DAV UNIVERSITY JALANDHAR

Course Scheme & Syllabus
For
M.P.Ed
(Program ID - 244)

Syllabi Applicable for Admissions in 2020- 21 onwards

DAV University, Jalandhar

Scheme of Post Graduate Course: M.P.Ed (Program ID- 244)

(2 year Course)

SEMESTER- I

S.No	Paper Code	Course Title	L	T	P	Cr	INT. ASS.	MSE	ETE	TOTAL
Core Courses										
1	PHE- 739	Research Methodology & Statistics in Physical Education	4	0	0	4	**25**	**25**	**50**	**100**
2	PHE- 740	Exercise and Sports Physiology.	4	0	0	4	**25**	**25**	**50**	**100**
3	PHE- 704	Tests, Measurement and Evaluation in Physical Education	3	0	0	3	**25**	**25**	**50**	**75**
Core (Practical) Course										
4	PHE- 706	Track and Field - I 1. Running Events	0	0	6	4	(30 Int.+ 70ETP)			**100**
5.	PHE - 721	Game Specialization – I(Any 2)	0	0	6	4	(30 Int.+ 70ETP)			**100**
6	PHE- 708	Test and Measurement (Practical)	0	0	2	1				**25**
Elective Course(Any One)										
7	PHE- 733	Yogic Sciences	3	0	0	3	**25**	**25**	**50**	**75**
8	PHE- 734	Yoga Practical	0	0	2	1				**25**
9	PHE- 723	Sports and Technology	4	0	0	4	**25**	**25**	**50**	**100**
			14/15	**0**	**14/16**	**24**				**600**

All Courses will be evaluated on the basis of 30% Internal Evaluation and 70% External Evaluation

L: Lectures T: Tutorial P: Practical Cr: Credits

Evaluation:

The performance of a student in each course is evaluated in terms of percentage of marks with a provision for conversion to grade point. Evaluation for each course shall be done by a continuous internal assessment (CIA) by the concerned course teacher as well as by end semester examination and will be consolidated at the end of course. The components for continuous internal assessment are;

One Test	10 Marks
Assignments / Lab Practical	10 Marks
Attendance	5 Marks
Total	25 Marks

DAV University, Jalandhar

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(2 year Course)

SEMESTER - II

S.No	Paper Code	Course Title	L	T	P	Cr	INT. ASS	MSE	ETE	TOTAL
Core Courses										
1	PHE- 710	Adapted Physical Education	4	0	0	4	**25**	**25**	**50**	**100**
2	PHE- 711	Sports Biomechanics & Kinesiology	3	0	0	3	**25**	**25**	**50**	**75**
3	PHE- 712	Athletic Care and Rehabilitation	4	0	0	4	**25**	**25**	**50**	**100**
4	PHE - 718	Internship	0	0	0	2				**50**
Core (Practical) Courses										
4	PHE- 715	Track and Field II: Jumping events + Hurdles	0	0	6	4	(30 Int.+ 70ETP)			**100**
5	PHE- 716	Games Specialization- II (Any 2)	0	0	6	4	(30 Int.+ 70ETP)			**100**
6	PHE- 717	Sports Biomechanics & Kinesiology (P)	0	0	2	1	(30 Int.+ 70ETP)			**25**
Elective Course(Any One)										
7	PHE- 713	Sports Journalism and Mass Media	4	0	0	4	**25**	**25**	**50**	**100**
8	PHE- 714	Sports Management & Curriculum Design in Physical Education	4	0	0	4	**25**	**25**	**50**	**100**
			15	**0**	**14**	**26**				**650**

All Courses will be evaluated on the basis of 30% Internal Evaluation and 70% External Evaluation

L: Lectures T: Tutorial P: Practical Cr: Credits

Evaluation:

The performance of a student in each course is evaluated in terms of percentage of marks with a provision for conversion to grade point. Evaluation for each course shall be done by a continuous internal assessment (CIA) by the concerned course teacher as well as by end semester examination and will be consolidated at the end of course. The components for continuous internal assessment are;

One Test	10 Marks
Assignments / Lab Practical	10 Marks
Attendance	5 Marks
Total	25 Marks

DAV University, Jalandhar

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SEMESTER –III

S. No	Paper Code	Course Title	L	T	P	Cr	INT. ASS	MSE	ETE	TOTAL
Core Courses										
1	PHE- 801	Science of Sports Training	4	0	0	4	**25**	**25**	**50**	**100**
2	PHE - 802	Sports Medicine	4	0	0	4	**25**	**25**	**50**	**100**
3	PHE - 803	Health Education and Sports Nutrition	4	0	0	4	**25**	**25**	**50**	**100**
4	PHE - 820	Organization of Major Sports Events	2	0	0	2	**25**	**25**	**50**	**50**
Core (Practical) Courses										
4	PHE - 806	Track and Field III: Throwing Events	0	0	6	4	(30 Int.+ 70ETP)			**100**
5	PHE - 809	Game Specialization	4	0	0	4	(30 Int.+ 70ETP)			**100**
Elective (Theory) Courses										
6	PHE - 804	Professional Preparation In Physical Education	4	0	0	4	**25**	**25**	**50**	**100**
7	PHE - 805	Dissertation – I	4	0	0	4	**25**	**25**	**50**	**100**
8	PHE - 808	Physical Fitness and Wellness	4	0	0	4	**25**	**25**	**50**	**100**
			22	**0**	**6**	**22**				**650**

All Courses will be evaluated on the basis of 30% Internal Evaluation and 70% External Evaluation

L: Lectures T: Tutorial P: Practical Cr: Credits

Evaluation:

The performance of a student in each course is evaluated in terms of percentage of marks with a provision for conversion to grade point. Evaluation for each course shall be done by a continuous internal assessment (CIA) by the concerned course teacher as well as by end semester examination and will be consolidated at the end of course. The components for continuous internal assessment are;

One Test	10 Marks
Assignments / Lab Practical	10 Marks
Attendance	5 Marks
Total	25 Marks

DAV University, Jalandhar

Scheme of Post Graduate Course: M.P.Ed (Program ID- 244)

(2year Course)

SEMESTER -IV

S.No	Paper Code	Course Title	L	T	P	Cr	INT. ASS	MSE	ETE	TOTAL
Core Courses										
1	CSA	Information & Communication Technology (ICT) in Physical Education	0	0	4	2				**50**
2	PHE- 811	Sports Psychology and Sociology	4	0	0	4	**25**	**25**	**50**	**100**
3	PHE - 814	Education Technology in Physical Education	4	0	0	4	**25**	**25**	**50**	**100**
4	PHE	Internship	0	0	0	2				**50**
Core (Practical) Courses										
4	PHE- 815	Track and Field- IV Introduction of Heptathlon & Decathlon event	0	0	6	4	(30 Int.+ 70ETP)			**100**
5	PHE- 816	Game Specialization	0	0	6	4	(30 Int.+ 70ETP)			**100**
Elective Course(Any One)										
6	PHE - 813	Dissertation – II	4	0	0	4	**25**	**25**	**50**	**100**
7	PHE- 812	Human Value And Environmental Education	4	0	0	4	**25**	**25**	**50**	**100**
			12	**0**	**16**	**24**				**600**

All Courses will be evaluated on the basis of 30% Internal Evaluation and 70% External Evaluation

L: Lectures T: Tutorial P: Practical Cr: Credits

Evaluation:

The performance of a student in each course is evaluated in terms of percentage of marks with a provision for conversion to grade point. Evaluation for each course shall be done by a continuous internal assessment (CIA) by the concerned course teacher as well as by end semester examination and will be consolidated at the end of course. The components for continuous internal assessment are;

One Test	15 Marks
Assignments / Lab Practical	10 Marks
Attendance	5 Marks
Total	30 Marks

NOTE: Provision of Bonus Credits Maximum 06 Credits in each Semester

Sr. No.	Special Credits forte Extra Co-curricular Activities	Credit
1	Sports Achievement at State level Competition (Medal Winner) Sports Achievement National level Competition (Medal Winner) Sports participation International level Competition	1 2 4
2	Inter Uni. Participation (Any one game)	2
3	Inter College Participation (min. two games)	1
4	National Cadet Corps / National Service Scheme	2
5	Blood donation / Cleanliness drive / Community services /	2
6	Mountaineering – Basic Camp, Advance Camp / Adventure Activities	2
8	News Reporting / Article Writing / book writing / progress report writing	1

Students can earn maximum 06 Bonus credits in each semester by his/her participation in the above mentioned activities duly certified by the Head of the institution / Department. This Bonus credit will be used as extra credits in academic activities and will be highlighted in the DMC of the students.

SEMESTER- I

Course Title: RESEARCH PROCESS AND STATISTICS IN PHYSICAL EDUCATION

L	T	P	Credits	Marks
4	0	0	4	100

PAPER CODE: PHE701

Learning Objectives:

On completion of the course the students shall be able to:

- Explain the meaning of research, classify different types of research, Analyze different methods of research, Discus types of sampling, Use of different tools for data collection, use of different statistical techniques in different research studies, Interpret the analyzed data.

UNIT I

1. INTRODUCTION
   - 1.1 Definition of Research.
   - 1.2 Characteristics of Research.
   - 1.3 Need and Importance of Research in Physical Education and Sports.
   - 1.4 Scope of Research in Physical Education.
   - 1.5 Classification of Research – Basic, Applied and Action Research.
   - 1.6 Types of Research - Analytical, Descriptive, Experimental and Qualitative.
2. REVIEW OF RELATED LITERATURE
   - 2.1 Need for surveying related literature.
   - 2.2 Kinds of related literature.
   - 2.3 Literature Sources – Primary & Secondary.
   - 2.4 Library Reading.
   - 2.5 Preparation an abstract.
   - 2.6 Method of Writing Research proposal, Thesis / Dissertation;
   - 2.7 Method of writing abstract, full paper for presenting in a conference/ publish in journals
3. PROPOSAL AND PROBLEM OF RESEARCH
   - 2.1 Meaning of Research Problem.
   - 2.2 Formulation of Research Problem.
   - 2.3 Location and Criteria of Selection of Research Problem.

4. HYPOTHESIS

- 3.1 Meaning and Importance of Hypothesis.
- 3.2 Types of Hypothesis.
- 3.3 Formulation of Hypothesis.
- 3.4 Testing of Hypothesis

UNIT II

5. TYPES OF RESEARCH & RESEARCH DESIGN

5.1 HISTORICAL RESEARCH

- 5.1.1 Meaning and Definitions of Historical Research.
- 5.1.2 Scope of Historical Research in Physical Education.
- 5.1.3 Sources of Historical Data.
- 5.1.4 Historical evidences and Validity of Historical data.
- 5.1.5 Evaluation of Historical Data.
- 5.1.6 Pit Faults is Historical Research.

. 5.2 PHILOSOPHICAL RESEARCH.

5.2.1 Meaning of Philosophical Research.
5.2.2 Tools of Philosophical Research.
5.2.3 Steps in Critical Thinking.

6. RESEARCH DESIGN
   6.1 Meaning and need of research design
   6.2 Feature of a good research design
   6.3 Important concepts relating to research design
   6.4 Historical design
   6.5 Descriptive design
   6.6 Experimental design
      6.6.1 Single Group Design,
      6.6.2 Reverse Group Design,
      6.6.3 Repeated Measure Design,
      6.6.4 Static Group Comparison Design,
      6.6.5 Equated Group Design,
      6.6.6 Factorial Design

UNIT III

7.SAMPLING
   7.1 Meaning and definition of sampling.
   7.2 Types of sampling.
   7.3 Advantages of Sampling
   7.4 Probable Error

8. RESEARCH REPORT
   8.1Chapterization of Thesis / Dissertation,
   8.2 Front Materials,
   8.3 Body of Thesis
   8.4 Back materials.
   8.5 Mechanics of writing
   8.6 Research Report, Footnote and Bibliography writing.

