

Complex and coordination sports

(Aerobics: sports, dance, strength training)

Working program of the academic discipline (Syllabus)

Details of the discipline

Level of higher education	<i>First (undergraduate)</i>
Field of knowledge	<i>All</i>
Specialty	<i>All</i>
Educational program	<i>All</i>
Status of the discipline	<i>Normative</i>
Form of education	<i>part-time education</i>
Year of preparation, semester	<i>2nd year, autumn/spring semester</i>
Volume of the discipline	2 ECTS credits (60 hours) of auditorium; lectures - 6 hours, practical - 2 hours, independent work - 52 hours
Semester control / control measures	<i>Test, home control work</i>
Schedule	<i>According to the schedule of faculties</i>
Language of teaching	<i>English</i>
Information about the course leader/teachers	<i>http://ktos-fbmi.kpi.ua/article/spivrobotnyky</i>
Course placement	Educational division of aerobics https://do.ipk.kpi.ua/course/view.php?id=2386

Curriculum of subject

1 Description of the educational discipline, its purpose, subject of study and results of study

The main goal of the training discipline “Complex and coordination sports (**Aerobics: sports, dance, strength training**)” is formation of the ability of students to maintain at sufficient level the state of physical health, physical and mental working capacity; to develop the basic life-necessary professional-applied skills of movement; to form motivation to exercise movement activity and sport as a component of healthy lifestyle.

The discipline “Complex and coordination sports (**Aerobics: sports, dance, strength training**)” has an interdisciplinary character. It integrates, according to its subject, knowledge in medical-biological, psychological-pedagogical and other sciences, which contribute to the improvement of the level of physical development, functional improvement of the organism systems, development of basic life-critical movement skills and ability for further professional activity.

As a result of studying the education discipline “Complex and coordination sports (**Aerobics: sports, dance, strength training**)”, students will be able to:

- 1) use **aerobics** means: **sports, dance, strength training** to purpose of increasing physical and mental capacity, development of physical qualities, restoration and preservation of health;
- 2) to learn to monitor and self-monitor the functional state of the body;
- 3) to ensure the preservation and strengthening of the state of individual health in order to maintain the proper level of physical condition.

2 Discipline (place in the structural-logical scheme of training under the relevant educational program)

The discipline “Complex and coordination sports (**Aerobics: sports, dance, strength training**)” refers to the cycle of disciplines of general training, it is a selective component of the educational program. For successful mastering of discipline students should belong on the state of health to the basic or preparatory medical group.

3. Content of the educational discipline

Subjects of practical lessons.

- Topic 1. Informational support of the training on aerobics: Sports, dance, strength training.
- Topic 2. Method of determining individual physical condition. Analysis and assessment of individual physical training level.
- Topic 3. Improvement of physical training by means of aerobics: Sports, dance, strength training (for independent study)
- Topic 4. Improvement of the technique of physical exercises from aerobics: Sports, dance, strength training (for independent study)
- Topic 5. Control and assessment of the level of their physical training (for independent study)
- Topic 6. Improvement of physical qualities by means of aerobics: Sports, dance, strength training
- Topic 7. Testing of the level of physical preparation (for independent study).

4. Educational materials and resources

Basic educational literature:

1. Tolmacheva S. E., Ivanyuta N. V. Guidelines for Pilates for students of I-II courses for independent studies of students of the department of educational aerobics. - Electronic version: www.library.kpi.ua, 2014 - 66 p.
2. Physical education. Aerobics [Electronic resource]: textbook / KPI. Igor Sikorsky; structure. S. E. Tolmachova, N.V. Kuzmenko, A.Yu. Chekhovskaya, I. Yu. Zakharova. - Electronic text data (1 file: 4.04 MB). - Kyiv: KPI named after Igor Sikorsky, 2019. - 151 p.
URL: <https://ela.kpi.ua/handle/123456789/32204>
3. Guidelines for performing a set of exercises on the Pilates system [Electronic resource]/NTUU "KPI"; style. S. E. Tolmacheva, N. V. Ivanyuta. - Electronic text data (1 file: 17.1 MB). - Kyiv: NTUU "KPI," 2014. - 66 p. - The name from the screen. Description: The full text of the document is available only in the local network of the university.
URI (Uniform Resource Identifier): <https://ela.kpi.ua/handle/123456789/8148>
4. Guidelines for students "Basic principles and methods of choreographic construction of a lesson in aerobics" [Electronic resource]/KPI them. Igor Sikorsky; style. S. E. Tolmacheva. - Electronic text data (1 file: 159.02 KB). - Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2017. - 42 p. - Name from the screen.
URI (Uniform Resource Identifier): <https://ela.kpi.ua/handle/123456789/19558>
5. Basic aerobics in the structure of health fitness [Electronic resource]: guidelines for practical training in the discipline "Physical Education" for students of all specialties/NTUU "KPI"; style. N.V. Gradusova, N.V. Kuzmenko. - Electronic text data (1 file: 187 KB). - Kyiv: NTUU "KPI," 2011. - Name from the screen. Description: The full text of the document is available only in the local network of the university.

