, Zuzana Veverková, Hana Kabrhelová <b>Hana Kabrhelová</b> Karel Kabele (Gar.)	Z,ZK	4	2P+2C	Z	z

Characteristics of the courses of this group of Study Plan: Code=BA20130500 Name=obor Architektura a stavitelství, 5. semestr

129ATV2	Design Studio 2	KZ	8
Design studio is application course in which students use gained knowledge from broad spectrum of architectural disciplines with their own design opinions and creativity. Various types of civil buildings into the particular environment are assigned within this second design studio. Students present their own designs in the form of architectural study after extensive discussions, consideration and evaluation of works of other architects. Foreign and Czech students are teaching together in order to get opportunity to debate architectonic issues.			
133BZA1	Concrete and Masonry Structures in Architecture 1	Z,ZK	5
129DE3	History of Architecture 3	Z,ZK	4
Lectures are covering the development of architectural concept (layout, spatial and structural), style and composition chronologically from Classicism and Romanticism till 20th century. Detailed analysis of selected monuments important for development of architecture within periods of interest is part of the lectures. Within tuitions are read topics specified towards issues of Czech architecture.			
124KPA4	Building Structures 4A	Z,ZK	3
129NB5A	Typology of Buildings 5	Z	4
Industrial and agricultural buildings. Problems of design, renovation and modernization of industrial and agricultural buildings and files. General conditions for construction (urban and architectural specifications, conditions of work environment). Single and multi-purpose industrial plants. Functional, operational and space requirements for the works in relation to the preserved cultural, structural and technical, architectural and urban and natural values. Conversion and rebuilding. Sustainable Development.			
124SF3	Building Physics 3	Z,ZK	2
125TBA1	Building Services Systems 1	Z,ZK	4
Basic course in building services systems - water supply, drainage, gas supply and heating systems.			

Code of the group: BA20130600

Name of the group: obor Architektura a stavitelství, 6. semestr

Requirement credits in the group: In this group you have to gain 30 credits

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

Credits in the group: 30

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
129AT3	<b>Design Studio 3</b> Miloš Kop íva	KZ	10	8C	L	z
133BZA2	<b>Concrete and Masonry Structures in Architecture 2</b> Hana Hanzlová, Karel Šeps, Michal Števíla <b>Hana Hanzlová</b> Hana Hanzlová (Gar.)	Z,ZK	5	3P+1C	L	z

124KP5	<b>Building Structures 5A</b> <i>Vladimír Žára</i>	ZK	3	2P		z
134ODA1	<b>Steel and Timber Structures in Architecture 1</b> <i>Michal Jandera Michal Jandera Michal Jandera (Gar.)</i>	Z,ZK	5	2P+2C	L	z
125TB2A	<b>Building Services Systems 2</b> <i>Ilona Koubková</i>	Z,ZK	4	2P+1C	L	z
127URB1	<b>Urban Planning 1</b> <i>Pavel Šváb</i>	Z,ZK	3	2P+1C	L	z

**Characteristics of the courses of this group of Study Plan: Code=BA20130600 Name=obor Architektura a stavitelství, 6. semestr**

129AT3	Design Studio 3				KZ	10
Studio work is the subject of an application in which students are combining the lessons learned from a wide spectrum of architectural disciplines with their own opinion and artistic creativity. In this third design studio students deal with various types of civil buildings with more complicated service and ambitious operation site with more complicated relationships. After a broad discussion, reflection and assessments of structures built on similar topics, students submit their own proposals in the form of architectural study.						
133BZA2	Concrete and Masonry Structures in Architecture 2				Z,ZK	5
124KP5	Building Structures 5A				ZK	3
134ODA1	Steel and Timber Structures in Architecture 1				Z,ZK	5
Students learn the steel elements supporting structures, manufacturing, designing of beams, columns, joints, and ocelobetonovými structures, basic fire design and corrosion protection. the multi-storey buildings and halls are introduced.						
125TB2A	Building Services Systems 2				Z,ZK	4
Indoor environment of buildings and its parameters, ventilation systems, ventilation - natural, mechanical, heat recovery, air-conditioning, artificial illumination, illumination sources, luminaires. Electricity distribution. Lighting protection						
127URB1	Urban Planning 1				Z,ZK	3
This subject recognise with problems of functional using town localities, urban typology of traffic and housing areas, conditions and standards for good city form.						

