National Technical Universit	y of Ukraine "Igor Sikorsky
Kviv Polytechnic Institute"	

Department of Health and
Sports Technologies

Complex coordination kinds of sport (sports aerobics) Working program of the discipline (Sylabus)

Details of the discipline						
The level of higher education	The First(Bachelor degree)					
Branch of knowledge	All					
Specialty	All					
Educational program	All					
Discipline status	Selective					
Form of studying	Full – time (daily)					
Year of preparation, semester	2 – nd year, autumn/ spring semester					
The scope of the discipline	2 credits (60 hours) classroom classes: lectures - 0 hours, practical - 36 hours, self- studying -24 hours					
Semester control / control measures	Credit, modular test, calendar control					
Lessons schedule	2 hours per week					
Language of instruction	Ukrainian					
Information about the	https://sport-fbmi.kpi.ua/index.php/navchalnij-protsess/sportivna-					
course leader / teachers	<u>aerobika-ta-fitnes</u>					
Course placement	Educational department of sports aerobics https://do.ipo.kpi.ua/user/view.php?id=13895&course=2951					

Curriculum of the discipline

1. Description of the discipline, its purpose, subject of study and learning outcomes

The main purpose of the discipline "Complex coordination sports (sports aerobics)" is the formation of students' ability to maintain a sufficient level of physical health, physical and mental capacity; to develop the basic vital professional-applied motor skills; to form motivation to engage in physical activity and sports as a component of a healthy lifestyle;

The discipline "Complex coordination sports (sports aerobics)" is interdisciplinary. It integrates, according to its subject, knowledge of medical-biological, psychological-pedagogical and other sciences, which contribute to the level of physical development, functional improvement of body systems, acquisition of basic vital motor skills, skills for further professional activity. As a result of studying the discipline "Complex coordination sports (sports aerobics)" students will be able to:

- 1) use the means of table tennis to improve physical and mental performance, development of physical qualities, recovery and health;
 - 2) to exercise control and self-control over the functional state of the organism;
- 3) to ensure the preservation and strengthening of individual health in order to maintain an appropriate level of physical condition.

The content of the discipline

- Topic 1. Information support for **sports aerobics** classes.
- Topic 2. Methods of determining the individual physical condition. Analysis and assessment of the level of individual physical fitness.
- Topic 3. Improving physical fitness by means of **sports aerobics**
- Topic 4. Improving the technique of performing **sports aerobics** exercises.
- Topic 5. Monitoring and assessing the level own physical fitness.

 Topic 6 Improving physical qualities by means of **sports aerobics**.
- Topic 7 Testing the level of physical fitness

4. Educational materials and resources

Basic educational literature:

Educational manuals:

- 1. Physical education of students: teaching method. way. / O.M. School, D.W. Pyatnytska,
- A.V. Boychenko, GV Tamozhanska, LK Grishchenko, OI Галашко, O.I. Грищенко, Д.В. Sichov, OV Fomenko, VH Fomenko / in general. ed. OHM. Schools. Kh .: FOP Brovin OV, 2016. 456 pp. UDC 378.016: 796 (076) BBK 74.580.055
- 2. Development of speed and strength qualities and special endurance of high athletes. class in sports team fitness: textbook. way. / Atamanyuk SI, Pasichna TV Publisher: Zaporizhia, NU "Zaporizhzhya Polytechnic", 2020. 141 p. https://ela.kpi.ua/handle/123456789/36363

ISBN 978-617-529-274-7 UDC 796.4

- 3. Health aerobics for students / Todorova VG / Training manual. Odessa, 2013. 53p.
- 4. MUSICAL RHYTHMICS AND FUNDAMENTALS OF CHOREOGRAPHY / Todorova VG / Training manual. Odessa, 2013.. 10p.

Additional literature:

- 1. Methodical instructions for performing practical and independent tasks in the discipline "Physical Education" (Aerobics) (for students of 1-2 full-time courses of all specialties) / Kharkiv. nat. un-t city. household in them. OM Beketova; structure. : OI Chetchikova. Kharkiv: KhNUMG named after O.M Beketov, 2016. 33 p.
- 2. Methodical recommendations / Golovatenko OM, Oleksienko Ya. I., Dudnyk IO Physical training of university students: methods of development and improvement. Cherkasy: CHIBS Publishing Department, 2013. 70 pp.
- 3. Methodical recommendations for the use of Aero Funk as a component of health and sports training of students [Electronic resource]: methodical recommendations for teachers and trainers / T.V Pasichna, N.M.Lozenko; NTUU "KPI". Electronic text data (1 file: 24.0 MB). Kyiv: NTUU "KPI", 2015. 52 p. https://ela.kpi.ua/handle/123456789/14925
- 4. Step-aerobics, as a modern method of health and sports training of students [Electronic resource] / T.V Pasichna, N.M Lozenko, O.M Kharachura; NTUU "KPI". Electronic text data (1 file: 5.42 KB). Kyiv: NTUU "KPI", 2013. 49 p. https://ela.kpi.ua/handle/123456789/2901
- 5. Some aspects of physical education of student youth. Cherepovska OA, Pasichna TV, Serbo EV // Methods of promoting the development of coordination abilities through aerobics classes // Scientific Journal of the National Pedagogical University named after MP Drahomanov. Series 15: Scientific and pedagogical problems of physical culture (physical culture and sports): Coll. Science. wash. Kyiv: MPU Publishing House. Dragomanova, 2018. Vip. 4 (98). P. 179–182. https://ela.kpi.ua/handle/123456789/30359