UNIT – IV

10. MEASURE OF CENTRAL TENDENCY AND MEAURES OF VARIABILITIY
   10.1 Measure of Central Tendency (MCT) - Mean, Median, Mode:
   10.2 Measure of Variability (Range, Quartile Deviation, Mean Deviation, Standard Deviation

11. NORMAL CURVE, NON-PARAMETRIC STATISTIC
   11.1 Normal Curve, Graphical Presentation, Skewness & Kurtosis
   11.2 Computation of chi-square, Hull Score, Z Score

12. RELATIONSHIP AND COMPARATIVE STATISTICS
   12.1 Product moment correlation & Rank order correlation
   12.2 t-ratio – independent and paired
   12.3 ANOVA

REFERENCES:

- Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
- Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education,New Jersey; Prentice Hall Inc.
- Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and ExerciseScience, Londonl Routledge Press
- Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis;Human Kinetics;

Course Title: EXERCISE AND SPORTS PHYSIOLOGY

L	T	P	Credits	Marks
4	0	0	4	100

PAPER CODE: PHE702

Learning Objectives:

On completion of the course the students shall be able to:

- Explain structure of skeletal muscles, effect of exercise on various body systems, analyze the relation between metabolism and energy transfer.

UNIT – I

1. INTRODUCTION
   - 1.1 Definition of Physiology and Exercise Physiology.
   - 1.2 Importance and Role of Exercise Physiology in the field of Physical Education and Sports

2. MUSCLE
   - 2.1 Structure and Function.
   - 2.2 Comparative Study of different types of muscles i.e. Voluntary, Involuntary and Cardiac.
   - 2.3 Theories of muscular contraction
   - 2.4 Sliding Filament Theory.
   - 2.5 Molecular mechanism of muscular contraction.
   - 2.6 Chemical composition of skeletal muscle.
   - 2.7 Muscle fiber type (Red and White Muscle).

UNIT II

3.BIOENERGETICS
   - 3.1 Fuel for muscular Work (ATP).
   - 3.2 Energy of muscular contraction.
   - 3.3 Various changes during muscular contraction.
   - 3.4 Heat production and thermodynamics of muscle contraction.
   - 3.5 Aerobic and anaerobic muscular activity.

4. NEURO-MUSCULAR JUNCTION AND CO-ORDINATION OF MUSCULAR ACTIVITY
   - 4.1 Neurons and motor Unit
   - 4.2 Transmission of nerve impulse.
   - 4.3 Bio-electric potentials.
   - 4.4 Neuro- Muscular junction and transmission of nerve impulse across it.
   - 4.5 Propioception and Kinesthesia- tone, posture and equilibrium.

UNIT - III

5. CARDIOVASCULAR SYSTEM AND EXERCISE
   - 5.1 Heart Valves and Direction of the Blood Flow
   - 5.2 Conduction System of the Heart
   - 5.3 Blood Supply to the Heart: Cardiac Cycle, Stroke Volume, Cardiac Output, exchange of gases in lungs & tissues, oxygen debt, second wind.
   - 5.4 Factors Affecting Heart Rate – Cardiac Hypertrophy
   - 5.5 Effect of Exercise on Cardiovascular system

5.2 BLOOD COMPOSITION

5.2.1 Components and functions
5.2.2 blood clotting
5.2.3 Blood groups.

6. CIRCULATORY SYSTEM
   6.1 Components, structure, function.
   6.2 Types of blood circulation.
   6.3 Heart Rate, cardiac hypertrophy, systolic and diastolic blood pressure
   6.4 Effect of Exercise on Circulatory system

7. RESPIRATORY SYSTEM
   7.1 Anatomy and physiology of respiration.
   7.2 Neural control of respiration.
   7.3 Non-respiratory movements.
   7.4 Effects of exercise on respiratory system.

UNIT IV

8. SPORTS AND NUTRITION
   8.1 Basic concept of balanced diet.
   8.2 Appropriate diet before, during and after athletic performance.
   8.3 Effects of Alcohol, Drugs, and Smoking on Athletic Performance

9. ENERGY COST OF VARIOUS SPORTS ACTIVITY
   9.1 Definition of Energy cost.
   9.2 Energy cost of various sports activities and its assessment.
   9.3 Various Direct and Indirect Methods to assess Energy Cost.

10. WORK AND ENVIRONMENT
   10.1 Work capacity under different environment. Conditions (Hot, Humid, cold & high attitude)

11. ERGOGENIC AIDS & DOPING IN SPORTS
   11.1Meaning, definition, classification benefits of ergogenic
   11.2 Nutrition and sports Performance and its benefits
   11.3 Definition, classes, method of doping
   11.4 Side effects and sanction against doping
   11.5 Methods of detecting Doping
   11.5 IOC, FIMS, WADA, NADA, RADO

References:

- Bourne, Geoffery H. “The Structure and Function of Muscles” (London Academic Press) - 1973.
- Astrand, P.O. and Rodahl; Karre. “Text Book of work Physiology” (Tokyo Mc Graw. Hill Xogakusha, Ltd. 1979)
- Mathew. D.K. and Fox, E.L. “Physiological Basis of Physical Education and Athletics” (Philadelphia W.B. Saunder Company 1976)
- Wilmore H. Jack and Costill L.Pavid, “Physiology of Sports and Exercise” (Human Kinetics, 2004).
- Roberys A. Robert and Robert O. Scott. “Fundamental Principles of Exercise Physiology” (Mc. Grew Hill Companies, Inc. 2000).
- Adams M. Gene Exercise Physiology: Laboratory Manual, (WCB Mc Grew-Hill Companies, Inc, 1988).
- Katch L. Victor, Katch I. Frank and Mcardle D. William, “Exercise Physiology” (Williams & Wilkins, A Waverty Company, 1966).
- Mooren C. Frank and Volker Kalaus “Molecular and celluler exercise Physiology” (Human Kintics, Devidion of sports distributor Nz Ltd, 2005).

COURSE TITLE: TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION
PAPER CODE: PHE703

L	T	P	Credits	Marks
3	0	0	3	75

Learning Objectives:

On completion of the course the students shall be able to:

- Explain basic concepts and practices adopted in evaluation, analyze various test used in Physical Education, Categorize Anthropometric and Aerobic – Anaerobic tests, Apply various skill tests in Physical Education.

UNIT- I

1. INTRODUCTION
   - 1.1 Meaning of Test, Measurement and Evaluation.
   - 1.2 Nature and scope of evaluation Program.
   - 1.3 Need and importance of evaluation in the field of Physical Education
2. SELECTION AND CONSTRUCTION OF TESTS
   - 2.1 Criteria of Test Selection.
   - 2.2 Factors affecting Scientific Authenticity. (Reliability, Validity, Objectivity, and Norms)
   - 2.3 Procedure to establish Scientific Authenticity.
   - 2.4 Classification of tests- Standardized and teacher made test (Objective and Subjective).
   - 2.5 Construction of Test-knowledge test and skills Tests.
   - 2.6 Suggestions for Administering test
   - 2.7 Test Evaluation (Skill test and Knowledge test)

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UNIT-II

3.MEASUREMENT OF PHYSICAL PEFORMANCE

- 3.1 Organic Functions Test:
  - 3.1.1 Cardiovascular and respiratory function.
  - 3.1.2 Cooper's 12 minutes' continuous run-walk test and modifications.
  - 3.1.3 Tuttle's pulse Ratio Test.
  - 3.1.4 Harvard step test and its modifications (High School and College level (Men and Women).
  - 3.1.5 Hymen's Cardio pulmonary Index Test (CPI).
  - 3.1.6 Margaria-Kalamen Anaerobic test, Wingate Anaerobic Test
- 3.2 Motor Fitness:
  - 3.2.1 Oregon Motor Fitness Test.
  - 3.2.2 JCR Test.
  - 3.2.3 Canadian Fitness Test.
  - 3.2.4 AAPPER Youth Fitness Test.
  - 3.2.5 Indiana Motor Fitness Test.
- 3.3 General Motor Ability
  - 3.3.1 Mc Cloy's General Motor Ability.
  - 3.3.2 Methany Johnson Test.

3.3.3 Barrow motor ability test
3.3.4 Scott motor ability test
3.3.5 Newton Motor Ability Test

UNIT – III

4. MEASUREMENT OF STRENGTH AND SKILL

4.1.1 Kraus-Weber Muscular fitness.
4.1.2 Instrument for measuring strength.
4.1.3 Roger's Physical Fitness Index and suggested changes in the PFI Test.
4.2 Skill Test
4.2.1 Volleyball: - Brady Volleyball, Russell and Lange test.
4.2.2 Basketball: - Johnson test, Knox test.
4.2.3 Soccer: - McDonald test, and Johnson test.
4.2.4 Badminton: - Miller Volley Test, Lockhart McPherson Test.
4.2.5 Hockey: - Harbans Singh Field Hockey Test, Friendel Field Hockey Test.
4.2.6 Tennis: - Borer Miller Test, Dyer's Tennis Test.
4.2.7 Cricket: Sutcliff Cricket test, YoYo test

UNIT - IV

5. MEASURMENT OF POSTURE AND ANTHROPOMETRY

5.1.1 Measures of Posture- IOWA Posture Test (Cureton's)
5.1.2 Anthropometric Measurement.
5.1.2.1 Girth Measurement- upper arms, fore arm, Calf chest.
5.1.2.2 Width Measurement- Biacromial, Chest, Illiocrestal, Epicondyle of Femur and Humerus.
5.1.2.3 Height Measurement- Standing and sitting height.
5.1.2.4 Somatotype Sheldon's Technique of body classification.

5.2 Measurement of Social Efficiency and Psychological Factors.
5.2.1 Social Efficiency and Attitude Scales:
5.2.1.1 Socio metric Status Scale.
5.2.1.2 McMohan Sportsmanship Scale.
5.2.1.3 Neilson Sports Leadership Scale.

REFERENCES:

- Barrow M: Hareld and Mc Ghee, "Rosmary A Practical Approach to Measurement in Physical Education". (Philadelphia Lea and Febhiger, 1979). Edn. 3rd.
- Bosco S. James and Gustafson F. William, "Measurement and Evaluation in Physical Fitness and Sports". (New Jersey: Englewood Cliffs, Prentice Hall 1983).
- Clarks, H. David and Clarke Hanson. H. "Application of Measurement to Physical Education". (Englewood Cliffs, Prentice Hall 1987) Edn.6

- Hubbard W. Alfred (D.) “Research Method in Health, Physical Education and Recreation” 3rd revised edition (Washington: D.C. American, Association of Health Physical Education and Recreation).
- Johnson L. Berry and Nelson K. Jack, “Practical Measurement for Evalution in Physical Education” 1st Indian Reprint, (Delhi: Surjeet Publication, 1982) ed. 3rd.
- Larson L.A. and Yown R.C. “Measurement and Evalution in Physical Health and Recreation Education” (St. Louis L.C.V. Mosby Com 1957).
- Larson L.A. “Encyclopedia of Sport of Sports Science and Medicine Education and Recreation” 3rd Revised Edn. (Washington: D.C. American, Association of Health Physical Education and Recreation, 1973).
- Mathews, Donald K. “Measurement in Physical Education” (London W.B. Saunders Co. 1973) Edn. 5
- Phillips D. Allen and Honark E. James “Measurement and Evalution in Physical Education”, New York: Wiley and Sons, 1973.

COURSE TITLE: TRACK AND FIELD I: RUNNING EVENTS

PAPER CODE: PHE706

L	T	P	Credits	Marks
0	0	6	4	100

UNIT – I

1. INTRODUCTION TO RUNNING ING EVENTS

1.1 Classification of Running Events in Track & Field

1.2 Basic equipment required & their Measurement for Running Events

1.3 Marking of Running Events.

1.4 Rules, Officials Required & Officiating and Scoring in Running Events

UNIT - II

2. FUNDAMENTAL SKILLS.

1.1 Track event-

1.1.1 Starting techniques - Standing start, Crouch start and its variations.

1.1.2 Proper use of Blocks.

1.1.3 Finishing techniques - Run through, Forward Lungin, Shoulder Shrug.

1.1.4 Relays -Various patterns of Batton Exchange and understanding of Relay Zones.

1.1.5 Hurdling: Specification of the hurdle height depends on the event distance, gender and age.

1.1.5.1 a) Phases: The Start and Approach, Hurdle Clearance, Leg Action & Arm Action, Running Between Hurdles b) Style: The Take Off – (Attacking the Hurdle), Transition – (Over the Hurdle), Touchdown – (Back to Running)

REFERENCES:

- Doherty, J., Track and Field, Engle wood Cliffs: Prientice Hall Inc.
- Dyoon and Geoffray, G.H., (1962) The Mechanics of Athletics London: University of London Press Ltd.
- Ken O Bosen, Track and Field Fundamental Techniques, Patiala: MS Publications. Handbook, AAFI, New Delhi.
- Rogres, L. Joseph., Track & Field Coaching Manual, USA: Herman Kinetics.

