Psychology

The work program of the academic discipline (Syllabus)

Details of educational program	
The level of higher education	*The first level of higher education "Bachelor"*
Field of knowledge	*16 Chemical and bioengineering*
The specialties	*163 Biomedical Engineering*
The educational programs	*Biomedical Engineering* *Medical Engineering* *Regenerative and Biopharmaceutical Engineering and others*
The status	*Selective*
Form of study	*Full-time*
Year of study	*3*
Semester	*5*
Volume of discipline	*Number of 2 ECTS Credits / 60 hours*
The type of semester control	*Final Test*
Schedule	*Lectures:* *Seminars (workshops):*
Language of teaching	*English*
Information about teachers	*Lectures and Seminars (practical):* *Vynoslavska Olena Vasylivna, professor, candidate of psychological sciences, professor*
Course location	*All the necessary basic and additional materials for the study of the discipline are in the personal cabinet in the Google-Class.*

The program of academic discipline

1. The description of academic discipline, its goal and learning outcomes

The main goal of the subject is to create the ability of students to make a psychological analysis of the complex situations of the interaction of "person-society", "person-social group", "personality-personality"; organize own activities as a component of collective activity; use the methods of mathematical analysis in engineering calculations.

According to the requirements of the curriculum after the mastering of the credit module students must demonstrate the following learning outcomes:

1.1. *The purpose of the subject.*

The purpose of the subject is to create the ability of students to:
– to apply and broaden knowledge, to develop critical thinking;
– to reflex personal knowledge.
– to estimate own cognitive processes, psychological conditions and feelings for guarantee of the effective and safe activity;
– to organize own activity as a component of collective activity;
– to provide the psychological analysis of difficult situations in interaction "person-society", «the person-social group», "person-person".

1.2. *The main tasks of the credit module.*

According to the requirements of the curriculum after the mastering of the credit module students must demonstrate the following learning outcomes:

Knowledge of:
– the peculiarities of cognitive, emotional-volitional, motivational spheres of mental life;
– the relationship between natural and social factors in the development of psyche;
– forms and norms of intergroup relations.

Skills:
– to use observational and experimental research methods for evaluation of the level of development of own cognitive processes (feeling, perception, imagination, memory, thinking, attention) and emotional-volitional processes (emotions, feelings, will);
– to assess the level of satisfaction with the conditions and results of professional and everyday activities by the characteristics of own mental states and feelings;
– to use methods of development of volitional, communicative traits of personality, the showing of own character traits;
– to analyze one's own activity as a component of collective activity.

Experience:
– applying of the acquired knowledge to analyze the psychological nature of various displays of behavior and activity of the individual;
– psychological analysis of situations of interaction "personality-society", "person-social group", "personality-personality";
– organization of their own activities as a component of collective interaction;
– determination of means and methods of social and psychological influence in the process of communication;
– effective development of communication processes.

2. Prerequisites and postrequisites of the academic discipline

To study the academic discipline it is desirable the student has high skills of use of the computer, skills to work with electronic databases of research institutes and libraries.

The credit module "Psychology" is selective and belongs to the cycle of social and humanitarian training. It is preceded by "Philosophy", "Sociology", and other disciplines which create a common worldview and methodological basis for perception of the content of the proposed discipline by students.

3. The content of the academic discipline

Full-time

Lectures

List of Topics	Hours in total	Allocation of time by the type of class		
		Lectures	Seminars (Workshops)	Independent work
1	2	3	4	5
Section 1 **SUBJECT AND METHODS OF PSYCHOLOGY**				
Topic 1.1. Introduction to Psychology. Consciousness	8	2	2	2
Topic 1.2. Phylogenesis. Life-Span Development. Research in Psychology				2
Total in Section 1	**8**	**2**	**2**	**4**
Section 2 **MENTAL PROCESSES**				
Topic 2.1. Sensation and Perception. Memory	5	2	2	1
Topic 2.2. Thinking and Language	6	2	2	2
Topic 2.3. Emotion. Stress and Health	5	2	2	1
Total in Section 2	**16**	**6**	**6**	**4**
Section 3 **PERSONALITY**				
Topic 3.1. Structure and Development of Personality	6	2	2	2
Topic 3.2. Intelligence	6	2	2	2
Total in Section 3	**12**	**4**	**4**	**4**
Section 4 **SOCIAL INFLUENCE: THE PSYCHOLOGY OF GROUPS**				
Topic 4.1. Communication	6	2	2	2
Topic 4.2. The Psychology of Groups	6	2	2	2
Topic 4.3. Intergroup Relations: Conflict or Cooperation?	6	2	2	2
Total in Section 4	**18**	**6**	**6**	**6**
Final test	**6**	-	-	6
Total amount of hours	**60**	**18**	**18**	**24**

