Name **Psychology in Design: *Our analogue brain in the digital Age***

Classroom ☒
Studio or workshop ☐
External venue ☐
Online ☐

Codes B-SZ-401-DI-202401-06, M-SZ-301-DI-202401-06, M-SZ-E-301-DI-202401-06

Host **Design Institute**

Basic info

Type	ECTS	Contact hours	Student work	Course type	Semester	Unit
Term mark	**5**	**24**	**126**	**seminar2**	**024/2025/1**	**Elective**

Recommen-dation

Especially for interaction design, design, graphic design, media design

Students form other programmes are also welcomed

Short Description

The course explores the consequences of human psychology to UX and general design practices. The aim is for designers to understand how the brain works, what biases do humans have from perception to social dynamics. This knowledge could help them to create solutions that does not exploit these biases and remain ethical.

Our brain is a dynamic non-linear system, similar to the motion of stars, weather, and many other phenomena. The absurd thing is that we cannot grasp such systems fully. Still, the study of the brain and psychology revealed many crucial findings regarding how we are determined by the limits of our biology and culture. In the course, we will explore such concepts. For example, did you know that there seems to be two main factors in our behavior and they might be the basis of personality? Or that the study of illusion is one of the best tools to study perception, because the brain interprets the same stimuli differently? Also, our environment and context might be more important in how we behave than our personality… Understanding these will help you design better solutions for humans taking into account all living and non-living beings we share our habitat with.

Teachers

Name	Contact information	Short bio	Open hours
Dávid Farkas PhD	farkas.david@mome.hu	Research psychologist, works as the head of data science @MOME	Upon request in Teams/e-mail

Semester schedule

Course scheduling	Weekly class appointments
on Thursdays	16.40-18.00

#	Date	Weekly educational content
1	12nd Sep	Introduction to the class and psychology (just so that you can decide whether it's the right course for you)
2	19th Sep	Warm-up: Constraints (why is psychology relevant for design)
3	26th Sep	*Home assignment #1*
4	3rd Oct	Cognitive psychology (1): Perception, attention, executive functions
5	10th Oct	Cognitive psychology (2): Memory and emotions
6	24th Oct	Social and personality psychology (1)
7	31st Oct	Social and personality psychology (2)
8	7th Nov	*Home assignment #2*
9	14th Nov	Vulnerable groups: Clinical and developmental psychology
10	21st Nov	Macro scale: ethics, nonlinearity, science
11	28th Nov	*Grading presentations*
12	5th Dec	Cooldown: An extra topic of your interest/choice

13		
14		
15		

Requirements and evaluation

Assignments	Evaluation criteria	Deadline	% in evaluation
During the semester, students have to complete a project. The project has to be a rework of an existing design (their own or something on the web). They have to analyze what types of biases that design/product exploit and then redesign it (as a plan, principles are more important, doesn't have to be a finalized product))to be ethical and not capitalize on the weaknesses of the human brain. This have to be summarized in a short, maximum three minute long presentation	Time managmenet Identification of psychological biases in the design Redesign principles to not exploit these Cohesiveness	27th Nov	30%
	Student evaluation of the project along the same criteria as the teacher evaluation	28th Nov	30%
Interim assignment #1 (details TBD)			15%
Interim assignment #2 (details TBD)			15%
Class activity			10%

Compulsory readings

Meadows, D. H. (2008). *Thinking in Systems: A Primer*. Chelsea, Vermont: Chelsea Green Publishing [PDF]
Deyoung, C. G. (2013). The neuromodulator of exploration: A unifying theory of the role of dopamine in personality. *Frontiers in Human Neuroscience*, *7*(762). doi: 10.3389/fnhum.2013.00762

Recommended readings

Gregory, R. L. (1973). *Illusion in Nature and Art*. London: Duckworth.
Oestreicher, C. (2007). A history of chaos theory. *Dialogues in Clinical Neuroscience, 9*(3): 279–289. doi: 10.31887/DCNS.2007.9.3/coestreicher
Civai, C., Hawes, D. R., DeYoung, C. G., & Rustichini, A. (2016). Intelligence and Extraversion in the neural evaluation of delayed rewards. *Journal of Research in Personality, 61*, 99–108. [PDF]
DeYoung, C. G., & Allen, T. A. (2019). Personality neuroscience: A developmental perspective. In McAdams, D. P., Shiner, R. L., & Tackett, J. L. (Eds.). *The Handbook of Personality Development* (pp. 79–105). New York: Guilford Press. [PDF]

Learnings

Knowledge	Students will understand… ● Relevant psychological concepts and interesting facts (cognitive, personality, social, developmental, evolutionary including less known sub-disciplines and theories) ● Theoretical concepts relevant for psychology and design ● Digital and AI ethics
Skills	Students will be able to…

	• Consider psychological implications of design • Use psychology and related concepts to design better applications
Attitude	Students will improve… • Collaborative skills • Self-directed learning • Openness to interdisciplinary aspects of design
Responsibility	Students will learn about long-term responsibility of their design and get a sense on how they should incorporate other disciplines in their work and keep track with their development.

Exemption

☒ Exemption from attending and completing the course cannot be granted
☐ Exemption may be granted from the acquisition of certain competencies and the fulfilment of tasks
☐ Some tasks can be substituted with other activities,
☐ A full exemption can be granted

Curriculum connections

Unit	Parallel courses	Course proportion in unit
	Psychology in Design	

Course prerequisites	Is it available as an elective?	Prerequisites in case of elective
-	Yes	-

Course structure, nature of the individual sessions and their timing

There will be several types of activities:

- Frontal lecture
- Group work within class
- Open discussion

The ratio of these activities will be different based on the actual class/topic

Students are encouraged to read additional materials before the class to bring that information to the group

Students' tasks and responsibilities:

Students are expected to participate in class discussions, hands-on activities and prepare for certain topics beforehand by reading articles, setting up research walls on such topics.

Misc. information

Learning environment: classroom