Code of the group: BA20130700

Name of the group: obor Architektura a stavitelství, 7. semestr

Requirement credits in the group: In this group you have to gain at least 30 credits

Requirement courses in the group: In this group you have to complete at least 8 courses

Credits in the group: 30

Note on the group:

BA20140700 #

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
129ATV4	<b>Design studio (Constructional Design)</b> <i>Zuzana Pešková Jaroslav Da a (Gar.)</i>	KZ	9	6C	Z,L	z
136DSA	<b>Road and Rail Construction</b> <i>Ludvík Věbr, Leoš Horní ek, Michal Uhlík, Michal Weber, Jiří Drbohlav, Jaromíra Ježková Michal Uhlík Ludvík Věbr (Gar.)</i>	Z	2	1P+1C	Z	z
134ODA2	<b>Steel and Timber Structures in Architecture 2</b> <i>Jakub Dolejš Jakub Dolejš Jakub Dolejš (Gar.)</i>	Z,ZK	4	2P+1C	Z	z
100ODPR	<b>Industrial Training (3 weeks)</b> <i>Jan Ržika, Petr Hájek Eduard Hromada Michal Jandera (Gar.)</i>	Z	0	6C	Z,L	z
129ROPA	<b>Reconstruction and protection of monuments</b> <i>Zuzana Pešková</i>	Z,ZK	5	2P+2C	Z	z
126SPSK	<b>Construction law, tenders and contracts</b> <i>Dana Mšánová Dana Mšánová Dana Mšánová (Gar.)</i>	Z	2	2P	Z	z
122TS1A	<b>Technology of Construction</b> <i>Rostislav Šulc, Václav Pospíchal Rostislav Šulc Václav Pospíchal (Gar.)</i>	Z,ZK	4	2P+1C	Z,L	z
127UR2B	<b>Urban Planning 2</b> <i>Jiří Kupka Jiří Kupka Jiří Kupka (Gar.)</i>	Z,ZK	4	2P+1C	L	z

**Characteristics of the courses of this group of Study Plan: Code=BA20130700 Name=obor Architektura a stavitelství, 7. semestr**

129ATV4	Design studio (Constructional Design)				KZ	9
The subject of the Design studio 4 is an architectural development of selected studies from ATV 1 (residential buildings), ATV2 (small civil building) or ATV3 (large civil building), a detailed structural design of the whole or selected parts, including construction and architectural details, static pre-calculation of the development of selected general plan of construction and building equipment, specifying the specific parts. Foreign and Czech students are teaching together in order to get opportunity to debate architectonic issues.						
136DSA	Road and Rail Construction				Z	2
134ODA2	Steel and Timber Structures in Architecture 2				Z,ZK	4
The course introduces students to the static and structural design of timber structures in civil engineering. Material properties, the design rules according to European standards and principles of good structural design are presented within the course.						
100ODPR	Industrial Training (3 weeks)				Z	0
129ROPA	Reconstruction and protection of monuments				Z,ZK	5
126SPSK	Construction law, tenders and contracts				Z	2
Commercial contractual relationships, definition of the terms, participants - entrepreneurs. Legal acts, making a contract, forms of the contracts, usage of the general commercial conditions, term of acceptance of the proposal for conclusion a contract. Public tender and its impact on the liabilities of the participants. Securing of a liability - penalty, pledge. Avoidance of contract, conditions and consequences of the avoidance. Compensation for a damage, content and extent of the compensation. Forfeiture and its consequences, prescription period. Main contractual types used in construction. Contract of the conclusion of a future contract, its principles and meaning. Contract of sale, its usage for construction purposes and basic contents - object of performance, price, liability for defects, guarantee. Contract for work, its usage in the preparation and realization of the buildings - for survey ensuring, project documentation, buildings, assembling. Contents of the contract.						