4. Training materials and resources

To successful learning of academic discipline is enough to study the educational material, which is taught in lectures as well as to get acquainted with:

4.1. Basic

1. Brever V.B., Crano W.D. Social Psychology. – WPS. – Minneapolis – St. Paul – New York – Los Angeles – San Francisco. – 1994. – 570 p.
2. Buskist, William. Psychology : boundaries and frontiers / William Buskist, David W. Gerbing. – USA : Scott, Foresman and Company, 1990. – 667 p.
3. Social Psychology: Nouts for the Lectures. – Educational-Methodical Guidance for students preparing the first (Bachelor) level of higher education "Bachelor" / Comp.: O.V. Vynoslavska. – Kyiv : Igor Sikorsky Kyiv Polytechnic Institute, 2018. – 98 pp.

4.2. Support

1. Ajzen I. Attitudes, personality and behavior / I. Ajzen. – [2nd ed.]. – UK : Open University Press, 2005. – 178 pp.
2. Borich G. D., Tombary M. L. Educational Psychology: Second Edition. – London-New York: Longman, 1997. – 576 p.
3. Chapman Elwood H. Your Attitude is Showing. – SPA Inc. – U.S.A., 1987. – 194 p.
4. Chapman Elwood H. Your Attitude is Showing: A Self-Paced Exercise Guide. – SPA Inc. – U.S.A., 1983. – 86 p.
5. Ethical Attitudes of Students and Business Professionals: A Study of Moral Reasoning / [Wood J. A., Longenecker J. G., McKinnej J. A., Moore C. W.] // Journal of Business Ethics. – 1988. – № 7. – P. 249–257.
6. Handbook of Multicultural Counseling. – Thousand Oaks, California: Sage Publications, Inc., 1995, pp. 624-644.
7. Jaksa J. A. Responsible Communication: Ethical Issues in Business, Industry, and the Professions / J. A. Jaksa, M. S. Pritchard. – Cresskill, N.J. : Hampton Press, Inc., 1996. – 402 p.
8. Murphy P. E. Improving Your Ethics Code / P. E. Murphy // Journal of Business Ethics. – 1994. – March/April. – P. 23.
9. Transition Ethics: a Comparison of Ukrainian and United States Business Professionals / [Vynoslavska O. V., McKinney J. A., Moore C. W., Longenecker J. G.] // Journal of Business Ethics. – 2005. – № 61. – P. 283–299.

The educational content

5. The technology of mastering of academic discipline (educational component) (Full-time)

Lectures

№	The subject of the lecture and a list of the main issues (a list of didactics, references to literature and assignments on SS)
1	***Topic 1.1.*** INTRODUCTION TO PSYCHOLOGY. CONSCIOUSNESS The Scope of Psychology. The Beginnings of Psychology. Current Perspectives in Psychology. Psychology – Research and Practice. The Brain. The Brain and Consciousness. *Recommended literature:* Basic: 2, pp.1-16, 118-143. Support: 2. ***Topic 1.2.*** PHYLOGENESIS. LIFE-SPAN DEVELOPMENT. RESEARCH IN PSYCHOLOGY A Brief Sketch of Human Evolution. Theories of Development. Development and the Life Cycle. Prenatal Development. Infancy and Childhood. Adolescence. Adulthood and Old Age. The Nature of Scientific Knowledge. Observational Research. Experimental Research. Analyzing Data. Ethics in Psychological Research. *Recommended literature:* Basic: 2, pp.22-53, 68-71, 381-413. Support: 5; 8; 9.
2	***Topic 2.1.*** SENSATION AND PERCEPTION. MEMORY Basic Principles of Sensation. Vision as Sensory and Perceptual Processes. The Somatosensory System. The Chemical Senses: Smell and Taste. How Psychologists View Memory. Processing and Forgetting Information: Encoding, Storage, and Retrieval. Biological Bases of Memory. *Recommended literature:* Basic: 2, pp.150-184, 267-291. Support: 2.
3	***Topic 2.2.*** THINKING AND LANGUAGE Information, Symbols, and Concepts. Reasoning. Deductive Reasoning. Inductive Reasoning. Problem Solving. Algorithms and Heuristics. Language. Characteristics of Language. The Structure of Language. Language Development.

