



Fundamentals of a Healthy Lifestyle

Curriculum of the academic discipline (Syllabus)

Course details

Level of higher education *First (bachelor's)*

Field of knowledge	All
Specialty	All
Educational program	All
Discipline status	Mandatory
Form of study	Full-time (day)
Year of training, semester	1st year (first and second semesters)
Scope of the discipline	3 ECTS credits lessonroom sessions 72 hours: lectures – 18 hours, practical sessions – 54 hours, independent work – 18 hours
Semester assessment/assessment measures	Credit, Module test (1,2 parts), calendar control
lesson schedule	According to the schedule https://schedule.kpi.ua/
Language of instruction	Ukrainian
Information about the course leader/teachers	http://ktos-fbmi.kpi.ua/article/spivrobotnyky

Curriculum

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

The main objective of the academic discipline "Fundamentals of a Healthy Lifestyle" is to motivate higher education students to lead a healthy lifestyle and

- the ability to plan and manage time (**SS03**)
- the ability to work in a team (**SS06**)
- the ability to use various types and forms of physical activity for active recreation and a healthy lifestyle (**SS12**)

After completing the course, higher education students should demonstrate the following learning outcomes:

HS11 - Apply interpersonal skills to interact with other people and engage them in teamwork.

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

The discipline "Fundamentals of a Healthy Lifestyle" belongs to the cycle of general training disciplines; it is a mandatory component of the Educational Program, and the post-requisite is the discipline "Occupational Safety and Civil Protection."

3. Content of the academic discipline

The course material consists of two sections:

Section 1. Developing motivation for a healthy lifestyle Topic 1.1.

General principles of health

Topic 1.2. Health benefits of behavior

Topic 1.3. Health and age periods of human life

Topic 1.4. Nutrition and health

Section 2. Developing healthy lifestyle skills and habits through physical activity

Topic 2.1. Physical activity of people of different ages and genders

Topic 2.2 Individual physical activity programs

4. Teaching materials and resources Basic

Teaching literature:

Training manuals

1. Complex coordination sports (gymnastics, acrobatics, trampoline jumping, choreography, workout). Gymnastics, acrobatics [Electronic resource]: textbook for bachelor's degree seekers / Igor Sikorsky KPI; compiled by: Zenina I. V., Shyshatska V. I., Dobrovolsky V. E. – Electronic text data (1 file: 1.38 MB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2023. – 140 p. – Title from screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/55564>

2. Fundamentals of a healthy lifestyle. Practical work. For independent work by students [Electronic resource]: textbook for students of all educational programs / Igor Sikorsky Kyiv Polytechnic Institute; comp.: I. Yu. Karpyuk, T. K. Obezuk. – Electronic text data (1 file: 6.53 MB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2022. – 419 p. – Title from the screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/50782>

3. Power sports. Athletic gymnastics [Electronic resource]: textbook for students / Igor Sikorsky KPI; compiled by: Syrotynska O. K., Sabirov S. O., Syrovatko Z. V., Chekhovska A. Yu. – Electronic text data (1 file: 4.31 MB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2022. – 163 p.–Title from screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/50027>

4. Fundamentals of a healthy lifestyle: health and fitness programs [Electronic resource]: textbook for bachelor's degree students / Igor Sikorsky Kyiv Polytechnic Institute; compiled by: I. V. Zenina, V. E. Dobrovolsky, V. I. Shishatska. – Electronic text data (1 file: 1.14 MB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2021. – 78 p. – Title from the screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/42021>

5. Physical education. Aerobics [Electronic resource]: textbook / Igor Sikorsky Kyiv Polytechnic Institute; comp. S. E. Tolmacheva, N. V. Kuzmenko, A. Yu. Chekhovska, I. Yu. Zakharova. – Electronic text data (1 file: 4.04 MB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2019. – 151 p. URL:

<https://ela.kpi.ua/handle/123456789/32204>

Additional literature:

Manual

1. Physical education. Tennis [Electronic resource]: textbook for bachelor's degree students / Burlaka I. V., Lukachina A. V.; Igor Sikorsky Kyiv Polytechnic Institute. – Electronic text data (1 file: 1.48 MB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2022. – 75 p. – Title from screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/48820>

