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| **Bialystok University of Technology** |
| **Field of study** | **Architecture** | **Degree level and****programme type** | Engineer's / Master degree Erasmus + Program |
| **Specialization / diploma path** | **---** | **Study profile** | academic |
| **Course name** | Architectural Design - Housing design I | **Course code** | **IS-FA-00043W** |
| **Course type** | electiv |
| **Forms and number of hours of tuition** | L | C | LC | P | SW | FW | S | **Semester** | **---** |
|  |  |  | **75** |  |  |  | **No. of ECTS credits** | **12** |
| **Entry requirements** | **---** |
| **Course objectives** | The theoretical aim is to familiarize students with the main problems related to architectural design of house including spatial, social, technical, functional and theoretical aspects. The practical objective is to exercise the execution of architectural conceptual drawings of a unique house. Skills to be acquired: \* experience in the analyses and assessment of housing; \* skills for preparation of an architectural program; \* skills of conceptual, functional, spatial and structural design; \* research abilities related to the field of human inhabitation assessment. |
| **Course content** | This course acquaints students with different concepts of house located in a natural environment. Students may have various level of preparation and training - this is the reason course is divided for different levels. The main task in accordance with the level of knowledge declared by the student – optional : beginner students - single-family house / intermediate - multi-generational home / advanced - house for independent elderly people.1. Single-family house - The main task is to design a house with the IDEA ( something non-obvious, special, unique, unusual ). For Example: house in a unique location (house on the cliff, on the coast, in the woods,…), house with unusual inhabitant and function (painter - a house with a studio and gallery, an astronomer - a house with a watchtower, swimmer - house with swimming pool 25m in length, …), house with unusual function/form (mobile house, transformable house, adaptable house, floating house, bridge house, tower house, …)
2. Multi-generational home - The main task is to design a house for big famili where different generations live together but separately . Functional plan should consiste at least two apartments for two families ( family with children 2+2 and grandparents ). The house can be one-storey or multi-storey (but grandparents should have an apartment on the ground floor), some functions may be shared by both families. There should be a connection between the apartments inside the house.
3. House for the elderly - house for 8 independent elderly people who live together on the basis of: mutual self-help, affordable architecture , and co-living. The functional plan should consist of individual bedrooms (single and double) with bathrooms, and a common day zone for all residents. In addition, it can have a guest room, hobbyroom, etc ... The house should be one-storey, and if located in the city, can be a multi-storey with elevator.
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| **Teaching methods** | Design classes, self-presentation, discussion, |
| **Assessment method** | Assessment based on the final design evaluation (60%), 3 small design tasks (20%), self-presentation (10%) and mid-term evaluation (10%). |
| **Symbol of learning outcome** | **Methods of assessing the learning outcomes** | **Type of tuition during which the****outcome is assessed** |
| **EU1** | the student knows the most important achievements in the field of single-family housing architecture of the 20th and 21st centuries, is aware of contemporary trends in design | A1\_W01, A1\_W09 |
| **EU2** | knows the typology of single-family housing, the principles of shaping single-family housing complexes and plot development, can apply the provisions contained in the technical conditions to be met by single-family buildings and their location | A1\_W01, A1\_W06, A1\_U11 |
| **EU3** | is able to design a single-family house taking into account the objective and subjective needs of the user, adapting the form to the spatial and cultural context | A1\_W05, A1\_W06, A1\_U02, A1\_U05, |
| **EU4** | is able to use building materials and construction elementsappropriate to the form and the intended aesthetic effect of the designed object | A1\_W06, A1\_U02, A1\_U07, A1\_U11 |
| **EU5** | is able to prepare architectural and construction documentation for a single-family building and a plot development design, taking into account the multi-sector aspect of design | A1\_W06, A1\_W11, A1\_U07, A1\_U11 |
| **EU6** | understand the complexity of the issues of shaping the housing environment and the designer's responsibility for its quality, is aware of non-technical aspects and effects of design activities | A1\_K01 |
| **Symbol of learning outcome** | **Methods of assessing the learning outcomes** | **Type of tuition during which the****outcome is assessed** |
| **EU1** | evaluation of small introductory design tasks, | P |
| **EU2** | assessment of design solutions in the mid-term and final project | P |
| **EU3** | documentation and presentation of the final project | P |
| **EU4** | discussion | P |
| **Student workload (in hours)** | **No. of hours** |
| **Calculation** | participation in design classes  | 75 |
| own work on the project (homework) | 35 |
| preparation of the final study (boards + mockup + description) | 25 |
| participation in final presentation | 5 |
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| **TOTAL:** | **140** |
| **Quantitative indicators** | **HOURS** | **No. of ECTS****credits** |
| **Student workload – activities that require direct teacher participation** | **80** | **6,8** |
| **Student workload – practical activities** | **140** | **12** |
| **Basic references** | 1. Levitt D., Bernstein L., The Housing Design Handbook. A guide to good practice, Routledge, Taylor & Francis Group, New York 2010.
2. Schleifer S., Minimalist houses, Taschen 2006.
3. Welsch J., Modern House, Phaidon, Londyn 2004.
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| **Supplementary references** | 1. Frampton K., The Twentieth-century American house: masterworks of residential architecture, Thames and Hudson, London 1998.
2. Friedman M., Frank Gehry :The Houses, Rizzoli, New York 2009.
3. Jodido Ph., Tadao Ando, Taschen, Köln 2001.
4. Pearman H., Contemporary World Architecture, Phaidon, 2002.
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| **Organisational unit****conducting the course** | Department of Housing Architecture | **Date of issuing the programme** |
| **Author of the programme** | PhD, Eng. Arch. Monika Magdziak | **Feb. 17, 2022** |

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW – field work,S – seminar