Psychology of Digital Influence

Curriculum (Syllabus)

Course details	
Level of higher education	*Second (Master's)*
Field of knowledge	*C - social sciences, journalism, information and international relations*
Specialisation	*C5 Sociology*
Educational programme	*Social data analytics*
Status of discipline	*Elective*
Form of study	*Full-time (day)*
Year of study, semester	*1st year, 2nd semester*
Scope of the discipline	*4 ECTS credits/120 hours*
	16 hours of lectures, 30 hours of practical classes, 74 hours of independent work.
Semester assessment/assessment measures	*Test, Modular control work*
Class schedule	*https://schedule.kpi.ua/*
Language of instruction	*Ukrainian*
Information about course leader/teachers	*Lecturer and practical training: Doctor of Sociology, Myroslava Pavlivna Kukhta* *miroslavakukhta@gmail.com*
Course location	*https://classroom.google.com/u/0/c/ODM1MTE3MDA2MDQx?hl=ua*

Curriculum

1. Description of the academic discipline, its purpose, subject matter and learning outcomes

The academic discipline "Psychology of Digital Influence" is aimed at helping master's students master modern approaches to analysing psychological mechanisms of influence in the digital environment, as well as developing the ability to critically interpret the effects of algorithmically mediated communication on individuals and communities. The course combines psychological, socio-psychological and critical-digital perspectives, providing a deep understanding of how platforms, algorithms, personalisation models, interface design and digital content influence the attention, emotions, judgements, behaviour and sense of agency of modern humans.

The course involves analysing concepts of digital socialisation, the attention economy, persuasive and manipulative design, phenomena of digital addiction, fear of missing out (FOMO), anxiety associated with information overload, as well as the psychological consequences of targeted advertising, political microtargeting, disinformation, hate speech, and toxic online interactions. Special attention is paid to the psychology of algorithmic mediation (filter bubbles, recommendation systems, ratings, likes, reposts), the digital vulnerability of different social groups, and strategies for psychologically sound digital hygiene and self-protection.

The subject of study is the psychological mechanisms of formation, maintenance, and transformation of attitudes, emotional states, behavioural patterns, and identities under the influence of digital media and intelligent systems that mediate access to information, communication, and social interaction. Particular emphasis is placed on the relationship between the individual psyche, group dynamics and the architecture of digital platforms, which purposefully construct an environment to retain attention, stimulate engagement and control user behaviour.

Communication with the lecturer takes place during lectures and practical classes, as well as during individual and group consultations according to the schedule posted on the website of the Department of Sociology.

The aim of the discipline is to develop students' ability to integrate psychological and socio-psychological approaches to the analysis of the digital environment, critically evaluate the psychological effects of digital influence on individuals and groups, and apply scientifically based knowledge to interpret, diagnose and mitigate risks associated with algorithmically mediated practices of influence.

In the course of studying the discipline, students also acquire practical skills:

• analyse interfaces, platform mechanics and individual digital products from the perspective of the psychological mechanisms of influence used (persuasion, reinforcement, habit formation, emotional activation, social comparison);

• identify signs of manipulative practices in the digital environment (disinformation, "dark patterns" of design, aggressive targeting, exploitation of vulnerabilities) and formulate scientifically sound strategies for psychological counteraction;

• interpret the psychological consequences of personalisation, filter bubbles, algorithmic sorting, and recommendation content for the formation of ideas about oneself, others, and the world;

• design and conduct basic empirical research on the psychology of digital influence in compliance with ethical requirements for working with respondents and digital data;

• apply the principles of digital hygiene, psychological self-protection and well-being support to develop recommendations for users, communities and institutions on reducing the negative effects of digital influence and strengthening agency in the digital environment.

2. Prerequisites and post-requisites of the discipline (place in the structural-logical scheme of training under the relevant educational programme)

The discipline "Psychology of Digital Influence" is studied after students have completed basic and specialised bachelor's courses that form the theoretical, methodological and analytical foundation for interpreting social and psychological processes in the modern digital environment. First and foremost, these are disciplines such as "General Sociology – 1, 2", "History of Sociology – 1, 2", "Ukraine in the Context of European Historical Development", "General Theory of Development," "Theory and History of Conflict Resolution," as well as other normative and elective courses that provide basic sociological, psychological, historical, and methodological training.

In the structural and logical scheme of the educational programme, the discipline occupies an intermediate place between fundamental sociological training and specialised master's courses focused on the intellectual analysis of social processes and contemporary digital practices. The course is substantively and methodologically related to the disciplines "Computer Analysis of Social Information and Data Visualisation," "Analytical Sociology and Social Behaviour: Contemporary Approaches," and "Foresight Methodology in the Analysis and Modelling of Social Processes." These disciplines provide students with a general framework of digital literacy, methods of social data analysis, and an understanding of how digital tools and intelligent systems transform social interaction.