COURSE TITLE: GAMES SPECIALIZATION - I
PAPER CODE: PHE 709

L	T	P	Credits	Marks
0	0	6	4	100

UNIT-I

1. HISTORICAL DEVELOPMENT
   - **1.1** Historical Development of the sports at National and International level.
   - **1.2** Important Tournament/Competition held at National and International level

UNIT-II

2. FUNDAMENTAL SKILLS
   - **2.1** Fundamental Skills of the sport.
   - **2.2** Warming Up–General, Specific, Cooling Down,
   - **2.3** Physiological basis of warming up and cooling down.

UNIT-III

3. TECHNIQUE & TACTICAL PREPARATION
   - **3.1** Tactical Preparation for sports.
   - **3.2** Strategies and their Applications.
   - **3.3** Importance of Psychological preparation and its methods.

UNIT-IV

4. SPORTS SPECIFIC SKILL
   - **4.1** Sports Specific Skill Test.
   - **4.2** Knowledge of rules and regulations.
   - **4.3** Duties of official & conduct of official match.

Practical:

1. Draft preparation, supplementary to improve fundamental skills.
2. Sport Specific skill test.
3. Test for Motor components.
4. Filling up score sheets.
5. Officiating in competition(rules and signals)

COURSE TITLE: TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION (PRACTICAL)

PAPER CODE: PHE707

L	T	P	Credits	Marks
0	0	2	1	25

The students will have to perform all the test studied in theory practically and prepare a file accordingly.

1. MEASUREMENT OF PHYSICAL PEFORMANCE

1.1 Organic Functions Test:
- 1.1.1 Cardiovascular and respiratory function.
- 1.1.2 Cooper's 12 minutes continuous run-walk test and modifications.
- 1.1.3 Tuttle's pulse Ratio Test.
- 1.1.4 Harvard step test and its modifications (High Scholl and College level (Men and Women).
- 1.1.5 Hymen's Cardio pulmonary Index Test (CPI).

1.2 Motor Fitness:
- 1.2.1 Oregon Motor Fitness Test.
- 1.2.2 JCR Test.
- 1.2.3 Canadian Fitness Test.
- 1.2.4 AAPPER Youth Fitness Test.
- 1.2.5 Indiana Motor Fitness Test.

1.3 General Motor Ability
- 1.3.1 Mc Cloy's General Motor Ability.
- 1.3.2 Methany Johnson Test.

1.4 Measurement of Health Related Fitness.

2. MEASUREMENT OF STRENGTH AND SKILL

- 2.1.1 Kraus-Weber Muscular fitness.
- 2.1.2 Instrument for measuring strength.
- 2.1.3 Roger's Physical Fitness Index and suggested changes in the PFI Test.

2.2 Skill Test
- 2.2.1 Volleyball: - Brady Volleyball, Russell and Lange test.
- 2.2.2 Basketball: - Johnson test, Knox test.
- 2.2.3 Soccer: - McDonald test, and Johnson test.
- 2.2.4 Badminton: - Miller Volley Test, Lockhart McPherson Test.
- 2.2.5 Hockey: - Harbans Singh Field Hockey Test.
- 2.2.6 Tennis: - Borer Miller Test, Dyer's Tennis Test.
- 2.2.7 Cricket :- Sutcliff Cricket test, YoYo test

Course Title: YOGIC SCIENCES

L	T	P	Credits	Marks
3	0	0	3	75

PAPER CODE: PHE704

Learning Objectives:

On completion of the course the students shall be able to:

- Create interest in Yogic Practices and meditation, Perform yogic practices with proficiency, actively participate in sports and games, to make a report on sports and games, to make a report on sports facilities/ councelling centers, manage stress and develop resilience through meditation.

Unit I

1. INTRODUCTION
   - 1.1 Meaning, Definition, Scope and importance of Yoga,
   - 1.2 Essentials for Yoga Practices; Age, Diet, Stomach Emptying bowels, bathing, Clothes, Sun Bathing, No Straining, Place, Time, Awareness, Sequence. Contra indication, Counter Pose, Inverted Asana, Breathing, and Relaxation.
2. BASIC SYSTEMS OF YOGA WITH IMPORTANCE
   - 2.1 Astanga Yoga: Yama, Niyama, Aasna, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi.
3. STREAMS OF YOGA
   - 3.1 Hatha Yoga, Raja Yoga, Karma Yoga, Bhakti Yoga and Gnana Yoga

UNIT- II

4. ASANAS
   - 4.1 Asana: Definition, Classification, Sitting, Standing, Lying, & Inverted ASanas.
   - 4.2 Benefits of Asanas,
   - 4.3 Asanas and Loosening Exercises,
   - 4.4 Surya Namaskara- Description and Benefits.
5. KRIYAS
   - 5.1 Meaning of Neti, Nauli, Dhauti, Kapalabhati, Trataka, Bhastrika,
   - 5.2 Benefits of Kriyas
6. BANDHAS
   - 6.1 Jalandhara, , Udyana, Moola and Mahabandha
   - 6.2 Importance of Bandhas
7. MUDRAS
   - **7.1** Definition, Purpose and Benefits of Mudras, Types of Mudras. Hastha Mudras, Hath-Yogic Mudras.

UNIT - III

8. PRANAYAMA
   - 8.1 Definition and Types of Pranayama
   - 8.2 Importance & Impact of Pranayama on nadis.
   - 8.3 Chakras: Definition and types,
   - 8.4 Effects of Pranayama on major chakras.
9. MEDITATION

9.1 Meaning, Definition and Benefits of Meditation
9.2 Types of Meditation: Passive, active, Saguna and Nirguna Meditation.
9.3 Meditation and Health,
9.4 Meditation and stress Management.

UNIT - IV

10. YOGA AND SPORTS
    - 10.1 Effects of Yoga on Physiological Systems: Respiratory, Circulatory, Digestive, Nervous and Excretory Systems.
    - 10.2 Place of Yoga as Supplementary, Compensatory, Regenerative and Yogic Power.
    - 10.3 Role of Yoga in Sports: Promotion of Mental Wellbeing, Self-Actualization, Concentration, Suppression of Anxiety and depression.
    - 10.4 Role of Yoga in preparation of a sportsperson.

REFERENCE:

- George Feuerstein, (1975). Text Book of Yoga. London: MotilalBansaridass Publishers (P)Ltd.
- Gore, (1990), Anatomy and Physiology of Yogac Practices. Lonavata: KanchanPrkashan.
- Helen Purperhart (2004), The Yoga Adventure for Children. Netherlands: A Hunter Housebook.
- Iyengar, B.K.S. (2000), Light on Yoga. New Delhi: Harper Collins Publishers.
- Karbelkar N.V.(1993) PatanjalYogasutraBhashya (Marathi Edition) Amravati: HanumanVyayamPrasarakMandal.
- Kenghe. C.T. (1976). Yoga as Depth-Psychology and para-Psychology (Vol-I): HistoricalBackground, Varanasi: BharataManishai.
- Kuvalyananada Swami & S.L. Vinekar, (1963), Yogic Therapy – Basic Principles andMethods. New Delhi: Govt. of India, Central Health Education and Bureau.
- Moorthy A.M. &Alagesan. S. (2004) Yoga Therapy. Coimbatore: Teachers Publication

COURSE TITLE: YOGA PRACTICALS
PAPER CODE: PHE708

L	T	P	Credits	Marks
0	0	2	1	50

1. ASANAS AND SURYA NAMASKAR
    1.1 Asana Performance: Sitting, Standing, Lying, & Inverted Asanas.
    1.2 Performing Surya Namaskar

2. KRIYAS
    2.1 Performing Kriyas: Neti, Nauli, Dhauti, Kapalabhati, Trataka, Bhastrika,

3. BANDHAS
    3.1 Performing Jalandhara, , Udyana, Moola and Mahabandha.

4. MUDRAS
    4.1 Performing of Khechari, Vipareet Karani,Sambhavi, Plavani , Mahamudra and Adharamudra.

5. PRANAYAMA
    5.1 Performing Pranayama, surbhabhedi, Ujjai, Sheetali, Sheetkari, Bhramari, Bhastrika, Nadi Sodhana, Anulom-Vilom, Chandrabhedi.

6. MEDITATION
    6.1 Performing Meditation. Ohm Meditation and Savita Meditation.

L	T	P	Credits	Marks
4	0	0	4	100

COURSE TITLE: SPORTS AND TECHNOLOGY

PAPER CODE: PHE705

Learning Objectives:

On completion of the course the students shall be able to:

- Discus the general principles and purpose of instrumentation in sports, analyze different types of sports field, use different modern instrument in sports.

UNIT – I

1. SPORTS TECHNOLOGY
   - 1.1 Meaning, definition, purpose, advantages and applications,
   - 1.2 General Principles and purpose of instrumentation in sports,
   - 1.3 Workflow of instrumentation and business aspects,
   - 1.4 Technological impacts on sports.

2. SCIENCE OF SPORTS MATERIALS
   - 2.1 Adhesives- Nano glue, nano moulding technology, Nano turf. Foot wear production.
   - 2.2 Factors and application in sports, constraints.
   - 2.3 Foams- Polyurethane, Polystyrene, Styrofoam, closed cell and open-cell foams, Neoprene, Foam.
   - 2.4 Smart Materials – Shape Memory Alloy (SMA), Thermo chromic film, High-density modelling foam.

UNIT – II

3. SURFACES OF PLAYFIELDS
   - 3.1 Modern surfaces for playfields, construction and installation of sports surfaces.
   - 3.2 Types of materials – synthetic, wood, polyurethane. Artificial turf.
   - 3.3 Modern technology in the construction of indoor and outdoor facilities.
   - 3.4 Technology in manufacture of modern play equipment.
   - 3.5 Use of computer and software in Match Analysis and Coaching.

UNIT - III

4. MODERN EQUIPMENT
   - 4.1 Playing Equipments: Balls: Types, Materials and Advantages, Bat/Stick/ Racquets: Types, Materials and Advantages.
   - 4.2 Clothing and shoes: Types, Materials and Advantages.
   - 4.3 Measuring equipments: Throwing and Jumping Events.
   - 4.4 Protective equipments: Types, Materials and Advantages.
   - 4.5 Sports equipment with nano technology, Advantages.

UNIT – IV

5. TRAINING GADGETS
   - 5.1 Basketball: Ball Feeder, Mechanism and Advantages.
   - 5.2 Cricket: Bowling Machine, Mechanism and Advantages,
   - 5.3 Tennis: Serving Machine, Mechanism and Advantages,

5.4 Volleyball: Serving Machine Mechanism and Advantages.

5.5 Lighting Facilities: Method of erecting Flood Light and measuring luminous.

5.6 Video Coverage: Types, Size, Capacity, Place and Position of Cameras in Live coverage of sporting events.

REFERENCES:

- Charles J.A. Crane, F.A.A. and Furness, J.A.G. (1987) "Selection of Engineering Materials" UK: Butterworth Heiremann.
- Finn, R.A. and Trojan P.K. (1999) "Engineering Materials and their Applications" UK: Jaico Publisher.
- John Mongilo, (2001), "Nano Technology 101 "New York: Green wood publishing group.
- Walia, J.S. Principles and Methods of Education (Paul Publishers, Jullandhar), 1999.
- Kochar, S.K. Methods and Techniques of Teaching (New Delhi, Jullandhar, Sterling Publishers Pvt. Ltd.), 1982

SEMESTER – II

COURSE TITLE: ADAPTED PHYSICAL EDUCATION
PAPER CODE: PHE710

L	T	P	Credits	Marks
4	0	0	4	100

Learning Objectives:

On completion of the course the students shall be able to:

- Dealing with people with disabilities, different activities for disables

UNIT I

1. INTRODUCTION TO A DAPTED PHYSICAL EDUCATION
   - 1.1 Meaning and definitions
   - 1.2 Aims and objectives
   - 1.3 Need and importance
   - 1.4 Role of physical education in adapted physical education
   - 1.5 Brief historical review of adapted physical education