	Recommended literature:
	Basic: 2, pp.296-335. Support: 2.
4	**Topic 2.3.** EMOTION. STRESS AND HEALTH
	Emotion. Classifying Emotion. The Facial Expressions of Emotion. The Physiology of Emotion. Theories of Emotion.
	Stress and Health. The Biological Basis of Stress. Stressful Life-Styles and Impaired Health. Stressors and Their Sources. Coping with Stress.
	Recommended literature:
	Basic: 2, pp.359-369, 648-654. Support: 6.
5	**Topic 3.1.** STRUCTURE AND DEVELOPMENT OF PERSONALITY
	Assessing Personality.
	The Psychodynamic Approach. The Trait Approach. The Social Learning Approach. The Humanistic Approach.
	Recommended literature:
	Basic: 2, pp.496-526. Support: 1.
6	**Topic 3.2.** INTELLIGENCE
	What Is Intelligence? A Historical Overview of Intelligence Tests. Contemporary Intelligence Tests. Critical Issues in Evaluating Intelligence Tests. Heredity, Environment, and Intelligence.
	Modern Theories of Intelligence.
	Recommended literature:
	Basic: 2, pp.461-488. Support: 2.
7	**Topic 4.1.** COMMUNICATION
	Social Cognition. Schemata and Social Perception. Attribution. Attitude. Persuasion. Attitude-Behavior Correspondence. Cognitive Dissonance Theory.
	The source of a communication. The message. Drawing a conclusion. Delivery: force, speed, number and intensity.
	The setting. Confusing communications. Characteristics of the audience. Individual differences in intelligence and self-esteem mood.
	Recommended literature:
	Basic: 1, pp.43-51, 55-60; 2, pp.602-614; 3, pp.12-15. Support: 7.
8	**Topic 4.2.** THE PSYCHOLOGY OF GROUPS
	Social Influence. Social Facilitation.
	Social Norms and Conformity. Compliance.

	Obedience to Authority. Bystander Intervention and Helping.
	Interpersonal Attraction.
	Recommended literature:
	Basic: 2, pp.615-628. Support: 6.
9	*Topic 4.3.* INTERGROUP RELATIONS: CONFLICT OR COOPERATION?
	Intergroup competitiveness: cause or consequence? Ignorance and misperception in intergroup relations. Intergroup contact. Contact experiments: defining the limits.
	Causes of Conflict. The Thomas-Kilmann Conflict Mode Instrument. The Description of Modes. The Anger. HEAT-technique to Manager Anger.
	Recommended literature:
	Basic: 1, pp.504-515. Support: 3; 4; 6.

Seminars (workshops)

The main tasks of seminars (workshops) are:

- Better understanding of theoretical material;
- Ability to formulate independent judgments, giving reason for them on the basis of the scientific facts;
- Skills of independent preparing for direct participation in a discussion at seminar.

№	The name of the subject and the list of key issues
	(list of didactics, references to literature and assignments on the SS)
1	*Topic 1.1.* INTRODUCTION TO PSYCHOLOGY. CONSCIOUSNESS
	The questions for discussion:
	1. What is psychology? How are cognitive processes different from behavior?
	2. What was structuralism? What was functionalism? How did they differ?
	3. What are the five major perspectives found in psychology today?
	Topic 1.2. PHYLOGENESIS. LIFE-SPAN DEVELOPMENT. RESEARCH METHODS IN PSYCHOLOGY
	The questions for discussion:
	1. What are the phylogenesis phases?
	2. Is development a continuous or discontinuous process? Explain.
	3. What is a self-report?
2	*Topic 2.1.* SENSATION AND PERCEPTION. MEMORY
	The questions for discussion:

	1. What factors affect visual acuity?
	2. What is the relationship between visual perception and attention?
	3. How psychologists view memory?
3	***Topic 2.2.*** THINKING AND LANGUAGE
	The questions for discussion:
	1. What is the role of symbols in information processing?
	2. How do heuristics differ from algorithms?
	3. What are the characteristics of language?
4	***Topic 2.3.*** EMOTION. STRESS AND HEALTH
	The questions for discussion:
	1. What are the four components to any emotion?
	2. What is the difference between stress and stressors? How are stressors classified?
	3. What is a coping strategy? Explain the four coping strategies.
5	***Topic 3.1.*** STRUCTURE AND DEVELOPMENT OF PERSONALITY
	The questions for discussion:
	1. What is the role of the id, ego and superego in determining personality?
	2. What is the trait approach to the study of personality?
	3. How does the idea of locus of control account for individual differences in personality?
6	***Topic 3.2.*** INTELLIGENCE
	The questions for discussion:
	1. What is intelligence?
	2. What is the difference between verbal and nonverbal intelligence?
	3. What are modern theories of intelligence?
	Test: Check Your Own I.Q. (Eysenck H. J.).
	The purpose of this test – to define your I.Q. and compare it with other students.
7	***Topic 4.1.*** COMMUNICATION
	The questions for discussion:
	1. Cognitive Dissonance Theory.
	2. Individual differences in intelligence and self-esteem mood.
	Test: Attitude Adjustment Scale.
	The purpose of this test – to become a more positive and effective individual.

8	*Topic 4.2.* SOCIAL INFLUENCE: THE PSYCHOLOGY OF GROUPS
	The questions for discussion:
	1. Why people work in group settings?
	2. Can we tell if we're right?
	Test: Evaluating a Personal Relationship (Optional).
	The purpose of this test – to analyze your mutual relations with associates.
9	*Topic 4.3.* INTERGROUP RELATIONS: CONFLICT OR COOPERATION?
	The questions for discussion:
	1. Ignorance and misperception in intergroup relations.
	2. Causes of Conflict
	Test: The Thomas-Kilmann Conflict Mode Instrument.
	The purpose of this test – to define the predominant mode of your behaviour in conflicts.

Recommended Individual Tasks

Individual tasks are not provided by the educational program.

The course policy and the control

6. The policy of the academic discipline (educational component)

In the process of mastering of discipline the student's rating during semester is forming by work in the seminars, competent definition of the main key terms of discipline, and also by right answers to tasks of the final test. Penalty points for the discipline are not provided.

Attendance and task performance

It is important for students to attend lectures, as they will explain systematic educational material in a volume sufficient to master the academic discipline. This will allow to better prepare for seminars and to master this academic discipline in general. To practice missed lectures is not necessary.

Active student participation in seminars is necessary. Absence from a seminar does not allow the student to get points for semester rating. However, a student who has missed a seminar because of a good reason and has the necessary document confirming the absence (such as a certificate from a doctor) may submit a prepared report to the teacher during the consultation and receive no more than half of the rating points provided for participation in seminars. The schedule of consultations is available on the website of the Department of Psychology and Pedagogy, but the teacher assigns students the time of individual consultation by himself.

Topics and tasks for seminars are shown by the work program of the academic discipline that is available out of the student's personal account in the system "Campus", Google class or the site of the Department of Psychology and Pedagogy.

Laptops and smart phones are allowed in lectures and seminars, but only for purposes of learning. It is good when a student write notes on the topic of the lesson, as well as a vocabulary with definitions of key terms of the topic.

Forms and technologies of education

Lectures, seminars, case studies, training exercises, group work, team work.

The lectures cover the content of the topics of the credit module "Psychology". The topics of the lectures are given in the work program of the discipline.

In seminars, students deepen and expand their knowledge of psychology. Topics of seminars are given in the work program of the discipline. During the seminars, the teacher summarizes merits and demerits in student reports, points out errors, if any, provide for students' answers to additional questions concerning the topic of the seminar.

