

# Cyclic sports (athletics-fitness)

## Work program of the discipline (Syllabus)

### Details of the discipline

<b>The level of higher education</b>	<i>The First(Bachelor degree)</i>
<b>Branch of knowledge</b>	<i>All</i>
<b>Specialty</b>	<i>All</i>
<b>Educational program</b>	<i>All</i>
<b>Discipline status</b>	<i>Selective</i>
<b>Form of studying</b>	<i>Full – time (daily)</i>
<b>Year of preparation, semester</b>	<i>2 – nd year, autumn/ spring semester</i>
<b>The scope of the discipline</b>	<i>2 credits (60 hours) classroom classes: lectures - 0 hours, practical - 36 hours, self- studying -24 hours</i>
<b>Semester control / control measures</b>	<i>Credit, modular test, calendar control</i>
<b>Lessons schedule</b>	<i>2 hours per week</i>
<b>Language of instruction</b>	<i>Ukrainian</i>
<b>Information about the course leader / teachers</b>	fv.fbmi.kpi.ua Athletics Educational Department <a href="https://do.ipk.kpi.ua/course/view.php?id=1466">https://do.ipk.kpi.ua/course/view.php?id=1466</a>

### Curriculum of the discipline

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

The main purpose of the discipline "Cyclic sports (athletics-fitness)" 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 "Cyclic sports (athletics-fitness)" 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 "Cyclic sports (athletics-fitness)" students will be able to:

- 1) use the means of athletics 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 athletics-fitness 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 athletics-fitness
- Topic 4. Improving the technique of performing athletics-fitness exercises.
- Topic 5. Monitoring and assessing the level of the own physical fitness.
- Topic 6. Improving physical qualities by means of athletics-fitness.
- Topic 7. Testing the level of physical fitness

## 4. Educational materials and resources

### Basic educational literature:

#### Educational manuals:

1. Basics of health-improving running [Electronic resource]: methodical recommendations for independent work of students in the discipline "Physical Education" / NTUU "KPI"; structure. N.M. Prus, S.M. Uskova, B.A. Feinberg, N.M. Gavrilova. - Electronic text data (1 file: 177 KB). - Kyiv: NTUU "KPI", 2012. - 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/123456789/1781>

#### Additional literature:

##### Manual

1. Fizkulturno-ozdorovitel'nye tehnologii formirovaniya fitneskultury studentov: uchebnoe posobie / Structure Yu.A. Usachov. -Kiev: Logos Publishing House, 2015. - 200 pp.

ISBN 978-966-171-920-9

2. Physical Education. Athletic gymnastics for beginners (back muscles) [Electronic resource]: methodical recommendations for independent work of students / KPI. Igor Sikorsky; structure. O.F. Tverdokhlib, M.G. Masalkin, Yu. O. Martinov. - Electronic text data (1 file: 2.67 MB). - Kyiv: KPI named after Igor Sikorsky, 2017. - 43 p. - Name from the screen.

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

3. Physical Education. Athletic gymnastics for beginners (muscles of the upper extremities) [Electronic resource]: methodical recommendations for independent work of students / KPI. Igor Sikorsky; O.F. Tverdokhlib, A.I. Sobolenko, M.M. Koryukaev. - Electronic text data (1 file: 1.47 MB). - Kyiv: KPI named after Igor Sikorsky, 2017. - 36 p. - Name from the screen.

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

4. Individualization of the educational process of students in practical classes in shaping [Electronic resource]: methodical recommendations for practical classes for students of the educational department of shaping / KPI. Igor Sikorsky; compiled by: H.L. Boyko, S.V. Sharafutdinova, T.G. Kozlova, N.V. Ivanyuta, N.E. Gavrilova. - Electronic text data (1 file: 737.41 Kbytes). - Kyiv, 2017. - 58 p. - Name from the screen.

URI (Unified Resource Identifier): <https://ela.kpi.ua/handle/123456789/20446>

5. 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>

6. Physical Education. Methodical recommendations for performing a set of exercises with fitball for students of the aerobics department of NTUU "KPI" [Electronic resource] / NTUU "KPI"; structure. NV Ivanyuta, SE Tolmachev. - 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 (Unified Resource Identifier): <https://ela.kpi.ua/handle/123456789/11742>

7. Development of physical qualities in shaping classes [Electronic resource]: methodical recommendations for practical classes for students of the educational department of shaping / NTUU "KPI"; structure. H.L Boyko, O.F. Tverdokhlib, T.G. Kozlova, S.V. Sharafutdinova, N.E. Gavrilova. - Electronic text data (1 file: 1.60 MB). - Kyiv: NTUU "KPI", 2014. - 31 p. - 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/123456789/10148>

8. Methodical recommendations for performing a set of exercises on the Pilates system [Electronic resource] / NTUU "KPI"; structure. SE Tolmacheva, NV Ivanyuta. - Electronic text data (1 file: 17.1 MB). - Kyiv: NTUU "KPI", 2014. - 66 p. - 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/123456789/8148> {{ 1}}

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/123456789/1781>

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)

Practical lesson № 1. Tasks: 1. To acquaint with safety precautions and rules of conduct at practical classes in athletics-fitness.

2. Determine the level of functional state of CVS of the students.

3. Get acquainted with general developmental exercises (GDE).

Means: interactive materials for conducting functional tests; general-developing exercises.

Conducting an express survey

Practical lesson № 2. Tasks: 1. Teach to perform special preparatory exercises.

