Office of the Chairperson  
Department of Physical Education  
A.M.U., Aligarh  

Dated: 20.08.2019  

MINUTES  
of  
the Special meeting of the Board of Studies of the Department of Physical Education held on  
19.08.2019 at 12:30 p.m. in the Office of the Chairperson, Department of Physical Education,  
A.M.U., Aligarh.  

The following members were present: -  

1. Prof. Zamirullah Khan  
   Chairperson  
   Department of Physical Education,  
   A.M.U., Aligarh  
   (In chair)  

2. Prof. Ikram Hussain  
   Professor  

3. Prof. Brij Bhushan Singh  
   Professor  

4. Dr. Rajendra Singh  
   Associate Professor  

5. Dr. S. Tariq Murtaza  
   Associate Professor  

6. Dr. Merajuddin Faridi  
   Assistant Professor  

7. Dr. Sayed Khurram Nisar  
   Assistant Professor  

8. Dr. Mohd. Arshad Bari  
   Assistant Professor  

9. Dr. Naushad Waheed Ansari  
   Assistant Professor  

10. Mr. Fuzail Ahmad  
    Assistant Professor  

Item No.1:  

Considered and Approved the name of Research Advisory Committee (RAC) members  
for each research scholar for the session 2018-19 in light of Chapter XXV (D), under sub  
clause 3.3 (i) Ph.D. Ordinances (Academics). [See Appendix-I].
Item No.2:

Considered the minor changes in the syllabi of Bachelor of Physical Education (Paper Code: PEB-3001, PEB-3012 (III Semester) courses and Master of Physical Education (Paper Code: PEM-1003, PEM-1011, PEM-3001, PEM-3011 (I & III Semester) courses under CBCS system and Recommended to the Faculty of Social Sciences.

[See Appendix- II].

Item No.3:

Considered and Recommended to the Faculty, the name of outside/ local resource persons for delivering Extramural Lectures during the session 2019-20.

[See Appendix- III].

(Prof. Zahirullah Khan)
Chairperson
Deptt. of Physical Education
A.M.U., Aligarh

[Signature]

05/10/19
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name</th>
<th>Date of Admission</th>
<th>Fac. Roll No.</th>
<th>En. No.</th>
<th>Name Research Advisory Committee Members</th>
<th>Address</th>
<th>Area of Research</th>
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<tbody>
<tr>
<td>1.</td>
<td>Iftikhar Ahmad Wani</td>
<td>17.05.2019</td>
<td>18/PhD/PE/01</td>
<td>GL-2613</td>
<td>Supervisor: Dr. Merajuddin Faridi, Assistant Professor</td>
<td>Department of Physical Education</td>
<td>Physical Education</td>
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<td>Chairperson: Prof. Zamirullah Khan, Professor &amp; Chairman</td>
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<td>Subject Expert: Dr. Sayed Khurram Nisar, Assistant Professor</td>
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<td>2.</td>
<td>Nidhi Rani</td>
<td>17.05.2019</td>
<td>18/PhD/PE/02</td>
<td>GH-6991</td>
<td>Supervisor: Prof. Ikram Hussain, Professor</td>
<td>Department of Physical Education</td>
<td>Physical Education</td>
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<td>Chairperson: Prof. Zamirullah Khan, Professor &amp; Chairman</td>
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<td>Subject Expert: Dr. Rajendra Singh, Associate Professor</td>
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<td>3.</td>
<td>Danvir Singh</td>
<td>16.05.2019</td>
<td>18/PhD/PE/03</td>
<td>GH-6988</td>
<td>Supervisor: Dr. Sayed Khurram Nisar, Assistant Professor</td>
<td>Department of Physical Education</td>
<td>Physical Education</td>
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<td>Chairperson: Prof. Zamirullah Khan, Professor &amp; Chairman</td>
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<td></td>
<td>Subject Expert: Prof. Brij Bhushan Singh, Professor</td>
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List of Local Resource Person:

<table>
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<tr>
<th>S.No.</th>
<th>Name &amp; Address</th>
</tr>
</thead>
</table>
| 1.    | Dr. Md. Sajidul Islam  
  Associate Professor  
  Department of English, A.M.U., Aligarh.  
  Email: sajidul.en@amu.ac.in  
  Phone No.: 9997580079 |
| 2.    | Dr. Naiyer Asif  
  Professor & Chairman  
  Department of Orthopedic Surgery  
  J.N. Medical College, A.M.U., Aligarh.  
  Email: naiyerasif@gmail.com  
  Phone. No.: 9634560874 |
| 3.    | Dr. Arshad Husain  
  Associate Professor  
  Department of Civil Engineering, A.M.U., Aligarh.  
  Email: ahusainamu@yahoo.co.in  
  Phone No.: 9837172120 |
| 4.    | Dr. Haseeb Athar  
  Assistant Professor  
  Email: haseebathar@hotmail.com  
  Phone No.: 941233923 |
| 5.    | Dr. Mohammad Saad Ahmad Khan  
  Assistant Professor  
  Department of Ilaj-Bit-Tadbeer  
  Email: drmsaad.fa@amu.ac.in, |
| 6.    | Mr. Ahmad Nadeem  
  Consultant, FSN Personality Trainer  
  F.S.N. Consulting Services  
  Tijara House, Dodhpur, Aligarh-202 001  
  Email: nadeem@fsnconsultingservices.com  
  Phone No.: 87950 00318/ 9760707087 |
| 7.    | Prof. M.U. Rabbani  
  Centre of Cardiology  
  J.N.M.C., A.M.U., Aligarh  
  Email: rabbanimuin@yahoo.co.uk  
  Phone No.: 7895680417 |

(Prof. Zarinullah Khan)  
Chairperson  
Deptt. of Physical Education  
A.M.U., Aligarh  
05/09/19
## Annexure-III

### List of Outside Resource Person

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name &amp; Address</th>
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</thead>
</table>
| 1.    | **Dr. Sanjay Mittal**  
Professor & Head  
Department of Aerospace Engineering  
Indian Institute of Technology Kanpur  
Kalyanpur, Kanpur-208 016  
Email: smittal@iitk.ac.in  
Phone No.: 0512-259-8702/1132 (R) |
| 2.    | **Prof. Jatin Soni**  
Vice-Chancellor  
SGSU, Gandhinagar  
Gandhi Nagar, Gujarat. |
| 3.    | **Prof. Arvind Malik**  
Department of Physical Education  
Kurukshetra University, Kurukshetra-136 119.  
Email: arvindmalik.kuk@gmail.com  
Phone No.: 9416104101 |
| 4.    | **Prof. Kanwaljeet Singh**  
Department of Physical Education  
Guru Nanak Dev University, Amritsar-143 005 (Punjab)  
Phone No.: 0183-258897 (O), 0183 |
| 5.    | **Prof. A. K. Banerjee**  
Department of Physical Education  
University of Kalyani,  
Nadia-741 235 (W.B.) |
| 6.    | **Dr. Naushad Ahmad**  
Assistant Professor  
Govt. P.G. College, Dhanapur, Chandauli (U.P.)  
Email: fitballnaushad@gmail.com  
Phone No.: 9565305934 |
| 7.    | **Dr. Sushanta Kumar Panda**  
Associate Professor, Mechanical Engineer  
Indian Institute of Technology Kharagpur  
Kharagpur-721302  
Email: sushanta.panda@mech.iitkgp.ac.in |
Title: Sports Training

Unit – I
Introduction to Sports Training
1.1 Meaning and Definition of Sports Training
1.2 Aim and Objective of Sports Training
1.3 Principles of Sports Training
1.4 Characteristics of Sports Training

Unit – II
Training Components
2.1 Strength—Mean and its type
2.2 Methods of Strength Development
2.3 Endurance - Mean and its types
2.4 Methods of Endurance Development

Unit – III
Talent Identification, Performance & Training Methods
3.1 Principles of Talent Identification and its Development.
3.2 Means and Model of Sports Performance.
3.3 Application of knowledge of Sports Performance.
3.4 Means of Weight Training and Circuit Training.