UNIT-II

2. CLASSIFICATION OF DISABILITY
   - 2.1 Changing concept of disability handicaps, retardation, physically and mentally challenged
   - 2.2 Physical disability, Characteristics, Category
   - 2.3 Functional limitation, General causes
   - 2.4 Mental retardation and learning disability
     - Characteristics, Category
     - Functional limitation, General causes
   - 2.5 Hearing and speech impairment
     - Characteristics, Category
     - Functional limitation, General causes
   - 2.6 Visual impairment
     - Characteristics
     - Category
     - Functional limitation
     - General causes
   - 2.7 Other disabled conditions
   - 2.8 Behavioural problems associated with disability
   - 2.9 Adjustment problem
   - 2.10 Emotional problem
   - 2.11 Personality problem
   - 2.12 Social problems
   - 2.13Social stigma
   - 2.14 Discrimination
   - 2.15 Social rejection

UNIT-III

3. ADAPTED PHYSICAL EDUCATION PROGRAMMES
   - 3.1 Guiding principles for adapted physical education programme (AAHPER Principle)
   - 3.2 Physical education programme for disabled of :
     - Elementary school, Middle school, High school
   - 3.6 Special adapted programme for various types and categories of physical disability
   - 3.7 Regular physical activity
   - 3.8 Informal games and special activity
   - 3.9 Informal and formal competitions

3.10 Special adapted programme for hearing and speech impairment, visual impairment,
3.11 mental retardation and learning impairment
3.12 Regular physical activity
3.13 Informal games and special activity
3.14 Informal and formal competitions

UNIT-IV

4. ACTIVITIES FOR DISABLED
   4.1 Co-curricular activities for disabled
   4.2 Outdoor programmes for disabled
   4.3 Adventure based outdoor programme
   4.4 Creative development and hobby & culture development programme
   4.5 Aquatic activity programme for disabled
   4.6 Importance of activity for disabled
   4.7 Nature of aquatic activity programme based on types of various disability
   4.8 Rehabilitative role and importance of aquatic activity
5. REHABILITATION AND GOVERNMENTAL WELFARE PROGRAMMES
   5.1 Rehabilitation
      5.1.1Aims and objectives of rehabilitation
      5.1.2 Meaning of functional and occupational rehabilitation
      5.1.3 Importance of adapted programme in rehabilitation
      5.1.4 Functional rehabilitation
      5.1.5 Psychological rehabilitation – adjustmental, environmental and − personality development
   5.2 Governmental Welfare Programme
      5.2.1 Provisions of special rights and privilege for disabled through legislations
      5.2.2 Social welfare programmes for disabled
      5.2.3 Mass public education/awareness programme
      5.2.4 Education approach
      5.2.5 Service approach
   5.3 Legislative approach

REFERENCES:

- Anoop Jain, "Adapted Physical Education" Sports Publication, Ashok Vihar, Delhi.
- Arthur G. Miller & James, "Teaching Physical Activities to Impaired Youth" John Wilag & Sons Inc. Canada.
- Arthur S. Daniels & Euilya, "Adapted Physical Education" Harpet & Row Publisher, New York.
- Auxter, Byler, Howtting, "Adapted Physical Education and Reactions" Morbey – St. Louis Mirrauri.
- K. Park, "Preventive Social Medicine" M/s Banarsidas Bhanot Publishers, Prem Nagar, Jabalpur.
- Ronald W. French & Paul J., "Special Physical Education" Charles E. Merrics Publishing Co. Edinburgh, Ohio.

L	T	P	Credits	Marks
3	0	0	3	75

COURSE TITLE: SPORTS BIOMECHANICS AND KINSESIOLOGY
PAPER CODE: PHE711

Learning Objectives:

On completion of the course the students shall be able to:

- Recognize the importance of applied kinesiology and Sports Biomechanics, Analyze the action of muscles, classify different types of motion and forces and its application in sports.

UNIT I

1. INTRODUCTION

1.1 Meaning, Definitions, Role and Scope of Sports Biomechanics in Physical Education.
1.2 Meaning and Definition of Motion, Types of Motion.
1.3 Meaning of Kinematics, Kinetics, Statics, Dynamics, Scalar and Vector quantities.
1.4 Axis and Plane of the body, Centre of Gravity and Line of Gravity of the Body.

UNIT II

2. MUSCLE ACTION AND FORCE

2.1 Meaning, Definitions, Role, Scope of Kinesiology in Physical Education.
2.2 Origin, Insertion and Action of Muscles-Pectoralis Major and Minor, Deltoid, Biceps, Triceps (Anterior and Posterior), Trapezius, Serratus, Sartorius, Rectus Femoris, Abdominis, Quadriceps, Hamstring, Gastrocnemius.
2.3 Meaning and Definition of Force, Types of Force, Properties of Force, Principles related to the Law of Inertia, Law of Acceleration and Law of Counter Force, Centripetal Force, Centrifugal Force.
2.4 Meaning and Definition of Friction, Types of Friction, Application of Friction & Spin.

UNIT III

3. PROJECTILE AND LEVER

3.1 Projectile, Equation of Projectiles,
3.2 Stability, Guiding Principles for Stability - Static and Dynamic Stability.
3.3 Equilibrium and factors Influencing Equilibrium
3.4 Spin, Impact and Elasticity
3.5 Leverage - Types of Lever, Practical Application.
3.6 Meaning of Work, Pressure, Power, Energy, Kinetic Energy and Potential Energy.
3.7 Fluid Mechanics, Air resistance and Water resistance.

UNIT IV

4. MOVEMENT ANALYSIS

4.1 Analysis of Movement: Walking, Running, Jumping (Long Jump and High Jump) &Throwing
4.2 Types of Analysis- Kinesiological, Biomechanical, Cinematographic.
4.3 Methods of Analysis - Qualitative, Quantitative, Predictive

REFERENCES:

- Deshpande S.H.(2002). ManavKriyaVigyan – Kinesiology (Hindi Edition)
- Hoffman S.J. Introduction to Kinesiology (Human Kinesiology publication In.2005.
- Steven Roy, & Richard Irvin. (1983). Sports Medicine. New Jersery: Prentice hall.
- Thomas. (2001). Manual of structural Kinesiology, New York: Me Graw Hill.
- Uppal A.K. Lawrence Mamta MP Kinesiology(Friends Publication India 2004.

COURSE TITLE: ATHLETIC CARE AND REHABILITATION

L	T	P	Credits	Marks
4	0	0	4	100

PAPER CODE: PHE712

Learning Objectives:

On completion of the course the students shall be able to:

- Explain the objectives of Corrective Physical Education, Discus various Rehabilitative Exercises, Infer the application of Massage as an aid for relaxation, take precautions for sports injuries, its care, treatment and support.

UNIT – I

1. CORRECTIVE PHYSICAL EDUCATION

1.1 Definition and Objectives of Corrective Physical Education.
1.2 Posture and Body Mechanics, Standards of Standing Posture.
1.3 Value of Good Posture, Drawbacks and Causes of Bad Posture.
1.4 Posture Test – Examination of the Spine.

2. POSTURE & ITS DEFORMITIES

2.1 Normal Curve of the Spine and its Utility.
2.2 Deviations in Posture- Kyphosis, Lordosis, Flat Back, Scoliosis, Round Shoulders, Knock Knee, Bow Leg, Flat Foot.
2.3 Causes for Deviations and Treatment Including Exercises.

UNIT II

3. INJURY IN SPORTS

3.1 Definition of Macro trauma and Micro Trauma Tissue response to stress Inflammation and different steps of wound healing Overuse trauma, common sites and the management.
3.2 Low back problem and Management, stretching and strengthening exercise for back problems, sex problems in Athletes, differences between two sexes.
3.3 Common regional injuries and their management (Head & Neck, Face, Thorax, Abdomen, Pelvis, Upper Limbs and Lower Limbs (Specific injuries to Shoulder, Elbow, Writs, Hip, Knee and Ankle joints).
3.4 Important overuse problems and their managements.

UNIT III

4. THERAPEUTIC MODALITIES & REHABILITATION

4.1 Brief Description of therapeutic modalities and their use in rehabilitation.
4.2 Different forms of Hydrotherapy and Thermotherapy Hydrocollatral packs (Hot and cold packs), Whirlpool, Contrast bath, paraffin bath, Infrared, short wave Diathermy and Ultra sound bath, paraffin bath, Infrared, Electric Muscle Stimulator and combination of Ultrasound and Electric Muscle Stimulator, short wave, Diathermy and Ultra sound Indications & Contra indications of each modality.
4.3 Brief, concept of electrical muscle, stimulator, dialups and laser therapy.
4.4 Definition concept & approach in athletic Rehabilitation. Action Plan of athletic rehabilitation.

4.5Passive, Active, Assisted, Resisted Exercise for Rehabilitation
4.6 Role of ice in treatment of sports Injury.

UNIT IV

5. MASSAGE:

5.1 Brief History of Massage, Massage as an Aid for Relaxation, Points to be Considered in giving Massage

5.2 Physiological, Chemical, Psychological Effects of Massage, Indication /Contra Indication of Massage

5.3 Classification of the Manipulation used Massage and their Specific Uses in the Human Body.

5.4 Stroking Manipulation, Effleurage, Pressure Manipulation, Percussion Manipulation, Cupping, Poking, Shaking Manipulation, Deep Massage.

6. DOPING AND ATHLETIC NUTRITION

6.1 Dope history, definition, classification, sign and symptoms (procedure of sampling at National and International level uses and abuses of drugs, Role of Manager and Coaches in controlling the dope problems).

6.2 Introduction about WADA and NADA.

6.3 Aims, Objectives, and functioning of WADA.

6.4 Athletic Nutrition factors affecting the athlete's dietary requirement. Planning and justification of athletic diet for different categories of Sports.

6.5 Mall nutrition amongst athletes and its Management Environmental stress

6.6 Role of water and vitamin B for the athletes.

REFERENCES:

- Dohenty. J. Meno.Wetb, Moder D (2000) Track & Field, Englewood Cliffs, Prentice Hal Inc.
- Lace, M. V. (1951) Massage and Medical Gymnastics, London: J & A Churchill Ltd.
- McOoyand Young (1954) Tests and Measurement, New York: Appleton Century.
- Naro, C. L. (1967) Manual of Massage and, Movement, London: Febra and Febra Ltd.
- Rathbome, J.l. (1965) Corrective Physical education, London: W.B. Saunders & Co.
- Stafford and Kelly, (1968) Preventive and Corrective Physical Education, New York

COURSE TITLE: TRACK AND FIELD II: JUMPING EVENTS

PAPER CODE: PHE715

L	T	P	Credits	Marks
0	0	6	4	100

UNIT – I

1. INTRODUCTION TO JUMPING EVENTS

1.1 Classification of Jumping Events in Track & Field

1.2 Basic equipment required & their Measurement for Jumping Events

1.3 Marking Area of Jumping Events and its Measurements

1.4 Rules, Officials Required & Officiating and Scoring in Jumping Events

UNIT – II

2. BASIC SKILLS JUMPING EVENTS (HIGH JUMP), (LONG JUMP) & (TRIPLE JUMP)

2.1 High Jump: Candidates are assessed on the following techniques and heights:

a) Phases: Approach Run, Take-off, Flight (bar clearance) and, Landing

b) Style: Scissors, Straddle, Fosbury flop or Any other conventional styles

2.2 Long Jump: Candidates are assessed on the following techniques and distances:

a) Phases: Approach Run, Take-off, flight, Landing.

b) Style: Hang, Sail, Hitch-Kick or Any other conventional styles

2.3 Triple Jump: Candidates are assessed on the following techniques and distances:

a) Phases: Approach Run, Sequence (Hop/Step/Jump), Flight, Landing

b) Style: Hop, Step, Jump

2.4 Hurdling: Specification of the hurdle height as per event distance, gender & age.

a) Phases: The Start and Approach, Hurdle Clearance, Leg Action & Arm Action, Running Between Hurdles

b) Style: The Take Off – (Attacking the Hurdle), Transition – (Over the Hurdle), Touchdown – (Back to Running)

REFERENCES:

- Doherty, J., Track and Field, Engle wood Cliffs: Prientice Hall Inc.
- Dyoon and Geoffray, G.H., (1962) The Mechanics of Athletics London: University of London Press Ltd.
- Ken O Bosen, Track and Field Fundamental Techniques, Patiala: MS Publications.Handbook, AAFI, New Delhi.
- Rogres, L. Joseph., Track & Field Coaching Manual, USA: Herman Kinetics.