University policy

Academic integrity

The policy and principles of academic integrity are defined in Section 3 of the Code of Honor of the National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute ". Details: https://kpi.ua/code

Norms of ethical behavior

Norms of ethical behavior of students and employees are defined in Section 2 of the Code of Honor of the National Technical University of Ukraine " Igor Sikorsky Kyiv Polytechnic Institute". Details: https://kpi.ua/code.

7. Types of control and rating system for assessing of learning outcomes (RSO)

Current control: examination on the topic of the seminar.

Calendar control: it is carried out 2 times per a semester as monitoring of fulfillment of syllabus requirements.

Semester control: the final test.

Evaluation and the control techniques

The student's rating in the discipline consists of points obtained for:

1) Work at the seminars: answers, solutions to problems and additional comments on other students' answers during discussions, definitions of key terms;

2) Final test.

The student's work in nine seminars (the number of points per seminar is 9) is 72% of his rating in the discipline. The final test performance (consists of 2 test tasks) is 28% of the rating.

The student will receive the highest rating if he:

- actively takes part in seminars: makes reports and participates in discussions;
- gives the correct definitions of the main key terms;
- gives the correct answers to the questions of the final test.

Missed classes, inaccuracies and mistakes reduce the student's rating.

The student should spend about 2 hours to prepare for the seminar well.

The teacher evaluates the student's work in each seminar and displays the result in the system "Campus" after the lesson.

Detailed criteria for assessing of student's learning outcomes are defined in the Rating system of assessment in the discipline, which is disposed in the appendix 1 to the Work Program.

The student may submit a complaint in connection with the teacher's assessment not later than the next day after the student's acquaintance with the teacher's points. The complaint will be considered according to the procedures established by the university.

Condition of permission to pass the final test

The fulfillment of all tasks which are in the working program.

8. Additional information on academic discipline (educational component)

Guidelines for students

It is necessary for students to take notes of the basic concepts during the lecture. Each seminar (workshop) is conducted only after considering the relevant topic at the lecture.

To prepare for the seminar, the student should study the lecture material on the relevant topic; writing down the definitions of the main key terms in the vocabulary, as well as it is desirable to get acquainted with support training materials and resources. In case students have questions, it is necessary to discuss them with the teacher.

Bachelors of day-time training have to be combined into a lecture-stream and make up several training groups for seminars (workshops).

Distance learning

The distance learning which use video conferencing platforms and the educational platform for distance learning at the university is possible.

Inclusive education (optional)

The discipline can be taught to students with special educational needs.

Developer of Work program: Professor Vynoslavska Olena Vasylivna, candidate of psychological sciences, professor

Approved at the session of psychology and pedagogic department (Protocol No 11 of «22.05.19»)

Approved by methodical commission FSL Igor Sikorsky Kyiv Polytechnic Institute
(Protocol No 2 of «19.06.19»)

Rating system of students' success rate

The student's rating in the discipline "Psychology" consists of the points obtained for:

1) work at the seminars: answers, solutions to problems and additional comments on other students' answers during discussions, definitions of key terms;

2) final test.

System of Rating Points and Evaluation Criteria:

1. Work at the seminars (workshops) (maximum number of points for seminars is 40):

The number of points for one seminar is 5. The maximum number of points for all seminar (practical) classes is:

9 points × 8 seminars = 72 points

Evaluation of each student's performance is conducted in each seminar (practical) class on the basis of two indicators – attendance and participation:

a) attendance:

1 point × 8 seminars = 8 points

Evaluation criteria:

1 – presence in a seminar (practical) class;

0 – absence from a seminar (practical) class.

b) participation:

4 points × 8 seminars = 32 points

Evaluation criteria:

4 – a student selects and logically combines all the data concerning the subject matter of the seminar. He or she makes valid conclusions based on the data;

3 – a student selects and logically combines sufficient amount of the data concerning the subject matter of the seminar. He or she makes valid conclusions based on the data;

2 – a student selects and logically combines about half of the data concerning the subject matter of the seminar. He or she makes incomplete conclusions based on the data.