122TS1A	Technology of Construction	Z,ZK	4
Earthwork, design of pit excavation and supporting technologies. Design of formwork. Concrete mixer plant, concrete conveying, concreting. Brickwork technologies, Roofing work, tin work.			
127UR2B	Urban Planning 2	Z,ZK	4

Code of the group: BA20130800

Name of the group: obor Architektura a stavitelství, 8. semestr

Requirement credits in the group: In this group you have to gain at least 14 credits

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

Credits in the group: 14

Note on the group:

BA20140800 #

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
126MMA2	<b>Economics and Management</b> Václav Tatýrek, Petr Matjka, Dana Mšánová Václav Tatýrek Václav Tatýrek (Gar.)	Z,ZK	5	2P+2C	L	Z
154SGEA	<b>Land Surveying</b> Jiří Pospíšil Lenka Línková Jiří Pospíšil (Gar.)	Z,ZK	5	2P+2C	L	Z
127UR3B	<b>Urban Planning 3</b> Jiří Kupka	Z,ZK	4	2P+1C	L	Z

Characteristics of the courses of this group of Study Plan: Code=BA20130800 Name=obor Architektura a stavitelství, 8. semestr

126MMA2	Economics and Management	Z,ZK	5
Construction, civil engineering and construction work. Life cycle of building and project. Construction projects and documentation. Participants on construction projects. Determining the cost of construction. Total construction costs. Scheduling and network analysis. Valuation of works and budgeting. Costing and bid price. Production calculation. Calculation methods. Public revenues and tax system. Awarding construction contracts. Public business competition. Contract - clauses additions. Construction business. Organizational structure and management of construction firm. Supply Management. Marketing of construction firm. Making management structures. Controlling. Site manager, foreman, technical supervision, cost and author. Control days. Construction diary. Executed work and supplies quality. Production invoice and final calculation. Changes and additions to the budget. Building handover and acceptance. Investment effectiveness, Construction project evaluation. Marketing. Building changes prior completion, building handover and acceptance, handover documentation. Decision processes. Invested energy. BOM. Audit, Documentation rules. Insolvency, RIPRAN, LEED, BREEAM. Documentation rules, Insolvency law.			
154SGEA	Land Surveying	Z,ZK	5
Basic information on the Earth, angle and distance measurement, basics of geodetic calculation (traverse, intersection), determination of heights, basics of setting-out, maps for designing, basics of photogrammetry, basics of error theory and adjustment calculus, determination of areas and volumes, modern geodetic instruments and methods (electronic theodolites, GPS, laser scanners), basic geodetic rules.			
127UR3B	Urban Planning 3	Z,ZK	4
Topic subject of the learning is genesis of town development and town planning in the world, in the bohemian territory and in the capital town of Prague. Other topics are concerned present construction law in Czech Republic in the sphere of town planning. There is a view of types of town planning documents and demarcation of competences in the processes of plan procurement.			

Name of the block: Compulsory elective courses

Minimal number of credits of the block: 18

The role of the block: PV

Code of the group: BA20130300\_1

Name of the group: obor Architektura a stavitelství, povinn volitelné předměty

Requirement credits in the group: In this group you have to gain 2 credits

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

Credits in the group: 2

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
104YC1A	<b>English 1</b> Magdalena Žemličková, Svatava Boboková-Bartíková, Veronika Čermáková, Petra Florianová, Sandra Giormani, Hana Horká, Libuše Jilemnická, Petra Martincová, Renáta Nivenová, ..... Petra Martincová Svatava Boboková-Bartíková (Gar.)	Z	2	2C	Z,L	PV
104YC1F	<b>French 1</b> Radka Škardová, Marie Robovská Svatava Boboková-Bartíková Radka Škardová (Gar.)	Z	2	2C	Z,L	PV
104YC1N	<b>German 1</b> Daria Šemberová, Svatava Boboková-Bartíková, Helena Chromá Olga Sedlářková Svatava Boboková-Bartíková (Gar.)	Z	2	2C		PV
104YC1R	<b>Russian 1</b> Svatava Boboková-Bartíková	Z	2	2C		PV

