Learning outcomes as per the field of study
ARCHITECTURE
2nd higher education degree studies, general academic education profile

taught at the Faculty of Architecture at Poznan University of Technology,

1. Classification of the field of studies within the educational area

Field of studies

Architecture is classified within the technical studies

Profile

A general academic education profile was defined within 2nd degree studies at this field of study.

Admission terms and conditions

A person who completed the 1st degree studies and holds respective qualifications of level 6 as per Polish Qualification Framework at engineerign level in Architecture or in related fields can apply for admission to the 2nd degree studies at Architecture.

2. Educational goals

1) to teach the theory and history of architecture and town planning as well as the cultural and technical context of architecture
2) to develop skills in architectural designing, urban planning and renovation as well as in spatial planning on the basis of extensive technical knowledge with the application of traditional and modern (multi-media) designing techniques
3) to prepare a graduate for independent, creative work and team work at positions requiring top qualifications in architecture in designing companies as well as in the units of self-government and government administration

3. Area descriptors accounted for in the description of the field of studies

The description of the field of study has accounted for all the learning outcomes included in the description of the learning outcomes of technical studies of 2nd degree.

4. Professional title

A graduate, upon completion of the studies and having passed his M.Sc diploma exam, is conferred with the professional title of M.Sc Architectural Engineer.

5. Learning outcomes

5.1. General learning outcomes

Having completed 2nd degree studies of general academic education profile in the field of study Architecture, a graduate has in-depth specialised knowledge in architectural designing, urban planning and renovation as well as spatial planning. The graduate has right knowledge of the history and theory of architecture, theory of town planning, arts, technical sciences and humanities as well as of shaping the environment of man with the account for the relations between people and architectural objects and the surrounding

space. The graduate of the field of study Architecture is skilful in the application of procedures and in elaboration of designs of architectural objects with the account for social factors, has the right skills to solve problems related to the building functions, occupation, structure and construction as well as engineering and technological problems in degree guaranteeing the safety and comfort of the facility users, in this the disabled persons. The graduate is in particular prepared to comply with technical and building regulations and procedures, with the economics of designing procedures as well as the regulations and procedures related to the construction and use of an architectural object and the organisation of the investment process as well as the integration of plans with town planning in the country and in the EU countries. The graduate fully understands the role of an architect in a society and the impact of the architect's work upon the environment, he/she also complies with the professional ethics in his/her work.

The acquired knowledge and skills of the graduate allow him/her to take up creative activities in architectural designing and town planning, and further on to acquire professional licenses required under the binding laws, to work independently at technical positions in construction and to design and supervise the construction works as an architect. Thanks to the said knowledge ans skills, the graduate can also coordinate works in cross-industry teams of designers, can supervise architectural and town planning design studios, can run his/her own business activity and can do the research work.

The graduate is prepared to work for: architectural and town planning design studios, units of self-government and government administration, research and development institutes and consultancy units. The graduate fully understands the necessity of expanding and updating his/her knowledge on permanent basis based on available source materials in Polish and English. He/she is prepared to continue his/her education at 3rd degree studies (PhD studies).

Learning outcomes as per the field of study

ARCHITECTURE

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Detailed learning outcomes and their reference to the results in the area of technical sciences

Explanations of symbols:
K -learning outcomes as per the field of study
W – knowledge category
U – category of skills
K (following an underscore) category of personal and social competences (KPS)
T2A – learning outcomes in the area of technical sciences for 2nd degree studies

Learning Outcomes as per the field	**Description of the field specific learning outcomes** **Having completed the 1st degree studies in the field of 'Architecture and Town Planning' a graduate:**	**Reference to the outcomes of the learning process in the area of technical sciences**
KNOWLEDGE		
1) general knowledge (unrelated to the field of engineering education)		
AU2_W01	has explicit, well-grounded theoretical knowledge of the issues related to the theory of renovation of historic buildings, wooden architecture and the theory and principles of commercial and industrial development	T2A_W03 T2A_W04
AU2_W02	has knowledge of development trends and most important achievements in revitalisation, designing and modernising historical buildings as well as of design and arts	T2A_W04 T2A_W05
AU2_W03	has knowledge required for the understanding of social, historical, natural, economic, legal and other determinants outside the engineering field of the engineering activities and has basic knowledge of quality management, in this of the sustainable development management of new settlement and of shaping the environment of man with the account for the relations between people and architectural objects and the surrounding space	T2A_W08 T2A_W09
AU1_W04	has basic knowledge connected with mission and professional ethics of an architect	T2A_W10
AU1_W05	knows and understands basic terms and principles related to the protection of intellectual and industrial property rights; is able to use the patent data resources	T2A_W10
2) basic engineering knowledge		
AU1_W06	has detailed knowledge of architectural designing in the inter-disciplinary meaning, with the account for cultural context, and for private, semi-private and public space	T2A_W02