Unit – IV
Training programming and planning
4.1 Periodization: Meaning and types of Periodization.
4.2 Aim and Content of Periods—Preparatory, Competition, Transitional etc.
4.3 Planning: Meaning and types.
4.4 Principles of Planning.

Reference:
- SchlichMonfred (2003), Circuit Training for all sports, sports book publisher Toronto.
- Dr. Sharad Chandra Mishra 92006), Sports Training, Sports Publication.

BOS held on 19.08.2019
Title: CURRICULUM DESIGN (Elective)

Learning Outcomes: At the end of the course the student will be able to-

- Identify the scientific rationale of the academic activities carried out at schools as a teacher trainee.
- Choose an appropriate model while designing/implementing the curriculum of physical education at schools.
- Recognize the issues related to curriculum development in Indian physical education at school level.
- Apply the curriculum evaluation techniques to access the worth of implemented curriculum.
- Design a strategic and need base curriculum for Indian physical education, at schools level.

Unit 1

1.1 Introduction to curriculum and curriculum design (concept of curriculum and curriculum design, types of curriculum).
1.2 Understanding school teacher related curricular demands and challenges in contemporary time.
1.3 Principle of curriculum design
1.4 Factors affecting curriculum design (Reference to physical education)

Unit 2

2.1 Popular thinker’s and models of curriculum development: Product, Process and Praxis Models (Ralph Tyler, Hilda Taba, Wheeler’s, Kerr’s, Laurence Stenhouse, Kelly Models).
2.2 Popular curriculum designs their advantages and limitations: Student or Learner-Centered, Subject-Centered, and Problem-Centered.
2.3 Curriculum Models in Physical Education- Developmental, Humanistic, Fitness, Movement Education, Games, Health Optimizing, Sport Education, Cooperative learning in PE, TGFU (Teaching Game for Understanding) Model.

Unit 3

3.1 Long-term planning for physical education curriculum.
3.2 Medium- and short-term planning for physical education curriculum.
3.3 Maintaining Breadth and Balance in the Physical Education Curriculum.
3.4 Understanding the Issues of Progression and Continuity in Physical Education (from primary to secondary level of education).
3.5 Identifying the curriculum issues of physical education in schools of India.

Unit 4

4.1 Understanding and implementing the National Curriculum Framework recommendations in physical education curriculum.
4.2 Curriculum Development-Stages/Elements
4.3 Designing study programme course learning outcomes.
4.4 Implementing the Curriculum.
4.5 Monitoring and Evaluating the Curriculum.

Suggested Readings:
http://www.thenewpe.com/curriculum/curt-models.htm
http://www.cdc.gov/physicalactivity/basics/adding-pa-barriers.html
https://lovepe.me/2016/02/01/my-physical-education-growth-taxonomy-journey-continues/
http://www.teachthought.com/critical-thinking/blocks-taxonomy/5-alternatives-to-blooms-taxonomy/
http://www.wikihow.com/Develop-a-Curriculum
https://prezi.com/7i7prhnabln2/steps-in-Curriculum-design/
http://www.slideshare.net/msmaybelle/Curriculum-organization?from_action=save
http://medicine.osu.edu/education/Documents/Curriculum_design_2010.pdf
http://www.sparkpe.org/blog/10-ideas-to-improve-your-schools-pe-program/
http://www.ncbi.nlm.nih.gov/books/NBK201493/
Institutional Strategies for Promoting Physical Activity. http://www.nap.edu/read/21802/chapter/8
Fit Kid Fit Future. http://www.fitkidsfitfuture.com/
http://cd1.edb.hkedcity.net/ced/pe/TC/rr/rFM_e.pdf

BOS held on 19.08.2019
Title: Yogic Sciences

Introduction
1.1 Origin of Yoga
1.2 Traditional Language of Yoga
1.3 Types of Yoga
1.4 Components of Ashtanga Yoga

Unit - I

Asanas and Pranayama
2.1 Silent features of Asanas (Cultural, Relaxative and Meditative)
2.2 Benefits and precautions of Surya Namaskar.
2.3 Benefits of different types of Pranayamas.
2.4 Nadis and Chakras in Body

