Faculty of Architecture

IMPORTANT NOTES

If for one subject you can find several different types (lecture, practice, laboratory) of courses then please choose one and only one course from each type in order to be able to perform the subject's requirements successfully.Civil Engineering courses are on the website seperately. Courses chosen from the offer of Faculty of Civil Engineering will be checked and arranged individually by the departmental coordinator.

Subject code	Subject name	Requirement	ECTS credit
BMEEPAG0236	CAAD and Architects Informatics F	Mid-semester mark	3

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	WED:16:15-18:00(K218);

This course aims to expand the existing CAD knowledge of students to be able to create and modify complex CAD models easily. During the course, we use Archicad, so a basic knowledge of the program is expected.

Subject code	Subject name	Requirement	ECTS credit
BMEEPAG0246	Constructive CAAD F	Mid-semester mark	3

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	WED:16:15-18:00(K217);

Design and documentation with Revit Architecure - Introductory course.Design and basic CAD knowledge is recommended. (Architectural informatics 2)

Subject code	Subject name	Requirement	ECTS credit
BMEEPAG0247	Constructive CAAD G	Mid-semester mark	3

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	TUE:12:15-14:00(K216);

Introduction to Google Sketchup, an easy to use 3D design software to create 3D visual models of buildings together with its surroundings. Basic modelling, textures, creating models from plans and matching photo. (See http://www.epab.bme.hu/?sketchup/index.en.html). Architects from all around the world use Google SketchUp in nearly all phases of design, starting from solid modelling to photorealistic 3D rendering. Sketchup is a simple, but powerful tool to visualize ideas in 3D. Easy to learn, simple, fullz understandable, helps the user to evolve creativity. Needs less time to find the right tool enables to spend more time with what we learn for... to be an architect!

Subject code	Subject name	Requirement	ECTS credit
BMEEPAG0249	Constructive CAAD CE	Mid-semester mark	3

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	THU:12:15-14:00(K217);

Advanced CAD modelling course for students who are familiar with AutoCAD. The course deals with modeling concepts and techniques, texture, lighting and rendering. In the second part of the semester students work more or less autonomously (with occasional one-on-one consultations) on a model of their choice. See: http://www.epab.bme.hu/en/?ccce/

Subject code	Subject name	Requirement	ECTS credit
BMEEPAGA401	Architectural Informatics 2 - Digital Representation	Mid-semester mark	3

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	TUE:12:15-13:00(K218);
Practice	EN1-ER	English	THU:13:15-15:00(K218);

Fundamentals of vector graphics, two-dimensional (2D), and three-dimensional (3D) Computer Aided Design (CAD) systems. Application of Cartesian and polar coordinate systems. CAD principles from simple 2D drafting to the developing of architectural drawings with the use of layers and library elements (blocks). 3D modelling of geometrical shapes and architectural details.

Subject code	Subject name	Requirement	ECTS credit
BMEEPAGA501	Architectural Informatics 3 - CAD for Architects	Mid-semester mark	3

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	TUE:12:15-13:00(K218);
Practice	EN1-ER	English	THU:13:15-15:00(K217);

Use of state-of-the-art CAAD software to develop professional architectural solutions. Extensive use of 3-D computer

model development. Architectural documentation with computers. Computer animation and fly-throught pictures for architectural space analysis.

Subject code	Subject name	Requirement	ECTS credit
BMEEPEG0995	Architectural Research for Exchange Students - EG	Mid-semester mark	6

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	

Architectural Research for Exchange Students on the topics of the Department's competency. The aim of the subject is to carry out a research on a special topic. The research contains specifying and processing the related international literature, summing up the findings in a study and finally a presentation. The language of the research depends on the consultant - the available topics are listed on the department's homepage.

Subject code	Subject name	Requirement	ECTS credit
BMEEPEGA601	Building Service Engineering 2	Exam	2

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	FRI:10:15-12:00(K351);

Calculation of heat loss of buildings. Energy consumption of a heated space. Introduction to fluid flow. Classification of Heating. Central heating. Elements of water heating system. Pipe distributing networks Emitters and surface heating. Controlling. Renewable energy sources for heating and producing domestic dot water. Introduction to psychometrics. Psychometric processes. Ventilation (Classification, natural ventilation and mechanical one, fundamental systems of air inlet and extract) Estimation of the necessary air volume. Air heating and cooling systems. Air conditioning.