- 6. Influence of respiratory gymnastics on the functional state of SMG students / Atamanyuk S.I, Kirichenko O.V, Pasichna T.V. // MODERN PROBLEMS OF HEALTH AND HEALTHY LIFESTYLE IN PEDAGOGICAL EDUCATION: August, 2017 .kpi.ua / handle / 123456789/31988
- 7. Music as one of the components of the effectiveness of fitness aerobics // Lozenko NM Proceedings of the All-Ukrainian scientific-practical Internet conference Domestic science at the turn of the era: problems and prospects for development ": Coll. Science. wash. Pereyaslav-Khmelnytsky, September 18, 2019. Issue. 53; -C.126-128 https://ela.kpi.ua/handle/123456789/31985
- 8.Physical education [Electronic resource]: methodical recommendations for independent physical education classes for students of the educational department of aerobics of NTUU "KPI". Methodical recommendations for students engaged in aerobics / NTUU "KPI"; structure. N.V Ivanyuta, S.E Tolmachova, 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 Identifier): https://ela.kpi.ua/handle/123456789/15480

9. Basic aerobics in the structure of health fitness [Electronic resource]: methodical recommendations for practical classes in the discipline "Physical Education" for students of all specialties / NTUU "KPI"; structure. 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 (Unified Resource Identifier): https://ela.kpi .ua / handle / 123456789/1780

Educational content

5. Methods of mastering the discipline (educational component)

First semester

Practical lesson № 1.

Tasks: 1. To provide theoretical knowledge on the organization of the system of physical education in KPI named after Igor Sikorsky.

2. Get acquainted with safety and rules of conduct in practical classes.

Tools: Interactive tools for safety and rules of conduct in practical classes in sports aerobics.

Conducting an express survey.

Practical lesson № 2.

Tasks: 1. To acquaint with the influence of health aerobics on the circulatory system.

- 2. Teach the basic steps of basic aerobics.
- 3. Improve breathing techniques when performing physical exercises.

Means: Basic step-tach, grape wine, V-step, cross, shasse, jumping jack, mambo, cha-cha. Aerobic complex "shockless", without jumps.

Conducting an express survey.

Practical lesson № 3.

Tasks: 1. To acquaint with the influence of health aerobics on the respiratory system.

- 1. Teach the technique of the basic steps of step aerobics.
- 2. Improve the technique of performing basic steps with breathing techniques.

Means: Basic step tap-tach, grape wine, V-step, cross, shasse, jumping jack, mambo, chacha. Aerobic complex "shockless", without jumps. Prohibited items. Work on simulators

Conducting an express survey

Practical lesson № 4.

Tasks: 1. To acquaint with the influence of health aerobics on the musculoskeletal system.

- 2. Teach the techniques of the basic steps of funk aerobics.
- 3. Promote the development of abdominal and back muscles.

Means: Complex of dance movements: belly dance, zumba, funk, hip-hop. Aerobic complex to perform with a change of sequence. Exercises at the choreographic machine: kicks in different planes, lunges, twines;

Conducting an express survey

Practical lesson № 5.

Tasks: 1. To acquaint with the influence of health aerobics on the digestive system and metabolism.

- 2. Teach the technique of the basic steps of sports aerobics.
- 3. Promote the development of leg and arm muscle strength.

Means: Aerobic set of exercises, exercises of the main part of the lesson: jumps, basic steps complicated by handwork, lunges, leg swings in different directions, exercises of the preparatory part of the lesson;

Conducting an express survey

Practical lesson № 6.

Tasks: 1. To acquaint with the impact of health aerobics on the nervous system and mental and emotional. {{1}} 2. Teach the technique of jumping sports aerobics.

3. Contribute to the development of the physical quality of flexibility.

Tools: Pilates Exercises. Aerobic complex of exercises of the preparatory and main part of the lesson: basic steps on the spot and in movement with the work of the hands, inclines, jumps in combination with the elements of group B;

Conducting an express survey.