AU1_W07	has explicit, well-grounded theoretical knowledge on designing commercial facilities, health care centres, offices and other work places as well as revitalisation of urban space and on the protection of historical buildings	T2A_W03 T2A_W04 T2A_W07
AU2_W08	has explicit, well-grounded theoretical knowledge on national, regional, metropolitan, communal and local spatial planning	T2A_W03 T2A_W04 T2A_W07
AU2_W09	has detailed knowledge on selected topics of theory of network systems, acoustic systems, lighting, ventilation and air-conditioning as well as waste disposal systems and on designing such systems	T2A_W03 T2A_W04
AU2_W10	has basic knowledge of commercial law, spatial management law and marketing	T2A_W06 T2A_W09
3) knowledge directly related to respective field engineering tasks		
AU2_W11	knows basic methods, techniques, tools and materials applied in the solutions of complex engineering tasks in the scope of architectural designing of complex architectural facilities with complex layout of functions, complex structural layout and complex technologies	T2A_W03 T2A_W05 T2A_W07
AU2_W12	knows how to creatively seek innovative designing solutions on the basis of bionics and design	T2A_W02 T2A_W05
AU2_W13	has the right knowledge of passive architecture and energy saving in architectural designing and town planning	T2A_W02 T2A_W05
AU2_W14	has the right knowledge of the humanisation of work places, ergonomics and OHS in engineering designing that is in architectural designing and town planning	T2A_W07 T2A_W08
AU2_W15	knows basic methods, techniques, tools and materials applied in the solutions of complex engineering tasks in the scope of architectural designing, town planning and spatial planning	T2A_W03 T2A_W07 T2A_W08
AU2_W16	knows basic methods, techniques, tools and materials applied in the solutions of complex engineering tasks in the scope of modernisation of historical buildings	T2A_W02 T2A_W03 T2A_W07
AU2_W17	has detailed knowledge connected with architectural designing, town planning and spatial planning	T2A_W04
AU2_W18	has knowledge in the scope of organisation of an investment process and the integration of plans with town planning in the country and in the EU countries	T2A_W02 T2A_W05 T2A_W09
SKILLS		
1) general skills (outside the field of study)		
AU2_U01	can acquire information from field specific literature, data bases and other properly selected sources in Polish and English, can can integrate the acquired information, interpret and critically assess the said information, as well as draw conclusions and come up with opinions supported with satisfactory reasons	T2A_U01 T2A_U06

AU2_U02	can prepare scientific elaborations in Polish and English, presenting his/her own research results and design decisions in the field of architecture and town planning	T2A_U03 T2A_U06
AU2_U03	can specify the directions of further education and can undertake the self-education process	T2A_U02 T2A_U05
2) basic engineering skills		
AU2_U04	can use the techniques of manual drawing in the process of designing a simple, small architectural form, and on the basis of the said drawings can come up with interpretations and draw conclusions	T2A_U07 T2A_U09
AU2_U05	can make spatial models (mock-ups) allowing for carrying out simulation and experiments with the use of a variety of materials, in this can perceive on their basis, non-technical aspects such as perception processes among others	T2A_U07 T2A_U10
AU2_U06	can identify a design problem and on the basis thereof, can draw up specifications which would constitute the basis for the design of a *simple commercial facility	T2A_U08 T2A_U11
AU2_U07	can use IT techniques respectively to the performance of tasks typical for designing activities related to independent technical functions in construction	T2A_U07 T2A_U13
AU2_U08	can plan respective stages of the designing process, can carry out analytical study and optimise variant design solutions, as well as can interpret the synthetic data and verify the adopted assumptions	T2A_U07 T2A_U08 T2A_U09
AU2_U09	can, when formulating engineering tasks and solving them, put together the knowledge in other fields, related areas and apply the system approach, accounting for non-technical aspects and a long time span	T2A_U08 T2A_U09 T2A_U10
AU2_U10	can assess the usefulness of the new scientific and research achievements and apply them in the field of architecture and town planning	T2A_U10 T2A_U11 T2A_U12
AU2_U11	is duly prepared to work as an architect and town planner, knows the OHS principles applicable to this type of work	T2A_U13
AU2_U12	can draw up an economic analysis of the activities undertaken in architectural designing and town planning	T2A_U14
AU2_U13	can come up with improvements regarding the existing architectural, urban and regional spatial solutions in accordance with the principles of sustainable development, can provide convincing arguments for the the assumed solutions in a public debate	T2A_U12
3) skills directly related to engineering problem solving		
AU2_U14	can come up with improvements regarding the existing architectural, urban and regional spatial solutions	T2A_U15 T2A_U16
AU2_U15	can identify the existing functional and spatial resources, can evaluate these resources and come up with respective conclusions on possible transformations of complex, in this atypical, architectural and urban spatial tasks	T2A_U16 T2A_U17

AU2_U16	can assess the usefulness of methods and tools to be used for the solution of complex architectural designing tasks, complex town planning tasks and complex spatial planning tasks and apply them, with the account for environmental aspects, in this he/she can propose new methods and tools if any limitations of the so far applied methods and tools are observed	T2A_U17 T2A_U18 T2A_U19
AU2_U17	can design the architecture of complex architectural facilities with complex layout of functions, complex structural layout and complex technologies	T2A_U10 T2A_U11 T2A_U16
AU2_U18	can draw up the draft study on the conditions of the district development and the draft of the local zoning plan	T2A_U10 T2A_U11 T2A_U16
SOCIAL COMPETENCE		
AU2_K01	can work on a task, comprising many different problems, in a responsible manner, individually and in a team	T2A_K03
AU2_K02	at the execution of an engineering task/organisational task, he/she can think reasonably and act in a creative, entrepreneurial and innovative way	T2A_K06
AU2_K03	observes the principles of professional ethics; is responsible for the reliability of the obtained results of his/her work and their interpretation	T2A_K05
AU2_K04	understands the need of continuous updating and supplementing his/her knowledge as well as the need of the improvement of professional and social competences	T2A_K01
AU2_K05	is aware of the importance of non-technical aspects and effects of engineering activities, in this impact upon the environment and liability for environment affecting decisions	T2A_K02
AU2_K06	is aware of the social and humanistic aspects of the architect's work - a profession of public trust	T2A_K07
AU2_K07	can respectively determine priorities for the execution of goals set by himself/herself or by others; is fully aware of the importance of professional conduct;	T2A_K04