Subject code	Subject name	Requirement	ECTS credit
BMEEPEK0633	Facility Management	Exam	2

Course type	Course code	Course language	Timetable information
Lecture	EN1-ER	English	TUE:15:15-17:00(K350);

The goal of the subject is to present theory of Facility Management, introduction of Cost Efficiency concepts. Based on case studies and several site visits on commercial properties, list of managerial tasks will be indentified and explained as registration, maintenance, crisis management and others. The course also will cover related subjects as Workspace Planning and CAFM (Computer Aided Facility Management).

Subject code	Subject name	Requirement	ECTS credit
BMEEPEK0995	Architectural Research for Exchange Students - EK	Mid-semester mark	6

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	

Architectural Research for Exchange Students on the topics of construction technology and management. The aim of the subject is to carry out a research on a special topic. The research contains specifying and processing the related international literature, summing up the findings in a study and finally a presentation. The language of the research depends on the consultant - the available topics are listed on the department's homepage.

Subject code	Subject name	Requirement	ECTS credit
BMEEPEKA701	CM3 - Planning of Construction Technology	Exam	4

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	WED:10:15-12:00(K221);
Practice	EN1-ER	English	WED:12:15-14:00(K213);

The goal of the subject is to present information on the planning of elementary construction technologies related to superstructures and finishing work.The subject introduces how to apply recent innovations of building technologies during design and realisation. It gives a basic knowledge to evaluate construction options and make appropriate decisions about technology. There are case studies of building technologies used in construction of loadbearing structures, finishing and cladding works.The practical part contains workshops on planning of construction technologies: connection of structures and technologies, volume calculation, resource estimation, scheduling antd construction site planning.

Subject code	Subject name	Requirement	ECTS credit
BMEEPEKA801	Building and Architectural Economics	Mid-semester mark	2

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	WED:10:15-12:00(K285);

Aim: investigate the economic side of a real estate development emphasizing the Social cost and benefit of development.This module concentrates economical computation models, theories dealing with real estate valuation. There is a homework concerning with calculation, valuation of a real estate development. Successful submission is required for the module acceptance. Written exam as indicated, minimum pass grade required. Two corrections are

allowed. Following main topics are discussed: construction cost, estimates, time value of money, building life cycle cost , measuring the worth of real estate investments.

Subject code	Subject name	Requirement	ECTS credit
BMEEPEKAT41	Construction Management	Mid-semester mark	3

Course type	Course code	Course language	Timetable information
Lecture	EN0	English	TUE:12:15-14:00(KF12); TUE:12:15-14:00(KF12);
Practice	EN1	English	WED:10:15-12:00(KF10);

Curricula, themes, individual projects, tests, subjects of lectures and seminars of the Course are embracing managerial and organizational learnings useful and necessary for all civil engineers, such as: - jobs and organizational structure of Contracting Construction Trade; - jobs and relations of parties collaborating in executing construction projects;- time and resource needs of executing construction projects (basic methods and terms of time -, resource- and cost estimates);- basics of mechanizing Construction, construction equipments and auxiliary plants, typical applications;- organizing construction site (site layout designs).Individual project: Organizational plans (time estimates, resources calculations and site layout designs) of building a simple linear structure (reinforced concrete retaining wall) well known in practice of all civil engineers.

