Департамент образования и науки города Москвы Государственное автономное образовательное учреждение высшего образования города Москвы «Московский городской педагогический университет»

Программа вступительного испытания для поступающих в магистратуру

Направление подготовки 49.04.03 Спорт

Программа подготовки «High-Performance Sport: scientific approach»

### **EXPLANATORY NOTE**

The program of the entrance examination was carried out in accordance with the requirements of the federal state educational standard of higher education for undergraduate programs.

Exams are held orally. The examination paper contains two questions.

The preparation time for one person is up to 20 minutes, the answer takes up to 15 minutes.

An applicant is admitted to the entrance examination on the basis of an identity document, an approved application (status "Accepted").

Entrance tests are conducted in English.

### CRITERIA FOR EVALUATION

The maximum mark for the exam is 200 points.

The final score is summed up from the scores obtained for the first and second questions.

The maximum score for each question is 100 points. Evaluation criteria for one examination question:

### **90-100 points:**

- 1. A complete, detailed answer is given to the question posed in the ticket.
- 2. All the completeness of knowledge about the object, free operation of concepts, the ability to identify essential and non-essential features of the object, causal relationships are presented. Knowledge of the material is far beyond the mandatory course.
  - 3. The answer is distinguished by a clear logic
  - 4. Substantiated and reasoned own position
  - 5. In his answer, the applicant gives examples from practice
  - 6. Excellent knowledge of scientific literature shown

# **80-89 points:**

- 1. A complete, detailed answer is given to the question posed in the ticket.
- 2. Knowledge about the object, free operation of concepts, the ability to identify essential and non-essential features of the object, causal relationships are presented. However, some errors were made that did not distort the meaning of the material presented, corrected by the applicant independently in the process of answering
  - 3. The answer is distinguished by the logical presentation
  - 4. Justified own position on certain issues
  - 5. Insufficient confirmation of the theory by examples from practice
  - 6. Shows knowledge of mainstream scientific literature

## **70-79 points:**

- 1. A fairly complete answer was given to the question posed in the ticket.
- 2. Basic knowledge about the object, the ability to identify essential and non-essential features of the object, causal relationships are presented. There may be shortcomings or minor errors corrected by the applicant with the help of the teacher.
  - 3. There are minor violations in the logic

- 4. Justified own position on certain issues
- 5. There are no practical examples in the answer
- 6. There are minor knowledge gaps in the mainstream scientific literature

### **60-69 points:**

- 1. The answer is generally correct, but not complete. Minor errors may be made, corrected by the teacher. A set of conscious knowledge about an object is shown, which manifests itself in operating with basic concepts.
  - 2. There are violations in the logic
  - 3. Justified own position on certain issues
  - 4. There are no practical examples in the answer
  - 5. There is a poor knowledge of the main scientific literature

### **50-59 points:**

- 1. The answer is not complete. Confusion in basic terminology.
- 2. The logic and sequence of presentation have significant violations
- 3. Insufficient argumentation
- 4. There are no practical examples in the answer
- 5. Significant knowledge gaps in the mainstream scientific literature

# 49 points and below:

- 1. An incomplete answer is given, which is scattered knowledge on the topic of the question with significant errors.
  - 2. Illogical presentation
  - 3. Weak argumentation, there is no evidence of presentation
  - 4. There are no examples from practice in the answer.
  - 5. Complete ignorance of the main scientific literature is noted

Clarifying and additional questions may be asked at the discretion of the members of the examination committee.

An applicant who scored at the end of the exam below the minimum score established by the University is considered not to have passed the entrance test and is eliminated from participation in the competition.

### ENTRY EXAM PROGRAM

# THEORY AND METHODS OF PHYSICAL EDUCATION AND SPORTS TRAINING

### Theory and methodology of sports training

Selection system in sports. Stages of long-term training in sports. Tasks, main content and specifics of the sports training stages. Features of the High-Performance Sport stage. Organization of the training process. Training and out-of-training factors of preparation. Planning the training process. Macrocycles of training in sports. Mesocycles and microcycles in the training process of athletes. The structure and content of the training session. Motor abilities of athletes. Speed qualities and methods of their development. Strength abilities and methods of development. Types of endurance (sustaining power) and methods of development. Anaerobic and aerobic endurance. Flexibility and methods of its development. Coordination abilities of athletes. Technical and tactical skill in sports. Methods and means of athletes technical preparedness improving of. Individualization of the training process.

