Annexure-III

ANNAMALAI UNIVERSITY

FACULTY OF EDUCATION

DEPARTMENT OF PHYSICAL EDUCATION

M.P.Ed
[Master of Physical Education]
New Regulation
[2018-19 Onwards]

SEMESTER - I

MPEC-101- SPORTS PSYCHOLOGY AND SOCIOLOGY

I. OBJECTIVES

1. To get acquainted with the meaning, nature and scope of sports Psychology.
2. To be able to know & prepare psychological profiles of sportsmen.
3. To understand the role of sports psychology in the performance.
4. To know the various psychological problems and its coping techniques for better sports performance.
5. To introduce to the role of leaders, counsellors, and social psyche in theperformance enhancement.

II. COURSE OUTLIINE

UNIT – I – INTRODUCTION

Meaning, Definition, History, Need and Importance of Sports Psychology. Present Status of Sports Psychology in India. Motor Learning; Basic Considerations in Motor Learning – Motor Perception – Factors Affecting Perception – Perceptual Mechanism. Personality: Meaning, Definition, Structure – Measuring Personality on sports Performance.

UNIT II – MOTIVATION

Meaning and Definition, Types of Motivation: Intrinsic, Extrinsic. Achievement Motivation; Meaning, Measuring of Achievement Motivation. Anxiety: Meaning and Definition, Nature, Causes, Method of Measuring Anxiety. Competitive Anxiety and Sports Performance. Stress: Meaning and Definition, Method of Measurement, Aggression and Sports Performance. Self-Concept: Meaning and Definition, Method of Measurement. Personality: Dimensions, theories, Personality and performance

UNIT III – GOAL SETTING

Meaning and Definition –Process of Goal Setting in Physical Education and Sports. Relaxation: Meaning and Definition, types and methods of psychological relaxation. Psychological Tests: Types of Psychological Test: Instrument based tests: Pass-along test – Tachistoscope – Reaction timer – Finger dexterity board – Depth perception box – Kinesthesiometer board. Questionnaire: Sports Achievement Motivation, Sports Competition Anxiety. Psychological factors, Stress, Anxiety, Tension and Aggression affecting Sports performance.

UNIT IV – SPORTS SOCIOLOGY

Meaning and Definition – Sports and Socialization of Individual Sports as Social Institution. National Integration through Sports. Fans and Spectators: Meaning and definition, Advantages and disadvantages on Sports Performance. Leadership: Meaning, Definition, types. Leadership and Sports Performance.

UNIT V – GROUP COHESION

Group: Definition and Meaning, Group Size, Groups on Composition, Group Cohesion, Group Interaction, Group Dynamics. Current Problems in Sports and Future Directions – Sports Social Crisis Management – Women in Sports: Sports Women in our Society, Participation pattern among Women, Gender inequalities in Sports.

III. PRACTICALS

(Minimum of five experiments related to the topics listed in the Units above should be conducted by the students in laboratory. (Internal assessment)

IV. COURSE OUTCOME

The student may

- ❖ Correlate the psychological concepts with the sports and athlete specific situations
- ❖ Integrate the knowledge about personality, motor learning for behavior modification of athletes
- ❖ Relate different theories of motor learning with its influence on motor perception and related
- ❖ cognitive abilities of athletes.

REFERENCES:

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

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Jain.(2002), Sports Sociology, Heal SahetyKendre Publishers.

Jay Coakley (2001) Sports in Society – Issues and Controversies in International Education, Mc-Craw Seventh Ed.

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John D.Lauther (1998) Sports Psychology. Englewood, Prentice Hall Inc.

MiroslawVauks& Bryant Cratty (1999). Psychology and the Superior Athlete London: The Macmillan Co.

Richard, J. Crisp (2000). Essential Social Psychology. Sage Publications.

Robert N. Singer (2001). Motor Learning and Human Performance. New York: The Macmillan Co.

Robert N. Singer. (1989) The Psychology Domain Movement Behavior. Philadelphia: Lea and Fibiger.

Thelma Horn. (2002). Advances in Sports Psychology. Human Kinetic

Whiting, K. Karman… Hendry L.B & Jones M.G (1999) Personality and Performance in Physical Education and Sports. London:HendryKimpton Publishers.