Subject code	Subject name	Requirement	ECTS credit
BMEEPEKK801	CM4. Controlling of Construction technologies	Exam	4

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	MON:14:15-16:00(K392);
Practice	EN1-ER	English	MON:16:15-18:00(K392);

Subject obligatory for BSc degree - The goal of the subject is to present information on the controlling process of the whole construction activity and the applied technologies involving the legal environment, the quality management, the quality survey, the work safety and the fire protection. Site and company visits are integrated in the theoretical lectures. Main topics: Regulations concerning to the construction Building permission/building consentQuality in construcion, Fire protectionDry construction systemsThe work of the quality surveyorHealth and safety during building constructionControlling activities in Construction Projects

Subject code	Subject name	Requirement	ECTS credit
BMEEPET0408	History of Theory of Architecture 2	Exam	2

Course type	Course code	Course language	Timetable information
Lecture	EN1-ER	English	THU:12:15-14:00(K397);

HISTORY OF THEORY OF ARCHITECTURE 2. BMEEPET0408 The course presents, exposes and explains the most important constituent facts, selected from the innumerable different intellectual reflections of the twentieth century and the second millennium, as a rich and simultaneous interplay of parallel stories, either promoting, or opposing each other. It doesnrsquo;t interpret history as a homogeneously evolving story, emerging from the past, but at the same time, it doesnrsquo;t deny the importance and operative function of creating histories. Instead of a simple, successive presentation of well-known historical facts, or a collection of fashionable notions, topics and themes, it rather concentrates on exploring their synchronic functional relationships and finding creative and relevant conclusions. 1. Introduction, theory and history in the 20th century. 2. Dominant modern reflections: Riegl, Loos Corbusier 3. Science, technology, art, future, constituent parts of the modern identity Submission and discussion of first paper. 4. Great histories of modern architecture. History, or theory? 5. The destructions of modern technologies. Totalitarian regimes, and the war. Post war time, neo-technicism and total utopias of the sixties, Banham, Archigram. 6. Rediscovery of the operative function of history. Kahn, Venturi. Vulgar modernism and vulgar historicism. Submission and discussion of second paper. 7. The global, the regional, the rural, the archaic. Structuralism, accidentism. 8. Positive and negative side of modern urbanism. 9. Beyond modern histories. Critical theories anthologies. Presence and representation. Deconstruction, phenomenology, hermeneutics. Submission and discussion of third paper.

Subject code	Subject name	Requirement	ECTS credit
BMEEPET0995	Architectural Research for Exchange Students - ET	Mid-semester mark	6

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	

Architectural Research for Exchange Students – BMEEPET0995BME Department of History of Architecture and of Monuments Similarly to the international practice the course aims primarily research activity in architecture and its documentation. The possible horizon of the research topics is determined by the course lists of the departments and the personal interest of the students. Beside the architectural topics the course will give an appreciation of interdisciplinary and special fields in international environment too. The project work will demonstrate generic and specific skills and understanding of the open and synthetic character of the research.The objective of this course is to hone the skills of analysis and abstraction in order to develop a framework for research. The student should be able to draw from precedent in the art, architecture and engineering in the development of this framework, which will act as scaffolding for the theoretical, experimental and creative decisions. This course will consist of a series of

consultations to the teachers, but the essay should write by the student. The available topics are given by the Departments of the Faculty. The student can propose also a special topic for research during the course, but the teacher has to be agreeing with the proposal.Course list 2018/2019/fall semesterconsultants in the following languages for the following topicsDr. habil. KRÄHLING, János Associate professor English max. 3 Architectural analysis of sacral buildingsDr. habil. MEZŐS, Tamás Professor English max. 3 Architectural researchDARAGÓ, László DLA Associate professor English max. 2 Architectural analysis of historic ensemblesSZALAI, András DLA Associate professor English max. 1 Contemporary architectureVUKOSZÁVLYEV, Zorán PhD Associate professor English max. 2 Contemporary architectureGY. BALOGH, Ágnes PhD Assistant professor English max. 1 19th century architectureHALMOS, Balázs PhD Assistant professor English max. 2 Historical building researchMARÓTZY, Katalin PhD Assistant professor English max. 1 19th century architecturePAZÁR, Béla DLA Assistant professor English Deutsch max. 1 Contemporary architecture Zeitgenössische ArchitekturRABB, Péter PhD Assistant professor English max. 1 Norman architecture in South ItalyZSEMBERY, Ákos PhD Assistant professor Italiano English max. 1 Restauro dei monumenti. Principi e metodoKISS, Zsuzsanna Emília Assistant research fellow English max. 1. Turn of the century architecturePILSITZ, Martin PhD Assistant research fellow Deutsch English max. 1 Historische Industriearchitectur Historic industrial architectureFEHÉR, Krisztina Assistant lecturer English French max. 1 Mediaeval architecture

