

National Technical University of Ukraine
“Igor Sikorsky Kyiv Polytechnic Institute”

Faculty of Sociology and Law

Approved by the Chairman of the Certification Commission

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**Comprehensive professional test program for admission to the educational
program of master's degree "Social Data Analytics"
on a specialty 054 Sociology**

The program is recommended by the Department of Sociology

Protocol № 8 dated 14.04.2023

Head of the Department

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I. INTRODUCTION

The purpose of the program is a comprehensive professional test for admission to study for obtaining a master's degree in the educational program "Social Data Analytics" (hereinafter - Comprehensive professional test) is a statement of the basic requirements for conducting Comprehensive professional test at the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", providing entrants with comprehensive information on the amount of educational material submitted to the Complex testing, evaluation criteria and procedures.

The purpose of the Comprehensive Professional Entrance Test is to determine the level of knowledge and skills required for entrants to master educational scientific programs in Master's degree in the educational program "Social Data Analytics".

The tasks of the Comprehensive Professional Test are: theoretical assessment training of entrants in professional disciplines; identifying the level of their analytical abilities, skills generalize theoretical information; assessing the ability of entrants to consistent, logical and reasoned presentation of educational material and own thoughts; definition ability to apply the acquired knowledge in practice.

This Program consists of an Introduction, a Basic Statement, which sets out the full a list of educational material submitted for the Comprehensive Professional Test, recommended literature and Final Provisions, which, in particular, describe the criteria evaluation of entrants' answers and an example of a typical examination ticket is given.

1.1 The comprehensive professional test program includes theoretical questions from the following sections of the educational components of the bachelor's educational program:

- 1) Basics of psychology and sociology
- 2) History and theory of psychology and sociology
- 3) Methods of psychology and sociology
- 4) Applied aspects of psychology and sociology
- 5) Psychological and sociological dimensions of society

Comprehensive professional test is conducted in writing on examination tasks.

Each examination task contains 2 examination questions from the disciplines that are included in this program.

The total length of time allotted to entrants to complete the exam task is 60 minutes.

1.2 Content of the program

1.2.1 List of topics presented for the entrance complex professional test from the section "Basics of Psychology and Sociology"

Psychology and sociology in the structure of modern sciences.

Object, subject of psychology. Psyche as an object of psychology. Mental phenomena as a subject of psychology.

Object, subject of sociology. Society as an object of sociology. Social interaction as a subject of sociology.

Functions of sociology: theoretical-cognitive, practical-political.

Transformation of ideas about the subject of psychology. Historical formation of the subject of psychology: from the doctrine of the soul to the science of the psyche.

Transformation of ideas about the subject of sociology: from the study of society in man to the study of man in society.

The structure and main branches of psychology. Fundamental and applied psychology.

Levels of sociological knowledge: general sociological theories (macrosociology and microsociology), special and sectoral sociological theories (middle-level theories), knowledge gained through empirical research.

Basic categories of psychology and sociology.

The concept of "psyche" and its essence. Functions of the psyche: reflective, regulatory.

The relationship between the concepts "social" and "public."

Correlation of the concepts "man", "individual", "personality" and "individuality".

Biological prerequisites, social conditions and factors of mental development of the individual.

Motives and motivation of the individual. Needs, interests, beliefs, ideals. Personality orientation.

Values and value orientations of the individual. "Life strategies".

Self-actualization and self-realization of personality: essence and features.

1.2.2. List of topics presented for the entrance complex professional test from the section "History and theory of psychology and sociology"

Sociological and psychological thought of the 19th century.

Auguste Comte's positivism. The concept of the relationship between society and the individual.

Crowd psychology by Gustave Lebon. Classification of crowds, crowd characteristics.

Gabriel Tarde's theory of imitation. The psychological mechanism of imitation as a key to explaining social behavior.

Organicism and evolutionism in the theory of Herbert Spencer.

Sociological and psychological thought of the late 19th - early 20th centuries.

Interactionism. The theory of the "mirror self" by Charles Horton Cooley. Symbolic interactionism of George Herbert Mead. Analysis of the dynamics of "I": "And" / and "Me".

Sigmund Freud's psychoanalytic theory. Doctrine of sexuality: libido, sublimation, displacement.

The structure of the personality It (Id), I (Ego) and Super-Ego (Super Ego). Sociological aspects of psychoanalysis.

Individual psychology of Alfred Adler. Inferiority complex.

Analytical psychology of Carl Gustav Jung. Personality structure. Archetypes of the collective unconscious.

Understanding the sociology of Max Weber. Theory of social action. Types of social action. Types of legitimate rule.

Emile Durkheim on social norms and values. The concept of anomie. The problem of distinguishing between normal and pathological phenomena. Types of suicides.

Vilfredo Pareto's theory of social behavior. The theory of elites. Circulation of elites as an element of maintaining social balance.

Psychological and sociological thought of the second half of the 20th - beginning of the 21st century.