COURSE TITLE: GAMES SPECIALIZATION- II
SELF DEFENSIVE EVENTS

L	T	P	Credits	Marks
0	0	6	4	100

PAPER CODE: PHE716

UNIT-I

1. HISTORICAL DEVELOPMENT
   - **1.1** Historical Development of the sports at National and International level.
   - **1.2** Important Tournament/Competition held at National and International level

UNIT-II

2. FUNDAMENTAL SKILLS
   - **2.1** Fundamental Skills of the sport.
   - **2.2** Warming Up–General, Specific, Cooling Down,
   - **2.3** Physiological basis of warming up and cooling down.

UNIT-III

3. TECHNIQUE & TACTICAL PREPARATION
   - **3.1** Tactical Preparation for sports.
   - **3.2** Strategies and their Applications.
   - **3.3** Importance of Psychological preparation and its methods.

UNIT-IV

4. SPORTS SPECIFIC SKILL
   - **4.1** Sports Specific Skill Test.
   - **4.2** Knowledge of rules and regulations.
   - **4.3** Duties of official & conduct of official match.

Practical:

1. Draft preparation, supplementary to improve fundamental skills.
2. Sport Specific skill test.
3. Test for Motor components.
4. Filling up score sheets.
5. Officiating in competition.(rules and signals)

COURSE TITLE: SPORTS BIOMECHANICS & KINESIOLOGY (PRACTICAL)

PAPER CODE: PHE 717

L	T	P	Credits	Marks
0	0	2	1	75

UNIT – I

Performance of different body movements and skill in relation to the planes and axis. Determining range of motion of selected body joint with the help of goniometry.

UNIT – II

Calculation of centre of gravity by segmental method. Calculation of centre of gravity of the total body by main point method.

UNIT – III

Assessment of percentile under varying conditions i.e angle, height, speed and initial stance. Demonstration of different types of stance in maintaining stability.

UNIT – IV

Video Analysis of fundamental movements and skill performance of three games. Post video Analysis feedback and its impact on sports performance under varied conditions

L	T	P	Credits	Marks
4	0	0	4	100

COURSE TITLE: SPORTS JOURNALISM AND MASS MEDIA

PAPER CODE: PHE713

Learning Objectives:

On completion of the course the students shall be able to:

- Analyze the ethics in sports, Discuss the concepts of sports bulletin, journalism and Sports education, Analyze the role of mass media on sports, Prepare report on sports.

UNIT I

1. INTRODUCTION TO JOURNALISM
   - 1.1 Ethics of Journalism
   - 1.2 Canons of journalism
   - 1.3 Sports Ethics and Sportsmanship
   - 1.4 Reporting Sports Events.
   - 1.5 National and International Sports News Agencies.
2. PRINT JOURNALISM
   - 2.1Definition of news values, news writing, 5Ws and 1H,
   - 2.2Inverted pyramids and hourglass structure of news
   - 2.3Radio and TV journalism: Language of camera, camera movements, basic shots, transitions, camera perspective and camera compositions
   - 2.4 Basic script writing skills
   - 2.5Changing concepts of news in contemporary scenario

UNIT II

3. SPORTS BULLETIN
   - 3.1 Concept of Sports Bulletin
   - 3.2 Structure of sports bulletin
   - 3.3 Compiling a bulletin
   - 3.4 Types of bulletin
   - 3.5 Role of Journalism in the Field of Physical Education
   - 3.6 Sports organization and sports journalism
   - 3.7 General news reporting and sports reporting.

UNIT III

4. WRITING SKILL FOR MEDIA
   - 4.1 Print: Fundamentals of sports story, advance story, follow up, analysis, columns, interpretive writing, box items, features and interviews
   - 4.2 Broadcast: Curtain raiser, commentators, hosts, anchors, panel discussions and interviews, talk shows and sports features
   - 4.3 Production of sports programs: Pre- Production, Production and Post- Production
5. ORGANISATION
   - 5.1Organisational structure of a newspaper and functions of various departments
   - 5.2 Organisational structure of radio and TV organisation and functions of various departments
   - 5.3Importance of design/ makeup. Significance of pictures and illustrations in sports news

5.4 Writing captions and photo features

UNIT IV

6. EXTENDED RELEVANT DIMENSIONS
   - 6.1 Role of Public Relations,
   - 6.2 Promotion and Advertising Press Release,
   - 6.3 Press Conference, Exhibitions, Event Management
   - 6.4 Sports coverage of special events: Olympics, World Cups, Asian Games etc
   - 6.5 Relevance of research in sports: computer assisted reporting,
   - 6.6 Importance of statistics and records
   - 6.7 Methods of editing a Sports report.
   - 6.8 Evaluation of Reported News.
   - 6.9 Interview with and elite Player and Coach.

REFERENCES:

- Ahuja, B.N., Theory and Practice of Journalism, Delhi : Surjeet, 1988.
- Aster, J.J., Art of Modern Journalism, Focal Press, 1988.
- Bromley, M., Journalism, Hodder to ughton, 1994.
- Kamath, M.V., Professional Journalism, New Delhi, 1980.
- Parthasarathy, Ranga Swami, Basic Journalism, Macmillan, 1984.
- Ahiya B.N. Chobra S.S.A. (1990) Concise Course in Reporting. New Delhi: Surjeet Publication
- Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication
- Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.
- Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication
- Mohit Chakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka Publication,.
- Padmanabhan. A & Perumal A (2009), Science and Art of Living, Madurai: Pakavathi Publication

COURSE TITLE: SPORTS MANAGEMENT & CURRICULUM DESIGN IN PHYSICAL EDUCATION
PAPER CODE: PHE714

L	T	P	Credits	Marks
4	0	0	4	100

Learning Objectives:

On completion of the course the students shall be able to:

- Discus the basic principles and importance of Sports Management, list the steps in program development in sports, analyze the guidelines for purchase and supplies of equipment, prepare curriculum for physical education.

UNIT I

1. SPORT INDUSTRY AND SPORT MANAGEMENT

1.1 Introduction of sport as a product (from business perspective) and sport industry

1.2 Definition, Nature and Scope of sport management (Professional Sport, Intercollegiate Athletics, Interscholastic Athletics, Youth and Community Sport, Sport Tourism, Sport Marketing Agencies)

1.3 Identification of the unique aspect of sport management

1.4 Introduction to sport management competencies.

2. SPORT ORGANIZATION AND LEADERSHIP

2.1 Structure and Design of sport organization

2.2 Influences on the structure of the sport organization

2.3 Management- Management functions, Identification of managerial roles

2.4 Unique characteristics of human resource management in sport

3. SPORTS MANAGEMENT IN SCHOOLS, COLLEGES AND UNIVERSITIES:

3.1 Planning a school or college sports Programme.

3.2 Directing of school or college sports Programme.

3.3 Controlling a school, college and University Sports programme.

3.3.1 Developing performance standard.

3.3.2 Establishing a reporting system.

3.3.3 Evaluation.

3.3.4 The reward/punishment system.

4. PUBLIC RELATIONS

4.1 Meaning, Definitions, Principles,

4.2 Planning and organizing public relations programme

UNIT II

5. FINANCIAL MANAGEMENT

5.1 Education & Sports in Schools Colleges and Universities.

5.2 Strategic Management.

5.3 Fiscal Management.

5.4 Accounting-Cost accounting, control

5.5 Auditing.

5.6 Funds Discretionary funds.

5.7 Criteria of good Budget, Steps in Budget making

6. CLASS MANAGEMENT

6.1Class management: Meaning, Steps in class management: Strength of class, Place and time, Uniform, Class formation, Safety measures and Discipline

6.2 Principles of class management

7. FACILITIES MANAGEMENT

7.1Types of facility/infrastructure-indoor, outdoor.

7.2 Playfield: Area, Location, Layout and Care

8. EQUIPMENT'S MANAGEMENT: Need, Importance, Purchase, Care and Maintenance

UNIT III

9. ORGANISATION OF TOURNAMENTS, INTRAMURAL AND SPORTS EVENTS

9.1 Tournament organization: Types of Tournament-Knock out or Elimination, League or Round Robin, Combination, Consolation, Challenge Tournaments

10. INTRAMURAL COMPETITIONS: Meaning and Importance of Intramural,

10.1 Objectives of Intramural,

10.2 Conduct of Intramural

11. PROCESS OF ORGANIZING SPORTS EVENTS,

11.1 Notifications, Invitations, Selection of officials, Monitoring, Writing reports, maintaining records.

11.2 Facility and Event management in sport

UNIT IV

12. Meaning and Definition of Curriculum.
13. Principles of Curriculum Construction: Students centred, Activity centred, Community centred, forward looking principle, Principles of integration, Theories of curriculum development, Conservative (Preservation of Culture), Relevance, flexibility, quality, contextually and plurality.
14. Approaches to Curriculum;Subject centred, Learner centred and Community centred, Curriculum Framework.
15. **Curriculum Sources:** Factors that affecting curriculum: Sources of Curriculum materials – text books – Journals – Dictionaries, Encyclopaedias, Magazines, Internet. Integration of Physical Education with other Sports Sciences – Curriculum research, Objectives of Curriculum research – Importance of Curriculum research. Evaluation of Curriculum, Methods of evaluation.

REFERENCES:

- Bonnie L, Park House: The Management of Sports (1991) Mosby Year Book, Inc. 11830 Westline Industrial Drive, Saint Luis, MO 63146. Publisher:" Edward F. Murphy.
- Charles A. Bucher, Management of Physical education and Athletic Programmes (1987), Louis C.B.Mosby. Co.
- Aggarwal, J.C (1990). Curriculum Reform in India – World overviews, Doaba World Education Series – 3 Delhi: Doaba House, Book seller and Publisher.
- Arora, G.L. (1984): Reflections on Curriculum, New Delhi: NCERT.
- Bonnie, L. (1991). The Management of Sports. St. Louis: Mosby Publishing Company, Park House.
- Bucher A. Charles, (1993) Management of Physical Education and Sports (10th ed.,) St. Louis: Mobsy Publishing Company.
- Carl, E, Willgoose. (1982. Curriculum in Physical Education, London: Prentice Hall.
- Chakraborthy&Samiran. (1998). Sports Management. New Delhi: Sports Publication.

SEMESTER - III

COURSE TITLE: SCIENCE OF SPORTS TRAINING
PAPER CODE: PHE801

L	T	P	Credits	Marks
4	0	0	4	100

Learning Objectives:

On completion of the course the students shall be able to:

- Explain the basic principles of sports training, develop mastery on techniques of physical fitness,

UNIT I

1. INTRODUCTION TO SPORTS TRAINING
   - 1.1 Meaning, definition and Nature of Sports Training and Coaching.
   - 1.2 Aims and Tasks of Sports Training.
   - 1.3 Characteristics of Sports Training.
   - 1.4 Principles of Sports Training.
   - 1.5 Training means.
   - 1.6 Definition of terms: - Conditioning, Training, and Coaching
2. TRAINING LOAD
   - 2.1 Features of training load.
   - 2.2 Importance features of training load: - Intensity, Density, Duration, and Frequency.
   - 2.3 Principles of training Load.
   - 2.4 Over Load, Meaning, Causes, Symptoms and Talking of over Load.
   - 2.5 Adaptation process and condition of Adaptation.
   - 2.6 Remedial Measures – Super Compensation – Altitude Training – Cross Training

UNIT II

3. COMPONENTS OF PHYSICAL FITNESS
   - 3.1 Strength: - Forms of strength, characteristics of strength, Principles of strength, strength training means and methods, strength training for children and women.
   - 3.2 Endurance: - Forms of endurance, characteristics of endurance, Principles of endurance, endurance training means and methods.
   - 3.3 Speed: - Forms of speed, characteristics of speed, Principles of speed, basics of speed, speed training means and methods.
   - 3.4 Flexibility: - Forms of flexibility, characteristics of flexibility, Principles of flexibility, basics of flexibility, flexibility training means and methods.
   - 3.5 Coordination Abilities: - characteristics of Coordination, Principles of Coordination, basics of Coordination, Coordination training means and methods.

UNIT III

4. TECHNIQUE, TACTICS AND STRATEGY
   - 4.1 Technique
     - 4.1.1 Definition of Skill and Style.
     - 4.1.2 Characteristics of Technique.
     - 4.1.3 Factor affecting Technique.
     - 4.1.4 Phases of skill acquisition.
     - 4.1.5 Methods of Technical Training.
     - 4.1.6Causes and correction of faults.
   - 4.2 Tactics and Strategy

4.2.1 Definition of tactics and strategy.
4.2.2 Basic tactical concept-offensive, Defensive and high performance.
4.2.3 Methods of tactical Training.
4.2.4 Control of tactical Training.