2. Physical education. Sports gymnastics: Technique for performing physical exercises on gymnastic equipment [Electronic resource]: textbook for bachelor's degree students / Igor Sikorsky KPI; comp.: I. V. Zenina, V. E. Dobrovolsky, V. I. Shishatska. – Electronic text data (1 file: 478.61 KB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2019. – 64 p. URL:

<https://ela.kpi.ua/handle/123456789/27932>

3. Optimization of the swimming training process using aqua fitness [Electronic resource]: methodological recommendations for practical lessons for students of the swimming training department / Igor Sikorsky Kyiv Polytechnic Institute; compiled by: N. A. Dakal, O. G. Cherevychko, O. Yu. Kalishchuk. – Electronic text

data (1 file: 114.29 KB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2017. – 26 p. – Title from screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/21002>

4. Physical education. Athletic gymnastics for beginners (back muscles) [Electronic resource]: methodological recommendations for independent work by students / Igor Sikorsky Kyiv Polytechnic Institute; compiled by O. F. Tverdokhlib, M. G. Masalkin, Yu. O. Martynov. – Electronic text data (1 file: 2.67 MB). – Kyiv: Igor Sikorsky KPI, 2017. – 43 p. – Title from the screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/20607>

5. Physical education. Athletic gymnastics for beginners (upper limb muscles) [Electronic resource]: methodological recommendations for independent work by students / Igor Sikorsky KPI; O. F. Tverdokhlib, A. I. Sobolenko, M. M. Koryukaev. – Electronic text data (1 file: 1.47 MB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2017. – 36 p. – Title from screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/20606>

6. Individualization of the educational process for students in practical lessons on shaping [Electronic resource]: methodological recommendations for practical lessons for students of the shaping department / Igor Sikorsky KPI; compiled by: G. L. Boiko, S. U. Sharafutdinova, T. G. Kozlova, N. V. Ivanyuta, N. E. Gavrilova. – Electronic text data (1 file: 737.41 KB). – Kyiv, 2017. – 58 p. – Title from screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/20446>

7. Methodological guidelines for compliance with safety requirements and prevention of injuries to students during athletic gymnastics lessons in higher education institutions [Electronic resource] / Igor Sikorsky Kyiv Polytechnic Institute; compiled by: O. K. Syrotynska, M. S. Pankratov. – Electronic text data (1 file: 155.5 KB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2017. – 24 p. – Title from screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/20060>

8. Independent physical education lessons for tourism students [Electronic resource]: methodological recommendations for studying the discipline / Igor Sikorsky Kyiv Polytechnic Institute ; compiled by: V. M. Mykhailenko, S. M. Soha. – Electronic text data (1 file: 128.42 KB). – Kyiv : Igor Sikorsky KPI, 2017. – 64 p. – Title from the screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/20033>

9. Physical education. Material and technical support for table tennis [Electronic resource]: methodological recommendations for studying the discipline for students Table Tennis Training Department / Igor Sikorsky Kyiv Polytechnic Institute; compiled by L. G. Gryshko, I. V. Novikova, V. K. Shcherbachenko, O. M. Chichenova. – Electronic text data (1 file: 1.45 MB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2017. – 43 p. – Title from screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/19854>

10. Measures to prevent injuries during gymnastics lessons [Electronic resource]: methodological recommendations for students engaged in gymnastics / Igor Sikorsky Kyiv Polytechnic Institute; compiled by I. V. Zenina; edited by Yu. I. Khimich. – Electronic text data (1 file: 213.5 KB). – Kyiv: Igor Sikorsky KPI, 2017. – 38 p. – Title from screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/19344>

11. Physical education [Electronic resource]: methodological recommendations for independent physical education lessons for students of the aerobics department of NTUU "KPI". Methodological recommendations for students engaged in aerobics / NTUU "KPI"; compiled by N. V. Ivanyuta, S. E. Tolmacheva, N. V. Kuzmenko, N. V. Gradusova [et al.]. – Electronic text data (1 file: 32.4 KB). – Kyiv: NTUU "KPI", 2015. – 137 p. – Title from screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/15480>

Features of organizing and conducting volleyball competitions in higher educational institutions under simplified rules [Electronic resource]: methodological recommendations / NTUU "KPI"; compiled by D. M. Mishchuk. – Electronic text data (1 file: 874 KB). – Kyiv: NTUU "KPI", 2015. – 29 p. – Title from the screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/15477>