Mastering the content of the discipline "Psychology of Digital Influence" is an important step for the further academic and professional development of master's level students. Mastering its content allows for more effective perception and analysis of material from other master's level disciplines, contributes to the formation of research competence, and provides a thorough theoretical and practical preparation for writing and successfully defending a master's thesis.

For effective study of the course, students should have basic skills in working with text editors, electronic information databases, and basic tools for searching, processing, and organising digital data. These skills enable

students to work with empirical materials, perform analytical operations and complete practical tasks, which are mandatory components of the discipline.

3. Contents of the academic discipline

1. Psychological mechanisms of the impact of digital environments on humans
2. Cognitive distortions in digital behaviour and algorithmic context
3. Psychology of attention and information overload in the digital age
4. Behavioural design and habit engineering in digital platforms
5. Emotional architecture of interfaces and affective design
6. The psychology of persuasion in algorithmically controlled information flows
7. Algorithmic mediation and personal autonomy
8. Psychology of group behaviour, polarisation and online radicalisation
9. Trust in intelligent systems and the psychology of algorithmic authority
10. Human interaction with intelligent agents
11. Constructing digital identity and the multiplicity of the online self
12. The psychology of platform risks and digital disorders
13. The psychological nature of manipulative mechanisms in digital interfaces
14. Ethical and psychological dilemmas of digital influence and user vulnerability
15. The future of digital influence psychology and the transformation of social behaviour

4. Teaching materials and resources

To successfully study the discipline, it is sufficient to work through the educational material presented in lectures and familiarise yourself with the literature.

Main literature

1. Sociology. Fundamentals of general, special and branch theories. Textbook. Approved by the Ministry of Education and Science of Ukraine. Lukashevich M. P., Tulenkov M. V., Yakovenko Yu. I. Publisher: Karavela. 2024. 544 p.
2. Media literacy: a study guide / Edited by Prokopenko O., Bondar Y. Authors: Bondar Yu., Gorska K., Dutsyk D., Kravchenko O., Kulakov A., Romanyuk A., Yurkova O. Kyiv: State Scientific Institution "Encyclopedic Publishing House", 2025. 136 p.
3. Moskalenko V. P. General Psychology. -. [text]:. V. P. Moskalenko. Kyiv: Lira-K, 2020. 564 p.
4. Kitchin R. The Data Revolution. SAGE Publications, 2021. 296 p.
5. Iliadis A., Russo F. Critical Data Studies. Polity Press, 2022. 224 p.

Supplementary

1. Methodology of Mass Media Research: Handbook / edited by K. G. Sirinok-Dolgareva. Zaporizhia: ZNU, 2017. 156 p.
2. Mishchenko M. Public opinion exists, but can it always be identified // Sociology: Theory, Methods, Marketing. 2022. No. 3. P. 149–160.
3. Onyshchenko O. O. Theories of mass consciousness manipulation: "Overton window and spiral of silence" // Current problems of politics. 2022. Issue 70. P. 55-59.
4. D'Ignazio C., Klein L. Data Feminism. MIT Press, 2020. 328 p.
5. van Dijck J., Poell T., de Waal M. The Platform Society: Public Values in a Connective World. Updated edition, Oxford University Press, 2021.
6. Beer D. The Data Gaze: On Power, Surveillance and the Digital. New edition, SAGE, 2021.
7. Floridi L., Cowls J. Introduction to AI Ethics. Springer, 2023.
8. Rieder B., Hofmann J. Computational Power: Platforms, Users and the Ethics of Algorithms. MIT Press, 2023.
9. Cohen J. N. Adapting to AI: How Will Generative AI Affect Work? How Should We Respond? 2024. DOI: https://doi.org/10.31235/osf.io/ejqan.
10. Wilderom R., Price T., Heitland T. AI-Augmented Cultural Sociology: Guidelines for LLM-assisted text analysis and an illustrative example. DOI: https://doi.org/10.31235/osf.io/tx8jn.

11. Kharchenko V. O. Fundamentals of Machine Learning: Textbook. / V. O. Kharchenko. – Sumy: Sumy State University, 2023. – 264 p.
12. Sociological Metatheorising: History and Modernity / Edited by V. Reznik. Kyiv: Institute of Sociology of the National Academy of Sciences of Ukraine, 2019. 506 p.

Educational content

5. Methods of mastering the academic discipline (educational component)

Lectures

Lecture
Topic 1. Psychological mechanisms of the impact of digital environments on humans
Key questions: The concept of the digital environment as a psychosocial space. Basic psychological mechanisms of influence: attention, emotions, reinforcement, social comparison, normative pressure. Changes in the structure of everyday interaction under the influence of platforms. The digital environment as an "architecture of choice" for the user.
IW: Analysis of one's own daily digital routine: identification of the main channels of influence (messages, feed, recommendations) and description of the corresponding psychological mechanisms (attention, emotions, fear of missing out, social comparison).
Literature: Moskalets, 2020; Sociology, 2024; Media Literacy, 2025; van Dijck et al., 2021.