# Integrated control in the system of athletes training

Integrated control in the training process management system. Types of states of athletes and the effect of training load. Types of integrated control in the training process management system. Staged, current and operational control of the preparedness of athletes. Pedagogical control in sports. Control of physical fitness. Assessment of technical skill in sports. Biomechanical control of movement technique.

Functional control in sports training. Control of the cardiovascular system of athletes. Morphological control. Assessment of mental reliability in sports practice. Control of training and competitive loads.

## Medical and biological aspects of athletes training.

Age periodization of the human motor abilities development. Sensitive periods of motor abilities development. Gender features of the motor development. Adaptation during muscular activity. Long-term and short-term adaptation to physical activity. Morphofunctional body changes as a result of muscle activity. The phenomenon of supercompensation after physical exertion. Physiological bases of motor abilities. Fatigue

and recovery during physical exertion. Rational nutrition of athletes. Doping in sports. Significance and role of anti-doping programs and organizations of WADA, RUSADA.

### **EXAMPLE EXAM TASKS**

- 1. The system of sports competitions. Types of competitions.
  - 2. Theoretical and empirical research in sports.
- 3. Methods and means of sports training. General developmental and special exercises.
  - 4. Methods of document and publications analysis in sports.
  - 5. Tactical training in sports. Means and methods of tactical training of athletes.
  - 6. Control of technical skill in sports. Video analysis of movement technique in sports.
- 7. The stage of initial specialization in the long-term training of an athlete. Basic methods and means of preparation at the stage
- 8. Structure and duration of training microcycles in sports. Types and tasks of microcycles.
  - 9. Selection in sports. Stages of sports selection.
  - 10. Psychological control. Control of mental reliability in sports.
- 11. Speed abilities. Types of speed abilities and factors that determine them. Sensitive periods of speed development.
  - 12. Planning the training process. Methodology for annual cycle planning in sports
- 13. Physical qualities of athletes. Sensitive periods of development of physical qualities.
- 14. Control of training and competitive loads. Specialization, focus, load. Control of the volume and intensity of the training load.
  - 15. Functional training of athletes. Means and methods of functional training in sports.
- 16. Functional control in sports. Control of the cardiovascular system. Morphological control.
- 17. Theoretical training of athletes. Publications and Internet sources of professional information.
  - 18. Pedagogical control in sports. Test control of physical fitness of athletes.
- 19. Speed abilities. Methods for the reaction speed and single muscle contraction development.
- 20. Physical quality endurance. Endurance types. Sensitive periods of endurance development.

- 21. Planning the training process. Methodology for training session planning.
- 22. Anaerobic mechanism of energy supply of muscular activity. Anaerobic-alactate and anaerobic-lactate processes. Means and methods for increasing anaerobic capacity in sports.
- 23. Pharmacological means of restoring and stimulating the performance of athletes. Biologically active additives in sport.
- 24. Aerobic mechanism of energy supply of muscular activity. Means and methods for increasing aerobic capacity in sports.
  - 25. Rational nutrition of athletes. Features of nutrition of athletes.
- 26. Types of coordination abilities and factors determining them. Sensitive periods of coordination abilities development.
- 27. Doping in sports. Doping types. The fight against doping. The role of WADA and RUSADA in the fight against doping.
- 28. Coordination abilities. Methodology for the ability to relax and orientation in space developing.
- 29. Paralympic sport. Tasks and features of sports training for athletes with disabilities. Classification of athletes in adaptive sports.
- 30. Physical quality flexibility. Types of flexibility and its importance. Sensitive periods of flexibility development.
- 31. Features of training and competitive activities of athletes with visual and hearing impairments.
  - 32. Teaching motor actions. Stages of motor skill formation.
- 33. Extreme conditions in the system of training. Training in the middle and high mountains.
- 34. The stage of preliminary training in sports. Stage tasks. Basic methods and means of preparation at the stage
- 35. The structure of the training session in sports. Parts of the training session. Tasks of the preparatory, main and final parts of the training session. Abstract of the training session.

