PJSC "Higher Education Institution
"INTERREGIONAL ACADEMY OF PERSONNEL MANAGEMENT"

SYLLABUS OF THE ACADEMIC DISCIPLINE «ERGONOMICS»

Specialty: **D3 Management**

Educational level: **first (bachelor's) level**

Educational program: **Management**

Kherson Institute MAUP 2025

General information about the academic discipline

Name of the academic discipline	**Ergonomics**
Code and name of specialty	**D3 "Management"**
Level of higher education	first (bachelor's) level of higher education
Discipline status	Optional
Number of credits and hours	**3 credits / 90 hours.** Lectures: Seminar classes: Independent work of students:
Terms of studying the discipline	
Language of instruction	Ukrainian
Type of final control	**test**
Discipline page on the website	

General information about the teacher. Contact information.

Academic degree	
Academic title	
Position	
Subjects taught by NPP	
Areas of scientific research	
Links to registers of identifiers for scientists	
Contact information of the lecturer:	
E-mail:	
Contact phone number	
Lecturer's portfolio on the website of the department / Institute / Academy	https://ks.maup.com.ua/en/pro-nas/akredytacija/akredytacija-mer hment-2026

Course abstract. The discipline "Ergonomics" is aimed at familiarizing students with the features of life in the "man - machine - environment" system, the requirements for creating optimal conditions for its existence, methods of studying and organizing labor activity in the "man - machine - environment" system. Special attention is focused on studying the methodological principles of ergonomics and the practice of implementing ergonomic requirements in the process of life in the "man - machine - environment" system, the formation of practical skills for solving problems of humanizing labor and increasing its efficiency.

The subject of the academic discipline "Ergonomics" is the study of human interaction with elements of technical, production and information systems in order to optimize working conditions, increase the efficiency, safety and comfort of human activity.

The purpose of studying the discipline is the formation of knowledge and skills in future specialists on ergonomic problems of the "man-machine-environment" system and mastering methods of taking into account the human factor when modernizing and designing ergatic systems.

Objectives of the academic discipline: students' acquisition of knowledge within the scope of this program necessary for: harmonizing the capabilities of humans and technology in ergatic systems;

increasing the efficiency of ergatic systems; taking into account the human factor when designing new technology; increasing the safety of specialists in production; creating comfortable conditions in the workplace.

Prerequisites of the academic discipline. The study of the academic discipline "Ergonomics" is based on the knowledge and skills obtained by students, namely: digital technologies in management, organizational theory, and management.

Post requisites of the academic discipline. The knowledge and skills acquired by students in the process of studying the academic discipline "Ergonomics" contribute to the successful study by higher education applicants of a number of other academic disciplines aimed at the formation of professional knowledge and skills: fundamentals of entrepreneurship, operations management, logistics management.

Content of the academic discipline (full-time education)

<table>
<tr><th>No.</th><th>Topic name</th><th>Teaching methods/assessment methods</th></tr>
<tr><td colspan="2">CONTENT MODULE 1.
THEORETICAL AND METHODOLOGICAL FOUNDATIONS OF ECONOMICS</td><td rowspan="16">Teaching methods: verbal (educational lecture; conversation; educational discussion);
inductive method; deductive method;
analytical method; synthetic method;
practical (working with statistical data);
explanatory and illustrative; reproductive;
problem-based presentation method;
partially searchable;
research;
interactive methods (discussions, debates; brainstorming);
case method (analysis of real situations, search for problems, proposal of solutions).

Assessment methods: oral control (oral questioning, evaluation of participation in discussions, other interactive learning methods);
written control (tests, independent work, analytical tasks, essays);
test control (closed-form tests: test-alternative, test-compliance);
method of self-control and self-assessment;
case study evaluation.</td></tr>
<tr><td>Topic 1.</td><td>Ergonomics in the system of economic sciences.</td></tr>
<tr><td>Topic 2.</td><td>Methodological foundations of ergonomics</td></tr>
<tr><td>Topic 3.</td><td>Functioning of the "man-machine-environment" system</td></tr>
<tr><td>Topic 4.</td><td>Methodology for determining the economic and social efficiency of the "man-machine-environment" system</td></tr>
<tr><td>Topic 5.</td><td>Quality assessment of elements of the "human-machine-environment" system.</td></tr>
<tr><td colspan="2">CONTENT MODULE 2.
DESIGN AND ASSESSMENT OF ECONOMIC AND SOCIAL EFFICIENCY OF THE “HUMAN-MACHINE-ENVIRONMENT” SYSTEM</td></tr>
<tr><td>Topic 6.</td><td>Ergonomic expertise and standardization in ergonomics.</td></tr>
<tr><td>Topic 7.</td><td>Selection and adaptation of employees in the "man-machine-environment" system</td></tr>
<tr><td>Topic 8.</td><td>Designing workplaces in the "human-machine-environment" system.</td></tr>
<tr><td>Topic 9.</td><td>Design of technical means in the "man-machine-environment" system.</td></tr>
<tr><td>Topic 10.</td><td>Ergonomic requirements for the design of technological processes.</td></tr>
<tr><td></td><td></td></tr>
<tr><td colspan="2">Modular test</td></tr>
<tr><td colspan="3">Form of assessment: credit</td></tr>
</table>