URI (Uniform Resource Identifier): <https://ela.kpi.ua/handle/123456789/1780>

6. Physical education [Electronic resource]: methodical recommendations for independent physical education classes for students of the educational department of aerobics NTUU "KPI". Methodical recommendations for students engaged in aerobics / NTUU "KPI"; structure. N. V. Ivanyuta, S. E. Tolmacheva, N.V. Kuzmenko, N.V. Gradusova [etc.]. - Electronic text data (1 file: 32.4 KB). - Kyiv: NTUU "KPI", 2015. - 137 p. - Name from the screen.

URI (Unified Resource ID): <https://ela.kpi.ua/handle/123456789/15480>

7. Power sports: Athletic gymnastics [Electronic resource]: training. for stud. /KPI them. Igor Sikorsky; way.: Sirotinskaya O.K., Sabirov O.S., Syrovatko Z.V., Chekhovskaya A.Yu. - Electronic text data (1 file: 16.8 MB). - Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2022. - 157 p.

URI (Uniform Resource Identifier): <https://ela.kpi.ua/handle/123456789/50027>

8. Development of speed-strength qualities and special endurance of athletes high class in sports team fitness: training. /Atamanyuk S.I., Pasichna T.V. - Publishing house: Zaporozhye, NU "Zaporizhzhya Polytechnic," 2020. - 141 s.

URI (Uniform Resource Identifier): <https://ela.kpi.ua/handle/123456789/36363> ISBN 978-617-529-274-7 UDC 796.4

Auxiliary educational literature:

1. Physical education: Course of lectures on the discipline for students of all specialties/Structure. Vykhliaev Yu. M., Davydenko V. Yu., Boyko G. L., Karpyuk I. YU. - K.: NTUU "KPI," 2007, p. 6 - 13.

2. Physical education. Athletic gymnastics for beginners (back muscles) [Electronic resource]: guidelines for independent work of students/KPI them. Igor Sikorsky; style. O.F. Tverdokhleba, M.G. Masalkin, Yu. O. Martynov. - Electronic text data (1 file: 2.67 MB). - Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2017. - 43 p. - Name from the screen.

URI (Uniform Resource Identifier): <https://ela.kpi.ua/handle/123456789/20607>

3. Physical education. Athletic gymnastics for beginners (muscles of the upper limbs) [Electronic resource]: guidelines for independent work of students/KPI them. Igor Sikorsky; O.F. Tverdokhleba, A. and. Sobolenko, M. M. Koryukaev. - Electronic text data (1 file: 1.47 MB). - Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2017. - 36 p. - Name from the screen.

URI (Uniform Resource Identifier): <https://ela.kpi.ua/handle/123456789/20606>

4. Physical education [Electronic resource]: methodical recommendations for independent physical education classes for students of the educational department of aerobics NTUU "KPI". Methodical recommendations for students engaged in aerobics / NTUU "KPI"; structure. N. V. Ivanyuta, S. E. Tolmacheva, N.V. Kuzmenko, N.V. Gradusova [etc.]. - Electronic text data (1 file: 32.4 KB). - Kyiv: NTUU "KPI", 2015. - 137 p. - Name from the screen.

URI (Unified Resource ID): <https://ela.kpi.ua/handle/123456789/15480>

5. Physical education. Guidelines for performing a set of exercises with fitball for students of the training department of aerobics 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. - Name from the screen. Description: The full text of the document is available only in the local network of the university

URI (Uniform Resource Identifier): <https://ela.kpi.ua/handle/123456789/11742>

6. Guidelines for performing a set of exercises on the Pilates system [Electronic resource]/NTUU "KPI"; style. S. E. Tolmacheva, N. V. Ivanyuta. - Electronic text data (1 file: 17.1 MB). - Kyiv: NTUU "KPI," 2014. - 66 p. - The name from the screen. Description: The full text of the document is available only in the local network of the university.