J. Moreno: sociometric revolution, psychodrama Neo-Freudism (E. Fromm, E. Erikson). Classical behaviorism (J. Watson, I. Pavlov, B. Skinner) and neobehaviorism (A. Bandura). Humanistic psychology (A. Maslow, K. Rogers, V. Frankl, I Yalom). Genetic psychology of J. Piaget.

The specifics of the structural-functional theory of Talcott Parsons.

The concept of social action. Socialization and social control as mechanisms of integration of the individual into the social system. Robert Merton's Functional Analysis. R. Merton on sociological theories of the middle level. Alfred Schütz's phenomenological sociology: concepts of the life world and everyday life.

1.2.3. The list of topics submitted to the entrance complex professional test with of the section "Methods of psychology and sociology".

Research planning and quality assurance.

Scientific research: types (theoretical and empirical; fundamental and applied; exploratory, descriptive and analytical, field and laboratory), problem, goal, task, object, subject.

Research program: structure of the document, main points, research stages. Interpretation, conceptualization, operationalization of the main concepts of research. Research hypotheses: theoretical, empirical, statistical.

Sampling method, general population, sample, basic requirements for forming a sample, methods of formation.

Quality of information: representativeness, validity, reliability. Types of validity (substantive, criterion, constructive), validation. Ensuring reliability.

Methods of collecting information.

Observation: types, advantages and disadvantages, the role of the observer.

Experiment: types (declarative, formative, natural, laboratory), planning, internal and external validity.

Survey methods: questionnaires, interviews. Questionnaires (mail, press, online, expert, individual, group). Questionnaire: types of questions, methodological requirements for the composition of the questionnaire and various questions. Formulation of questions and answers in the questionnaire). Interviewing (focus group, in-depth, informal: life history, biography, oral history).

Expert surveys (method of expert evaluation): search, selection and training of experts. Types and procedures of expert survey.

Sociometry: features of application and tools (questionnaire, scales), sociometric indices, matrices and sociograms.

Document analysis. Content analysis.

Methods of empirical data analysis.

Measurement (according to S. Stevens): definitions, types, levels, scales (nominal, ordinal, metric).

Descriptive statistics. Measures of central tendency and measures of variation for different types of scales. Point and interval evaluation. Confidence interval.

Analysis of the statistical relationship between two variables. Correlation coefficients. Methods of testing statistical hypotheses.

Linear regression (pairwise and multivariate).

1.2.4. The list of topics presented at the entrance comprehensive professional test from the section. "Applied aspects of psychology and sociology"

Personality as an object and subject of social relations.

Socialization of personality: essence, stages (primary, secondary), mechanisms (adaptation, integration). Subjects (family, formal and informal peer groups) and agents (education, traditional mass media: and new media: Internet, social networks) of socialization. The concept of resocialization.

Deviant personality behavior. Concept and types of (positive and negative) deviations. Suicidal and addictive behavior. Bullying. Mobbing. Ageism. Levels of deviant behavior: behavior that is not approved by others, that is condemned by others, morally negative manifestations and actions, delinquent behavior, criminal behavior, destructive behavior. Social and psychological factors of deviant behavior. Prevention of deviant behavior: education, social advertising, correctional programs, creating a situation of success.

Concept and types of social statuses (official and unofficial, ascribed and acquired). Social roles of concepts and types (active and passive, explicit and latent). Role structure according to V. Yadov (cognitive, affective, conative components). Marginality of social roles.

Sex and gender. Masculinity. Femininity. androgyny Gender identity. Crises of gender identity. Gender stereotypes: concepts and types (traditional and egalitarian). Gender equality and discrimination. Sexism. Feminism.

Personality in life and professional space.

Play, study, work as activities. Professional activity, the concept and stages of professionalization (professional self-determination, professional training, professional adaptation, professional formation, professional realization, completion of professional activity). Motivation and stimulation of professional activity (according to A. Maslow's hierarchy of needs). Professional burnout. The concept of professional crises.

Communication as a socio-psychological phenomenon. Communication as an exchange of information (the communicative side of communication). Communicator, recipient, channel of information transmission. Communication barriers. Communication as perception, understanding and evaluation of communication partners (perceptual side of communication). Mechanisms of interpersonal perception: identification, social reflection, stereotyping. Causal attribution. Attitude as a social attitude. Communication as interaction (the interactive side of communication).

Conflict and conflict situation. Types of conflicts (intrapersonal, interpersonal, intragroup, intergroup). Role conflicts (gender role conflict, conflict between family and professional roles). Styles of behavior in conflict (rivalry, avoidance, compromise, cooperation, adaptation). Prevention (psychological education, non-discrimination, material and moral encouragement, compliance with corporate culture) and resolution (achieving a compromise or cooperation) of conflicts in various spheres of life.

Characteristics and current problems of the modern family (instability of marriage, declining birth rate, material disadvantage). Family functions (reproductive, economic, educational, household, communicative, leisure, sexual, recreational, psychological protection). Types of family: nuclear and extended family; patriarchal, matriarchal, egalitarian family: monogamous and polygamous families. Marriage and marital relations. Family crises.