Technical equipment and/or software. The educational process uses classrooms, a library, a multimedia projector and a computer for conducting lectures and seminars with presentation elements. Studying individual topics and completing practical tasks requires access to information from the World Wide Web, which is provided by a free Wi-Fi network.

Forms and methods of control.

Monitoring the progress of students is divided into current and final (semester).

Current control carried out during practical and seminar classes. Its purpose is to systematically check the level of students' mastery of theoretical foundations and practical skills in ergonomics, to identify the level of understanding of the principles of human interaction with technical and production systems, and to promote the formation of competencies necessary for optimizing the working environment, increasing safety, efficiency and comfort of work.

Forms of student participation in the educational process, which are subject to current control:

1. Attendance and active participation in lectures and practical classes - demonstration of interest, participation in discussions, completion of mini-tasks.
2. Implementation of individual tasks, cases or projects - analysis of ergonomic situations, development of work environment elements, assessment of ergonomic risks.
3. Preparation and defense of presentations, reports or reports - on topics related to ergonomic principles, standards, and practical examples.
4. Completion of test tasks or written tests - testing knowledge of ergonomics theory, standards and analysis methods.
5. Participation in group discussions, business games, practical simulations - simulation of the processes of developing and evaluating ergonomic solutions.
6. Independent work with recommended literature and electronic resources - with subsequent report or discussion of the results.

Current control methods:

- oral control (survey, conversation, report, message);
- written control (test paper, analytical report, essay);
- combined control (oral and written combination to assess understanding and practical skills);
- presentation of independent work or case analysis;
- monitoring activity and participation in practical classes;
- test control (closed and open tasks);
- working with problem situations (analytical cases).

Assessment system and requirements.

Table of points awarded to higher education students *

Topics	**Ongoing knowledge assessment**										**Final control**		
											Modular test	**Credit****	**Total points**
	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6	Topic 7	Topic 8	Topic 9	Topic 10	20	20*	100
Work in a seminar class	3	3	3	3	3	3	3	3	3	3			
Independent work	3	3	3	3	3	3	3	3	3	3			

*The table contains information about the maximum points for each type of academic work of a higher education applicant.

When assessing the mastery of each topic for current educational activities, the student is given grades taking into account the approved assessment criteria for the relevant discipline.

The criteria for assessing the learning outcomes of students and the distribution of points they receive are regulated by the Regulations on the Assessment of Academic Achievements of Students of Higher Education at PJSC "Higher Education Institution "MAUP".

Module control is carried out in the last lesson of the module in written form, in the form of testing.

Evaluation criteria for the modular test in the academic discipline "Ergonomics":

When evaluating a module test, the volume and correctness of the tasks are taken into account:

- the grade "excellent" (A) is given for the correct completion of all tasks (or more than 90% of all tasks);
- a grade of "good" (B) is given for completing 80% of all tasks;
- a grade of "good" (C) is given for completing 70% of all tasks;
- a grade of "satisfactory" (D) is given for the correct completion of 60% of the proposed tasks;
- the grade "satisfactory" (E) is given if more than 50% of the proposed tasks are completed correctly;
- an "unsatisfactory" (FX) grade is given if less than 50% of the tasks are completed.

Failure to appear for a module test - 0 points.

The above scores are converted into rating points as follows:

"A" - 18-20 points;
"B" - 16-17 points;
"C" - 14-15 points;
"D" - 12-13 points.
"E" - 10-11 points;
"FX" - less than 10 points.

The final semester assessment in the discipline "Ergonomics" is a mandatory form of assessing students' learning outcomes. It is conducted within the time frame specified in the curriculum and covers the scope of material specified in the course program.

