Attachment no. 5 to ZW 16/2020

Attachment no. **45** to studies program

|  |
| --- |
| **FACULTY OF ARCHITECTURE**  **COURSE SYLLABUS**  Course title in Polish: **Ekologia i architektura krajobrazu**  Course title in English: **Ecology and Landscape Architecture**  Specialization (if applicable): **Architecture**  Profile (if applicable): **Architecture and Urban Design**  Level and form of studies: **2nd level, full-time**  Semester: **2**  Course type: **optional**  Course code**: AUA117738W**  Group of courses: **NO** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Lecture** | **Tutorial** | **Laboratory** | **Project** | **Seminar** |
| Number of hours of organized classes in University (ZZU) | **15** |  |  |  |  |
| Number of hours of total student workload (CNPS) | **25** |  |  |  |  |
| Form of crediting | **Crediting with grade** |  |  |  |  |
| For group of courses mark (X) final course |  |  |  |  |  |
| Number of ECTS points | **1** |  |  |  |  |
| including number of ECTS points for practical (P) classes | **1** |  |  |  |  |
| including number of ECTS points for direct teacher-student contact classes or other people conducting classes (BU) | **0,8** |  |  |  |  |

|  |
| --- |
| **PREREQUISITES RELATED TO KNOWLEDGE, COMPETENCES AND SOCIAL SKILLS** |
| **No prerequisites.** |

|  |
| --- |
| **COURSE OBJECTIVES** |
| **C1** broadening the knowledge of landscape structures and elements as well as ideas, standards and good practices in shaping space in a manner consistent with the principles of sustainable development.  **C2** developing the ability to critically evaluate contemporary landscape structures for the purposes of architectural and urban design and heritage protection.  **C3** developing social attitudes related to the designer's sense of responsibility for shaping elements of the environment, including the urban one. |

|  |
| --- |
| **COURSE LEARNING OUTCOMES** |
| **Relating to knowledge:**  1.1.5) The graduate knows and understands relations between man and architecture and between architecture and the surrounding environment, and the necessity to adapt architecture to human needs and scale.  1.1.7) The graduate knows and understands methods and measures for the implementation of ecologically responsible and sustainable design and the protection and conservation of the surrounding environment.  B.W3. The graduate knows and understands the role and importance of the natural environment in architectural and urban design and in spatial planning, as well as the need to create spatial order, sustainable development, and issues associated with threats to the environment and the cultural landscape.  **Relating to competences:**  B.U2. The graduate is able to recognize the importance of non-technical aspects and effects of an architect’s design work, including its impact on the cultural and natural environment, and take responsibility for his or her technical decisions in the environment and for transmitting the cultural and natural heritage to the next generations.  B.U3. The graduate is able to recognize systemic and non-technical aspects, including environmental, cultural, artistic, economic and legal aspects, in the process of architectural and urban design and urban planning that has a high level of complexity.  **Relating to social skills:**  B.S1. The graduate is ready to formulate information and opinions and inform the society about the achievements of architecture and urban design, their complex determinants, and other aspects of an architect’s professional work. |

|  |  |  |
| --- | --- | --- |
| **PROGRAMME CONTENT** | | |
| **Form of classes - lectures** | | **Number of hours** |
| Lec 1 | Presentation of the didactic objectives and the content of the lecture, discussion of the rules for passing the course and assessment criteria. Introduction to the subject matter – overview of the basic concepts. The theory of sustainability: convention, tradition and innovation. Design sustainable in a legal and ethical context. | 2 |
| Lec 2 | Characteristics of the climate of urbanized areas – determinants and tendencies. Urban Heat Island, ventilation in dense built-up areas. The architectural object and its surroundings as elements shaping the urban microclimate. Tools for evaluating design solutions. Climate models. | 2 |
| Lec 3 | Acquiring information about the natural environment as part of pre-design studies and analyses. Data repositories and open data in landscape architecture. Social media in landscape research. Digital methods in design practice. | 2 |
| Lec 4 | The city as an ecosystem. The structure and functioning of natural systems in urbanized areas. Principles of shaping building components and their surroundings in order to support biodiversity. The architect's responsibility for the welfare of the natural environment. | 2 |
| Lec 5 | Contemporary standards of landscape architecture. Design based on the principles of ecology. Stability and dynamics of the site development design elements. Rational management of resources in design practice. Scenarios for the development of landscape architecture objects – environmental and economic aspects. | 2 |
| Lec 6 | Interdisciplinarity in landscape architecture. Influence of other disciplines on trends in architectural and urban design. Contemporary directions of cities’ development – *urban forest, farmscapes* – urbanized space as a place for the implementation of sustainable development postulates. | 2 |
| Lec 7 | Landscape as an idea carrier. Principles of landscaping based on the place tradition. The relationship between the scale and the designed functional and spatial layout of the site of interest. | 2 |
| Lec 8 | Final test. | 1 |
|  | **Total hours** | **15** |