* The questions are approximate and may differ from ickets.	n the questions indicated in the exam

# СПИСОК РЕКОМЕНДОВАННОЙ ЛИТЕРАТУРЫ

### Основная литература

- 1. Kathleen Armour Sport Pedagogy. An Introduction for Teaching and Coaching/ Учебное пособие. – by Routledge, 2011. – 368 с. - ISBN 9780273732587
  - 2. Баландин В.И., Блудов Ю.М., Плахтиенко В.А. и др. Прогнозирование в спорте М.: Физкультура и спорт, 2006. с.134.
  - 3. Бешелев С.Д., Гурвич Ф.Г. Математико-статические методы экспертных оценок. М.: Статистика, 2014. 161 с.
  - 4. Васильков, А. А. Теория и методика спорта: учебник / А. А. Ва-сильков. Ростов-на-Дону: Феникс, 2014. 379 с.
  - 5. Dr. A. K. Uppal Sports Training Friends Publications (India), 2020. 137 c. ISBN 9789388457972
  - 6. Германов, Г.Н. Двигательные способности и навыки: разделы теории физической культуры: учебное пособие для студентов-бакалавров и магистров высших учебных заведений по направлениям подготовки 49.03.01, 49.04.01

«Физическая культура» и 44.03.01, 44.04.01 «Педагогическое образование» / Г.Н. Германов. – Воронеж: Элист, 2017. – 302 с. – ISBN 978-5-87172-082-0

- 7. Годик М.А. Комплексный контроль в спортивных играх / М.А. Годик, А.П. Скородумова. М.: Советский спорт, 2010. 336 с.
- 8. Губа В. Резервные возможности спортсменов / В. Губа, Н. Чесноков. М.: Физическая культура, 2008. 152 с.
- 9. Двигательные способности и физические качества. Разделы теории физической культуры: учебное пособие для академического бакалавриата / Г. Н. Германов. 2-е изд., перераб. и доп. М.: Издательство Юрайт, 2017. 224 с. (Бакалавр и магистр. Модуль.). —ISBN 978-5-534-04492-8.
  - 10. Ефремов, О.Ю. Педагогика: учеб. пособие / О.Ю. Ефимов. СПб.: Питер, 2010.

- 11. Максименко, А. М. Теория и методика физической культуры: учеб. для вузов физ. Культуры / А. М. Максименко. 2-е изд. М.: Физическая культура, 2009. 496 с.
- 12. Thomas Kurz Science of Sports Training: How to Plan and Control Training for Peak Performance 2nd Edition Stadion Publishing Company, Incorporated, 1991. 424 c. ISBN 978-0940149106
- 13. Платонов В.Н. Общая теория подготовки спортсменов в олимпийском спорте. Киев: Олимпийская литература, 1997. с.18.
- 14. Полиевский С.А. Стимуляция двигательной активности / С.А. Полиевский. М.: Физическая культура, 2016. 256 с.
- 15. Gavin Breslin Understanding Sport Psychology SAGE Publications Ltd., 2021.- 296 c. ISBN 9781529744637
- 16. Радчич, И.Ю. Научно-методическое и медико-биологическое обеспечение подготовки высококвалифицированных спортсменов. Унифицированные критерии комплексного контроля. Инновационные технологии / И.Ю. Радчич. 2-е изд. М.: Спорт Медиа Групп, 2011. 364 с.
- 17. Спортивная метрология. Под ред. В.В. Афанасьева. Учебник 2-е изд. М.: Юрайт, 2017. 247 с.
- 18. Солодков А.С. Физиология человека. Общая. Спортивная. Возрастная: учебник. 7-е издание / А.С. Солодков, Е.Б. Сологуб. М.: Спорт, 2017. 620 с.
- 19. Холодов, Ж.К. Теория и методика физической культуры и спорта: учеб. для студентов вузов, обучающихся по направлению подгот. "Пед. образование" / Ж.К. Холодов, В.С. Кузнецов. 13-е изд., испр. и доп. М.: Academia, 2016. 495 с.:ил.
- 20. Felix Lebed, Michael Bar-Eli, Complexity and Control in Team Sports. Dialectics in contesting human systems / by Routledge, 2014. 228 c. ISBN 9781138833852