12. Physical education. Methodological recommendations for performing a set of exercises with a fitball for students of the aerobics department of NTUU "KPI" [Electronic resource] / NTUU KPI; compiled by N. V. Ivanyuta, S. E. Tolmacheva. – Electronic text data (1 file: 906 KB). – Kyiv: NTUU "KPI", 2015. – 42 p. – Title from the screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/11742>

13. Methodological recommendations for organizing and conducting training sessions in the table tennis department of NTUU "KPI" [Electronic resource] / NTUU "KPI"; compiled by L. G. Gryshko, O. M. Chichenova, V. K. Shcherbachenko. – Electronic text data (1 file: 448 KB). – Kyiv: NTUU KPI, 2014. – 58 p. – Title from screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/10156>

14. Development of physical qualities in shaping lessons [Electronic resource]: methodological recommendations for practical lessons for students of the shaping department / NTUU "KPI"; compiled by G. L. Boiko,

O. F. Tverdokhlib, T. G. Kozlova, S. U. Sharafutdinova, N. E. Gavrilo. –

Electronic text data (1 file: 1.60 MB). – Kyiv: NTUU "KPI", 2014. – 31 p. – Title from the screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/10148>

15. Methodological recommendations for performing a set of exercises according to the Pilates system [Electronic resource] / NTUU "KPI"; compiled by S. E. Tolmacheva, N. V. Ivanyuta. – Electronic text data (1 file: 17.1 MB). – Kyiv: NTUU "KPI", 2014. – 66 p. – Title from the screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/8148>

16. Initial swimming training [Electronic resource]: methodological recommendations for practical lessons for students who cannot swim / NTUU "KPI"; compiled by N. A. Dakal, K. M.

Smirnov, E. M. Shcheglov. – Electronic text data (1 file: 5.72 KB). – Kyiv: NTUU "KPI", 2012. – Title from the screen. URI (Uniform Resource Identifier):

<https://ela.kpi.ua/handle/123456789/1787>

Educational content

5. Methodology for mastering the academic discipline (educational component)

Section 1. Theoretical and methodological foundations for forming motivation for a healthy lifestyle living.

Topic 1.1. General principles of health

Lecture 1. Health as a national priority and a personal need.

The history of human understanding of the essence of health from ancient times to the present day. Concepts of health and healthy lifestyles. State approaches to the formation, strengthening, and preservation of human health in the world. Human health – global problems of the present day.

Practical lesson #1. The main components of health. The essential elements of human health, spiritual well-being, and harmonious development: mental, physical, and social. Natural factors of health. The connection between pathology and health, normology. Mechanisms for studying health.

Conducting an express survey.

Practical lesson #2. The essence of a healthy lifestyle and the conditions for its formation. The role of motivations and attitudes in forming the foundations of a healthy life for modern people. Components of a healthy lifestyle for modern people: method, level, quality, lifestyle, etc.

Conducting an express survey

Practical lesson No. 3. Genetic aspects of health. Biorhythms and health. Mental and physical working capacity of a person. Fatigue, its essence and diagnosis. Overwork, measures to prevent it. Daily routine.

Conducting a quick survey

Topic 1.2. Health benefits of behavior.

Lecture 2. Hierarchy of needs and values in human existence. Heredity, habits, preferences.

Social conditioning of human health: hierarchy of needs and values in human existence. Heredity, habits, preferences. Moral principles. Self-discipline, spirituality, control of desires and emotions.

Practical lesson #4. Human health and behavioral characteristics that contribute to its preservation and strengthening. The impact of behavior on human reserves and resources. Deviant behavior (alcohol, drug, tobacco, and e-cigarette use, substance abuse, etc.) and its prevention. Social conditions of health.

Conducting an express survey

Practical lesson No. 5. Physical health, its essence. Adaptive potential. Modern approaches to determining the quantitative characteristics of physical health. Comprehensive assessment of physical working capacity: testing of physical qualities, functional diagnostics of body systems, anthropometry, assessment of the musculoskeletal system. Methods of self-assessment of human physical condition.

Conducting an express survey **Topic 1.3.**

Health and age periods of human life Lecture 3. Age-related changes in personal potential.

Determining a person's biological age. Theories of human aging. The concept of "psychosomatic state of a

person." Psychosomatic disorders, their characteristics. Means of regulating the psychosomatic state. Mental health. Psychosomatic overload and factors contributing to its occurrence.