Subject code	Subject name	Requirement	ECTS credit
BMEEPETA201	History of Architecture 2. (Antiquity)	Mid-semester mark	3

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	WED:13:15-15:00(K391);
Practice	EN1-ER	English	WED:15:15-16:00(K391);

Basic topics: Ancient civilizations. The Sumer millenium. From Old Babylon to Parthians. Millenium of pyramids. New Kingdom, Ptolemaic age. Greek temenos, temple, town. Greek public buildings. Roman town, house types. Roman temples. Roman public buildings. Roman palaces. Practical themes: simplified column-orders, Ur house, zikkurat, temple, apadana ndash; its elevation, akhaimendian rock grave, pyramid ensemble, Khonsu temple, Egyptian house. Ur towertemple ndash; axonometric view, Khonsu temple ndash; half-axonometric view, Greek Doric order ndash; details. Greek temple ndash; half axonometric view, Greek Ionic order ndash; details. Colosseum type elevation, house-types, Greek Corinthian order ndash; details, Roman vaults and domes. Pantheon. Basilical construction.

Subject code	Subject name	Requirement	ECTS credit
BMEEPETA401	History of Architecture 4	Exam	3

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	MON:12:15-14:00(K391);
Practice	EN1-ER	English	MON:14:15-15:00(K391);

Brunelleschi and the early renaissance architecture in Tuscany. The evolution of the renaissance palace in Florence and in the Northern regions of Italy. The architect and scholar Leon Battista Alberti. Bramante and and the influence of his circle in the first half of the 16th century. Michelangelo Buonarroti architect. Renaissance in Lombardy and Venice. Mannerist architecture. The late sixteenth century: Palladio and Vignola. Urban development and early baroque architecture in Rome under Pope Sixtus V. The architecture of Lorenzo Bernini and Francesco Borromini. Baroque in Venice and in Piemont. Architecture in France in the 16-17th centuries. Baroque in central Europe: Austria, Bohemia and Germany.

Subject code	Subject name	Requirement	ECTS credit
BMEEPETO601	History of Architecture 6	Mid-semester mark	3

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	MON:09:15-12:00(K285);

The course gives an overview of the architecture in the 20-21st centuries. The classes follow chronology with focusing on the works of some great architects: Modernism and Modern Movement. Architecture between the two world wars ndash; De Stijl, Bauhaus, Russian Constructivism, Less is more ndash; Architecture of Ludwig Mies van der Rohe, Toward a New Architecture ndash; Architecture of Le Corbusier. The Nordic Classicist Tradition ndash; Architecture of E. G. Asplund and S. Lewerentz. Alvar Aalto and the modern Finnish architecture. In the second part the course picks up some relevant architectural trends: New Empiricism, New Humanism, New Brutalism and the Team X, the way from large housing estates to architecture without architects. Unfolding post-modern architecture, participation and the Las Vegas strip, Colin Rowersquo;s studio, Critical Regionalism. The third part concentrates on timely problems: new materials or the multi-sensorial experience of space and surface, Rem Koolhaasrsquo;s Dirty Realism, new technology and digital perception, architecture of seduction.

Subject code	Subject name	Requirement	ECTS credit
BMEEPETO801	History of Hungarian Architecture	Mid-semester mark	2

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	THU:17:15-19:00(K285);

The subject History of Architecture in Hungary I. aims to present and analyze the architecture of historic Hungary in European and domestic context from the history of Pannonia to the end of Baroque. The principle of the presentation is the chronological interdependence, however, particular attention is given to the main trends within the different periods as the main stylistic tendencies or external and internal factors that determine the historical and architectural context. A great emphasis is given to the exploration of the connections between the European and Hungarian history of architecture. Lecture topics include: The beginnings of architecture in the Carpathian Basin. Roman architecture in Hungary. Early medieval architecture in Hungary - Christian Architecture between West and East. The flourishing Romanesque and the beginnings of Gothic Architecture. The rise of Gothic Architecture - architecture in towns and Gothic architecture of the orders. The beginning and the first period of the renaissance till the middle of th 16th century. The architecture of fortified palaces and fortifications. The renaissance architecture in Transylvania. The beginnings of the baroque in Western Hungary in the 17th century. The High Baroque in Hungary.