UNIT IV

5.PERIODISATION, PLANNING AND COMPETITIONS.

5.1Periodization-Meaning & Types of Periodization,
5.2 Contents of training for different period.
5.3 Importance and Principles of Planning.
5.4 Systems of Planning.
5.5 Importance of competitions
5.6 Competition Frequency
5.7 Direct Preparation for a competition

REFERENCES :

- BeotraAlka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi: SportsAuthority of India.
- Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, PrenticeHall Inc.
- Cart, E. Klafs&Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. LouisC. V. Mosphy Company
- Daniel, D. Arnheim (1991) Principles of Athletic Traning, St. Luis, Mosby Year Book
- David R. Mottram (1996) Drugs in Sport, School of Pharmacy, Liverpool: John MooreUniversity
- Gary, T. Moran (1997) – Cross Training for Sports, Canada : Human Kinetics
- Hardayal Singh (1991) Science of Sports Training, New Delhi, DVS Publications
- Jensen, C.R. & Fisher A.G. (2000) Scientific Basic of Athletic Conditioning, Philadelphia
- Ronald, P. Pfeiffer (1998) Concepts of Athletics Training 2nd Edition, London: Jones andBartlett Publications

COURSE TITLE: SPORTS MEDICINE

L	T	P	Credits	Marks
4	0	0	4	100

PAPER CODE: PHE802

Learning Objectives:

On completion of the course the students shall be able to:

- Explain the principles of therapeutic exercises, elaborate the basic rehabilitation techniques, critically analyze different types of injuries and their remedial means.

UNIT I

1. INTRODUCTION

1.1 Meaning, definition and importance of Sports Medicine,
1.2 Definition and Principles of therapeutic exercises.
1.3 Coordination exercise,
1.4 Balance training exercise,
1.5 Strengthening exercise,
1.6 Mobilization exercise,
1.7 Gait training,
1.8 Gym ball exercise Injuries: acute, overuse, chronic.
1.9 Advantages and Disadvantages of PRICE, PRINCE therapy, Aquatic therapy.

2. BASIC REHABILITATION

2.1 Strapping/Tapping: Definition, Principles Precautions Contraindications.
2.2 Proprioceptive neuromuscular facilitation: Definition hold, relax, repeated contractions.
2.3 Types of stretching, Advantages, disadvantages of stretching, Manual muscle grading
2.4 Show reversal technique exercises. Isotonic, Isokinetic, isometric stretching.

UNIT II

3. SPINE INJURIES AND EXERCISE

3.1 Head, Neck and Spine injuries: Causes, Presentational of Spinal anomalies, Flexion, Compression, Hyperextension, Rotation injuries.
3.2 Spinal range of motion.
3.3 Free hand exercises, stretching and strengthening exercise for head neck, spine.
3.4 Supporting and aiding techniques and equipment for Head, Neck and Spine injuries.

UNIT III

4. UPPER EXTREMITY INJURIES AND EXERCISE

4.1 Upper Limb and Thorax Injuries: Shoulder: Sprain, Strain, Dislocation, and Strapping.
4.2 Elbow: Sprain, Strain, Strapping.
4.3 Wrist and Fingers: Sprain Strain, Strapping.
4.4 Thorax, Rib fracture.
4.5 Breathing exercises, Relaxation techniques, Free hand exercise, Stretching and strengthening exercise for shoulder, Elbow, Wrist and Hand.
4.6 Supporting and aiding techniques and equipment for Upper Limb and Thorax Injuries.

UNIT IV

5. LOWER EXTREMITY INJURIES AND EXERCISE

5.1 Lower Limb and Abdomen Injuries: Hip: Adductor strain, Dislocation, Strapping.
5.2 Knee: Sprain, Strain, Strain, Strapping.
5.3 Ankle: Sprain, Strain, Strapping.

5.4 Abdomen: Abdominal wall, Contusion, Abdominal muscle strain.
5.5 Free exercises – Stretching and strengthening exercise for Hip, knee, ankle and Foot.
5.6 Supporting and aiding techniques and equipment for Lower limb and Abdomen injures.

REFERENCES:

- Christopher M. Norris. (1993). Sports Injures Diagnosis and Management forPhysiotherapists. East Kilbride: Thomson Litho Ltd.
- James, A. Gould & George J. Davies. (1985). Physical Physical Therapy. Toronto: C.V.Mosby Company.
- Morris B. Million (1984) Sports Injuries and Athletic Problem. New Delhi: SurjeetPublication.
- Pande. (1998). Sports Medicine. New delhi: KhelShitya Kendra
- The Encyclopedia of Sports Medicine. (1998). The Olympic Book of Sports Medicine,Australia: Tittel Blackwell Scientific publications.Practical: Anthropometric Measurements,

L	T	P	Credits	Marks
4	0	0	4	100

COURSE TITLE: HEALTH EDUCATION AND SPORTS NURTITION

PAPER CODE: PHE803

Learning Objectives:

On completion of the course the students shall be able to:

- Explain aims, objectives and principles of Health Education, elaborate the health related problems in India, develop competence in health management techniques, illustrate weight control management tips

UNIT - I

1. HEALTH
   1.1Concept of Health.
   1.2 History of Health in India.
   1.3 Various levels of Health Care in India.
   1.4 Role of heredity and genetics in achieving positive health.
   1.5 Medical Care in Rural and Urban areas. Primary Health Centre Concept, Three tier system of Health Care.
   1.6 Health for All by 2010 A.D.
2. HEALTH EDUCATION
   2.1 Meaning of Health Education.
   2.2 Aim and contents of Health Education.
   2.3 Principles of Health Education.
   2.4 Approaches of Health Education.
   2.5 Latest trends in Health Education.
   2.6 Communication in Health Education.
   2.7 Use of Audiovisual Aids, methods of single, Group approaches of Health Education.
   2.8 Interrelationship between different component of Health and spiritual Health.
   2.9 Role and Responsibility of individual, and Community.
   2.10 State of Health and Spectrum of Health.
   2.11 Role of heredity and Genetics in Achieving Positive Health.

UNIT - II

3.SCHOOL HEALTH SERVICES AND SCHOOL HEALTH PROGRAMME IN RELATION TO THE FOLLOWING:

3.1 Meaning and objectives of school Health Services and School Health Program me.

3.2 Aspects of School Health Services- - Health Appraisal (Meaning, Aims and Objectives) - Medical Examination. - Common Childhood diseases and their control. - First-aid and accident Prevention. - Nutritional Services. - Mental health, Dental health and Eye health. - School Health records.

3.3 Healthful School Environment

3.3.1 Meaning of Healthful School Environment.

3.3.2 Points to be kept in mind for Healthful School Environment.

3.3.3 Role of Physical Education Teacher.

3.4 Role of Physical Education Teacher in relation to school health services and healthful school environment.

4. HYGIENE , COMMUNITY AND ENVIRONMENTAL SANITATION

4.1 Meaning of Hygiene, Types of Hygiene

4.2 Housing and its problems and Health Aspect: Water Pollution, Air Pollution, Noise and Temperature.

4.3 Population policy, Population Dynamics and Population explosion.

4.3.1 National Family Welfare Programme.

4.3.2 Sex Education.

4.3.3 Drugs and Alcoholism.

UNIT- III

5. NUTRITION AND NUTRITIONAL DIESASE

5.1 Meaning of food, nutrient and nutrition.

5.2 Brief description of different nutrients and their role.

5.3 Balanced diet.

5.4 Nutritional disease.

5.5 Food Hygiene.

5.6 Malnutrition, adulteration and food additives

UNIT – IV

6. COMMUNICABLE AND NON COMMUNICABLE DISEASES

6.1 Meaning and epidemiological approach of communicable diseases.

6.2 Brief description of following communicable diseases and their prevention.

6.2.1 Tuberculosis.

6.2.2 Chicken Pox, Measles and Mumps,

6.2.3 Malaria and Filaria.

6.2.4 Rabies.

6.2.5 STD and AIDS.

6.2.6 Hepatitis (Jaundice)

6.3 Non-communicable diseases.

6.3.1 Meaning of Non-communication diseases.

6.3.2 Brief description of following non-communicable diseases and their prevention.

6.3.3 Heart Disease.

6.3.4 Cancer.

6.3.5 Diabetes.

7. WEIGHT MANAGEMENT

7.1Concept of BMI (Body mass index),

7.2 Obesity and its hazard,

7.3 Dieting versus exercise for weight control,

7.4 Maintaining a Healthy Lifestyle,

7.5 Weight management program for sporty child,

7.6 Role of diet and exercise in weight management,

7.7 Design diet plan and exercise schedule for weight gain and loss.

REFERENCES:

- Bucher, Charles A. "Administration of Health and Physical Education Programme".
- Delbert, Oberteuffer, et. al." The School Health Education".
- Ghosh, B.N. "Treaties of Hygiene and Public Health".
- Hanlon, John J. "Principles of Public Health Administration" 2003.
- Turner, C.E. "The School Health and Health Education".
- Moss and et. At. "Health Education" (National Education Association of U.T.A.)
- Nemir A. 'The School Health Education" (Harber and Brothers, New York).

COURSE TITLE: ORGANIZATION OF MAJOR SPORTS EVENTS

L	T	P	Credits	Marks
2	0	0	2	50

PAPER CODE: PHE820

Learning Objectives:

On completion of the course the students shall be able to:

- The student shall be able to organize all sports event successfully

UNIT - I

History of flag hosting at Olympic level and Athletics Meet, Things to be kept in mind while hoisting a flag, National Flag (Measurement, Tri-Colour March pass commands (Right turn, Left turn, About turn, Salute, Eyes right, Halt), honor of flag and its use, Penalty of misusing or dishonouring the flag, Flag code of India, Dimension of the Indian Flag, Dimension of wheel, Colour Brightness of flag, Code of Hosting and Protocols of March Pass.

UNIT - II

Ceremonies and Schedule (Opening, Flame, March Pass, Salutation, Oath, Declaration the meet open, Addresses the Players and audience, Victory ceremony, Prize Distribution, Certificates, Announcements and Closing) at Olympic Games, Asian Games, Commonwealth Games, A.I.U and Athletics meet of Educational Institutes.

Meaning, History and Advantages of Minor Games, Recreational Games, Lead-Up Games, Social party Games, Relay Games.

COURSE TITLE: TRACK AND FIELD III: THROWING EVENTS/ GYMNASTICS/SWIMMING

L	T	P	Credits	Marks
0	0	6	4	100

PAPER CODE: PHE806

UNIT – I

1. INTRODUCTION TO THROWING EVENTS

1.1 Classification of Throwing Events in Track & Field
1.2 Basic equipment required & their Measurement for Throwing Events
1.3 Marking Area of Throwing Events and its Measurements
1.4 Rules, Officials Required & Officiating and Scoring in Throwing Events

UNIT - II

2.1 Shot put (O'Brien technique) – Grip, Stance Glide, Release and Reserve. (Disco-put technique) – Grip, Stance Glide, Release and Reserve.
2.2 Discuss throw – Grip, Stance, Release and Reserve.
2.3 Javelin Throw - Grip, carrying the Javelin, Approach, Delivery, Release and Reserve.
2.4 Hammer Throw – Grip, carrying the Javelin, Approach, Delivery, Release and Reserve.

REFERENCES:

- Doherty, J., Track and Field, Engle wood Cliffs: Prientice Hall Inc.
- Dyoon and Geoffray, G.H., (1962) The Mechanics of Athletics London: University of London Press Ltd.
- Ken O Bosen, Track and Field Fundamental Techniques, Patiala: MS Publications. Handbook, AAFI, New Delhi.
- Rogres, L. Joseph., Track & Field Coaching Manual, USA: Herman Kinetics.

L	T	P	Credits	Marks
4	0	0	4	100

COURSE TITLE: PROFESSIONAL PREPARATION IN PHYSICAL EDUCATION

PAPER CODE: PHE 804

Learning Objectives:

On completion of the course the students shall be able to:

- Elaborate professional preparation program in Physical Education in India as well as abroad, Physical education as a profession, building and maintenance of various sports infrastructures, Total life cost concepts

UNIT - I

1. HISTORICAL PERSPECTIVE
- 1.1 Professional Preparation in India
- 1.2 Pre Independence perspective
- 1.3 Post Independence perspective
- 1.4 Comparative analysis of professional preparation program in U.S., Europe and China

2. PROFESSIONAL PREPARATION POLICY PERSPECTIVE
   - 2.1 Role and responsibilities of Centre and State in the implementation of policies on education and physical education.
   - 2.2 Compulsions and constraints affecting planning and implementation of educational policies and programs.
3. PHYSICAL EDUCATION AND PROFESSIONALISM
   - 3.1 Concept and meaning of Profession, Professional and Professionalism.
   - 3.2 Physical education as a profession.

