

<b>COURSE DESCRIPTION CARD</b>			
The name of the course/module <b>THEORY AND PRINCIPLES DESIGNING HOUSING ARCHITECTURE 2 ARCHITECTURAL DESIGN OF HOUSES 2</b>			Code <b>A_K_1.5_002</b>
Main field of study <b>ARCHITECTURE</b>		Educational profile (general academic, practical) <b>general academic</b>	Year / term <b>III/5</b>
Specjalization -		Language of course: <b>Polish</b>	Course (core, elective) <b>core</b>
Hours Lectures: <b>30</b> Classes: - Laboratory - Projects / seminars: <b>45</b> classes:			Number of points <b>1+5</b>
Level of qualification: <b>I</b>	Form of studies (full-time studies/part-time studies) <b>Full-time studies and part-time studies</b>	Educational area(s) <b>Technical Sciences</b>	ECTS distribution (number and %) <b>6 100%</b>
Course status in the studies' program (basic, directional, other) <b>directional</b>		(general academic, from a different major) -	
<b>Lecturer responsible for course:</b> <b>dr inż. arch. Mieczysław Kozaczko</b> e-mail: mieczyslaw.kozaczko@put.poznan.pl Faculty of Architecture ul. Nieszawska 11A, 61-021 Poznań tel.: 061 665 33 05		<b>Lecturer:</b> <b>dr inż. arch. Mieczysław Kozaczko</b> e-mail: mieczyslaw.kozaczko@put.poznan.pl Faculty of Architecture ul. Nieszawska 11A, 61-021 Poznań tel.: 061 665 33 05	
<b>Prerequisites defined in terms of knowledge, skills, social competences:</b>			
1	<b>Knowledge:</b>	<ul style="list-style-type: none"> <li>▪ student has explicit, theoretically based knowledge including the key issues of architectural designing,</li> <li>▪ student has basic knowledge on modern trends in architectural designing,</li> <li>▪ student has basic knowledge in the understanding of social, economic, legal and other determinants outside the engineering activity of architectural designing,</li> </ul>	
2	<b>Skills:</b>	<ul style="list-style-type: none"> <li>▪ student can acquire information from field specific literature, data bases and other properly selected Polish and English sources, can integrate the acquired information, interpret and draw conclusions and come up with opinions supported with satisfactory reasons,</li> <li>▪ student can carry out critical functional analysis and assess the existing solutions, systems and processes,</li> <li>▪ student can identify and draw up specification of practical tasks in the scope of architectural designing,</li> <li>▪ designing facilities on the scale of single apartment and detached house,</li> </ul>	
3	<b>Social competences</b>	<ul style="list-style-type: none"> <li>▪ student understands the need for lifelong learning; can inspire and organize process of learning other people,</li> <li>▪ student 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,</li> <li>▪ student can work and cooperate in the group, assuming a number of different roles therein,</li> <li>▪ student correctly identifies and resolves dilemmas related to different spatial situations on the architectural scale.</li> </ul>	
<b>Objective of the course</b>			
<ul style="list-style-type: none"> <li>▪ knowledge of issues, contemporary tendencies and trends in architectural designing of housing,</li> <li>▪ improving the ability to identify the formal and legal location conditions, interpretation of project higher row (so-called "excerpt and map extract" or administrative decision concerning terms of construction and land</li> </ul>			

<p>management),</p> <ul style="list-style-type: none"> <li>▪ improving the ability to identify potential of localization: analysis of different connections, the values of existing and surroundings conditions such as: cultural context, existing functional problems and social and economic aspects,</li> <li>▪ improving the ability to using the tools and techniques of quantitative and qualitative analyses in design practice, improving the ability to obtaining the functional and metric parameters to designing the architectural facility in specific location,</li> <li>▪ improving the ability to construct the usable program of facility with complex function, improving the ability to functional integration of facility and environment,</li> <li>▪ improving the ability to methodical and creative thinking in designing process of architectural facility with residential function, the immediate environment devices and the parcel territory development,</li> <li>▪ improving the ability to processing and use the geometry principles and technical methods to forming the complex composition and masses tectonics, using this principles for fusion of functions, form and construction and embed the composition in specific building technology,</li> <li>▪ improving the ability to simulation and multi-variant designing the architectural conception, improving the ability to parametric designing,</li> <li>▪ knowledge of modern method of searching the innovative architectural solutions,</li> <li>▪ obtaining the ability to creative look at form, function and building construction in the spatial and cultural context.</li> </ul>		
<b>Learning outcomes</b>		
<b>Knowledge:</b>		
W01	Student has explicit, theoretically based knowledge including the key issues and has detailed knowledge of selected issues of the theory of architectural designing	AU1_W01
W02	Student has knowledge in the scope of housing, knows the principles of designing residential architecture	AU1_W15
<b>Skills:</b>		
U01	Student can prepare and present oral presentations as well as a well-documented elaborations on issues related to architecture in Polish and English	AU1_U03
U02	Student can communicate using different IT tools in the professional environment and in other environments	AU1_U05
U03	Student can use means of artistic expression, typical for the execution of tasks of designing an architectural composition	AU1_U07
<b>Social competences:</b>		
K01	Student understands the need of continuous self-education (1st and 2nd degree studies, post-graduate studies) - improvement of professional, personal and social competences	AU1_K03
K02	Student is aware of the social and humanistic aspects of the architect's work - a profession of public trust	AU1_K09
<b>The evaluation methods:</b>		
<p><b>The evaluation methods – classes:</b></p> <p>Checking the learning outcomes takes place in three stages:</p> <p>1. In continuous process during design classes: There is carried out during individual correction, which is necessary due to the nature and diversity of design topics. The correction concentrate on individual topic, is carried out however in the presence of all group, what allow to classes participants to generalize their own design experiences and obtaining wider perspective for its distinct design actions.</p> <p>2. During partial reviews: There are checked both analytical and synthetic decisions, making by student during classes. Partial reviews taking place after reaching the mutual coherence of individual decisions, optionally analyzed and making during student individual work. Analytic decisions (separation of existing values) and synthetic decisions (merger of existing values with added) consist on design architectural conception of increasing scale of minuteness of detail. During design classes related to housing architecture are necessary two partial reviews checking the current work progress of student. The form of reviews – presentation of individual conceptions in the forum of group and critical analysis of effects during joint discussion. Partial review ends with grade. The average of these grades consist on final assessment.</p> <p>3. During final review: Final review concerns effects of whole semester work. Projects, in the form of developed and finished large-format boards are compiled and compared to each other during the individual presentations in the form of defense of project. Boards format and scope of issues being assessed is uniform, enabling the relative</p>		