URI (Uniform Resource Identifier): <https://ela.kpi.ua/handle/123456789/8148>

7. Basic aerobics in the structure of health fitness [Electronic resource]: guidelines for practical training in the discipline "Physical Education" for students of all specialties/NTUU "KPI"; style. N.V. Gradusova, N.V. Kuzmenko. - Electronic text data (1 file: 187 KB). - Kyiv: NTUU "KPI," 2011. - Name from the screen. Description: The full text of the document is available only in the local network of the university.

URI (Uniform Resource Identifier): <https://ela.kpi.ua/handle/123456789/1780>

Literature for independent study topics: (3,4,5,7)

1. Physical education of students: educational method. position . /O.M. School, D.V. Pyatnitskaya, A.V. Boichenko, G.V. Tamozhanskaya, L.K. Grishchenko, O.I. Galashko, O.I. Grishchenko, D.V. Sychev, O.V. Fomenko, V.H. Fomenko/for the general. ed. A.M. Schools. - H.: FOP Brovin O.V., 2016. - 456 s.UDC 378.016: 796 (076) BBK 74.580.055

2. Development of speed-strength qualities and special endurance of athletes' high class in sports team fitness: training. /Atamanyuk S.I., Pasichna T.V. - Publishing house: Zaporozhye, NU "Zaporizhzhya Polytechnic," 2020. - 141 s.

URI (Uniform Resource Identifier): <https://ela.kpi.ua/handle/123456789/36363> ISBN 978-617-529-274-7 UDC 796.4

3. Health aerobics for students/Todorova V.G./Educational manual. - Odessa, 2013. – 53p.

4. Musical Rhythm and Fundamentals of Choreography/Todorova V.G./Teaching manual. - Odessa, 2013. - 10p.

5. Some aspects of the physical education of student youth. Methods for promoting the development of coordination abilities through aerobics classes/Cherepovskaya O.A., Pasichnaya T.V., Serbo E.V.//Scientific Journal of the National Pedagogical University named after M.P. Drahomanov. Series 15: Scientific and pedagogical problems of physical culture (physical culture and sports): Sat. science. works. - Kyiv: NPU Dragomanov Publishing House, 2018. - Vol. 4 (98). - S. 179-182.

URI (Uniform Resource Identifier): <https://ela.kpi.ua/handle/123456789/30359>

Educational content

5. Method of teaching of educational discipline (educational component)

Topic 1. Information support for sessions by aerobics: sports, dance, strength training.

Lecture. Characteristics of complex coordination sports (Aerobics: sports, dance, strength training).

Organization of physical education system in Igor Sikorsky Kyiv Polytechnic Institute. Features of technical training in **complex coordination sports (aerobics: sports, dance, strength training)**. Safety technique at the sessions on complex coordination sports. The influence of classes in complex coordination sports (aerobics: sports, dance, power training) on the human body.

Topic 2. Method of determining individual physical condition.

Lecture. Assessment of the physical condition of those involved in complex coordination sports.

Functional diagnostics of body systems: testing the level of functional state of the cardiovascular system, respiratory system and psychophysical state of the human body. Anthropometry. Assessment of the musculoskeletal system. Testing the level of development of physical qualities, technical preparedness. Methods of self-assessment of a person's physical states.

Topic 3. Improvement of physical training by means of aerobics: Sports, dance, strength training.

Lecture. Development and improvement of physical qualities by means of complex coordination sports.

Methods for the development of physical qualities of a person: speed, strength, coordination abilities, flexibility, endurance by means of **complex coordination sports**. Features of the application of physical activity in accordance with the level of physical fitness of those who are engaged. Techniques for recovery physical performance.

Practice session. Methods for determining the individual level of the functional state of the cardiovascular system, respiratory and nervous systems of the body. Features of the development of the basic physical qualities of a person. Assessment of the level of physical fitness of those involved.

Home control work topics

1. Theoretical knowledge on the history and development of aerobics in Ukraine.
2. Dance aerobics as a kind of motor activity to maintain a high level of physical and mental performance.