104YC1S	<b>Spanish 1</b> <i>Miloslava Menclová</i>	Z	2	2C		PV
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Characteristics of the courses of this group of Study Plan: Code=BA20130300\_1 Name=obor Architektura a stavitelství, povinné volitelné p edm ty

104YC1A	English 1	Z	2
104YC1F	French 1	Z	2
104YC1N	German 1	Z	2
104YC1R	Russian 1	Z	2
104YC1S	Spanish 1	Z	2

Code of the group: BA20130800\_1

Name of the group: obor Architektura a stavitelství, bakalá ská práce

Requirement credits in the group: In this group you have to gain 16 credits

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

Credits in the group: 16

Note on the group:

BA20140800\_1 #

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
124BPA	<b>Bachelor Thesis (A)</b>	Z	16	16C	Z,L	PV
129BPA	<b>Bachelor Thesis (A)</b> <i>Zuzana Pešková</i>	Z	16	16C	Z,L	PV
125BPA	<b>Bachelor Thesis (A)</b> <i>Hana Kabrhelová</i>	Z	16	16C	Z,L	PV

Characteristics of the courses of this group of Study Plan: Code=BA20130800\_1 Name=obor Architektura a stavitelství, bakalá ská práce

124BPA	Bachelor Thesis (A)	Z	16
129BPA	Bachelor Thesis (A)	Z	16
125BPA	Bachelor Thesis (A)	Z	16

Bachelor Thesis is the result of the Bachelor degree study programme. It should prove student's ability to work independently in the area of Building Services Systems. The thesis can cover theoretical aspects or to focus on practical application on an object within building services systems. Students consult the supervisor and specialists from other departments. The thesis is presented in front of the commission.

Name of the block: Povinná tělesná výchova, sportovní kurzy

Minimal number of credits of the block: 0

The role of the block: PT

Code of the group: BTV\_POV

Name of the group: Povinná tělesná výchova

Requirement credits in the group:

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

Credits in the group: 0

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
TV1	<b>Physical Education</b>	Z	0	0+2	Z	PT
TV2	<b>Physical Education</b>	Z	0	0+2	L	PT

Characteristics of the courses of this group of Study Plan: Code=BTV\_POV Name=Povinná tělesná výchova

TV1	Physical Education	Z	0
TV2	Physical Education	Z	0

Name of the block: Elective courses

Minimal number of credits of the block: 0

The role of the block: V

Code of the group: BA20130100\_1

Name of the group: obor Architektura a stavitelství, volitelné p edm ty

Requirement credits in the group:

Requirement courses in the group:

Credits in the group: 0

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
101XM1R	<b>Mathematics 1 - repititorium</b> <i>Václav Kelar Václav Kelar Václav Kelar (Gar.)</i>	Z	0	2C	Z	v
105XPR	<b>Law</b>	Z	1	2P	Z	v
124XZSK	<b>Technical drawing</b> <i>Anna Lounková</i>	Z	1	2C	L	v
101XZAA	<b>Foundations of Computer Science</b>	Z	1	2C		v

Characteristics of the courses of this group of Study Plan: Code=BA20130100\_1 Name=obor Architektura a stavitelství, volitelné p edm ty

101XM1R	Mathematics 1 - repititorium	Z	0
105XPR	Law	Z	1
124XZSK	Technical drawing Project dokumentation. Rules and principles of plotting building plans.buildings structures. Ground plans, vertical sections, technical wiews. Technical drawing of building structures. Basic instructions of drawing in 2D AutoCAD.	Z	1
101XZAA	Foundations of Computer Science	Z	1