UNIT - II

4. CAREER AVENUES & JOB OPPORTUNITIES IN PHYSICAL EDUCATION & SPORTS
   - 4.1 Career avenues after under graduation and post-graduation and research degrees.
   - 4.2 Exploring and venturing into new avenues: challenges and opportunities in physical education
   - 4.3 Inter-relationship among various careers in physical education and sports
   - 4.4 Planning for a career: self-assessment, motivational dynamics, decision making, counselling and guidance
5. PROFESSIONAL PREPARATION PROGRAMMES
   - 5.1 Foundation: need, objectives and characteristic of professional preparation programmes
   - 5.2 Courses available in physical education and sports.
   - 5.3 Level of study: undergraduate preparation, graduate study, post-graduate study, advance professional study
   - 5.4 Laboratory experience, teaching practice, field work, non-curricular preparation
   - 5.5 Role of physical education teacher and institutes in professional preparation programmes

UNIT- III

1. BUILDING AND MAINTENANCE:
   4.1 Sports Infrastructure- Gymnasium, Pavilion, Swimming Pool, Indoor Stadium, Out-door Stadium, Play Park, Academic Block, Administrative Block, Research Block, Library, Sports Hostels, etc.
   4.2 Requirements: Air ventilation, Day light, Lighting arrangement, Galleries, Store rooms, Office, Toilet Blocks (M/F), Drinking Water, Sewage and Waste Water disposal system, Changing Rooms (M/F), Sound System (echo-free)
   4.3 Internal arrangement according to need and nature of activity to be performed, Corridors and Gates for free movement of people,
   4.4 Emergency provisions of lighting, fire and exits, Eco-friendly outer-surrounding.
   4.5 Maintenance staff, financial consideration.
5. BUILDING PROCESS
   5.1design phase (including brief documentation),
   5.2 construction phase functional(occupational) life, Re-evaluation, refurnish, demolish.
6. MAINTENANCE POLICY
   6.1Preventive maintenance, corrective maintenance, record and register for maintenance.

UNIT- IV

7. FACILITY LIFE CYCLE COSTING
   7.1 Basics of theoretical analysis of cost
   7.2 Total life cost concepts
   7.3 Maintenance costs
   7.4 Energy cost
   7.5 Capital cost and taxation

REFERENCE

- Franz K. F. et. al., Editor, Routledge Handbook of Sports Technology and Engineering (Routledge, 2013).
- Steve Hake, Editor, The Engineering of Sport (CRC Press, 1996)
- Franz K. F. et. al., Editor The Impact of Technology on Sports II (CRC Press, 2007)
- Helge N., Sports Aerodynamics (Springer Science & Business Media, 2009)
- Youlin Hong, Editor Routledge Handbook of Ergonomics in Sport and Exercise (Routledge, 2013)
- Jenkins M., Editor Materials in Sports Equipment, Volume I (Elsevier, 2003)
- Colin White, Projectile Dynamics in Sport: Principles and ApplicationsEric C. et al., Editor Sports Facility Operations Management (Routledge, 2010)

COURSE TITLE: DISSERTATION - I
PAPER CODE: PHE 805

L	T	P	Credits	Marks
0	0	0	4	100

The dissertation writing schedule in the form of Research Synopsis as per the format below

1. INTRODUCTION –
   1.1. Selection of the Problem
   1.2 Significance of the study
   1.3 Objectives of the study
   1.4 Delimitations of the study
   1.5 Hypothesis
   1.6 Definitions and Explanation of terms

2) REVIEW OF THE LITERATURE

3) DESIGN AND PROCEDURE.
   3.1 Sample
   3.2 Tools
   3.3 Procedure of data collection
   3.4 Design of the study
   3.5 Statistical procedure.

4) BIBLIOGRAPHY.

IMPORTANT INSTRUCTIONS:

1. A candidate shall have dissertation for M.P.Ed. – IV Semester and must submit his/her Synopsis and get it approved by the Head of Department on the recommendation of D.R.C. (Departmental Research Committee).
2. A candidate selecting dissertation must submit his/her dissertation not less than one week before the beginning of the IVthSemester Examination.
3. The candidate has to face the Viva-Voce conducted by DRC**.**

COURSE TITLE: PHYSICAL FITNESS AND WELLNESS

L	T	P	Credits	Marks
4	0	0	4	100

PAPER CODE: PHE 808

Learning Objectives:

On completion of the course the students shall be able to:

- Explain the concepts, technique and components of Physical fitness, Elaborate the relationship between nutrition and health, analyze the utility of exercise in maintaining good health

UNIT- I

1. INTRODUCTION
   - 1.1 Meaning and concept of fitness and wellness
   - 1.2 Components of Physical fitness
   - 1.3 Health Related
   - 1.4 Motor Skill Related Components of wellness
   - 1.5 Factors affecting Physical Fitness and Wellness
   - 1.6 Principles of Physical Fitness and Wellness
   - 1.7 Importance of fitness and wellness in present scenario

UNIT - II

2. FITNESS PROGRAMME
   - 2.1 Means of Fitness Development: Aerobic Activities (walking, bicycling, jogging and running, swimming, indoor fitness, home gym, stretching, strengthening, circuit training, participation in games and sports)
   - 2.2 Benefits of fitness programme
   - 2.3 Exercise Prescription: Mode of exercise, exercise frequency, exercise duration, exercise intensity.
   - 2.4 Exercise Programme: warm-up and stretching activities, training work, cool-down and stretching activities, recreational part.

3. AEROBIC AND ANAEROBIC EXERCISE
   - 3.1 Difference between aerobic and anaerobic fitness,
   - 3.2 aerobic and anaerobic metabolic threshold,
   - 3.3 Health benefits of aerobic and anaerobic exercise,
   - 3.4 calculation to aerobic and anaerobic training zone,
   - 3.5 Monitoring of heart rates during activity.
   - 3.6 Assessment of aerobic and anaerobic fitness,
   - 3.7 aerobic and anaerobic training methods,
   - 3.8 goal setting to maintain or improve aerobic and anaerobic fitness levels.

UNIT- III

4. HEALTH HAZARDS, STRESS AND INJURY MANAGEMENT
   - 4.1 Hazards of substance abuse: smoking, alcohol & tobacco
   - 4.2 Valuable use of leisure time

4.3 Emphasis on proper rest, sleep and dreams
4.4 Healthy Living and positive lifestyle
4.5 Wellness of mind, body and soul
4.6 Stress: meaning, causes and management
4.7 Staying safe & preventing injuries

UNIT- IV

5. NUTRITION, OBESITY AND WEIGHT MANAGEMENT
   5.1 Nutrition and Weight Management
   5.2 Knowledge of Nutrition & its implication on healthy lifestyle
   5.3 Categorization of sports according to energy requirements, Body Weight and Energy Expenditure for different categories of sports, Pre event Meal
   5.4 Role of Fluid and electrolytes balance in sports performance, Symptoms and Results of Dehydration, Fluid Replacement Guidelines: before, during and after exercise
   5.5 Obesity
      5.5.1 Meaning, definition and types of obesity − causes, prevention and general treatment
      5.5.2 Health problems associated with obesity and excessive weight
      5.5.3 Body Mass Index
   5.6 Role of diet & physical activity in weight management

REFERENCE:

- David K. Miller & T. Earl Allen, Fitness, A life time commitment, Surjeet Publication Delhi1989.
- Dificore Judy, the complete guide to the postnatal fitness, A & C Black Publishers Ltd. 35Bedford row, London 1998
- Dr. A.K. Uppal, Physical Fitness, Friends Publications (India), 1992.
- Warner W.K. Oeger&Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990.
- Elizabeth & Ken day, Sports fitness for women, B.T. Batsford Ltd, London, 1986.
- Emily R. Foster, KarynHartiger& Katherine A. Smith, Fitness Fun, Human KineticsPublishers 2002.

COURSE TITLE: INFORMATION & COMMUNICATION TECHNOLOGY (ICT) IN PHYSICAL EDUCATION

L	T	P	Credits	Marks
0	0	4	2	50

PAPER CODE: CSA

Learning Objectives:

On completion of the course the students shall be able to:

- Differentiate between hardware and software in sports, develop skills on application of ICT in sports, develop competence of using innovative ICT integrated pedagogy in classrooms.

UNIT-I

1. INTRODUCTION TO COMPUTERS
   1.1Computer, Types of Computers
   1.2 Function and components of computer
   1.3 Input and Output Devices
   1.4 Software and Hardware, Storage devices
   1.5 Types of Networks: LAN and WAN

UNIT –II

2. INTRODUCTION TO MS WORD AND EXCEL
   2.1MS WORD
      2.1.1 Opening documents and creating documents
      2.1.2 Formatting and Editing, Features
      2.1.3 Drawing table, page setup,
      2.1.4 Paragraph alignment, spelling grammar check
      2.1.5 Printing documents, Graph, footnote and notes, finding and replacing text

   2.2 MS EXCEL
      2.2.1 Creating, saving and opening a spreadsheet
      2.2.2 Formatting and Editing Features
      2.2.3 Creating formulas, adjusting columns width and row height
      2.2.4 Understanding charts

UNIT-III

3. MS POWERPOINT, INTERNET AND MULTIMEDIA

   3.1MS POWERPOINT
      3.1.1Creating, saving and opening a ppt file
      3.1.2 Formatting and editing features
      3.1.3 Slide show, design

3.1.4 Inserting slide number, Picture, graph and table
3.1.5 Hyperlink

3.2 INTERNET AND MULTIMEDIA

3.2.1 Application of internet and multimedia in Physical Education and sports
3.2.2 Search Engines in Physical Education and Sports
3.2.3 E-mail and mailing basics
3.2.4 World Wide Web (WWW)
3.2.5 Computer application in physical education and sports

UNIT-IV

4. SPSS PACKAGE IN PHYSICAL EDUCATION

4.1 Introduction of SPSS
4.2 Application of SPSS in physical education and sports
4.3 Creating and saving a SPSS data file
4.4 Data entry and analysis of:
4.5 Descriptive Statistics
4.6 Dependent and independent t –test
4.7 One way and two Way ANOVA
4.8 Correlation

REFERENCES:

- Elliott, A.C. Statistical Analysis : Quick Reference Guide book with SPSS examples, Sage Publication, London, 2007.
- Argyrous, G. Statistics for social and Heath Research with a Guide to SPSS, Sage Publication, London, 2000.
- Barrett, R. et al. Administrator's Guide to Microsoft Office 2007 servers. 2007
- Boyce, Jim et al. Microsoft Office System Inside Out. 2007
- Eric, L. Einspruch, AN Introductory Guide to SPSS for Windows, Sage. 2005.
- Kilman, Shin. *SPPS GUIDE* Mc Graw – Hill Higher Education, 1995.
- Mark, B. Andersen James R Morrow, Allen W. Jackson James G. Disch Dale P. Mood, Measurement and Evaluation in Physical Education, USA: Human Kinetics 2005.
- Murray, Katherine. "Faster smarter Microsoft office XP: Take charge of your Microsoft office programme".2007
- Sunil, Chauhan, Akash Saxena, Kratika Gupta, Fundamentals of Computer,
- Wempen, Faithe et al. "Microsoft office 2007 bible". 2007

COURSE TITLE: SPORTS PSYCHOLOGY AND SOCIOLOGY
PAPER CODE: PHE811

L	T	P	Credits	Marks
4	0	0	4	100

Learning Objectives:

On completion of the course the students shall be able to:

- Describe the status of sports psychology in India, develop competency in motivating students and setting goals on sports, critically analyze the implications of social leadership in sports.