Practical lesson № 7.

Tasks: 1. To acquaint with the influence of health aerobics on the endocrine and immune systems.

- 2. Teach the technique of performing exercises with musical accompaniment.
- 3. Promote the development of physical quality of coordination.

Means: Aerobic complex of exercises with a gymnastic ball on the spot and in movement with a change of direction and tempo of musical accompaniment;

Conducting an express survey

Practical lesson № 8.

Tasks: 1. To acquaint with the state of development of health and sports aerobics in Ukraine.

- 2. Teach the technique of performing exercises synchronously (in a group).
- 3. Promote the development of aerobic capacity.

Tools: Elements of the dance style "Latino". Acrobatic elements: somersault, wheel, forward turn, Arabian wheel, randat. Aerobic set of exercises on step platforms;

Conducting an express survey

Practical lesson № 9.

Tasks: 1. To get acquainted with the Rules of competitions in sports aerobics.

- 2. Teach the technique of performing balance exercises.
- 3. Promote the development of special endurance.

Means: Aerobic complex in groups and individually. Elements of group D: 360° turns on one leg, high leg swings, leg swings with 360° rotation, front twine, vertical twine with support with hands on the floor, twine lying on the back. Pilates Exercise Complex;

Conducting an express survey

Practical lesson № 10.

Tasks: 1. To get acquainted with the criteria for the effectiveness of classes.

- 2. Teach the technique of performing exercises for accuracy and dexterity.
- 3. Promote flexibility and balance.

Means Elements of group D: 360 ° turns on one leg, high leg swings, 360 leg swings, front twine, vertical twine with hands resting on the floor, twine lying on the back. Exercises with dumbbells, isotonic rings. Jumping rope for an hour. Strenflex Relay;

Conducting an express survey

Practical lesson № 11.

Tasks: 1. To get acquainted with the evaluation criteria in sports aerobics.

- 2. Teach the technique of performing flexibility exercises.
- 3. Improve the technique of performing basic steps in a set of exercises.

Tools: Complex of dance movements: belly dance, zumba, funk, hip-hop. Aerobic complex to perform with a change of sequence. Exercises at the choreographic machine: leg swings in different planes, lunges, twines, twines. Final stretching;

Conducting an express survey.

Practical lesson № 12.

Tasks: 1. To acquaint with the concept of level of loading of aerobic programs.

- 2. Teach the technique of performing jumping exercises.
- 3. Improve the technique of performing basic steps with legs and arms in a set of exercises. lying on your back, hands behind your head, torso lift, aerobic exercise. Strenflex Relay;

Conducting an express survey.

Practical lesson № 13.

Tasks: 1. To acquaint with the concept of artistry of aerobic programs.

- 2. To teach the technique of performing sets of exercises to different musical accompaniment.
 - 3. Promote the development of aerobic capacity of the body.

Means: Exercises of the competitive complex, as a team and individually, with a change of musical accompaniment. Aerobic complex on step platforms. Relays;

Conducting an express survey

Practical lesson № 14.

Tasks: 1. To acquaint with the concept of target orientation of aerobic programs.

- 2. Teach the technique of performing sets of exercises with a step platform.
- 3. Improve the technique of performing a set of exercises in funk aerobics.

Tools: Exercises of the competitive aerobic complex in teams of 3-5 people, and individually. Aerobic complex on step platforms;

Conducting an express survey.

Practical lesson № 15.

Tasks: 1. To acquaint with the possibility of using aerobic programs in independent classes of students.

- 2. Teach the technique of performing sets of exercises in funk aerobics.
- 3. Improve the technique of performing a set of exercises with equipment.

Means: Competitive complex of funk aerobics - exercises without work of hands, separate work of hands, coordination of work of hands with work of legs in teams and individually, with change of pace of performance, and initial position;

Conducting an express survey.

Practical lesson № 16.

Tasks: 1. Functional control.

2. Control of psycho-physiological features.

Means: Control standards - Jump up, shuttle run 4x9 m from a high start, torso tilt from a sitting position, flexion-extension of the arms in a supine position (girls) pull-ups on the crossbar (people);

Conducting an express survey

Practical lesson №17

Performing a modular test.

Practical lesson №18

Conducting a credit.

6. Independent work of the student

Preparation for practical classes, calculations based on primary data obtained during and after functional tests (at the beginning of each month), performance of modular control work (17-th week), keeping a diary of self-control.

Policy and control

7. Discipline policy (educational component)

Class attendance rules: students who are late for classes are not allowed; students are admitted to classes if they have sportswear and sports shoes, and a certificate of their medical group for health reasons.