Lecture 2
Topic 2. Cognitive biases in digital behaviour and algorithmic contexts
Key questions: Cognitive heuristics and biases as the basis for vulnerability to digital influence. Availability heuristic, confirmation bias, repetition effect, plausibility effect, "agreement bias". How algorithms amplify distortions in information perception. Pseudoscientific, conspiratorial, and manipulative content as a test of cognitive resilience.
IW: Give examples of at least three cognitive biases based on your own or public online discussions (comments, posts, news), briefly explaining the mechanism of each bias.
Literature: Moskalets, 2020; Media Literacy, 2025; Mishchenko, 2022; Iliadis & Russo, 2022.

Lecture 3
Topic 4. Behavioural design and habit engineering in digital platforms
Key questions: The concept of behavioural design. Digital triggers, habit loops, mechanisms of instant and delayed reinforcement. Endless feed, push notifications, reaction counters as elements of habit engineering. The psychology of platform addiction. The line between useful engagement and exploitation of user vulnerabilities.
IW:
Analyse two platforms (e.g. Instagram and TikTok) using the following scheme: trigger - action - reward - habit formation. Describe in writing which elements of the interface and system logic support the habit of returning.
Literature: Media Literacy, 2025; van Dijck et al., 2021; Beer, 2021.

Lecture 4
Topic 6. The psychology of persuasion in algorithmically controlled information flows
Key questions: Classical models of persuasion and influence in mass communications. Socio-psychological mechanisms of persuasion: authority, social confirmation, scarcity, emotional pressure, fear, narrative. Algorithmic targeting as an amplifier of persuasive influence. News feeds, political advertising, commercial content: how messages that "work" for different audiences are constructed.
IW: Conduct a microanalysis of your own information feed (news/social media) for the use of persuasion techniques: identify at least three types of influence and illustrate them with examples.
Literature: Media Literacy, 2025; Onishchenko, 2022; Sociology, 2024; van Dijck et al., 2021.

Lecture 5
Topic 8. Psychology of group behaviour, polarisation and online radicalisation
Key questions: Group dynamics in digital spaces: conformity, deindividuation, groupthink. Echo chamber effect, filter bubbles and information segregation. Moral arousal, digital aggression, toxic communication. Psychological mechanisms of gradual online radicalisation and involvement in extremist communities.
IW: Choose one discussion/conflict in the digital environment (comments under a news item, public scandal, polarised topic) and describe manifestations of groupthink, polarisation and emotional escalation.
Literature: Sociology, 2024; Media Literacy, 2025; Beer, 2021; van Dijck et al., 2021.

Lecture 6
Topic 10. Human interaction with intelligent agents
Key questions: Psychological characteristics of interaction with chatbots, virtual assistants, and other intelligent agents. Personification of technologies and attributing intentions to them. Effects of trust, reliance on recommendations, and "delegation" of decisions. The line between instrumental interaction and emotional attachment to agents.
IW: Description of personal experience or case study of interaction with intelligent agents (chatbots, voice assistants, recommendation systems) with a focus on trust, expectations, and disappointment.
Literature: Floridi & Cowls, 2023; van Dijck et al., 2021; Beer, 2021; Kitchin, 2021.

Lecture 7
Topic 12. Psychology of platform risks and digital disorders
Key questions: The concept of platform risks to mental health. Problems of social media addiction, FOMO, compulsive scrolling, gamified behaviour. Cyberbullying, doxing, and hate speech as sources of psychological trauma. Digital disorders as a phenomenon at the intersection of individual vulnerability and platform design.
IW: Prepare a brief overview of one aspect of digital risks (addiction, anxiety, sleep disorders, depressive symptoms), based on available empirical research and publications in scientific/professional sources.
Literature: Moskalets, 2020; Media Literacy, 2025; Beer, 2021; van Dijck et al., 2021; Data Feminism, 2020 (in terms of criticism of structural conditions and inequalities).

Lecture 8
Topic 14. Ethical and psychological dilemmas of digital influence and user vulnerability
Key questions: The concept of user vulnerability in the digital environment. Dilemmas between platform efficiency and the protection of autonomy, privacy, and mental well-being. Algorithmic asymmetries of power: who controls the conditions of influence and who is unable to change them. Psychological consequences of prolonged exposure to a highly digitally influential environment. Questions of responsibility: the user, the platform, the state, expert communities.
Assignment: Write an essay (2-3 pages) on one ethical dilemma of digital influence (e.g., targeting vulnerable groups, political advertising, algorithmic ratings, child audiences) from the perspective of psychology and sociology.
Literature: Floridi & Cowls, 2023; Rieder & Hofmann, 2023; Data Feminism, 2020; van Dijck et al., 2021; Sociology, 2024.