1.2.5. List of topics presented for the entrance comprehensive professional test from the section "Psychological and sociological dimensions of society"

The group as a structural element of society.

Concepts and main characteristics of a social group. Classification of social groups (large social groups, medium social groups, small social groups).

The concept of a large social group. Classification of large social groups (social-class, social-demographic, social-ethnic, social-professional and social-territorial). The crowd as a large spontaneous group. The main characteristics and typology of the crowd, socio-psychological features of its individual varieties. Ethnic groups. Forms of existence of ethnic groups and main ethnic processes. The concept of ethnic identity and consciousness.

The concept of a small group. Classification of small social groups (primary / secondary; formal / informal; reference / membership groups; quasi-groups). Small group structure. Dynamic processes in a small group. Social and psychological climate of the group. Conformism, conforming behavior and conformity. Cohesion.

Social and psychological characteristics and forms of organization of social processes and phenomena.

Social consciousness. Mass consciousness. Group consciousness. Individual consciousness. Mechanisms of socio-psychological influence (imitation, suggestion, persuasion, infection, rumors, fashion).

Concept of social institution. Main functions and characteristic features. Types of social institutions: economic, political, religious, culture and socialization, etc.

Social stratification and social inequalities. The main criteria of social stratification. Types of inequality (economic, political, legal, cultural, digital, mobile, etc.).

Social mobility: concepts, types (vertical / horizontal), mechanisms, social and psychological factors. Migration as a type of spatial mobility: essence, social and psychological characteristics.

1.3 Auxiliary materials for the preparation of a complex professional test

The use of auxiliary literature and other auxiliary materials and tools is prohibited during the comprehensive professional test.

1.4 Description of the complex professional test task

At the complex professional test, entrants perform written examination work according to individual options.

Each version of the task contains two theoretical questions based on the materials of the educational components specified in clause 1.1.

1.5 Evaluation criteria of a complex professional test

The rating system for evaluating the comprehensive attestation exam was compiled in accordance with the requirements of the current version of the "Regulations on the system for evaluating the results of training at KPI named after Igor Sikorsky" (<https://osvita.kpi.ua/node/37>).

Таблиця відповідності оцінок РСО (60...100 балів)
оцінкам 200-бальної шкали (100...200 балів)

шкала PCO	шкала 100...200	шкала PCO	шкала 100...200	шкала PCO	шкала 100...200	шкала PCO	шкала 100...200
60	100	70	140	80	160	90	180
61	105	71	142	81	162	91	182
62	110	72	144	82	164	92	184
63	115	73	146	83	166	93	186
64	120	74	148	84	168	94	188
65	125	75	150	85	170	95	190
66	128	76	152	86	172	96	192
67	131	77	154	87	174	97	194
68	134	78	156	88	176	98	196
69	137	79	158	89	178	99	198
						100	200

1.6 An example of a typical task of a complex professional test for admission to the educational and scientific program "Conflict Resolution and Mediation" in the specialty 054 Sociology

1. To reveal the essence, stages and mechanisms of personality socialization.
2. To describe the types and procedures of an expert survey.

II FINAL PROVISIONS

The procedure for conducting a complex professional test

The comprehensive professional test is conducted face-to-face or remotely using Google distance learning technologies and the Zoom video communication service with mandatory video recording of the exam process.

The procedure for conducting the exam corresponds to the "Regulations on current, calendar and semester control of study results at KPI named after Igor Sikorskyi" (<https://osvita.kpi.ua/node/32>) and "Regulations for conducting semester control and defense of qualification papers and attestation exams in remote mode" (<https://osvita.kpi.ua/node/148>).

The professional test is completed by entrants according to the approved schedule. Deviation from the test schedule is unacceptable.

If the test is conducted remotely, a link to a video conference for conducting a complex professional test is created the day before and sent to all participants (examiners and entrants) through the appropriate information channels - e-mail, Viber, Telegram networks.

The examination commission is obliged to ensure reliable identification (identification) of the entrant. If the reliable identification procedure was not carried out, the entrant is considered not to have appeared for the professional test. Identification of the entrant can be carried out, for example, by showing the examiners via video communication means his passport or other identity document.

At the complex professional test, entrants perform a written test. Numbers of individual examination tickets are distributed among entrants through a random number server and announced to the list of entrants via video communication.

In order to avoid premature preparation of answers by entrants, the procedure for conducting a complex professional test involves writing a certain code word on each sheet of the examination work, which is communicated to the entrants during the test.

The total time allotted for the handwritten tasks of the examination ticket is 90 minutes.

3-5 minutes before the end of the test, the entrant must sign each sheet of his examination work, make a photocopy of it and send it to the e-mail of the examination board or in another way established by the examination board ("Viber", "Telegram" networks) by the set time.

After receiving all the photocopies of the written papers, the examination committee starts checking them. Evaluation of works is carried out in accordance with the rating system of evaluation (clause 1.5).