MPEC-102 -YOGIC SCIENCES

I. OBJECTIVES

1. To appraise an understanding of the principles of yogic practices
2. To Aquitaine with various types of asanas, pranayam, kriyas
3. To integrate sports with yoga for performance enhancement.

II. COURSE OUTLIINE

UNIT – I INTRODUCTION

Meaning and Definition of Yoga. Yama, Niyama, Aasna, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi, Concept of Yogic Practices; Principal- Breathing – Awareness – relaxation, Sequence – Counter pose – Time – Place – Clothes – bathing – emptying the bowels – Stomach – Diet – No Straining – Age – Contra – Indication – Inverted asana – Sunbathing.

UNIT – II – ASANAS AND PRANAYAM

Loosening exercise: techniques and benefits. Asanas; types – Techniques and Benefits, Surya namaskar: Methods and benefits. Pranayama: types – Methods and benefits. Nadis: Meaning, methods and benefits, Chakras: Major Chakaras – benefits of clearing and balancing Chakras.

UNIT III – KRIYAS

Shat Kriyas – Meaning, Techniques and benefits of Neti – Dhati – Kapalapathi – Trataka – Nauli – Basti, bandhas: Meaning, techniques and benefits of Jalendrabandha, JihvaBandha, Uddiyanabandha, MulaBandha.

UNIT IV – MADRAS

Meaning, Techniques and Benefits of Hasta Mudras, Asamyuktahastam, Samyuktahastam, Manamuda, kaya Mudra, banda Mudra, Adhara Mudra. Meditation: meaning, Techiques and Benefits of Meditation – Passive and active, Saguna meditation and Nirguna meditation.

UNIT V – YOGA AND SPORTS

Yoga Supplemental Exercise – Yoga Compensation Exercise – Yoga Regeneration Exercise – Power Yoga Compensation Exercise – Yoga Regeneration Exercise – Power Yoga. Role of Yoga in Psychological Preparation of athelete: Mental Welbeing, Anxiety, Depression Concentration, Self Actualization. Effect of Yoga on Physiological System: Circulatory, Skeletal, Digestive, Nervous Respiratory, Excretory Syste.

III. PRACTICAL

Practicals may be designed and arranged internally.

IV. COURSE OUTCOME

The students may

- Differentiate between various paths of yoga
- Apply and demonstrate various benefits of yoga to be applied in the field of sports
- Relate Yoga with health and wellness

REFERENCES:

George Feuerstein. (1975). Text Book of Yoga. London: MotilalBansaridass Publishers (P) Ltd.

Gore, (1990), Anatomy and Physiology of Yoga Practices. Lonavata: KanchanPrkashan.

Helen Purperhart (2004). The Yoga Adventure for Children, Netherlands: A Hunter House book.

Iyengar, B.K.S (2000), Light on Yoga. New Delhi: Harper Collins Publishers.

Kenghe. C.T. (1976), Yoga as Depth – Psychology and para-Psychology (Vol-1)¨ Historical Background, Varanasi: bharatamanishai.

Kuvalyananada Swami & S.L. Vinekar, (1963), Yogic Therapy – Basic Principles and Methods. New Delhi: Govt. of India, Central Health Education and Bureau.

Moorthy A.M &Alagesan. S. (2004) YogaTheraphy. Coimbatore: teachers Publication House.

Swami Kuvalayanda, (1998), Asanas. Lonavia: Kaivalyadama.

Swami SatyananadaSarasvati. (1989), Asana Pranayama Mudra Bandha, Munger: Bihar School of Yoga.

Swami SatyananadaSaraswathi (1984), Kundalini and Tantra, Bihar: Yoga Publications Trust.

Swami Sivananda, (1971), The Science of Pranayama. Chennai: A Divine Life Society Publication.

Thirumalai Kumar. S and Indira. S 92011) Yoga in Your Life, Chennai: the Parkar Publication.

Tiwari O.P. (1998), (Asanas-Why and How. Lonavala: Kaivalyadham

MPEC-103 - TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

I. OBJECTIVES

1. To develop concepts related to Test, Measurement & Evaluation;
2. To construct a strong basis in the evaluation techniques through the various test and measurements method used in physical education.
3. To analyze the physical ability and performance of an individual in various sports.
4. To provide scientific techniques in selection and talent identification through various evaluation and grading process applicable in physical education and sports.
5. To develop the skills and techniques for construction of new tests for various need related to specific Sports Skills.