<div align="center">**Seminar (practical) classes**</div>

Seminar 1
Topic 1. Psychological mechanisms of the impact of digital environments on humans
Key questions: Psychological models of digital influence (B. J. Fogg). Mechanisms of behaviour formation in the digital environment: reinforcement, trigger responses, social comparison (L. Festinger). Emotional reactivity as a result of interaction with platforms. Transformation of everyday practices under the influence of the algorithmic environment. Individual differences and their role in the perception of digital stimuli.
IW: Prepare a description of the user's "digital day" with an analysis of the psychological mechanisms that are activated at different moments of interaction.
Literature: Moskalets, 2020; Sociology, 2024; Media Literacy, 2025.

Seminar 2
Topic 2. Cognitive biases in digital behaviour and algorithmic context
Key questions: Availability heuristics and confirmation bias (Amos Tversky, Daniel Kahneman). Halo effect and confirmation bias in personalised feeds. Algorithmic amplification of cognitive errors. The phenomenon of "filter bubbles" (E. Pariser). The line between critical thinking and conspiracy thinking.
IW: Select a digital discussion and identify at least three cognitive biases in user behaviour.
Literature: Moskalets, 2020; Media Literacy, 2025; Mishchenko, 2022.

Seminar 3
Topic 3. The psychology of attention and information overload in the digital age
Key questions: Models of attention (D. Broadbent; A. Treisman). Digital strategies for capturing attention. Information overload (E. Toffler) and its psychological consequences. Micro-switching as a characteristic of modern digital behaviour. The concept of the attention economy in digital environments.
Assignment: Keep an "attention diary" for 3 days and identify moments of greatest vulnerability to information noise.
Literature: Moskalets, 2020; Media Literacy, 2025; Beer, 2021.

Seminar 4
Topic 4. Behavioural design and habit engineering in digital platforms
Key questions: Fogg's behavioural influence model (B = MAP). The habit formation process (Charles Duhigg). Gamification as a reinforcement tool. Exploiting psychological vulnerabilities in platform interfaces. The line between a useful habit and addiction.
IW: Analyse a digital platform using the "trigger – action – reinforcement – habit" model.
Literature: Media Literacy, 2025; van Dijck et al., 2021; Beer, 2021.

Seminar 5
Topic 5. Emotional architecture of interfaces and affective design
Key questions: Paul Ekman's theory of emotions. The influence of colour and micro-animations on the user's emotional state. Principles of affective design. The advantage of emotionally rich content in digital environments. Manipulating the user's mood through interface solutions.
IW: Compare two interfaces and determine what emotional reactions they provoke.
Literature: Moskalets, 2020; Media Literacy, 2025; D'Ignazio & Klein, 2020.

Seminar 6
Topic 6. The psychology of persuasion in algorithmically controlled information flows
Key questions: Six principles of persuasion (R. Cialdini). Social confirmation and scarcity as the basis of digital behaviour. Targeting as a mechanism of personal influence. Models of cognitive vulnerability to persuasion. The line between persuasion and manipulation in a digital context.
IW: Analyse an advertising message and identify the psychological mechanisms of influence.
Literature: Media Literacy, 2025; Onishchenko, 2022; Sociology, 2024.

Seminar 7
Topic 7. Algorithmic mediation and personal autonomy
Key questions: The concept of autonomy in psychology (E. Deci, R. Ryan). Algorithmic mediation as a narrowing of choice space. Practices of delegating decisions to algorithms. The phenomenon of "narrowed horizon" in personalised environments. The impact of predictability of recommendations on the sense of autonomy.
Assignment: Write an essay about a situation in which a recommendation system influenced decision-making.
Literature: van Dijck et al., 2021; Beer, 2021; Floridi & Cowls, 2023.

Seminar 8
Topic 8. Psychology of group behaviour, polarisation and online radicalisation
Key questions: Social identity theory (H. Tajfel). Conformity and deindividuation (P. Zimbardo). Algorithmic amplification of extreme opinions. Emotional escalation in digital groups. Gradual radicalisation under the influence of emotionally charged content.

IW: Analyse an example of an online group or conflict for polarisation.
Literature: Sociology, 2024; Media Literacy, 2025; Beer, 2021.

Seminar 9
Topic 9. Trust in intelligent systems and the psychology of algorithmic authority
Key questions: Mechanisms of trust in technology (B. Reeves / Byron Reeves, C. Nass / Clifford Nass). The concept of algorithmic authority. The role of transparency and interface in building trust. The illusion of neutrality and objectivity of algorithms. Psychological risks of blind trust.
IW: Analyse an intelligent service and identify factors of trust and distrust.
Literature: Floridi & Cowls, 2023; Rieder & Hofmann, 2023; Media Literacy, 2025.