Unit - II

Kriyas and Mudras
3.2 Meaning, Techniques and Benefits of Bandhas Jalendra Bandha, Uddiyana Bandha, & Mula Bandha.
3.3 Meaning, Techniques and Benefits of Yogic Mudras
3.4 Meditation: Benefits & its Types

Unit - III

Yoga and Sports
4.1 Power of Yoga to Improve Sports Performance
4.2 Role of Yoga in Psychological Preparation of athlete
4.3 Yoga and Mental Wellbeing, Anxiety, Depression Concentration, & Self Actualization.
4.4 Effect of Yoga on Physiological System

References:
Title: Test, Measurement and Evaluation in Physical Education (Elective)

Credits: 04
Max. Marks: 100
Sessional Marks: 30
Examination Marks: 70
Paper Code: PEM-1011
Duration: 2:30 Hours

Objectives: To Highlight the Applications of Test, Measurement and Evaluation in Physical Education and to Develop Practical Competency in Conducting Motor, Physical Fitness and Sports Skill Tests.

Unit – I

Introduction:
1.1 Principles and process of evaluation in Physical Education.
1.2 Common methods of test and measurement used in Physical Education.
1.3 General steps involved in test construction.
1.4 Somatotype and posture evaluating technique.

Unit – II

Motor Fitness and Physical Fitness Tests:
2.1 Test for Motor Fitness – Indiana Motor Fitness Test (for high School boys and College Men).
2.2 Motor Ability- Barrow Motor Ability Test for Men, Strength Fitness- Kraus-Weber Minimum Muscular Fitness Test.
2.3 Physical Fitness Test- AAHPERD Youth Fitness Test.
2.4 Cardiovascular Test-Harvard Step Test, 12Min. Run/Walk Test.

Unit – III

Anthropometric and Aerobic-Anaerobic Tests:
3.1 Anaerobic Capacity-Margaria-Kalamen test, Wingate Anaerobic Test.
3.2 Anthropometric Measurements- Method of Measuring Height, Standing and Sitting Height.
3.3 Method of Measuring Circumference- Arm, Waist, Hip, Thigh.
3.4 Method of Measuring Skin Folds - Triceps, Sub Scapular, Suprailliac.

Unit – IV

Skill Tests:
4.1 Badminton: Miller Wall Volley Test.
4.2 Hockey- Schmithals-French Field Hockey Skill Test, Friendel Field Hockey Test,
4.3 Volleyball- Russel Lange Volleyball Test, Brady’s Volleyball Test.
4.4 Tennis- Dyer Tennis Test.

Note: Practicals of indoor and out-door tests be designed and arranged internally.

References:
8) Hennery Allen Lipman (2009), Measurement and evaluation in Physical Education.Friends Publication in INDIA.
10) Kalpana Debnath 91994), Women’s performance & Sports, Friends Publications.

BOS held on 19.08.2019
Title: Scientific Principles of Sports Training

Introduction
1.1 Training Load its features & principles
1.2 Load & factors of load, nature of execution of movement volume, intensity and density,
1.3 Overload, Causes, Symptoms and Remedial Measures of over load.
1.4 Supercompensation Cycle and Adaptation

Components of Physical Fitness
2.1 Speed: its characteristics, Type of Speed and factor determining Speed, Speed development.
2.2 Flexibility: its characteristics, Type of Flexibility and factor determining Flexibility, development of Flexibility.
2.3 Coordination: its characteristics, Type of coordinative abilities and factor determining coordinative abilities, development of coordinative abilities.
2.4 Effects of basic methods of conditioning

Technique & Tactics
3.1 Meaning of technique, skill and style, and Classification of Skills
3.2 Various phases of technique training.
3.3 Methods of technique training, causes of technical faults and their corrections.
3.4 Meaning of tactics, strategy, Principles of tactics and training of tactics.

Doping
4.1 Doping: meaning, definition and classification of doping.
4.2 History of doping, health risks and side effects of doping.
4.3 Blood doping: meaning, method, effects and side effects of blood doping.
4.4 Doping control: anti doping organizations, IOC prohibited list of doping drugs and methods.