assessment – by comparing the works effects in whole design group. The element of projects defense is discussion in the forum of group and final assessing by lecturer, with the account for average of assessments from partial reviews.

Final grading scale: 2,0; 3,0; 3,5; 4,0; 4,5; 5,0

**Positive grade for module depends on achieved by student all learning outcomes specified in the syllabus.**

### Course contents

#### Course contents – lectures:

#### Course contents – classes:

Semester exercise includes implementation of conceptual project of residential buildings complex with basic structure of associated functions, located in compact or isolated settlement in full adaptation to environment.

#### Analytical part:

- the analysis of situational and altitude maps and other cartographic data (orthophotos, aerial and satellite photos),
- qualitative analyses: observation studies, analysis of compositional connections, studies of architectural environment and *genius loci*, documentation of landscape values,
- quantitative analyses: studies of land absorptiveness, identification of localization, functional connections with environment, pedestrian and roads pathways, identification of service infrastructure,
- obtain current local legislation, short analysis of terms of construction and land management, SWOT analysis and determination of the profile of facility which is the subject of design,
- determination of social structure of destination users.

#### Synthetic (design) part:

Defining the architectural form in multi-variant iterative process, comprising the following steps:

- creation of functional program the designed complex, division of facility and parcel territory on functional zones,
- assignment of appropriate formal usable models (partial functional solutions) to functional zones,
- converting selected in previous step usable models on facility tectonics (including the environment) and its compositional structure (converting the usable syntax to formal syntax)
- finding the architectural language appropriate for adopted formal decisions,
- technological merger of form and complex function in integral architectural composition by selection of relevant techniques of facility realization (the appropriate construction and technical equipment of building, adequate elements of land management – floors, greenery, lighting and facilities such as e.g. playground for children, rubbish heap),
- technical record of facility in the form of architectural design (including project of land management),
- presentation of architectural design using selected graphical methods and means of communications, under standardized (boards format, the model of designed facility on the parcel)
- analysis of projects implemented in student group, discussion of colleagues presentations,

#### Basic bibliography:

- Alexander Ch., Język wzorców, GWP, 2008
- Bonenberg W., Przestrzeń publiczna w osiedlach mieszkaniowych. Metoda analizy społeczno-przestrzennej, WA Politechnika Poznańska, 2007
- Fikus, M., Przestrzeń w autorskich zapisach graficznych, WPP, 1991
- Grandjean E., Ergonomia mieszkania, Arkady, 1978
- Neufert E., Podręcznik projektowania architektonicznego, Arkady, 1995
- Peters P., Rosner R., Małe zespoły mieszkaniowe, Arkady, 1983
- Porębski M., Ikonosfera, PIW, 1987
- Rewers E. (red.), Przestrzeń, filozofia, architektura, Humaniora, 1995
- Witruwiusz, Dziesięć ksiąg o architekturze, PWN, 1956
- Yi - Fu Tuan, Przestrzeń i miejsce, PIW, 1987
- Żórawski J., O budowie formy architektonicznej, 1962
- Warunki techniczne, jakim powinny odpowiadać budynki i ich usytuowanie (Dz.U.)

#### Supplementary bibliography:

- Czarnecki W., Planowanie miast o osiedli, PWN, 1965
- Jodidio P., Architecture Now!, Taschen, 2011
- Nowa Karta Ateńska. Wizja miast XXI wieku. 2003.
- Ustawa Prawo Budowlane (Dz.U.)
- Ustawa o planowaniu i zagospodarowaniu przestrzennym (Dz.U.)

### The student workload

Form of activity	Hours	ECTS
Overall expenditure	167	6
Classes requiring an individual contact with	84	3

teacher		
Practical classes	83	6

**Balance the workload of the average student**

Form of activity	Number of hours
participation in lectures	30 h
participation in classes/ laboratory classes (projects)	45 h
preparation for classes/ laboratory classes	13 x 3 h = 39 h
preparation to colloquium/final review	24 h
participation in consultation related to realization of learning process	7 x 1 h = 7 h
preparation to the exam	20 h
attendance at exam	2 h

Overall expenditure of student:

**6 ECTS credits**

**167h**

As part of this specified student workload:

- activities that require direct participation of teachers:

30 h + 45 h + 7 h + 2 h = **84 h**

**3 ECTS credits**