Seminar 10
Topic 10. Human interaction with intelligent agents
Key questions: Media equality theory (Reeves, Nass). Anthropomorphisation of algorithms and the "social presence" effect. Emotional interaction with agents. Psychological risks of interacting with "intelligent" interlocutors. Ethical aspects of human-agent interaction.
IW: Describe your own interaction with an intelligent agent and the emotional reactions that arose.
Literature: Floridi & Cowls, 2023; van Dijck et al., 2021; Beer, 2021.

Seminar 11
Topic 11. Constructing digital identity and the multiplicity of the online self
Key questions: Representing oneself in digital environments. Social comparison and self-esteem. The pressure of digital expectations. Multiple roles on different platforms. Psychological consequences of the disconnect between the online self and the offline self.
IW: Conduct a reflective analysis of one digital profile with an explanation of the mechanisms of self-presentation.
Literature: Sociology, 2024; Media Literacy, 2025; D'Ignazio & Klein, 2020.

Seminar 12
Topic 12. Psychology of platform risks and digital disorders
Key questions: Digital addiction as a psychological phenomenon. FOMO and anxiety. Mechanisms of compulsive message checking. Vulnerable groups and mental health risks. Strategies for preventing digital disorders.
IW: Select one type of risk and describe its psychological nature and possible interventions.
Literature: Moskalets, 2020; Media Literacy, 2025; Beer, 2021.

Seminar 13
Topic 13. The psychological nature of manipulative mechanisms in digital interfaces
Key questions: The concept of manipulation in psychology (H. Schiller). Dark patterns as a way of influencing behaviour. Mechanisms of coercion through design. Exploitation of the user's emotional states. The line between nudging and manipulation.
IW: Analyse the platform interface for manipulative elements.
Literature: Media Literacy, 2025; Onishchenko, 2022; Rieder & Hofmann, 2023.

Seminar 14
Topic 14. Ethical and psychological dilemmas of digital influence and user vulnerability. The future of digital influence psychology and the transformation of social behaviour
Key questions: Ethical risks of targeting and personalisation. Psychological vulnerability of certain groups. Emotional manipulation as a tool of digital influence. The issue of platform responsibility. Psychological consequences of opaque algorithmic control. Emotional and behavioural effects of artificial intelligence development. The transformation of communication in metaverses. Collective action in post-platform environments. New risks to self-regulation and autonomy. Prospects for integrating psychology and sociology into the study of digital influence.

IW: Describe an ethical dilemma from digital practice and identify the psychological risks for the user. Prepare an analytical review of one behavioural transformation caused by intelligent systems.

Literature: Floridi & Cowls, 2023; D'Ignazio & Klein, 2020; Rieder & Hofmann, 2023, van Dijck et al., 2021; Beer, 2021.

Seminar 15
Modular control work

6. Independent work

Independent work includes:
preparation for classroom sessions – 64 hours;
preparation for the Modular control work – 4 hours;
preparation for the test – 6 hours.
Total – 74 hours.

Policy and control

7. Policy of the academic discipline (educational component)

While studying the material of the academic discipline "Psychology of Digital Influence", students complete assignments for seminars, write a Modular control work and take an oral exam (appendixes to the syllabus). These types of work help students consolidate and deepen their theoretical knowledge of specific topics in the module, develop skills for independent work with primary sources, and contribute to the formation of theoretical sociological thinking and imagination.

Attendance and completion of assignments

It will be difficult for students to properly prepare for practical classes and exams if they miss lectures. For students who wish to demonstrate excellent learning outcomes, active participation in lectures is essential. However, it is not necessary to make up for missed lectures.

Active participation of students in practical classes is mandatory. The student's rating will largely be based on the results of their work in practical (seminar) classes. Each missed practical class (regardless of the reasons for the absence) lowers the student's final rating in the discipline.

Students who have missed practical classes can prevent their final rating from being lowered by studying the relevant topics in a timely manner (during the semester) and completing the assignments for the missed classes. There is no need to wait until the exam session to communicate with the teacher. This should be done as soon as the student is ready to demonstrate their knowledge and skills on the missed topics.

The topics and assignments for practical classes are provided in the syllabus, available from the student's personal account in the Moodle or Campus system.

During lectures and practical classes, the use of laptops, smartphones, and written notes is permitted, but only for purposes related to the topic of the class and the corresponding thematic assignment. It is not advisable to answer the teacher's questions by reading from the screen of a smartphone, laptop, textbook or notes. This does not reflect well on the student's level of preparation. Students' answers may be based on the materials at hand, but should not be read from the text.

Forms of work

Lectures and seminars are conducted in accordance with the requirements of regulatory and methodological documents and the student assessment rating system. Lectures use computer presentations highlighting the main points of the topics, taking into account the subject matter of the classes: from textbooks, teaching aids and dictionaries on sociology.