Subject code	Subject name	Requirement	ECTS credit
BMEEPETT611	Preservation of Historic Monuments	Mid-semester mark	2

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	THU:08:15-10:00(K285);

The course gives an overview on history and theory of the architectural preservation in Europe and Hungary. Presents the evaluation of the way of thinking from purism to the modern practice of restoration. It is an important part, when national and international documents and theoretic papers are discussed, form Morris and Ruskinrsquo;s work, over Boitorsquo;s ldquo;Prima carta del restaurordquo; (1883) to Krakow Charter 2000. Following the historic part some technical aspects of preservation are discussed, i.e. surveying methods and techniques, non-destructive and destructive building archaeological methods etc. The brief introduction to building archaeology helps to understand the importance of theoretic reconstruction of independent building phases of the historic monument. The detailed discussion of the topic is part of the Preservation of historic buildings 2 ndash; Building archaeology elective subject. The third part is dealing with architectural and design-methodological questions of preservation. Especially the architectural problems of presentation of archaeological heritage, the reuse and functional problems of industrial and vernacular buildings for modern purposes.

Subject code	Subject name	Requirement	ECTS credit
BMEEPIP0893	Contemporary Architect Offices	Exam	2

Course type	Course code	Course language	Timetable information
Lecture	EN1-ER	English	FRI:14:15-16:00(K275);

The aim of the course is representing Hungarian architect studios and giving useful information about working method of practising, creative teams. Lectures are performed by different practising architects, displaying their works by presentations or by visiting building projects. There is also a possibilty to make informal conversation with architects. The lectures are organized in auditoriums or at building sites. To obtain the final mark, each student has to write an own essay of a defined topic.

Subject code	Subject name	Requirement	ECTS credit
BMEEPIP0995	Architectural Research for Exchange Students - IP	Mid-semester mark	6

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	

Architectural Research for Exchange Students on the topics of the Department's competency. The aim of the subject is to carry out a research on a special topic. The research contains specifying and processing the related international literature, summing up the findings in a study and finally a presentation. The language of the research depends on the consultant - the available topics are listed on the department's homepage.

Subject code	Subject name	Requirement	ECTS credit
BMEEPIPA401	Architecture of Workplaces 1	Exam	2

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	THU:08:15-10:00(K285);

The history of industrial architecture, the history of Hungarian industrial architecture. Load-bearing structures of halls and of multi-storey buildings. Size standardization. Constructions of space separation, facades, subsytems of space separation constructions (foundations, roof structures, intermediate floors, external wall systems, finishes. Characteristic architectural requirements, social facilities. Logistics: transport, storage. From location to layout, emplacement of industrial plants. Design methodology, re-use, reconstruction. Administrative workplaces.

Subject code	Subject name	Requirement	ECTS credit
BMEEPKO0995	Architectural Research for Exchange Students - KO	Mid-semester mark	6

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	

Similar to the international practice aims the course primary research activity on architecture and its documentation. The possible horizon of the research topics is determined by the course lists of the departments and the personal interest of the students. Beside the architectural topics will give the course an appreciation of interdisciplinary and special fields in international environment too. The project work demonstrating generic and specific skills and understanding of the open and synthetic character of the research. The objective of this course is to hone the skills of analysis and abstraction in order to develop a framework for research. The student should be able to draw from precedent in both art, architecture and engineering in the development of this framework, which will act as scaffolding for the theoretical, experimental and creative decisions. This course will consist of a series of consultations to the teachers, but the essay should written by the student. The available topics are given by the Departments of the Faculty. The student can propose also a special topic for research during the course, but the teacher has to be agree with the proposal.