Rules of conduct in the classroom: turn off the phones, comply with safety requirements. Rules for the protection of individual tasks: compliance with the principle of academic integrity

Rules for awarding incentive points: incentive points are awarded for participation in competitions, sports and recreation activities according to the plan of the department, faculty, university (5... + 7 points); participation in city, national or international competitions (5... + 7 points), positive dynamics of physical condition in the diary of self-control (5... + 7 points).

The amount of incentive points may not exceed 10 points.

policy of deadlines and rescheduling: classes that are missed without good reason, are completed in the allotted time at the end of the semester. Students have the possibility of two reshuffles in the presence of the commission.

- other requirements that do not contradict the legislation of Ukraine and regulations of the University: when taking the test students must follow safety rules.
- policy on academic integrity: policy, principles of academic integrity and norms of ethical behavior of students and employees of the University are defined in the code of honor of KPI named after Igor Sikorsky (see: https://kpi.ua/code).

Types of control and rating system for evaluation of learning outcomes (RSO)

1. Performing test tasks in practical classes

In practical classes №1-16 test tasks are evaluated in 1 point.

The maximum number of points for test tasks - 16 points.

2. Modular test

Conducted on the 17th practical lesson in the form of a test containing 30 test tasks, each correct answer is evaluated in 1 point.

Maximum score - 30 points.

3. Keeping a Diary of Self-Monitoring

Keeping a diary is kept monthly.

Maximum score is 4 points.

tests on physical fitness - 50 points.

Jump up from a place (cm);

Men	55	51	48	43	40	≤39
Women	45	42	38	35	30	≤29
Points	10	9	8	7	6	5

Shuttle run 4 x 9 m, (sec)

Men	9,0	9,4	9,8	10,3	10,8	11,0	>11,0
Women	10,4	10,7	11,2	11,6	12,0	12,3	>12,3
Points	10	9	8	7	6	5	0

Strength exercise: men - pull-ups on the crossbar; women - flexion-extension of the arms lying down (times);

Men	10	9	8	7	6	5	<5
-----	----	---	---	---	---	---	----

Women.	20	15	12	10	8	7	<7		
Points	10	9	8	7	6	5	0		
Flexibility	Flexibility exercise (cm);								
Men	13	11	9	7	5	3	< 3		
Women	16	14	12	10	8	6	< 6		
Points	10	9	8	7	6	5	0		

According to a separate schedule during the semester: freestyle swimming without taking into account time (m);

Men.	100	75	50	25	<25
Women	100	75	50	25	<25
Points	10	8	6	4	0

Calendar control is carried out during the semester as a monitoring of the current state of compliance with the requirements of the syllabus. A student receives a positive result from the QC when his current rating score is at least 50% of the maximum possible at the time of the QC.

The final assessment of the student's mastery of the educational component is assessed by the result of his work for the semester with the transfer of his rating points to the university assessment scale (Table 1).

The final student's rating cannot exceed 100 points!

(Semester control - credit. Week 18), it is given the opportunity to perform an integrated test, and his previous rating is revoked

Table 1 **Student Score University Score** Student rating points University grade 95 - 100Excellent 85 - 94Very Good 75 - 84Good 65 - 74Satisfactory 60 - 64Sufficient Unsatisfactory < 60

8. Additional information on the discipline (educational component)

During the passage of educational material on the discipline provides for the use of modern technologies in the educational process. During the academic period, students are expected to use the means and methods of self-control over the state of health, their compliance with the requirements for the prevention of injuries and diseases, keeping diaries of self-control over the state of the body.

Practical tasks are given to students depending on the current state of functional readiness of their body and the degree of their mastery of the technique of performing sports and physical exercises.

The method of realization of tasks is regulated by safety rules and realization by students of independent control over a condition of the basic functional systems.

The practical classes solve problems to increase the level of development of physical and mental qualities, use analytical approaches to the choice of methods for developing the strength of individual muscles and their groups, as well as methods and means of active recreation and recovery.

During classes, in accordance with the requirements and forms of organization of table tennis lessons, educational equipment and sports facilities are used.

The program material for groups of initial physical training includes:

- physical training, the main purpose of which is to create a base for improving the level of skill with the help of general physical means of training
- technical training, the main purpose of which is to improve individual technique, expand the range of motor skills;

Working program of the discipline (syllabus):

Compiled by: Acting Head of the Department of Physical Education, Ph.D., Associate Professor, Boyko Hanna Leonidivna

Head of the Department of Sports Improvement, Ph.D., Associate Professor, Novitsky Yuriy Volodymyrovych

Approved by the Department of Physical Education _____ (Minutes № _3__ from 26. 11 2020)

Department of Sports Improvement (Minutes № 2 from 27.11.2020)

Approved by the Methodical Council of the University (Minutes № 5 from 14.01.2021)