3. Sports aerobics as a modern sport to maintain a high level of physical and mental performance.
4. Increasing motivation for physical education by means of sports aerobics as a component of high-quality higher education.
5. Formation of motivation for the dance aerobics sessions as a component of a healthy lifestyle.
6. Aero Dance team program of sports aerobics, the level of its development in the world.
7. Types of aerobics its modern goals and objectives.
8. Mastering various styles of Funk aerobics dance culture to develop coordination abilities.
9. Aerobics as a means of recovering and maintaining proper health.
10. Dance aerobics (for example of Latino style) as a means of recovering the efficiency of students engaged at the educational department.
11. Planning independent sessions for students of the educational department.
12. Step aerobics as a means of the basic part of aerobics.
13. Influence of musical accompaniment on the emotional state of students.
14. Step aerobics as a means of teamwork of students to achieve a common goal.
15. Application of basic aerobic exercises with fitball, gymnastic sticks, isotonic rings, as a method of developing flexibility, strength, strength endurance.
16. Mastering various styles of dance in aerobics, as a means of developing coordination abilities.
17. The health impact of dance aerobics (for example bachata) on the functional state of health of students of technical specialties.
18. Belly dance as a method of developing the creative abilities of technical universities students.
19. Skills and abilities of applying control over the state of the cardiovascular and respiratory systems, injury prevention and first aid for injuries and poor health.
20. Strenflex - competitive testing of student abilities and level of physical condition.

registration requirements home control work (HCW):

font Times New Roman

font size – 14

line spacing - 1,5

A 4 - book;

Upper, lower field - 20 mm, lower field - 25 mm, right field - 15 mm;

volume of work - 16-20 pages of text (without title page, pages with plan and literature);

Language – English/Ukrainian;

Structure of home control work (HCW):

title page,

plan,

introduction,

main part,

conclusions,

references 8-12 sources (active references in the text)

6. Independent work of the student

Preparation for practical sessions, execution of home control work.

Independent work of the student (52 hours) involves independent study of the course topics, preparation for classroom sessions and control activities.

IWS hour allocation: preparation for practice sessions - 20 hours; preparation for home control work (HCW) - 30 hours; preparation for the test - 2 hours.

Policy and control

7. Discipline policy (educational component)

System of requirements for the student:

Rules of conduct at the training: compliance with safety requirements.

Rules for protection individual tasks: respect for the principles of academic integrity.

- *policy of deadlines and retakes:* higher education applicants have the opportunity of two retakes
- other requirements that do not contradict the legislation of Ukraine and regulatory documents of the University:
- policy on academic integrity: policy, principles of academic integrity and norms of ethical behavior of higher education applicants and University employees are defined in the Code of Honor of Igor Sikorsky Kyiv Polytechnic Institute (<https://kpi.ua/code>).

8. Types of control and rating system for assessing learning outcomes

1. Performance of tasks provided by practice sessions

At the practice session, each test task from 20 tests is estimated at 2 points.

The maximum number of points for test tasks is 40 points.

2. Home control work

The home control work is performed on the proposed topic

The maximum score is 60 points.

The acquisition of the educational component by the higher education applicant is assessed according to the results of his work for the semester with the translation of his rating points, in accordance with the university assessment scale (Table 1).

The final rating of the higher education applicant cannot exceed 100 points!

Semester control – test.

Higher education applicants who scored less than 60 points during the semester, as well as those who want to increase the overall rating, perform the test work (integral test) at the last scheduled session (18th week). At the same time, all points that they received during the semester are canceled.

The credit control work (integral test) is carried out in the form of testing. The higher education applicant is offered an integral test containing 50 questions, each correct answer is estimated at 2 points.

The maximum number of points for an integral test is 100 points.

Table 1. Compliance of rating points with grades on the university scale

Rating points of the higher education applicant	Grade on the university scale
95 – 100	Excellent
85 – 94	Very good
75 – 84	Good
65 – 74	Satisfactory
60 – 64	Sufficient
< 60	Failed

• Additional information on discipline (educational component)

During the passage of educational material on the academic discipline, the use of modern technologies in the educational process is provided.

Working program of the academic discipline (Syllabus):

Compiled by:

Acting Head of Department health and sports technologies, Candidate of Pedagogical Sciences,

Associate Professor **Boyko Ganna**

Senior Lecturer **Chekhovska Anna**

Approved by the Department health and sports technologies (protocol No. 3 of 18.10.2022)

Agreed by the Methodical Council of the University (protocol No. 8 of 02.06.2023)