### Дополнительная литература

- 1. Бомин В.А. Тренировочный процесс с использованием телеметрической системы контроля / В.А. Бомин, Г.Я. Галимов, В.Ю. Лебединский // Проблемы физического воспитания и спортивной работы в системе образования: Материалы VI Всероссийской научно-методической конференции (26-27 января, г. Иркутск). Иркутск: ВСИ МВД РФ, 2016. С. 161-163.
- 2. Интегральные основы спортивной подготовки. М.: LAP Lambert Academic Publishing, 2012. 364 с.
- 3. Дышко Б.А. Инновационные технологии тестирования прыжковой подготовленности спортсменов: автоматизированный динамометрический комплекс. Научно-практическая конференция «Инновационные технологии в подготовке спортсменов». М.: 2017. С.36-38
- 4. Дышко Б.А., Кочергин А.Б. Инновационная технология тренировки кардиореспираторной выносливости спортсменов. Научно-практическая конференция «Инновационные технологии в подготовке спортсменов». М.: 2017. С. 38-39
- 5. Ковалева А.В., Квитчастый А.В., Бочавер К.А., Касаткин В.Н. Физиологические методы диагностики состояния и повышения результативности в спорте / Научно-практическая конференция «Инновационные технологии в подготовке спортсменов». М.: 2017. С. 48-49
- 6. Казиков И.Б. Современная система подготовки российских спортсменов к участию в Играх Олимпиад. М.: Физкультура и спорт, 2004. 232 с.
- 7. Левушкин С.П., Сандин А.А., Сорокин С.А. Использование компьютерных технологий для оценки и коррекции подготовленности / В сборнике: Актуальные проблемы и современные технологии: материалы Всероссийской научнопрактической конференции с международным участием. М.: ФГБОУ ВПО «РГУФКСМиТ», 2013. С. 85-87
  - 8. Макарова Г.А. Спортивная медицина: Учебник / Г.А. Макарова. М.:

Советский спорт, 2003. — 480 с.

- 9. Соколов А.В. Теория и практика диагностики функциональных резервов организма. ГЭОТАР-Медиа, 2015. 176 с.
- 10. Алексеев В.М., Анохина Е.С. Пик-тесты. Тестирование физической работоспособности в спортзале, на футбольном поле (CD). Советский спорт, 2015.
  - 11. Губа В.П. Тестирование и контроль футболистов. Спорт, 2016. 220с.

### Перечень ресурсов информационно-телекоммуникационной сети Интернет

- 1. Интернет-ресурсы Единое окно доступа к образовательным ресурсам [Электронный ресурс]. URL: <a href="http://window.edu.ru">http://window.edu.ru</a>
- 2. eLIBRARY.RU [Электронный ресурс]: научная электронная библиотека. URL: <a href="http://www.elibrary.ru">http://www.elibrary.ru</a>
- 3. Znanium.com [Электронный ресурс]: электронно-библиотечная система. URL: http://znanium.com
- 4. Cstsk.ru [Электронный ресурс]: сайт Центр спортивных технологий Москомспорта. URL: http://cstsk.ru/funktsionalnoe-testirovanie
- 5. i1.ru [Электронный ресурс]: сайт Инновационный Центр олимпийского комитета России. URL: https://i1.ru/services
- 6. Minsport.gov.ru [Электронный ресурс]: сайт Министерства спорта Российской Федерации. URL: <a href="https://www.minsport.gov.ru/sport/podgotovka/82/28344/">https://www.minsport.gov.ru/sport/podgotovka/82/28344/</a>