Practical lesson 6. Biomarkers of aging and means of influencing them. Theories of aging.

Conducting an express survey

Practical lesson 7. Health and environmental factors. The healing properties of color, sound, smell, etc. The basics of phytotherapy. Psycho-emotional and mental means of regulating and self-regulating the psychosomatic state of a person. The theory of color perception according to M. Luscher. Temperament types.

Conducting an express survey

Practical lesson No. 8. Stress, its concept. Stress factors. Stress resistance in different periods of life, prevention of disorders. Emotional discomfort as a factor in psychosomatic disorders. Prevention of psychosomatic disorders. Persons at risk.

Conducting an express survey

Topic 1.4. Nutrition and health

Lecture 4. The impact of qualitative and quantitative parameters of nutrition on human health.

Nutrition and health. Modern theories of nutrition. Characteristics of the main food groups. A balanced and rational diet: norms, frequency, daily distribution of nutrient intake, and calorie content.

Practical lesson No. 9. Modern nutrition problems. The harmful effects of modern nutrition. The impact of food additives on human health. The formation of human food motivation.

Conducting an express survey.

Practical lesson No. 10. Modern theories of nutrition. Principles of proper nutrition.

Health and therapeutic nutrition. The role of water in sustaining life.

Conducting a quick survey

Practical lesson #11. Food components and their importance for the body. Rules for using food products. Food quality and disease. Food contamination and the risk of disease.

Conducting a quick survey

Practical lesson No. 12. Determining the components of body weight and methods of its correction. Features of nutrition for representatives of different somatotypes. Features of fitness and sports nutrition.

Conducting an express survey

Lecture 5. Environmental aspects of nutrition

Factors of technogenic impact on the environment. Environmental pollution in conditions of military operations and basic methods of environmental protection. Soil and microorganisms. Food purification technologies.

Practical lesson No. 13. Problems of hidden starvation: the impact of vitamin and micronutrient deficiencies on health. The impact of nutrition on the microbiota. The impact of diet on metabolic processes in the body. The healthy eating pyramid. Nutritional considerations in cases of psychosomatic disorders. Antidepressant foods.

Conducting an express survey.

Practical lesson No. 14. Completion of modular control work (Part 1)

Section 2. Developing healthy lifestyle skills and habits through physical activity.

Topic 2.1. Physical activity of people of different ages and genders

Lecture 6. Physical activity as a biological need of the body

The essence of physical activity. The impact of physical activity on the human body. The human musculoskeletal system, the peculiarities of its formation and its importance for human health.

Practical lesson No. 15. Physical activity and its effect on the human body. Hypodynamia and hypokinesia and their impact on the human body. Norms of physical activity. The impact of physical activity on the musculoskeletal system.

Conducting an express survey.

Practical lesson No. 16. Physical exercises as a means of non-specific prevention of functional disorders and diseases. Types of physical exercises. Principles of physical activity.

Conducting an express survey

Practical lesson No. 17. Age-related dynamics of human performance decline. Factors contributing to human performance decline. Manifestation of physical qualities at different ages.

Conducting an express survey

Lecture 7. Health improvement systems.

Health improvement systems at the current stage of physical culture development. Health improvement systems and their components. Lessonification of the main natural health improvement systems. Scientifically based, folk, and traditional health improvement systems.

Practical lesson No. 18. Respiratory health systems: breathing according to K. Buteyko; breathing according to O. Strelnikova; breathing techniques in yoga and Eastern martial arts. The "Bodyflex" system.

Conducting an express survey.

Practical lesson No. 19. Health food systems: features of dietary nutrition. M. Montignac's nutrition system. Veganism and vegetarianism. Intermittent fasting system.

Conducting an express survey.

Practical lesson No. 20. Balneological systems of influence on the body: O. Zalmov's system; S. Kneipp's system; Wim Hof's system, types of hardening.

Conducting an express survey.

Practical lesson No. 21. Physical development systems: Katsuzo Nishi's health system. Health walking and running systems. J. Pilates' system. Moshe Feldenkrais' system. T. Hanna's somatics. Aqua aerobics.

Conducting an express survey

Topic 2.2 Individual physical activity programs.

Lecture 8. Justification and application of physical activity programs of various types.

Goals and objectives of health and sports training programs. Principles of health training. Taking into account individual characteristics when developing health-oriented training programs. Focus of training programs.