In seminars, students discuss primary source texts and professional commentary on their content. Seminars provide an opportunity to assess, on the one hand, the level of preparation for them (presentations, participation in discussions, expressing one's own opinion) and, on the other hand, to master the tasks of modular control. The results of the student's work are assessed by the teacher according to the current grading system and indicate the effectiveness of the student's work control. The criteria for assessing the performance

of seminar tasks are: logical sequence of answers; completeness of each question; analytical reasoning in the answer; references to sources; validity of personal conclusions.

Procedure for appealing the results of assessment measures

Students have the opportunity to raise any issue related to the assessment procedure and expect it to be considered in accordance with pre-defined procedures. To appeal against an assessment, a student must submit a statement indicating the reason for the appeal and providing evidence of the teacher's bias. The teacher must discuss this application with the student in person during a consultation. If there is no agreement on the result of the assessment, a commission of teachers from the department is formed to evaluate the assessment procedure and the student's claims. The commission may decide to repeat the assessment or reject the application. The commission's decision is final and cannot be appealed.

University policy

Academic integrity

The policy and principles of academic integrity are defined in Section 3 of the Code of Honour of the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". For more information, please visit: https://kpi.ua/code. (other necessary information regarding academic integrity).

Standards of ethical conduct

The standards of ethical conduct for students and employees are defined in Section 2 of the Code of Honour of the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". For more information, please visit: https://kpi.ua/code.

Artificial intelligence policy

The policy on the use of artificial intelligence and its principles are regulated by the order "Policy on the use of artificial intelligence for academic activities at Igor Sikorsky Kyiv Polytechnic Institute". For more details, see: https://osvita.kpi.ua/node/1225.

8. Types of control and the learning outcomes assessment rating system (LOAS)

Assessment and control measures

A student's grade in a discipline consists of points awarded for:
1. answers, problem solving, and additions to other students' answers during discussions in seminars;
2. completion of Modular control work.

A student receives the highest rating if they actively participate in seminars, mainly provide complete and reasoned answers, present them logically, express their own position on discussion issues, and present it clearly and logically.

Proper preparation for a practical class will take an average of 1.5-3 hours.

The lecturer assesses the student's work at each practical class. The final number of points for work in practical classes is posted by the lecturer on the electronic campus.

1. Work in seminars is assessed on a scale of up to 5 points.

The maximum number of points for all practical classes is rsem = 5 points * 14 = 70 points.

Assessment criteria:

"Excellent" 5 points – the student receives this grade when answering most of the questions in the seminar class. An answer is considered complete if the student demonstrates a deep knowledge of the material, presents it logically and consistently, gives reasoned conclusions, freely uses specific data, provides mostly complete and reasoned answers, expresses their own position on controversial issues, and demonstrates signs of theoretical thinking and sociological imagination.

"Good" 4 points – the student participates in the discussion of individual issues of the seminar plan, demonstrates a good level of knowledge of the material.

"Satisfactory" 3 points – the student participates in the discussion of one issue on the seminar plan or demonstrates rather superficial knowledge, does not express their own position on the issues under discussion.

"Unsatisfactory" – no answers – 0-2 points.

2. Modular control work

The MCT involves writing an essay on one of the topics listed in Appendix 1.

Weighting – 30 points.

The essay is assessed according to the following criteria:
"excellent" – 27-30 points – the student formulates accurate definitions, provides theoretically sound arguments on the topic of the essay, and demonstrates their own reasoned position;
"good" – 23-26 points – the essence of the topic is reflected, but there are inaccuracies in the answer;
"satisfactory" – 18-22 points – incomplete answer, significant errors present;
"unsatisfactory" – 0-17 points – incorrect answer.

3. Bonus points
A total of no more than 10 points for the following types of work:
– for research activities (participation in conferences, student competitions, publications);
– participation in faculty competitions in the discipline and all-Ukrainian competitions.

The rating assessment for the academic discipline is communicated to applicants during the examination session.
Applicants with a rating of 60 points or more receive a grade corresponding to their rating without additional testing.
For applicants with a rating of less than 60 points, as well as those who wish to improve their rating, the teacher conducts a semester assessment in the form of a test or interview.

4. Credit.
Weighting score – 100.
The credit takes the form of a list of questions that the student must answer. The questions vary in content and correspond to the topics of lectures, seminars, independent work, and self-assessment questions.