Subject code	Subject name	Requirement	ECTS credit
BMEEPRAA401	Drawing and Composition 4	Mid-semester mark	2

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	TUE:10:15-12:00(K3R4);

The main topic in the syllabus of the subject is the rsquo;analyticrsquo;representation of external spaces: students learn how to recognise the invisible geometrical-structural relations beloww the surface of buildings through preparing rsquo;X-ray drawingsrsquo;. Not only the views but also the sections of buildings are studied in order to understand and grasp the gist of the architectural structure behind the view, and to prepare such rsquo;X-ray drawingsrsquo;that represent more complex architectural compositions than what the eyes can see. Students prepare drawings on external sites (such as the Museum of Fine Arts, the Great Market Hall, and the assembly halls of BUTE and Corvinus University) to investigate the options of perspective drawing and the versions of plane representation of large spaces.

Subject code	Subject name	Requirement	ECTS credit
BMEEPRAA601	Drawing and Composition 6	Mid-semester mark	2

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	WED:16:15-18:00(K3R4);

The main topic in the syllabus in this semester is the intuitive representation of internal and external spaces: this subject aims at teaching students perspective representation at a higher level (applying 3-6 vanishing points). While drawing the streets and squares of the Buda Castle and the internal spaces of some atmospheric old public building sin Budapest (e.g. Saint Stephen Cathedral, Opera House, Hungarian National Museum) students investigate invisible geometrical and structural relations and improve their drawing skills (applying lead pencil, ink and crayon techniques). The objective is not to simply represent a naturalistic view as a camera, but to prepare a drawing of the architectural structure of a real space after grasping the gist of the compostion.

Subject code	Subject name	Requirement	ECTS credit
BMEEPRAO801	Drawing and Composition 8	Mid-semester mark	2

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	TUE:10:15-12:00(K3R4);

'Identity Design' has become unavoidable in the self-management of today's architects. It determines the entire character, the image of a business and affects its efficiency. Identity Design symbolizes the integrity, the personality of the author and, at the same time, reflects the quality of the work. During the course, students will have the opportunity to design their own logo, business card and graphic portfolio. The different parts of the project are to be unified by a thorough graphic layout, which also reflects the designer's identity and personality. A wide range of different graphical tools will be introduced to help achieve the best outcome.

Subject code	Subject name	Requirement	ECTS credit
BMEEPST0995	Architectural Research for Exchange Students - ST	Mid-semester mark	6

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	

Architectural Research for Exchange Students on the topics of the Department's competency. The aim of the subject is to carry out a research on a special topic. The research contains specifying and processing the related international literature, summing up the findings in a study and finally a presentation. The language of the research depends on the consultant - the available topics are listed on the department's homepage.

Subject code	Subject name	Requirement	ECTS credit
BMEEPSTA201	Statics	Exam	4

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	TUE:10:15-12:00(K221);
Practice	EN1-ER	English	WED:10:15-12:00(K391);

The basic laws and theorems of statics are presented and applied to engineering structures. Statically determinate trusses, beams, frames, and assembled structures are considered, the line of trust is presented. Internal forces are treated in 2D and 3D.

Subject code	Subject name	Requirement	ECTS credit
BMEEPSTA401	Strenght of Materials 2	Mid-semester mark	6

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	MON:10:15-12:00(K392); WED:10:15-12:00(K392);
Practice	EN1-ER	English	FRI:10:15-12:00;

Strength of materials is a compulsory engineering subject for second year students in architecture. The goals of the subject are to show how to - determine the deformations of load-bearing structures- find the internal forces of statically indeterminate structures. In addition to theoretical methods, we also show examples in structural engineering.

Subject code	Subject name	Requirement	ECTS credit
BMEEPSTM101	Special Load-Bearing Structures	Mid-semester mark	4

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	
Practice	EN1-ER	English	

Subject code	Subject name	Requirement	ECTS credit
BMEEPSTT601	Special Load-Bearing Structures	Mid-semester mark	4

Course type	Course code	Course language	Timetable information
Lecture	EN0-ER	English	MON:12:15-14:00(K285);
Practice	EN1-ER	English	MON:14:15-16:00(K285);