References:
• David R. Mottram (1996) Drugs in Sport, School of Pharmacy, Liverpool: John Moore University.
• Bartlett Publications Yograj Thani (2003), Sports Training, Delhi : Sports Publications

BOS held on 19.08.2019
DEPARTMENT OF PHYSICAL EDUCATION  
SYLLABUS (SESSION: 2019-20)  
MASTER OF PHYSICAL EDUCATION (M.P.ED.)  
Semester-III’rd

Title: Sports Engineering (Elective)  

Credits: 04  
Max. Marks: 100  
Sessional Marks: 30  
Examination Marks: 70  
Paper Code: PEM-3011  
Duration: 2:30 Hours

**Goal** – to define the importance of engineering in the sports world and develop an understanding of different ways materials/designing can affect performance.

**Unite: I**

**Goal** – To define the importance of engineering in the sports world and develop an understanding of different sports analysis

1.1 Introduction to Sports Engineering  
*Chapter Reading: S.J. Haake Department of Mechanical Engineering, University of Sheffield, UK*

1.2 Motion analysis using Videography  
(Motion analysis using video by Carl J. Payton)  
([https://www.taylorfrancis.com/books/e/9781134109036/chapters/10.4324%2F9780203935750-7](https://www.taylorfrancis.com/books/e/9781134109036/chapters/10.4324%2F9780203935750-7))

1.3 Biomechanics:-  
1.3.1 Gait and Ergonomics  
*Chapter Reading: Biomechanical evaluation of movement in sports and exercises, Edited by: Carl J. Payton and Rogger M. Bertlett*

**Unite: II**

**Goal** – To define the mechanical concept of engineering in the sports and biomechanics of daily activities

2.1 Introduction of Force and its measurement  
2.2 Concept of Internal Force, Axial Force, Shear force and bending Movement  
2.3 Mechanical Principles in walking movements  
*(Chapter reading: Biomechanical evaluation of movement in sports and exercises, Routledge 2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN)*
**Unite -III**

Goal: To define the mechanical concept of materials in fitness and *Sports related instrumentation.*

3.1 Instrumentation and application in sports/fitness of Steam Bath, Sauna Bath and Jacuzzi Bath. (Practical application)

3.2 Materials in cricket
   (J. SUBIC RMIT University, Melbourne, Australia A. J. COOKE Cooke Associates, Cambridge, UK)

   **3.2.1 Cricket ball (Chapter 5 from Jenkins – Balls and Ballistics).**
   3.2.1.1 Introduction - discuss the design necessities that go into balls materials
   and manufacturing.
   3.2.1.2 Materials and construction of cricket balls
   3.2.1.3 Analysis of cores/balls

   **3.2.2 Cricket bat**
   3.2.2.1 Introduction – discuss the design necessities that go into bats materials
   and manufacturing.
   3.2.2.2 Performance of cricket bats
   3.2.2.3 Materials and construction of cricket bats

   Publishing Limited.)*

**Unite –IV**

Goal: To define the mechanical concept of instrumentation in Sports:

**4.1 Instrumentation and Software:**

   **4.1.1** Motion Analysis (Procedure and application)
   **4.1.2** Electromyography
   **4.1.3** Pressure measurement
   **4.1.5** Sports Specific Instrumentation and software i.e. Athletic etc.

**Required Readings:**


Payton and Berlett (2008). *Biomechanical evaluation of movement in sports and exercises, Routledge 2 Park Square,
Milton Park, Abingdon, Oxon OX14 4RN*


Franz Konstantin Fuss, Aleksandar Subic, Martin Strangwood, Rabindra Mehta, (2013), *Routledge Handbook of
Sports Technology and Engineering,*

Caroline Adams, David James, Terry Senior, Tom Allen, Nick Hamilton (September 2018), Correction to: Effect of
surrogate design on the measured stiffness of snowboarding wrist protectors

Pascal Hémon (September 2018), Hydrodynamic characteristics of sea kayak traditional paddles

Taishu Nakamura, Taiiku Miyoshi, Shota Sato, Motoki Takagi... (September 2018), Differences in soccer kicking
type identified using principal component analysis

BOS held on 19.08.2019