Assessment criteria
95-100 points - the student demonstrates a deep knowledge of the content of the course material, the ability to systematically and interdisciplinarily analyse the issues covered in the course; freely and correctly uses scientific concepts and terms, formulates logical, reasoned conclusions, and expresses their own well-founded position on controversial issues;
85-94 points - the student demonstrates a very good level of mastery of the course material, is well versed in the main topics of the course, is capable of analysis and generalisation; there may be isolated inaccuracies in formulations or examples that do not significantly affect the overall level of the answer;
75-84 points - the student demonstrates a fairly complete understanding of the main topics and issues of the course. Uses basic scientific terminology, but the analysis is mainly descriptive; conclusions are formulated, but not always sufficiently substantiated;
65-74 points - the student demonstrates a general understanding of the course material, but the answers contain noticeable inaccuracies in definitions, examples or logic of presentation; the use of scientific terminology is limited, the analytical component is weak;
60-64 points - the student demonstrates fragmentary knowledge of individual topics of the course, is familiar only with some of the key concepts; answers are incomplete, superficial, conclusions are insufficiently substantiated or absent;
0-59 points - the student is not familiar with the key concepts and issues of the course, demonstrates superficial or chaotic knowledge; analytical thinking and the ability to apply the knowledge gained are absent; answers are illogical or incomplete.

Conditions for a positive interim assessment:
To receive a "pass" on the first interim assessment, the student must have at least 10 points; to receive a "pass" on the second interim assessment, the student must have at least 20 points.

Conditions for admission to the exam:
The condition for a student's admission to the exam is the completion of the Modular control work.

Table of correspondence between rating points and grades on the university scale:

Rating of the applicant (points)	University scale of grades for the level of acquired competencies (learning outcomes)
100-95	Excellent
94	Very good
84	Good
74-65	Satisfactory
64-60	Sufficient
Less than 60	Unsatisfactory

Possible marks in the semester control report:

Not admitted	Failure to meet the conditions for admission to semester control
Removed	Violation of the principles of academic integrity or moral and ethical standards of conduct
Did not appear	The applicant was admitted but did not appear for the exam

9. Additional information on the discipline (educational component)

Recommendations for students

During lectures, students should take notes on the main concepts, characteristics, classifications, definitions, and algorithms discussed by the lecturer. This will allow students to better present their position (opinion), critically evaluate the positions (opinions) of other students, and ask questions to the lecturer and students. This will increase the amount of material learned and the depth of understanding. When preparing for a practical class, it is advisable for students to study the lecture material on a specific topic and familiarise themselves with additional resources in the bibliography. If a student has not familiarised themselves with the educational material, they should listen more carefully to the speakers and try to compensate for their lack of preparation for the class with the information they receive. Students should not refuse to answer the teacher's questions. Even if a student does not know the answer, it is advisable to try to answer, express their opinion based on their own knowledge, experience, the logic of the question, etc. At the same time, there is no need to be afraid of making mistakes – one of the important tasks of studying social sciences and humanities is to develop skills of logical thinking, conducting discussions and expressing one's own opinions. However, it is worth remembering that ignorance of the subject material is a significant shortcoming in a student's work and will negatively affect their overall rating.

If a student misses classes for valid reasons, they can make up for the missed topics by writing creative essays.

Informal distance and online courses

At the request of the applicant, in conditions that do not facilitate regular attendance, it is permissible to study individual content-rich parts of the discipline in asynchronous mode, in particular through distance learning courses and other forms of informal learning. In order for the credits for such courses to be taken into account in the rating system, they must correspond in content to certain topics of the syllabus, and their completion must be agreed with the teacher of the discipline. To confirm completion of informal learning, the student must provide a relevant document (certificate) indicating the name of the courses and their duration in hours. Recognition of informal education results is carried out in accordance with the procedure set out in the relevant Regulations of Igor Sikorsky KPI: https://osvita.kpi.ua/node/179

It is also possible to use other mass open online or offline courses (in whole or in part) subject to agreement on their subject matter and content with the lecturer.

Distance learning
Synchronous distance learning is possible using video conferencing platforms and the university's educational platform for distance learning.

Inclusive learning
Permitted

The working programme of the academic discipline (syllabus):
Compiled by Associate Professor of the Department of Sociology, Doctor of Social Sciences, M.P. Kukhta.
Approved by the Department of Sociology (Minutes No. 14 of 23.06.2025)
Approved by the Methodological Commission of the Faculty (Minutes No. 4 of 24 June 2025)

Appendix 1.
Assignments for the Modular control work.
Writing an essay (up to 5 pages).
Topic of choice:

The essay topic is chosen by the student from the proposed list. The essay should demonstrate the students' ability to apply the concepts and tools of digital data sociology covered in the course, as well as their ability to formulate a reasoned position and work with scientific sources.