|  |
| --- |
| **TEACHING TOOLS** |
| **N1** - Informative lecture.  **N2** - Informative lecture with elements of problem lecture.  **N3** - Problem lecture. |

|  |  |  |
| --- | --- | --- |
| **ASSESSMENT OF ACHIEVEMENT OF LEARNING OUTCOMES** | | |
| **Evaluation** (F – forming (during semester), C – concluding (at semester end) | Number of learning outcome | Method of assessing the achievement of learning outcome |
| F1 | 1.1.5)  1.1.7)  B.W3.  B.U2.  B.U3.  B.S1. | written colloquium |
| **C = F1** | | |

|  |
| --- |
| **BASIC AND ADDITIONAL LITERATURE** |
| **basic LITERATURE:**   1. *Zrównoważony Rozwój – Zastosowania*, Bergier, T., Kronenberg, J. (red.), cz. 1-6. Kraków 2010-2018. https://sendzimir.org.pl/publikacje/magazyn-zrz/ 2. Bőhm, A., *Planowanie przestrzenne dla architektów krajobrazu: o czynniku kompozycji*, Kraków 2006. https://repozytorium.biblos.pk.edu.pl/resources/25815 3. Chmielewski, T. J., *Systemy krajobrazowe: struktura – funkcjonowanie – planowanie*, Warszawa 2012. 4. *Kształtowanie krajobrazu: idee, strategie, realizacje,* Drapella-Hermansdorfer, A. (red.), cz. 1, *Saksonia, Brandenburgia, Berlin*, Wrocław 2004. https://www.dbc.wroc.pl/publication/29276 5. *Kształtowanie krajobrazu: idee, strategie, realizacje*, Drapella-Hermansdorfer, A. (red.), cz. 2: *Londyn i okolice*, Wrocław 2005. https://www.dbc.wroc.pl/publication/29275 6. Gehl, J., *Życie między budynkami. Użytkowanie przestrzeni publicznych*, Kraków 2009. 7. Gehl, J., *Miasta dla ludzi*, Kraków 2014. 8. Lynch, K., *Obraz miasta*, Kraków 2011. 9. Rychling, A., Solon, J., *Ekologia krajobrazu*, Warszawa 2011. 10. *Thinknature Nature-Based Solutions Handbook*, Somarakis, G., Stagakis, S., Chrysoulakis, N. (red.), Chania 2019. https://platform.think-nature.eu/system/files/thinknature\_handbook\_final\_print\_0.pdf   **additional LITERATURE:**   1. Antrop, M., Van Eetvelde, V. *Landscape Perspectives: The Holistic Nature of Landscape*, Nowy Jork 2018. 2. *Błękitno-zielona infrastruktura dla łagodzenia zmian klimatu – katalog techniczny*, Bergier, T., Kowalewska, A., (red.), Berlin, Kraków 2019. https://sendzimir.org.pl/wp-content/uploads/2019/12/B%C5%82%C4%99kitno-zielona-infrastruktura-dla-%C5%82agodzenia-zmian-klimatu-w-miastach-katalog-techniczny.pdf 3. *Routledge Research Companion to Landscape Architecture*, Braae, E., Steiner, H. (red.), Abingdon, Oxon, New York 2018. 4. *Research in landscape architecture: methods and methodology*, Brink, A. van den, Bruns, D., Tobi, H., Bell, S. (red.), Abingdon, New York 2017. 5. *Sztuka ogrodów w krajobrazie miasta. Miejskie przestrzenie publiczne i rekreacyjne. Współczesne tendencje projektowe*, Drapella-Hermansdorfer, A., Gospodarczyk, F., Wojtyszyn, B. (red.), Wrocław 1997. 6. *Catalogue of Nature-based solutions for urban regeneration*, Morello, E., Mahmoud, I. (red.), Mediolan 2019. http://www.labsimurb.polimi.it/nbs-catalogue/ 7. Sorvig, K., Thompson, J. W., *Sustainable Landscape Construction, Third Edition: A Guide to Green Building Outdoors*, Waszyngton 2018. 8. Stahlschmidt, P., Swaffield, S., Primdahl, J., Nellemann, V., *Landscape Analysis. Investigating the Potentials of Space and Place*, Abingdon 2017. 9. Zimmermann, A., *Constructing Landscape: Materials, Techniques, Structural Components*, Basel 2009. 10. Zimmermann, A., *Planning Landscapes. Dimensions, Elements, Typologies.* Basel 2014. |

|  |
| --- |
| **COURSE SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)** |
| **dr inż. arch. kraj. Aleksandra Gierko**  aleksandra.gierko@pwr.edu.pl |