II. COURSE OUTLIINE

UNIT I – INTRODUCTION

Meaning and Definition of Test, Measurement and Evaluation. Need and Importance of Measurement and Evaluation. Criteria for Test Selection – Scientific Authenticity. Meaning, definition and establishing Validity, Reliability, Objectivity, Norms – Administrative Considerations.

UNIT II – MOTOR FITNESS TESTS

Meaning and Definition of Motor Fitness. Test for Motor Fitness; Indiana Motor Fitness Test (For Elementary and High school Boys, Girls, and College Men) Oregon Motor Fitness Test (Separately for boys and girls) JCR Test.
Motor Ability; Barrow Motor Ability Test – Newton Motor Ability Test –
Muscular Fitness – Kraus Weber Minimum Muscular Fitness Test.

UNIT III – PHYSICAL FITNESS TEST

Physical Fitness Test: AAHPERD Health Related Fitness Battery (revised in 1984)
ACSM Health Related Physical Fitness Test, Roger's physical index.
Cardiovascular Test: Harvard step Test, 12 minutes run / walk Test, Multi-stage Fitness Test (Beep test).

UNIT IV – AEROBIC – ANAEROBIC AND ANTHROPOMETRIC TESTS

Physiological Testing : Aerobic Capacity : The Bruce Treadmill Test Protocol, 1.5 Mile Run Test for college age males and females. Anaerobic Capacity; Margaria-Kalamen test, Wingate Anaerobic Test, Anthropometric Measurements: Method of measuring Height: Standing Height, Sitting Height. Method of measuring Circumference: Arm, Waist, Hip, And Thigh. Method of measuring Skin Folds: Triceps, Sub scapular, Suprailiac.

UNIT V – SKILL TESTS

Specific Sports Skill Test: Badminton: Miller Wall Volley Test.
Basketball: Johnson Basketball Test, Harrison Basketball Ability Test,
Cricket: Sutcliff Cricket Test.
Hockey: FriedelField Hockey Test, Harban's Hockey Test.

Volleyball: Russel Lange Volleyball Test, Brady Volleyball Test.
Tennis: Dyer Tennis Test.
Football: Mor-Christan General Soccer Ability Skill Test Battery, Johnson Soccer Test, Mc-Donald Volley Soccer Test.

III. PRACTICAL

Practical's of indoors and out – door tests be designed and arranged internally.

IV. COURSE OUTCOME

The students may

- Explain the basics of measurement and evaluation of various test and measurement techniques.
- Develop the concepts of measurement and evaluation in physical education and sports
- Develop ability to construct new tests for various need related to Physical Education and Sports
- with scientific authenticity
- To analyze various test and performance related to physical education

REFERENCES :

Authors Guide (2013) ACSM'S Health – Related Physical Fitness Assessment Manual, USA: ACSM Publications.

Baror, O (1987), "The Wingate Anaerobic Test: An Update on Methodology, Reliability and Validity".Journal of Sports Medicine 4 : 381 – 394.

Barrow, H.M. & McGee, R.A. (1979) A Practical Approach to Measurement in Physical Education,Philadelphia: Lea and Febiger.

Campbell, W.R. &Tucker,N. M. (1967) An Introduction in physical Education. London: G.Bell and Sons Ltd.

Clarke.H. Harrison & David H.Clarke. (1987) Application of Measurement in Physical Education,New Jersey : Printice Hall Inc.

Donald K. Mathews, "Measurement in Physical Education," London: W. B. Saunders Company, 1978.

James S. Bosco and William F. Gustafson. "Measurement and Evaluation in Physical Education".Philadelphia: Lea and Febiger. 1979.

Jenson, Clayne .R &Cyntha ,C.Hirst. (1980). Measurement in Physical Education and Athletics.New York: Macmillan Publishing Co., Inc.

Johnson, Barry & Jack, K. Nelson1982). Practical Measurement for Evaluation in Physical Education, New Delhi: Surjeet Publications.