Essay topics (choose one topic)

1. Psychological mechanisms of the digital environment that influence the formation of users' attention, emotions and behaviour.
2. Cognitive biases in digital interaction and their role in the perception of algorithmically formed information fields.
3. Behavioural engineering of digital platforms as a tool for forming habits and dependent interaction patterns.
4. Emotional interface design and the role of affective stimuli in digital influence.
5. Algorithmic mechanisms of persuasion and their psychological consequences in the environment of personalised information flows.
6. Changes in personal autonomy in the context of algorithmic mediation and intelligent recommendation systems.
7. Psychological factors of group polarisation and radicalisation in online environments.
8. The phenomenon of trust in intelligent systems and the psychological basis for the perception of algorithmic authority.
9. Human interaction with intelligent agents and the formation of new models of social behaviour.
10. Psychological mechanisms of constructing digital identity in multidimensional online spaces.
11. Psychological risks of digital environments and the nature of digital disorders in user behaviour.
12. Manipulative strategies of digital interfaces and psychological foundations of their effectiveness.
13. Ethical and psychological challenges of the impact of intelligent systems on users and factors of human vulnerability in the digital environment.
14. Transformation of social and individual behaviour under the influence of intelligent systems.
15. Future challenges of the psychology of digital influence in the context of the development of generative artificial intelligence.

When writing an essay, demonstrate your own position on the topic of the essay and the issues raised in the publications, and adhere to the following structure:

Introduction. The first few sentences should define the topic of the essay, the author's goal and intentions in researching a particular issue.

Main part. This part should examine in detail the main ideas, arguments and examples of the author of the publication.

Conclusions. In this part, you should present your general conclusions. Did the author succeed in researching a particular issue to a satisfactory level? What are the suggestions or recommendations for further research on this topic?

Bibliography. If you have used any sources for your essay, you must list them in the bibliography. In this case, references to the literature used are mandatory in the text, for example [3, p. 5], which means a reference to source No. 3 in the list of references on p. 5. References to electronic sources (Internet articles, videos) are not marked with a page number. Then the reference is formatted (as an example) as follows: [4], which means a reference to source No. 4.

<div align="right">Appendix 2.</div>

<div align="center">Exam questions.</div>

1. Psychological mechanisms of the influence of digital environments on the user's cognitive processes.
2. The effect of the principle of bounded rationality in digital behaviour.
3. The influence of the structure of digital platforms on the perception of information.
4. The concept of cognitive bias and its role in interaction with algorithmic content.
5. Heuristics of choice in the digital environment and their psychological consequences.
6. Algorithmic amplification of cognitive biases and the formation of "information niches".
7. The psychology of digital attention and mechanisms for controlling user focus.
8. Information overload and its impact on decision-making in the online environment.
9. Attention cycles and their exploitation in the architecture of digital platforms.
10. The psychological foundations of behavioural engineering and the formation of digital habits.
11. The "habit loop" mechanism in digital services and its application in platform design.
12. The concept of triggers in behavioural design and their role in maintaining user activity.
13. Affective stimuli in the interface and their impact on the user's emotional state.
14. Principles of emotional interface design and engagement technologies.
15. The psychological effect of visual, colour and dynamic elements of the digital interface.
16. Algorithmic mechanisms of persuasion in personalised content feeds.
17. Theories of social influence (Chaldyna, Bandura) in the context of digital platforms.
18. Psychological strategies used by recommendation systems to change behaviour.
19. Changes in user autonomy in the context of algorithmic mediation.
20. The phenomenon of "delegated choice" and its psychological consequences.
21. Psychological mechanisms of forming dependence on algorithmic advice.
22. Causes of group polarisation in online environments and the psychology of radicalisation.
23. The role of emotional content in exacerbating the polarisation of digital communities.
24. The dynamics of group identity in online spaces.
25. The psychological nature of trust in intelligent systems.
26. Factors that shape the perception of algorithmic authority.
27. Illusions of accuracy and objectivity caused by the work of algorithms.
28. The psychology of human interaction with intelligent agents.
29. Anthropomorphisation of digital agents and its psychological consequences.
30. The effects of social presence in interaction with AI.
31. The construction of digital identity and its multiplication across different platforms.
32. Psychological factors of self-presentation in the online environment.
33. The gap between the digital and offline self and its psychological consequences.
34. Digital disorders as a form of behavioural and emotional regulation impairment.
35. Psychological mechanisms of forming dependence on digital platforms.
36. The concept of toxic engagement and its psychological meaning.
37. Manipulative mechanisms of digital interfaces and the principles of their psychological influence.
38. Temporal manipulations of platforms (autoplay, endless feed) and their role in user behaviour.
39. Psychological vulnerability of users and factors that increase it in digital environments.
40. Ethical issues of the psychological impact of digital technologies on users.
41. The psychology of risk in interaction with personalised information systems.
42. Psychological consequences of the opacity of algorithmic decisions.
43. Mechanisms for forming misconceptions about how algorithms work.
44. The psychology of information trust and its destruction in the context of algorithmisation.
45. The emotional impact of algorithmic information delivery on individual behaviour.
46. The socio-psychological consequences of the platformisation of communication.

47. Psychological reasons for the mass spread of misinformation in digital environments.
48. Future trends in the psychology of digital influence in the context of generative AI development.
49. Changes in the structure of social interaction under the influence of intelligent systems.
50. Psychological mechanisms of human adaptation to rapidly changing digital environments.