2. Teach the technique of running medium and long distances.

3. Promote the development of arm muscle strength.

Tools: interactive materials. Specially preparatory exercises, running at a slow pace. Exercises to develop the strength of the muscles of the arms, legs and torso;

Conducting an express survey.

Practical lesson № 3. Tasks: 1. To determine the level of functional state of the respiratory system of students.

2. Teach the technique of high start.

3. Promote the development of muscle strength.

Means: interactive materials, functional tests for respiratory arrest, running from a high start at distances of 20 - 30 m; pull-ups on the crossbar and flexion-extension of the arms in a supine position.

Conducting an express survey.

Practical lesson № 4. Tasks: 1. To teach the technique of running medium and long distances.

2. Get acquainted with the basics of sprinting.

3. Promote the development of torso muscles.

Means: interactive materials, running at a slow pace, running with acceleration in a straight line, exercises for the strength of the abdominal muscles and back;

Conducting an express survey.

Practical lesson № 5. Tasks: 1. To improve the technique of running medium and long distances.

2. Improve the technique of running from a high start.

3. Teach short distance running techniques.

4. Promote the development of speed and power qualities.

Means: interactive materials, running at a slow pace and with gradual acceleration; running from a high start 20 - 30 m; running with acceleration to the maximum at distances of 40-50 m.

Conducting an express survey.

Practical lesson № 6. Tasks: 1. To improve the technique of running medium and long distances.

2. Teach the technique of running with a high start and starting run.

3. Promote the development of muscle strength in the arms, legs and torso.

Tools: interactive materials. Running at a slow pace and with arbitrary acceleration; running with acceleration from a high start for the team; exercises for the manifestation of strength on the crossbar, parallel bars, gymnastic wall.

Conducting an express survey.

Practical lesson № 7. Tasks: 1. To promote the development of aerobic capacity of the body.

2. Improve the technique of running from a high start and starting acceleration on a straight line.

3. Teach the technique of transition from starting run to running on a turn.

4. Promote the development of speed and power qualities (jumping).

Means: interactive materials, running at a slow pace and with acceleration up to 100 m; running from a high start with acceleration on a turn; mnogoskoi in various combinations with advancing.

Conducting an express survey.

Practical lesson № 8. Tasks: 1. To acquaint with the peculiarities of cross-country running technique.

2. Improve the technique of running with a high start and starting acceleration.

3. Promote the development of speed and power qualities.

Tools: interactive materials. Running a hard distance with turns; running from a high start 30 m with time fixation; jumps in series on the spot on one, on two, from foot to foot;

Conducting an express survey

Practical lesson № 9. Tasks: 1. Improve cross-country running technique.

2. Improve the technique of running in a straight line on sprint distances.

3. Promote the development of speed and power qualities.

Means: interactive materials, running with acceleration on a section of crossed distance; running with an acceleration to a maximum of 40 m; jumping from two to two with moving forward for a distance.

Conducting an express survey.

Practical lesson № 10. Tasks: 1. To get acquainted with the technique of running from a low start.

2. Improve cornering technique.

3. Promote flexibility.

Tools: interactive materials, low start elements; running with acceleration on a turn; gymnastic and voluntary exercises for flexibility and mobility in the joints.

Conducting an express survey.

Practical lesson № 11. Tasks: 1. To improve the technique of running on rough terrain.

2. Promote dexterity.

3. Teach exercises to perform flexibility and mobility in the joints.

Means: interactive materials, running on rough terrain with a change of pace; shuttle run 4 x 9 m; gymnastic and voluntary flexibility exercises with the help of a partner and independently.

Conducting an express survey.

Practical lesson № 12. Tasks: 1. Teach running from a low start.

2. Improve the technique of special-development exercises of the runner.

3. Promote flexibility.

Tools: interactive materials, low start running on your own and as a team; special running exercises of the runner: running with high lifting of a hip, petty running and running with throwing of a shin; gymnastic and voluntary exercises for flexibility with the help of a partner and independently.

Conducting an express survey.

Practical lesson № 13. Tasks: 1. To improve exercises for the development of speed and strength.

2. Promote the development of anaerobic capacity of the body.

3. Promote the development of muscle strength of the arms, legs and torso.

Means: interactive materials, jumping exercises in the city, in motion, and with weights; running with acceleration on short distances (20-30 m) alternating with jogging; exercises to develop the strength of the muscles of the arms, legs and torso.

Conducting an express survey.

Practical lesson № 14. Tasks: 1. To improve the technique of running medium distances in winter.

2. Promote the development of speed and power qualities.

3. Promote the development of muscle strength of the arms, legs and torso.

Tools: interactive materials;

Conducting an express survey.

Practical lesson № 15. Tasks: 1. Improve the technique of running at a distance from a low start.

2. Promote the development of speed endurance.

3. Promote the development of flexibility and mobility in the joints.

Means: interactive materials, running with acceleration from n / start to 50 m; alternating running with acceleration up to 50 m through jogging; exercises to restore breathing, relaxation and flexibility.

Conducting an express survey.

Practical lesson №16. Objectives: 1. To promote the manifestation of basic physical qualities. pull-ups on the crossbar (people).

Conducting an express survey.

Practical lesson № 17. Tasks: 1. Performing a modular test.

Practical lesson № 18. - 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](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 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

<b>Student Score</b>	<b>University Score</b>	<b>Student rating points</b>	<b>University grade</b>
95 – 100		Excellent	
85 – 94		Very Good	
75 – 84		Good	
65 – 74		Satisfactory	
60 – 64		Sufficient	
< 60		Unsatisfactory	

### **9. 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 )