Name of the block: Compulsory elective courses

Minimal number of credits of the block: 2

The role of the block: S

Code of the group: BA20130400\_1

Name of the group: obor Architektura a stavitelství, povinn volitelné p edm ty

Requirement credits in the group: In this group you have to gain 2 credits

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

Credits in the group: 2

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
104YC2A	<b>English 2</b> <i>Magdalena Žemli ková, Svatava Boboková-Bartíková, V ra ermáková, Petra Florianová, Sandra Giormani, Hana Horká, Šárka Chroustová, Petra Martinová, Renáta Nivenová, ..... Svatava Boboková-Bartíková Svatava Boboková-Bartíková (Gar.)</i>	Z,ZK	2	2C		s
104YC2F	<b>French 2</b> <i>Radka Škardová, Marie Robovská Svatava Boboková-Bartíková Svatava Boboková-Bartíková (Gar.)</i>	Z,ZK	2	2C		s
104YC2N	<b>German 2</b> <i>Svatava Boboková-Bartíková, Helena Chromá Olga Sedlá ková Svatava Boboková-Bartíková (Gar.)</i>	Z,ZK	2	2C		s
104YC2R	<b>Russian 2</b> <i>V ra ermáková Svatava Boboková-Bartíková V ra ermáková (Gar.)</i>	Z,ZK	2	2C		s
104YC2S	<b>Spanish 2</b> <i>Miloslava Menclová</i>	Z,ZK	2	2C		s

Characteristics of the courses of this group of Study Plan: Code=BA20130400\_1 Name=obor Architektura a stavitelství, povinn volitelné p edm ty

104YC2A	English 2	Z,ZK	2
104YC2F	French 2	Z,ZK	2
104YC2N	German 2	Z,ZK	2
104YC2R	Russian 2	Z,ZK	2
104YC2S	Spanish 2	Z,ZK	2