UNIT - I

1. INTRODUCTION:
   1.1 Meaning, Nature & Importance of Sports Psychology as an applied science.
   1.2 Historical development of Sports Psychology.
   1.3 Relationship of Sports Psychology to other sports science.
   1.4 Role of Sports Psychologist.
   1.5 Importance of Sports Psychology for coaches, physical educator, sports administrators and sports persons.
   1.6 Physiological and Psychological limits

2. COGNITIVE PROVESS IN PHYSICAL ACTIVITY:
   2.1 Meaning of cognition.
   2.2 Characteristics of cognitive process in sports.
   2.3 Role of sensation and perception, thinking, imagination, and memory in Physical Activity.
   2.4 Mental activity of Athletes, Mental activity and sports related goals.
   2.5 Meaning of Attention. Dimensions of Attentions, Strategies of Developing Attention.

UNIT - II

3. MOTIVATION AND EMOTIONS:

3.Motivation

3.1 Meaning of motive, need, drive, role of motives, attitudes and interest in Physical Activity.
3.2 Meaning & theories of motivation.
3.3 Concept of Achievement motivation.
3.4 Techniques of motivation.
3.5 Importance of relationship between intrinsic and motivation.

4. EMOTIONS

4.1 Meaning and types of emotion influence of emotions (success and failure) on level of aspiration and achievement.
4.2 Anxiety, fear, frustration, conflict and its effect on sports performance

5. PERSONALITY ISSUES IN SPORTS.

5.1 Meaning and theories of Personality. - Psycho dynamic. - Social learning. - Trait theories.
5.2 Causes of personality difference among sports groups.
5.3 Personality and Sports performance.
5.4 Measurement of Personality.

UNIT – III

7. ANXIETY AROUSAL AND SPORT PERFORMANCE

7.1 Definition of anxiety, arousal and stress.

7.2 Trait and state anxiety and their relationship.

7.3 Arousal anxiety relationship-hypothesis and theories.

7.4. Anxiety arousal and peak performance.

8. AGGRESSION IN SPORT

8.1 Concept of aggression.

8.2Causes of aggression.

8.3 Theories of aggression.

8.4 Aggression and sport performance.

8.5 Methods of controlling aggression.

8.6 Motor Learning

8.6.1 Meaning of Motor Learning.

8.6.2 Factor affecting Motor Learning.

8.6.3 Motor development in various periods of childhood and adolescence.

9.MOTOR LEARNING:

9.1 Meaning of Motor Learning.

9.2 Factor affecting Motor Learning.

9.3 Motor development in various periods of childhood and adolescence.

UNIT – IV

10. SOCIO PSYCHOLOGICAL ASPECTS OF SPORTS

10.1 Leadership in Sport: Meaning of leadership.

10.2 Theories of leadership.

10.3 Leadership effectiveness.

10.4 How to increases the influence/power of the leader.

11.GROUP COHESION IN SPORT

11.1 Defining group cohesion.

11.2 Development of group cohesion.

11.3 Factor affecting group cohesion**.**

12. SPECTATORS AND SPORT PERFORMANCE

12.1 Types of spectators.

12.2 Causes of spectator's influence on performance.

12.3 Management of spectator's negative effect.

13. PSYCHOLOGICAL PREPARATION FOR COMPETITION.

13.1 Definition of competition.

13.2 Long term Psychological Preparation-Psychological skills training.

13.3 Short term Psychological training.

13.4 Psycho-regulative techniques

13.4.1 Relaxation techniques: - Autogenic, Progressive, relaxation and Mediation.

13.4.2 Activation techniques: - Mental Imagery, Pep talk and Self Verbalization.

14. Psychological tests used in research

14.1 Anxiety Scale SCAT (Martens and others)

14.2 Personality Questionnaire Sybiel berger competition Anxiety Scale.

14.3 Self-Motivation Inventory (SMF). Need Achievement Motivation test.

14.4 Socioeconomic Techniques.

REFERENCES:

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- Authors Guide (2013) National Library of Educational and Psychological Test (NLEPT)
- Catalogue of Test, New Delhi: National Council of Educational Research and Training Publication.

COURSE TITLE: EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION AND SPORTS

L	T	P	Credits	Marks
4	0	0	4	100

PAPER CODE: PHE814

Learning Objectives:

On completion of the course the students shall be able to:

- Develop understanding on the use of technology in physical education, develop skills of applying technology in physical education, critically analyze the implications of technology in sports.

UNIT - I

1. NATURE AND SCOPE

1.1 Educational technology-concept, Nature and Scope.
1.2 Forms of educational technology: teaching technology, instructional technology, and behavior technology
1.3 Transactional usage of educational technology: integrated, complementary, supplementary stand-alone (independent);
1.4 Programmed learning stage;
1.5 Media application stage
1.6 Computer application stage.

UNIT – II

2. SYSTEMS APPROACH TO PHYSICAL EDUCATION AND COMMUNICATION

2.1 Systems Approach to Education and its Components: Goal Setting, Task Analysis, Content Analysis, Context Analysis and Evaluation Strategies
2.2 Instructional Strategies and Media for Instruction.
2.3 Effectiveness of Communication in instructional system
2.4 Communication -Modes, Barriers and Process of Communication.

3. INSTRUCTIONAL DESIGN

3.1 Instructional Design: Concept, Views.
3.2 Process and stages of Development of Instructional Design.
3.3 Overview of Models of Instructional Design;
3.4 Instructional Design for Competency Based Teaching:
3.5 Models for Development of Self Learning Material.

UNIT - III

4. AUDIO VISUAL MEDIA IN PHYSICAL EDUCATION

4.1 Audio-visual media - meaning, importance and various forms
4.2 Audio/Radio: Broadcast and audio recordings - strengths and Limitations,
4.3 criteria for selection of instructional units, script writing, pre-production, post-production process and practices,
4.4 Audio Conferencing and Interactive Radio Conference.
4.5 Video/Educational Television: Telecast and Video Recordings Strengths and limitations,
4.6 Use of Television and CCTV in instruction and Training,

4.7 Video Conferencing, SITE experiment, countrywide classroom project and Satellite based instructions.
4.8 Use of animation films for the development of children's imagination.

UNIT – IV

5. NEW HORIZONS OF EDUCATIONAL TECHNOLOGY
5.1 Recent innovations in the area of ET interactive video - Hypertext, video-texts, optical fiber technology - laser disk, computer conferencing. etc.
5.2 Procedure and organization of Teleconferencing/Interactive video-experiences of institutions, schools and universities.
5.3 Recent experiments in the third world countries and pointers for India with reference to Physical education.
5.4 Recent trends of Research in Educational Technology and its future with reference to education.

REFERENCES:

- Amita Bhardwaj, New Media of Educational Planning".Sarup of Sons, New Delhi-2003
- Bhatia and Bhatia. The Principles and Methods of Teaching (New Delhi :Doaba House), 1959.
- Communication and Education, D. N. Dasgupta, Pointer Publishers
- Education and Communication for development, O. P. Dahama, O. P. Bhatnagar, OxfordPage 68 of 71 IBH Publishing company, New Delhi
- Essentials of Educational Technology, MadanLal, Anmol Publications
- K. Sampath, A. Pannirselvam and S. Santhanam. Introduction to Educational Technology (New Delhi: Sterling Publishers Pvt. Ltd.): 1981.

COURSE TITLE: TRACK AND FIELD/ HEPTATHLON & DECATHLON

PAPER CODE: PHE815

L	T	P	Credits	Marks
0	0	6	4	100

1. TRACK AND FIELD – COMBINED EVENTS
   1.1 Combined Events
      1.1.1 Pentathlon – Order of events, Heptathlon – Order of events and Decathlon – Order of events.
      1.1.1 Rules regarding Track and Field. Officiating in Track and Field.

2. Training Methods – Design Circuit, Interval, Fartlek, Plyometric and Resistance training with load dynamics. Training Schedules.

3. The use of talent predictive factors and the selection of Track and Field Athletes
4. Planning and Administration a Track and Field Meet
5. Feedback and evaluation techniques in Athletic
6. Scores Sheets of Track and Field Events

COURSE TITLE: COACHING PRACTICE
PAPER CODE: PHE816

L	T	P	Credits	Marks
0	0	6	4	100

UNIT-I

1. HISTORICAL DEVELOPMENT
   - **1.1** Historical Development of the sports at National and International level.
   - **1.2** Important Tournament/Competition held at National and International level

UNIT-II

2. FUNDAMENTAL SKILLS
   - **2.1** Fundamental Skills of the sport.
   - **2.2** Warming Up–General, Specific, Cooling Down,
   - **2.3** Physiological basis of warming up and cooling down.

UNIT-III

3. TECHNIQUE & TACTICAL PREPARATION
   - **3.1** Tactical Preparation for sports.
   - **3.2** Strategies and their Applications.
   - **3.3** Importance of Psychological preparation and its methods.

UNIT-IV

4. SPORTS SPECIFIC SKILL (COACHING ASPECT)
   - **4.1** Sports Specific Skill Test.
   - **4.2** Knowledge of rules and regulations.
   - **4.3** Duties of official & conduct of official match.

Practical:

1. Draft preparation, supplementary to improve fundamental skills.
2. Sport Specific skill test.
3. Test for Motor components.
4. Filling up score sheets.
5. Officiating in competition. (rules and signals)

L	T	P	Credits	Marks
0	0	0	4	100

COURSE TITLE: DISSERTATION - II
PAPER CODE: PHE813

PRELIMINARY SECTION

a) Title page
b) Declaration
c) Certificate by Supervisor
d) Acknowledgement
e) Vita
f) Table of contents and figures

MAIN PART

Introduction

a) Statement of the Problem
b) Significance of the problem
c) Definition of important terms, assumptions, limitations and delimitations.
d) Hypothesis

Review of Related Literature

Design of the Study

a) Procedure used
b) Subjects and sampling technique followed
c) Method of Data collection
d) Description of tools or instruments

Presentation, analysis and Interpretation of data

a) Data
b) Tables
c) Figures

Summary and Conclusion

a) Summary of the procedure followed
b) The main findings and conclusion
c) Recommendations for further study

SUPPLEMENTARY MATERIAL

a) Bibliography
b) Appendix
c) Index
d) Footnotes

COURSE TITLE:VALUE AND ENVIRONMENTAL EDUCATION
PAPER CODE: PHE812

L	T	P	Credits	Marks
4	0	0	4	100

Learning Objectives:

On completion of the course the students shall be able to:

- Analyze the relationship between value and environment education, develop skills of protecting the environment, critically analyze the rural and urban health and sanitation related problems.

UNIT I

1. INTRODUCTION TO VALUE EDUCATION.
   1.1 Values: Meaning, Definition, Concepts of Values.
   1.2 Value Education: Need, Importance and Objectives.
   1.3 Moral Values: Need and Theories of Values.
   1.4 Classification of Values.
2. VALUE SYSTEMS
   2.1 Meaning and Definition, Personal and Communal Values, Consistency, internally consistent, internally inconsistent, Judging Value System, Commitment, Commitment to values.

UNIT II

3. ENVIRONMENTAL EDUCATION
   3.1 Definition, Scope, Need and Importance of environmental studies.,
   3.2 Concept of environmental education,
   3.3 Historical background of environmental education,
   3.4 Celebration of various days in relation with environment,
   3.5 Plastic recycling & prohibition of plastic bag / cover,
   3.6 Role of school in environmental conservation and sustainable development,
   3.7 Pollution free eco-system.

UNIT- III

4. RURAL SANITATION AND URBAN HEALTH
   4.1 Rural Health Problems
   4.2 Causes of Rural Health Problems,
   4.3 Points to be kept in Mind for improvement of Rural Sanitation, Urban Health Problems
   4.4 Process of Urban Health, Services of Urban Area, Suggested Education Activity
   4.5 Services on Urban Slum Area
   4.6 Sanitation at Fairs & Festivals
   4.7 Mass Education.

UNIT - IV

5. NATURAL RESOURCES AND RELATED ENVIRONMENTAL ISSUES:

5.1 Water resources, food resources and Land resources,

5.2 Definition, effects and control measures of: Air Pollution, Water Pollution, Soil Pollution, Noise Pollution, Thermal Pollution

5.3 Management of environment and Govt. policies

5.4 Role of pollution control board.

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- Rao, M.N. &Datta, A.K. Waste Water Treatment (Oxford & IBH Publication Co. Pvt. Ltd.) 1987
- Heywood, V.H. and Watson V.M., Global biodiversity Assessment (U.K.: CambridgeUniversity Press), 1995.
- Jadhav, H. and Bhosale, V.M. Environmental Protection and Laws (Delhi: Himalaya Pub.House), 1995.
- Mc Kinney, M.L. and Schoel, R.M. Environmental Science System and Solution (Webenhanced Ed.) 1996.
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