Kansal D.K.(1996) " Test and Measurement in Sports and Physical Education. New Delhi ; DVS Publications,

Krishnamurthy, (2007). Evaluation in Physical Education and Sports, New Delhi Ajay Varma, publication.

Meyers, C.R. &Belsh,E.T. (1962) Measurement in Physical Education, New York: The Ronald pressCompany.

Sharma Sita Ram, (2005). Test and Measurement in Education. New Delhi: Shri SaiPrintographers.

VeenaVerma. (2003). "Evaluation in Physical Education," New Delhi: Sports publication.

Vivian H. Heyward (2005) Advance Fitness Assessment & Exercise Prescription, 3rd Edition. Champaign, IL: Human Kinetics.

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Yobu.A (2010), Test, Measurement and Evaluation in Physical Education and Sports, New Delhi:Friends Publications.

MPEE-104 - HEALTH EDUCATION AND SPORTS NUTRITION (ELECTIVE)

I. OBJECTIVES

1. To appraise the concept of holistic health through fitness and wellness
2. To explain the students about the concept of physical fitness , health related and motor fitness
3. To describe the contemporary health issues.
4. To apply practical principles of the fitness & wellness.

II. COURSE OUTLIINE

UNIT – 1 HEALTH EDUCATION

Concept, Dimensions, Spectrum and Determinants of Health - Definition of Health, Health Education, Health Instruction, Health Supervision

Aim, objective and Principles of Health Education - Health Service and guidance instruction in personal hygiene

UNIT – II HEALTH PROBLEMS IN INDIA

Communicable and Non Communicable Diseases: Obesity, Malnutrition, Adulteration in food, Environmental sanitation, Explosive, Population.

Personal and Environmental Hygiene for Schools - Objective of school health service, Role of health education in schools.

Health Services – Care of skin, Nails, Eye health service, Nutritional service

Health appraisal, Health record, Healthful school environment first – aid and emergency carte etc.

UNIT III – HYGIENE AND HEALTH

Meaning of Hygiene, Type of Hygiene, dental Hygiee, Effect of Alcohol on Health, Effect of Tobacco on Health, Life Style Management, Management of Hypertension, Management of Obesity, Management of Stress.

UNIT –IV – INTRODUCTION OF SPORTS NUTRITION

Meaning and Definition of Sports Nutrition, Role of nutrition in sports, basic Nutrition guidelines, Nutrients: Ingestion to energy metabolism (Carbohydrate, Protein and Fat), Role of carbohydrates, Fat and protein during exercise

UNIT – V NUTRITION AND WEIGHT MANAGEMENT

Concept of BMI (Body mass index) Obesity and its hazard, Dieting versus exercise for weight control Maintaining a Healthy Lifestyle, Weight management program for sporty child, Role of diet and exercise in weight management, Design diet plan and exercise schedule for weight gain and loss.

III. COURSE OUTCOME

The students may

- ❖ Understand the concept of holistic health through fitness and wellness
- ❖ Explain the concept of physical fitness , health related and motor fitness
- ❖ Evaluate primary health status
- ❖ Prepare fitness schedules& evaluate fitness

REFERENCES:

Bucher A. Charles (1993) "Administration of Health and Physical Education Programme"

Delbert, Oberteuffer, et. A.I "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" (Harber and Brothers, New York)
Nemir A. ' The School Health Education" (Harber and Brothers, New York)
Nutrition Encyclopedia, edited by Delores C.S James, The Gale Group, Inc.
Boyd-Eaton S. et al (1989) The Stone Age Health Programme: Diet and Exercise as nature Intended. Angus and Robertson.
Terras S. (1994) Stress, How Your Diet can Help: The Practical Guide to Positive Health Using Diet, Vitamins, Minerals, Herbs and Amino Acids, Thorsons.

MPEE-105 – ADAPTED PHYSICAL EDUCATION (ELECTIVE)

I. OBJECTIVES

1. To know the aim and objectives of adapted physical education.
2. To understand the Guiding Principles of Adapted Physical Education
3. To know the guidelines for Visual Impairment, Hearing Impairment ,Intellectually Challenged, Orthopedically Handicapped

II. COURSE OUTLIINE

UNIT I: INTRODUCTION TO ADAPTED PHYSICAL EDUCATION

Definition, aim and objectives of adapted physical education. Definition of disabling conditions – Physical Education for Persons with Disabilities – Benefits of Physical Education for Persons with Disabilities – Recreational Sports Opportunities, Competition Opportunities – Special Olympics, Paralympics and Deaflympics.