## List of courses of this pass:

Code	Name of the course	Completion	Credits
100ODPR	Industrial Training (3 weeks)	Z	0
101KGA1	Constructive Geometry A	Z,ZK	5
101M1A	Mathematics 1A	Z,ZK	6
101M2A	Mathematics 2A	Z,ZK	4
101M3A	Mathematics 3A	Z,ZK	4
101XM1R	Mathematics 1 - repetitorium	Z	0
101XZAA	Foundations of Computer Science	Z	1
104YC1A	English 1	Z	2
104YC1F	French 1	Z	2
104YC1N	German 1	Z	2
104YC1R	Russian 1	Z	2
104YC1S	Spanish 1	Z	2
104YC2A	English 2	Z,ZK	2
104YC2F	French 2	Z,ZK	2
104YC2N	German 2	Z,ZK	2
104YC2R	Russian 2	Z,ZK	2
104YC2S	Spanish 2	Z,ZK	2
105PSS	Psychology and Sociology Goals and methods of sociology. Sociological perspectives on the structure of Czech society. Local and regional sociology. Sociology of business, human resources. Harmonious development of the multiple dimensions of the human personality. Mental health and prevention of stress. Human personality in the process of socialization. Learning and teaching from a psychological point of view.	Z	2
105XPR	Law	Z	1
122TS1A	Technology of Construction Earthwork, design of pit excavation and supporting technologies. Design of formwork. Concrete mixer plant, concrete conveying, concreting. Brickwork technologies, Roofing work, tin work.	Z,ZK	4
123SHMA	Building Materials Building materials - basic course. Classification of the materials. Structure of materials. Main properties of materials. Application of materials in building constructions. Introduction to material testing.	Z,ZK	3
124BPA	Bachelor Thesis (A)	Z	16
124KP1	Building Structures 1	Z,ZK	5
124KP2	Building structures 2 Staircases, sloping ramps, lift shafts - structural and material solutions, static principles, load, requirements. Building foundations - foundation conditions, types of foundations, principles, requirements. Substructure - static principles, load, requirements, dilatation gaps, waterproofing. Dilatation of bearing structures - thermal expansion, foundations subsidence. Roof truss systems.	Z,ZK	5
124KP5	Building Structures 5A	ZK	3
124KPA3	Building Structures 3A	Z,ZK	4
124KPA4	Building Structures 4A	Z,ZK	3
124SF3	Building Physics 3	Z,ZK	2
124SFA1	Building Physics 1A	Z	2
124SFA2	Building Physics 2	Z,ZK	3
124XZSK	Technical drawing Project documentation. Rules and principles of plotting building plans. buildings structures. Ground plans, vertical sections, technical views. Technical drawing of building structures. Basic instructions of drawing in 2D AutoCAD.	Z	1
125BPA	Bachelor Thesis (A) Bachelor Thesis is the result of the Bachelor degree study programme. It should prove student's ability to work independently in the area of Building Services Systems. The thesis can cover theoretical aspects or to focus on practical application on an object within building services systems. Students consult the supervisor and specialists from other departments. The thesis is presented in front of the commission.	Z	16
125TB2A	Building Services Systems 2 Indoor environment of buildings and its parameters, ventilation systems, ventilation - natural, mechanical, heat recovery, air-conditioning, artificial illumination, illumination sources, luminaires. Electricity distribution. Lighting protection	Z,ZK	4
125TBA1	Building Services Systems 1 Basic course in building services systems - water supply, drainage, gas supply and heating systems.	Z,ZK	4
126MMA2	Economics and Management Construction, civil engineering and construction work. Life cycle of building and project. Construction projects and documentation. Participants on construction projects. Determining the cost of construction. Total construction costs. Scheduling and network analysis. Valuation of works and budgeting. Costing and bid price. Production calculation. Calculation methods. Public revenues and tax system. Awarding construction contracts. Public business competition. Contract - clauses additions. Construction business. Organizational structure and management of construction firm. Supply Management. Marketing of construction firm. Making management structures. Controlling. Site manager, foreman, technical supervision, cost and author. Control days. Construction diary. Executed work and supplies quality. Production invoice and final calculation. Changes and additions to the budget. Building handover and acceptance. Investment effectiveness, Construction project evaluation. Marketing. Building changes prior completion, building handover and acceptance, handover documentation. Decision processes. Invested energy. BOM. Audit, Documentation rules. Insolvency, RIPRAN, LEED, BREEAM. Documentation rules, Insolvency law.	Z,ZK	5