The final assessment is carried out in the form of a test. A student who has completed all the required work is allowed to take the semester assessment.

The final grade is based on the student's performance during the semester. The student's grade consists of points accumulated from the results of the current assessment and incentive points.

Students who have completed all required assignments and received a score of 60 points or higher receive a grade corresponding to the grade received without additional testing.

For students who have completed all the required tasks but received a score below 60 points, as well as for those who wish to improve their score (result), the teacher conducts a final work in the form of a test during the last scheduled lesson in the discipline in the academic semester.

Assessment of additional (individual) types of educational activities. Assessment of additional (individual) types of educational activities. Additional (individual) types of educational activities include the participation of applicants in scientific conferences, scientific circles of applicants and problem groups, preparation of publications, participation in All-Ukrainian Olympiads and competitions and International competitions, etc. in excess of the tasks established by the relevant work program of the academic discipline.

By decision of the department, students who participated in research work and performed certain types of additional (individual) educational activities may be awarded incentive (bonus) points for a specific educational component.

Assessment of independent work

The total number of points received by a student for completing independent work is one of the components of academic success in the discipline. Independent work on each topic, in accordance with the course program, is evaluated in the range from 0 to 3 points using standardized and generalized knowledge assessment criteria.

Assessment scale for independent work (individual assignments) assessment criteria..

Maximum possible assessment of independent work (individual tasks)	Execution level			
	Perfectly	Good	Satisfactory	Unsatisfactory
3	3	2	1	0

Forms of assessment include: ongoing assessment of practical work; ongoing assessment of knowledge acquisition based on oral responses, reports, presentations and other forms of participation during practical (seminar) classes; individual or group projects that require the development of practical skills and competencies (optional format); solving situational tasks; preparing summaries of independently studied topics; testing or written exams; preparing draft articles, conference abstracts and other publications; other forms that ensure comprehensive mastery of the curriculum and contribute to the gradual development of skills for effective independent professional (practical, scientific and theoretical) activity at a high level.

To assess the learning outcomes of a higher education applicant during the semester, a 100-point, national and ECTS assessment scale is used.

Final assessment scale: national and ECTS

Total points for all types of learning activities	**ECTS assessment**	**National scale assessment**	
		for exam, course project (work), practice	**for credit**
90 – 100	A	perfect	passed
82 – 89	B	good	
75 – 81	C		
68 – 74	D	satisfactory	
60 – 67	E		
35 – 59	FX	unsatisfactory with the possibility of reassembling	not passed with the possibility of retaking
0 – 34	F	unsatisfactory with mandatory re-study of the discipline	not passed with mandatory re-study of the discipline

Course policy.

To successfully complete the "Ergonomics" course, the student must:

- regularly attend lectures and practical classes;
- work systematically, systematically and actively in lectures and practical classes;
- make up for missed classes or unsatisfactory grades received in classes;
- to fully perform the tasks that the teacher requires to prepare, their quality is appropriate;
- perform control and other independent work;
- adhere to the norms of academic conduct and ethics.

The course "Ergonomics" involves the assimilation and observance of the principles of ethics and academic integrity, in particular, an orientation towards the prevention of plagiarism in any of its manifestations: all works, reports, essays, abstracts and presentations must be original and authorial, not overloaded with quotations, and must be accompanied by references to primary sources. Violations of academic integrity are considered to be: academic plagiarism, self-plagiarism, fabrication, falsification, copying, deception, bribery, and biased evaluation.

Recommended sources of information.

Main literature:

1. Golinko V.I., Cheberyachko S.I., Deryugin O.V. Ergonomic analysis of working conditions. Textbook. Dnipro: Serednyak T.K., 2018. 200 p.
2. Assessment of ergonomic risks in ergatic systems. Textbook. Dnipro: Serednyak T.K., 2021, 120 p.
3. Ergonomics and design. Designing modern types of clothing: Textbook. / M.V. Kolosnichenko, L.I. Zubkova, K.L. Pashkevych, T.O. Polka, N.V. Ostapenko, I.V. Vasilyeva, O.V. Kolosnichenko. –K.: PP "NVC "Profi", 2014. 386 p.

Additional literature:

1. Ivaskevych I.O. Ergonomics: a textbook. Ternopil: Economic Thought, 2002. 168p.

Electronic resources:

1. https://zakon.rada.gov.ua
2. https://dsp.gov.ua/category/diyalnist/administratyvni-listen/
3. https://dsns.gov.ua/uk/diyalnist-services