UNIT II : ADAPTED PHYSICAL EDUCATION PROGRAM :

Organisation and Administration – Guiding Principles of Adapted Physical Education – Interaction with Regular Physical Education Personnel – Communication with Parents – Nature of the Home Program, Parents as Teachers, Parent Involvement, Parent – Teacher Association, Parent Advisory Committee – Interpreting the Program, Unified Sports- models – recreation – player development and competition.

UNIT III: CLASSIFICATION OF DISABILITY:

Visual Impairment – Hearing Impairment – Neuromuscular Impairment – Orthopaedic Impairment – Cardiovascular Impairment and Respiratory Impairment – Intellectual Impairment and Emotional Impairment – Adapted Physical Education activities – Specific Guidelines – Visual Impairment, Hearing Impairment ,Intellectually Challenged, Orthopedically Handicapped.

UNIT IV: FACILITIES AND EQUIPMENTS:

Orientation on Facilities and Equipments – Facilities for Elementary Schools, Secondary Schools and Colleges – Types of Equipments–Minimum Equipment, Additional Equipment, Evaluation Equipment facilities – Leisure, Recreation and Sports Facilities for persons with Disabilities.

UNIT V: PHYSICAL FITNESS AND MOTOR DEVELOPMENT:

Definition – Physical fitness, motor fitness – Values of Physical Fitness- Physical Fitness through Life Long Activity – Factors Contributing to Poor Fitness – Evaluating Physical and Motor

Fitness – Types of Physical Fitness Tests – Modification of the Physical Fitness Training System – Selected Fitness Problems (Malnutrition and Obesity).

III. COURSE OUTCOME

The students may

- ❖ Understand the purpose of physical education programme for persons with disabilities
- ❖ To know the administration procedures of physical education programme for persons with disabilities

REFERENCES:

Auxter D (1993). Principles and Methods of Adapted Physical Education. Mosby Publications.
Chapman. F.M 91960). Recreation Activities for the Handicapped, Newyork : The Ronald Press Company
Daniel. R.C. (1982). Games Sports and Exercisesfor the Physically Handicapped. Philadelphia.
Jain. A. (2003) Adapted Physical Education. Delhi Sports Publication.
Lau,D.S. (2001).Physical Education for the Physically Handicapped. Delhi: KhelSahitya Kendra.
Schiffer,M. (1971). The Therapeutic Play Group, London, George Allen and Unwin ltd.
Sharma D. (2006). Adapted Physical Education. New Delhi: Friends Publication.
Sullivan, G.M. (1982), Teaching Physical Activities to Impaired Youth An Approach toMainstreming.USA John Wilkey and Sons.
Thind. M.N. (2010) : Special Olympics Bharat Trainer Manual, New Delhi; Special Olympics Bharat.

MPEC-201 - RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTS SCIENCES

I. OBJECTIVES

1. To develop understanding of the basic framework of research process.
2. To identify appropriate research topics.
3. To identify various sources of information for literature review and data collection.
4. Select and define appropriate research problem, parameters and research questions.
5. To develop an understanding of various research designs and techniques.
6. Write a research proposal and report.
7. Organize and conduct a scientific research in a more appropriate manner
8. To develop an understanding of the ethical dimensions of conducting applied research.

II. COURSE OUTLIINE

UNIT – I INTRODUCTION

Meaning and Definition of Research – need, nature and Scope of research in Physical Education. Classification of Research, Location of Research Problem, Criteria for selection of a problem, Qualities of a good researcher.

UNIT – II – METHODS OF RESEARCH

Descriptive Methods of Research; Survey Study, Case study, Introduction of Historical Research, Steps in Historical Research, Sources of Historical Research: Primary Data and Secondary Data, Historical Criticism: Internal Criticism and External Criticism.

UNIT – III – EXPERIMENTAL RESEARCH

Experimental Research – Meaning, Nature and Importance, Meaning of variable, Types of Variables. Experimental Design – Single Group Design, Reverse Group Design, Repeated Measure Design, Static Group Comparison Design, Equated Group Design, Factorial Design.