126SPSK	Construction law, tenders and contracts	Z	2
Commercial contractual relationships, definition of the terms, participants - entrepreneurs. Legal acts, making a contract, forms of the contracts, usage of the general commercial conditions, term of acceptance of the proposal for conclusion a contract. Public tender and its impact on the liabilities of the participants. Securing of a liability - penalty, pledge. Avoidance of contract, conditions and consequences of the avoidance. Compensation for a damage, content and extent of the compensation. Forfeiture and its consequences, prescription period. Main contractual types used in construction. Contract of the conclusion of a future contract, its principles and meaning. Contract of sale, its usage for construction purposes and basic contents - object of performance, price, liability for defects, guarantee. Contract for work, its usage in the preparation and realization of the buildings - for survey ensuring, project documentation, buildings, assembling. Contents of the contract.			
127UR2B	Urban Planning 2	Z,ZK	4
127UR3B	Urban Planning 3	Z,ZK	4
Topic subject of the learning is genesis of town development and town planning in the world, in the bohemian territory and in the capital town of Prague. Other topics are concerned present construction law in Czech Republic in the sphere of town planning. There is a view of types of town planning documents and demarcation of competences in the processes of plan procurement.			
127URB1	Urban Planning 1	Z,ZK	3
This subject recognise with problems of functional using town localities, urban typology of traffic and housing areas, conditions and standards for good city form.			
129AK1A	Architectural Drawing 1A	KZ	5
Introduction to architectural drawing, pencil rendering methods (axonometric, perspective), creating shadows, reflections in water, roofs, arches, files, objects and their surroundings, created from memory in accordance with orthogonal input. Semester is seen as a validation of the assumptions and imagination of students for the field.			
129AK2A	Architectural Drawing 2	KZ	4
Practicing drawing according seen bodies and objects. Model still life, character motion study, study drawings of trees in the exteriors in the historic city center. Pencil and crayon technology. Developing students' creative thinking.			
129AKP	Architectural composition 1	Z	4
The different approaches of artists, their methods and opinions are introduce by using examples from recent works. They are introduced to various criteria and different views of architecture as a complex art of building. In a broader sense, architecture is presented as art, combining a number of often conflicting requirements.			
129AT3	Design Studio 3	KZ	10
Studio work is the subject of an application in which students are combining the lessons learned from a wide spectrum of architectural disciplines with their own opinion and artistic creativity. In this third design studio students deal with various types of civil buildings with more complicated service and ambitious operation site with more complicated relationships. After a broad discussion, reflection and assessments of structures built on similar topics, students submit their own proposals in the form of architectural study.			
129ATA1	Design Studio 1	KZ	8
129ATAZ	Elementary architectural design studio	KZ	5
129ATK	Architectural Composition Studio	KZ	5
Students will learn by the simple abstract tasks to apply the knowledge gained, notably in the Architectural composition course 1st and 2nd Principles of space composition and volume of space. Idea and form a simple abstract surface and spatial composition. Physical model as a form of verification of space composition. Semester project.			
129ATV2	Design Studio 2	KZ	8
Design studio is application course in which students use gained knowledge from broad spectrum of architectural disciplines with their own design opinions and creativity. Various types of civil buildings into the particular environment are assigned within this second design studio. Students present their own designs in the form of architectural study after extensive discussions, consideration and evaluation of works of other architects. Foreign and Czech students are teaching together in order to get opportunity to debate architectonic issues.			
129ATV4	Design studio (Constructional Design)	KZ	9
The subject of the Design studio 4 is an architectural development of selected studies from ATV 1 (residential buildings), ATV2 (small civil building) or ATV3 (large civil building), a detailed structural design of the whole or selected parts, including construction and architectural details, static pre-calculation of the development of selected general plan of construction and building equipment, specifying the specific parts. Foreign and Czech students are teaching together in order to get opportunity to debate architectonic issues.			
129BPA	Bachelor Thesis (A)	Z	16
129DE1	History of Architecture 1	Z,ZK	4
Lectures are covering the development of the concept of ancient architecture (layout, spatial and structural), style and composition chronologically. Detailed analysis of selected monuments important for development of architecture within periods of interest is part of the lectures. Within tuitions are read topics specified towards issues of Czech architecture.			
129DE2A	History of Architecture 2	ZK	3
129DE3	History of Architecture 3	Z,ZK	4
Lectures are covering the development of architectural concept (layout, spatial and structural), style and composition chronologically from Classicism and Romanticism till 20th century. Detailed analysis of selected monuments important for development of architecture within periods of interest is part of the lectures. Within tuitions are read topics specified towards issues of Czech architecture.			
129NB2A	Typology of buildings 2A	Z,ZK	5
Lectures and tuitions in the area of residential buildings and buildings for tourism and catering. Lectures consist of development of concepts and principles of habitation and designing of the above types of objects. Characteristics of particular typological styles and forms of buildings with the emphasis on contemporary solutions and their future development. Evaluation of qualitative, spatial and functional differences of habitation in particular sorts of buildings in towns and villages. The impacts on the environment, including the creation of the country. The relationship of architectural forms and structures. Related regulations and standards.			
129NB3	Typology of Buildings 3	Z	2
Lectures and tuitions in the area of community buildings. The course deals with classification, purpose, functions, zoning and building program of complexes of buildings; it researches functional relations and their layout formation. It finds relations among area sizes and volumes of exterior and interior spaces. The course covers principles and requirements for particular or integrated typological forms of buildings including fundamental issues of hygiene, comfortable environment, security, fire safety and technical, structural, urban, ecological and economical aspects. Typological kinds: buildings for culture, business and services, religious buildings, medical buildings, buildings for seniors.			
129NB4	Typology of Buildings 4	Z	2
Buildings for sport and relaxation, administration, education. Classification, purpose, function, structure and building program. Operational links and disposition of their expression. Relationships between square parameters to the volumes of external and internal spaces. Requirements for discrete or integrated typological types of buildings, including the key issues and relationships hygiene and environmental well-being, security and fire protection. Building technical, engineering, town planning, environmental and economic aspects. Sustainable development concepts and principle, development ideas and current trends.			
129NB5A	Typology of Buildings 5	Z	4
Industrial and agricultural buildings. Problems of design, renovation and modernization of industrial and agricultural buildings and files. General conditions for construction (urban and architectural specifications, conditions of work environment). Single and multi-purpose industrial plants. Functional, operational and space requirements for the works in relation to the preserved cultural, structural and technical, architectural and urban and natural values. Conversion and rebuilding. Sustainable Development.			