Practical lesson No. 22. Characteristics of loads used in training programs. Structure of a training session. Features of the application of physical loads of different types. Control and self-control of the state of the body.

Conducting an express survey

Lecture 9. Methods for mastering programs of various types of physical activity.

Methods for developing physical qualities. Methods for restoring physical working capacity.

Practical lesson No. 23. Methods for developing endurance and speed abilities.

Conducting an express survey

Practical lesson No. 24. Methods of strength training.

Conducting an express survey

Practical lesson No. 25. Methods for developing flexibility. Methods for developing coordination and agility.

Conducting an express survey.

Practical lesson No. 26. Completing the Module test (Part 2).

Practical lesson No. 27. Conducting a test

6. Independent work by students

Preparation for practical lessons, completion of Module test s.

Independent work by higher education students (18 hours) involves preparation for lesson room sessions and tests.

Distribution of independent work hours: preparation for practical lessons – 9 hours; preparation for Module test s – 6 hours; preparation for exams – 3 hours.

Policy and control

7. Academic discipline policy (educational component)

System of requirements for higher education students:

Rules of conduct in lesson: compliance with safety requirements.

Rules for defending individual assignments: compliance with the principle of academic integrity.

Rules for awarding incentive points: incentive points are awarded for analytical work on topics agreed with the teacher, up to 10 points.

- **Deadline and retake policy:** lessons missed without valid reasons are made up within the time allotted for this at the end of the semester. Higher education students are allowed two retakes in the presence of a commission.

- **Academic integrity policy:** the policy, principles of academic integrity, and standards of ethical behavior for higher education students and faculty members of the University are defined in the Code of Honor of Igor Sikorsky KPI (see: <https://kpi.ua/code>).

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

First semester

1. Completion of test assignments in practical lessons

In practical lessons № 1-9, test assignments are assessed on a 2-point scale.

The maximum number of points for test assignments is 18 points. The maximum grade is 18 points.

Calendar control is carried out during the semester as monitoring of the current status of fulfillment of the

syllabus requirements. A higher education applicant receives a positive result from CC if their current rating score is at least 50% of the maximum possible at the time of CC.

Second semester

1. Completion of test assignments in practical lessons

In practical lessons №10-13, 15-25, test assignments are graded on a 2-point scale.

The maximum number of points for test assignments is 30 points.

2. Module test (Parts 1 and 2)

The Module test (Parts 1 and 2) is conducted during the 14th and 26th practical lessons as a test containing 26 test questions in each part, with each correct answer worth 1 point.

The maximum score for the Module test is 52 points.

Calendar control is conducted twice per semester as monitoring of the current status of fulfillment of the syllabus requirements. A higher education applicant receives a positive result from the CC if their current rating score is not less than 50% of the maximum possible at the time of the CC.

The final assessment of a higher education student's mastery of the educational component is determined by the results of their work for each semester, with their rating points converted according to the university's assessment scale (Table 1).

The final rating of a student cannot exceed 100 points!

Semester control – credit.

If, based on the results of work in the 1st and 2nd semesters, the higher education applicant has scored less than 60 points or wishes to improve their rating score, then on the last scheduled lesson in the 2nd semester (18th week), they are given the opportunity to complete *a credit test*, and their previous result is canceled.

The test is conducted as an integrated test containing 50 test questions, with each correct answer worth 2 points.

The maximum score is 100 points.

The points received by the higher education applicant for the integrated test are converted according to the university grading scale:

Table 1. Correspondence of rating points to grades according to the university grading scale

Higher education applicant's rating points	Grade according to the university scale
95 – 100	Excellent
85	Very good
75	Good
65	Satisfactory
60	Sufficient
< 60	Unsatisfactory

9. Additional information on the discipline (educational component)

The use of modern technologies in the educational process is envisaged during the study of educational discipline.

Work program for the academic discipline (syllabus):

Compiled by:

Acting Head of the Department of Health and Sports Technologies, Candidate of Pedagogical Sciences, Associate Professor, Hanna Leonidivna Boiko Candidate of Pedagogical Sciences, Associate Professor of the Department of Health and Sports Technologies, Yuriy Volodymyrovych Novytskyi

Approved by the Department of Health and Sports Technologies (Minutes No. 12, dated May 24, 2024)

Approved by the University Methodological Council (Minutes No. 8 dated June 20, 2024)

