



COURSE DESCRIPTION CARD - SYLLABUS

Course name

USER-CENTERED DESIGN - SENSORY, EMOTIONAL EXPERIENCE AND INTERACTION DESIGN
PARADIGMS [S5AIU>PZU]

Course

Proposed by Discipline

–

Year/Semester

2/3

Level of study

Doctoral School

Course offered in

English

Form of study

full-time

Requirements

elective

Number of hours

Lecture

4

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

0

Number of credit points

1,00

Coordinators

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Lecturers

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Prerequisites

Knowledge: student has a basic knowledge of social, economic, legal and other determinants outside the engineering activity and understanding of contemporary changes in Europe and worldwide determined by the need to provide sustainable development. Skills: communication skills, competence in critical analysis, ability to contribute to scientific discourse. Social competencies: student understands the need for lifelong learning, is aware of the need for interdisciplinary research and the social role of science.

Course objective

Gaining in-depth knowledge of the importance of interdisciplinary spatial planning and city management in reference to the contemporary requirements. Gaining a complete knowledge and understanding the importance of a critical approach to the topic. Understanding a significance of social responsibility and inclusiveness within design process.

Course-related learning outcomes

KNOWLEDGE

fundamental dilemmas of the contemporary civilization, SzD_W05

economic, legal, ethical and other vital conditions related to scientific activity, SzD_W06

basic principles of knowledge transfer to the economic and social sphere as

well as those of commercialization of results of scientific activities and knowhow related to these results, SzD_W07

SKILLS

communicate on specialist issues on the level that allows active participation in the international scientific community, SzD_U04

share results of scientific activity also in a popular form, SzD_U05

initiate debates, SzD_U06

take part in scientific discourse, SzD_U07

SOCIAL COMPETENCIES

critically assess achievements within a given scientific discipline, SzD_K01

critically evaluate their own contribution to development of a given scientific discipline, SzD_K02

acknowledge the importance of knowledge in solving cognitive and practical problems, SzD_K03

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Completeness and relevance of knowledge - presence during the lectures.

Critical analyses and study of the research related to the topic - problem solving and its presentation during a workshop part.

over 50% – 60.0%: 3.0

over 60% – 70.0%: 3.5

over 70% – 80.0%: 4.0

over 80% – 90.0%: 4.5

over 90% – 100%: 5.0

Programme content

Contemporary product and service design is evolving from aesthetic form toward deep empathy, underpinned by the User-Centered Design (UCD) paradigm. The lecture examines the shift from designing for the "average user" to universal and inclusive design strategies.

The main goal is to demonstrate the difference between these approaches: while universal design strives to create a single solution accessible to all without adaptation (in line with the 7 principles of The Center for Universal Design), inclusive design focuses on the process of engaging marginalized groups to eliminate barriers resulting from permanent, temporary, or situational disabilities. The "Solve for one, extend to many" methodology, pointing out that solutions designed for minorities often improve the well-being of the entire population. The final conclusions emphasize that inclusivity is not merely an ethical obligation, but a key factor for innovation and market success in the 21st century.

Course topics

Contemporary design considers to go far beyond functionality, focusing on the multidimensional understanding of a human being. There are underlined paradigms of designing sensory and graphic applications, where the product becomes a carrier of stimuli that influence the user's mood and recall. A key element is Emotional Design (as conceptualized by Donald Norman), which divides the process horizontally: visceral, behavioral, and reflective.

An essential idea is to integrate these experiences with the hard features of ergonomics. Design must include an explanation of the physical and cognitive limitations of the human body, which includes safety and use. The services of anthropometry and the role of affordances—a characteristic of an object responsible for its proper operation are discussed. The holistic approach allows for the creation of products that are not only comfortable and practical but also build upon the potential for use with the user.

Teaching methods

Lecture: multimedia presentation including illustrations and examples, open discussion and brainstorming related to the topic of the lecture.

Bibliography

BASIC:

Choi, J., Kim, S., Min, D., Lee, D., & Kim, S. (2016). Human - centered designs, characteristics of urban streets, and pedestrian perceptions. *Journal of Advanced Transportation*, 50(1), 120-137.

Still, B., & Crane, K. (2017). *Fundamentals of user-centered design: A practical approach*. CRC press.

Lucchi, E., & Delera, A. C. (2020). Enhancing the historic public social housing through a user-centered design-driven approach. *Buildings*, 10(9), 159.

Landa-Oregi, I., Gonzalez-Ochoantesana, I., & Anaya-Rodriguez, M. (2025). Understanding the engagement of citizens in the regeneration of urban spaces through human-centered design: A systematic literature review. *Cities*, 106414.

ADDITIONAL:

Każmierczak B., Nowak M., Palicki S., Pazder D., *Oceny rewitalizacji: studium zmian na poznańskiej Śródcie*, Poznań, Polska: Wydawnictwo Wydziału Nauk Społecznych UAM, 2011.

Kotus J., Sowada T., Rzeszewski M., Pazder D., *Zapraszamy Państwa do rozmów... : wędrówki po labiryncie wielkomiejskiej partycypacji*, Poznań, Polska: Bogucki Wydawnictwo Naukowe, *Studia i Prace z Geografii*, 2019.

Cysek-Pawlak, M. M., & Pabich, M. (2021). Walkability—the New Urbanism principle for urban regeneration. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 14(4), 409-433.

Camrass, K. (2022). Urban regenerative thinking and practice: a systematic literature review. *Building Research & Information*, 50(3), 339-350.

Designation of creative syntax as a tool for revitalizing downtown area in spatial and socio-economic aspects / Dominika Pazder (WA) // *Architectus* - 2024, no. 4(80), s. 110-120

Powiązania pomiędzy planowaniem urbanistycznym opartym na dowodach naukowych a poczuciem dobrostanu użytkowników przestrzeni na przykładzie ulicy Święty Marcin w Poznaniu / Patrycja Pelikant (WA), Dominika Pazder (WA) // *Zeszyty Naukowe Politechniki Poznańskiej. Architektura, Urbanistyka, Architektura Wnętrz* - 2025, nr 22, s. 213-237

Child-friendly spaces: an assessment of play areas using the example of Strzeszyn in Poznań – an approach based on Plan for Play in public spaces, 2030 horizon in Barcelona methodology / Paulina Otto, Dominika Pazder (WA) // *PUA - Przestrzeń-Urbanistyka-Architektura* - 2026, vol. 1, s. 252-299

Breakdown of average student's workload

	Hours	ECTS
Total workload	21	1,00
Classes requiring direct contact with the teacher	4	0,00
Doctoral student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation)	21	1,00