129NBUA	Typology of Buildings A	Z,ZK	3
The general typological fundamentals for drafting of buildings. The compositional fundamentals of drafting. The fundamentals of sanitary, communication and subsidiary premises to relation to scale of human. Garage and parking of vehicles (stationary traffic). The drafting-requirements of buildings for usage of handicapped persons (with limitation movement ability and orientation). The design the fundamental rooms and communications from site of fire safety of buildings. The basic layout of space for housing.			
129PGA1	Architectural CAD Modelling 1	Z	2
The students became acquainted with instrumental equipment of specific CAD system in this course. The filing of this course is: 2D-projection, 3D-model (visual of real and presentation), characteristics and use, definition of working place, work with library, drawing walls, board, windows, door, sanitary equipment, furniture etc.. The knowledge is use in a small project which is important to finish this course.			
129PGA2	Architectural CAD Modelling 2	Z	2
The students became acquainted with instrumental equipment of specific CAD system in this course. The filing of this course is: 2D-projection, 3D-model (visual of real and presentation), characteristics and use, definition of working place, work with library, drawing walls, board, windows, door, sanitary equipment, furniture etc.. The knowledge is use in a small project which is important to finish this course.			
129ROPA	Reconstruction and protection of monuments	Z,ZK	5
132PRA	Strength of Materials A	Z,ZK	4
132SMA1	Structural Mechanics 1A	Z,ZK	5
132SMA2	Structural Mechanics 2A	Z,ZK	4
133BZA1	Concrete and Masonry Structures in Architecture 1	Z,ZK	5
133BZA2	Concrete and Masonry Structures in Architecture 2	Z,ZK	5
134ODA1	Steel and Timber Structures in Architecture 1	Z,ZK	5
Students learn the steel elements supporting structures, manufacturing, designing of beams, columns, joints, and ocelobetonovými structures, basic fire design and corrosion protection. the multi-storey buildings and halls are introduced.			
134ODA2	Steel and Timber Structures in Architecture 2	Z,ZK	4
The course introduces students to the static and structural design of timber structures in civil engineering. Material properties, the design rules according to European standards and principles of good structural design are presented within the course.			
135GEA	Geology	Z,ZK	2
Introduction to Geology Model of the Earth. Plate tectonics. Geological processes. Metamorphic, sedimentary processes. Lithology. Weathering. Pedology. Karst geology. Hydrogeology. Slope deformations. Risk evaluation.			
135MZA	Soil mechanics and foundation engineering	Z,ZK	4
136DSA	Road and Rail Construction	Z	2
154SGEA	Land Surveying	Z,ZK	5
Basic information on the Earth, angle and distance measurement, basics of geodetic calculation (traverse, intersection), determination of heights, basics of setting-out, maps for designing, basics of photogrammetry, basics of error theory and adjustment calculus, determination of areas and volumes, modern geodetic instruments and methods (electronic techeometers, GPS, laser scanners), basic geodetic rules.			
TV1	Physical Education	Z	0
TV2	Physical Education	Z	0

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

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