The subject introduces the special load-bearing structures, such as large span, tall and spatial structures. We introduce the trusses, box-beams, wall-beams and arches as large span structures. We show the static behavior of tall buildings: the concept of the vertical and horizontal load-bearing structures. The behavior of spatial structures is the main topic of the semester. We introduce the RC shells, the brick-shells, the cable and textile membranes, space -trusses, grid shells

Subject code	Subject name	Requirement	ECTS credit
BMEEPTCEP02	Interdisciplinary, Project based Design S	Mid-semester mark	16

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	MON:09:15-17:00(K222); WED:09:15-17:00(K222);
Practice	EN2-ER	English	TUE:09:15-17:00(K222); THU:09:15-17:00(K222);

The subject is based on the cooperation of the departments of the Faculty of Architecture. Students work in studios in groups with individual tasks as well instructed by teachers of the departments involved. There are two design tasks to be solved during the semester, that can be chosen freely from the offered opportunities. Each task is to solve in seven weeks. Some of the tasks are: sport hall for Olympic Games in Budapest, Dwelling Underground, Suspension in Architecture, The Green in the Metropolitan Area (green walls, green roofs) etc.

Subject code	Subject name	Requirement	ECTS credit
BMEEPUI0805	Urbanism	Mid-semester mark	2

Course type	Course code	Course language	Timetable information
Lecture	EN1-ER	English	WED:14:15-16:00(K285);

The goal of the course is to get students acquainted with the multidisciplinary characteristics of Urban Design, Urban Planning and Urban Studies. The semester is divided into three 4 lecture long blocks dealing with: the issues of contemporary urbanity; related fields of science and planning tools in various field of the profession. In the series of lectures professors of the Department of Urban Planning and Design and some invited experts of various fields are presenting lectures on various topics.

Subject code	Subject name	Requirement	ECTS credit
BMEEPUI0906	Participation, simulation, activism: new methods in urban design	Mid-semester mark	2

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	WED:16:15-18:00(K390);

The elective course aims to teach students the practice of participatory design, focusing on urban public space design involving local communities. Students – after analyzing the European best practices – will get experience in involving different social groups and interest-groups into the design process of a public space. The course is based on the results from the research on the possibilities to enhance the practice of participatory design done at the Urban Design and planning department. Students will get an extensive knowledge on the international practice of participatory design, reading much of it's English literature, analyzing completed European public spaces designed with this method. During the practical classes the students will make a design proposal or activity process simulation for a selected public space in Budapest, either in a dense urban context or on the spaces of a housing estate, or in a suburban situation. A group work is expected to study the capabilities of the place, the different social groups present and the possibilities to involve these locals. Students will simulate the process of participatory design, will place themselves in the position of the locals, will work on strategies to grant the collaboration needed. The process will result in a series of rules needed to gain equal possibilities of action from all social groups on the site. Students will map the real needs of locals, will get into interaction with their communities, and will find design tools to fulfill their needs. The first presentation will summarize the needs of the local groups, while the final presentation will show the finished results of the design process. Both presentations need to be handed in digitally the final grade is a result of the evaluation of both.

Subject code	Subject name	Requirement	ECTS credit
BMEEPUI0995	Architectural Research for Exchange Students - UI	Mid-semester mark	6

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	
Practice	EN2-ER	English	

Architectural research for exchange and international students: with the professional leadership of the tutors of the Department of Urban Planning and Design students work on individual research topics (eg.. Urban History, Urban Tipologies, Urban Morphologies, Housing estates etc.). The course is based on individual work, with a final output of an essay.

Subject code	Subject name	Requirement	ECTS credit
BMEEPUIT601	Department's Design 1.	Mid-semester mark	3

Course type	Course code	Course language	Timetable information
Practice	EN1-ER	English	THU:13:15-16:00(K211);

A special urban design course conducted by the Department of Urban Planning and Design focusing mainly on urban public space design with the help of invited lecturers and landscape designer consultants. The course is a partly theoretical and partly practical course where students get acquainted with special issues and problems of public space definition, public spaces usage and public space design. In the design assignment all students deal with one area, where starting from the analysis of a greater urban entity we narrow down the design problems to handling the publicly attainable spaces in between buildings.