1-0 – a student selects and logically combines only a small amount of data concerning the subject matter of the seminar. He or she makes inaccurate conclusions or doesn't make them at all.

c) writing of definitions of key terms in the vocabulary:

0,5 point × 8 key terms × 8 seminars = 32 points

Evaluation criteria:

0,5 point for each key term in the vocabulary.

2. The final test:

Module control is administered in writing and is limited to 90 minutes.

The module test consists of three theoretical questions related to the thematic sections of the subject.

The number of points for one theoretical question is 14. The maximum number of points for three theoretical questions classes is:

14 points × 2 questions = 28 points

Samples of tests for module control

Variant No 1

1. What are the five major perspectives found in psychology today?
2. Attitudes toward social groups: cognition and emotion.

Variant No 2

1. What is the relationship between visual perception and attention?
2. Social identity and self-esteem.

Each answer to question is estimated at 0-14 points as follows:

11-14 – a full, articulate, logically coherent answer to a question, which testifies to the student's deep understanding of the essence of the subject matter and his or her acquaintance not only with the lecture materials, but also with the basic textbook and the additional literature; the student's statement of his or her own point of view concerning debatable issues if they are raised in the examination question;

8-10 – the answer to the question is not full or clear enough, which testifies to the student's correct understanding of the essence of the subject matter and his or her acquaintance with the lecture material and the basic textbook; the answer contains certain inaccuracies;

5-7 – rather a superficial answer, serious errors have been committed;

0-4 – an incorrect answer, which indicates a lack of knowledge of the corresponding educational material and the student's attempts to express his or her own understanding of the subject matter; lack of response.

Calculation of the rating score(R):

The total number of points scored for the student's work during semester is:

RG = 72 points

The number of points for the module control is:

RE = 28 points.

Thus Rating Scale of the subject is as follows:

R = RG + RE = 100 points.

A pre-requisite for admittance to the examination is the student's semestral rating (RG), which is required to be at least 40 points.

Grade evaluation criterion

In order to get the student the relevant grades (ECTS and traditional), his rating R is translated according to the table:

R	Rating
95…100	Excellent
85…94	Very good
75…84	Good
65…74	Satisfactorily
60…64	Sufficient
40…59	Insufficient
No settlement	Not admitted

In order to get the student the relevant grades (ECTS and traditional), his rating R is transformed according to the table:

$R = R_{st}$	Rating ECTS	Traditional Rating
95…100	Excellent	Excellent
85…94	Very good	Good
75…84	Good	
65…74	Satisfactorily	Satisfactorily
60…64	Sufficient	

List of Questions to Final Control

1. The tools of psychological research.
2. Values and ethics in psychological research.
3. What is psychology? How are cognitive processes different from behavior?
4. What was structuralism? What was functionalism? How did they differ?
5. What are the five major perspectives found in psychology today?
6. What are the phylogenesis phases?
7. Is development a continuous or discontinuous process? Explain.
8. What is a self-report?
9. What factors affect visual acuity?
10. What is the relationship between visual perception and attention?
11. How psychologists view memory?
12. What is the role of symbols in information processing?
13. How do heuristics differ from algorithms?
14. What are the characteristics of language?
15. What are the four components to any emotion?
16. What is the difference between stress and stressors? How are stressors classified?
17. What is a coping strategy? Explain the four coping strategies.
18. What is the role of the id, ego and superego in determining personality?
19. What is the trait approach to the study of personality?
20. How does the idea of locus of control account for individual differences in personality?
21. What is intelligence?
22. What is the difference between verbal and nonverbal intelligence?
23. What are modern theories of intelligence?
24. Cognitive Dissonance Theory.
25. Individual differences in intelligence and self-esteem mood.
26. Social identity and self-esteem.
27. Nonverbal behavior, anxiety, and ambivalence.
28. Attitudes toward social groups: cognition and emotion.
29. The relationship between stereotypes and prejudice.
30. Categorization: the cognitive basis of stereotypes and prejudice.
31. The elaboration-likelihood model.
32. Why people work in group settings?
33. Can we tell if we're right?
34. Ignorance and misperception in intergroup relations.
35. Causes of Conflict.
36. The Thomas-Kilmann Conflict Mode Instrument.
37. The Anger. HEAT-technique to Manager Anger.