UNIT IV – SAMPLING

Meaning and Definition of Sample and Population. Types of Sampling; Probability Methods; Systematic Sampling, Cluster sampling, Stratified Sampling. Area Sampling – Multistage Sampling. Non-Probability Methods; Convenience Sample, Judgment Sampling, Quota Sampling.

UNIT V – RESEARCH PROPOSAL AND REPORT

Chapterization of Thesis/Dissertation, Front Materials, Body of Thesis – Back materials. Method of Writing Research proposal, Thesis/Dissertation; Method of writing abstract and full paper for presenting in a conferences and to publish journals, Mechanics of writing Research Report, Footnote and Bibliography writing.

III. COURSE OUTCOME

The Students may

- define research and describe the research process and research methods.
- understand the research context within the area of physical Education and sports.
- understand the processes and requirements for conducting successful research in physical education and sports.
- Understand and apply basic research methods.
- understand the process of sampling, the uses of questionnaires as data-gathering instruments, how a survey is carried out in terms of process and method, the uses of surveys and to be able to capture their own data.
- Understand and apply basic research methods including research design, data analysis, and interpretation.
- To know how to apply the basic aspects of the research process in order to plan and execute a research proposal and research report.
- To be able to present, review and publish scientific articles.

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 Jersy; Prentice Hall Inc.

Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, LondonlRoutledge Press

Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities, Illonosis; Human Kinetics;

Kamlesh,M.L. (1999) Research Methodology in Physical Education and Sports. New Delhi.

Moses, A.K (1995) Thesis Writing Format, Chennai; PoompugarPathippagamRothstain, A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs: Prentice Hall, Inc.

Subramanian, R, Thirumalai Kumar S &Arumugam C (2010) Research methods in Health, Physical Education and Sports, New Delhi; Friends Publication

Moorthy A.M Research Processes in Physical Education (2010); Friend Publication, New Delhi.

MPEC-202 - APPLIED STATITICS IN PHYSICAL EDUCATION AND SPORTS

I. OBJECTIVES

1. To completely describe a data set, using appropriate descriptive statistics.
2. To interpret a set of descriptive statistics and understand the limitations of each measure.
3. Students shall be able to use and apply a wide variety of specific statistical methods.
4. Students shall know how to organize, manage, and present data.
5. Show ability to explore and organize data for analysis.
6. Students shall be able to use and apply a wide variety of specific statistical methods.
7. Demonstrate understanding of the properties of probability and probability distributions.
8. Demonstrate understanding of the probabilistic foundations of inference.
9. Apply inferential methods relating to the means of Normal distributions.

II. COURSE OUTLIINE

UNIT – 1 – INTRODUCTION

Meaning and Definition of Statistics. Function, need and importance of Statistics. Types of Statistics. Meaning of the terms, Population, Sample, Data, Types of data. Variables: Discrete, Continuous. Parametric and non parametric statistics.

UNIT II – DATA CLASSIFICATION, TABULATION AND MEASURES OF CENTRAL TENDENCY

Meaning, uses and construction of frequency table. Meaning, Purpose Calculation and advantages of Measures of central tendency – mean, median and mode.

UNIT – III – MEASURES OF DISPERSIONS AND SCALES

Meaning, Purpose, Calculation and advances of Range, Quartile, Deviation, Mean Deviation, Standard Deviation, Probable Error. Meaning, Purpose, Calculation and advantages of Scoring scales; Sigma scale, Z Scale, Hull scale.

UNIT – IV – PROBABILITY DISTRIBUTIONS AND GRAPHS

Normal Curve. Meaning of probability – Principles of normal curve – Properties of normal curve. Divergence form normality – Skewness and Kurtosis. Graphical representation in Statistics; Line diagram, Bar diagram, Histogram, Frequency Polygon, Ogive Curve.

UNIT V – INFERENTIAL AND COMPARATIVE STATISTICS

Tests of significance: Independent “t” test, Dependent “t” test – chi – square test, level of confidence and interpretation of data. Meaning of correlation – co – efficient of correlation – calculation of co-efficient of correlation by the product moment method and rank difference method. Concept of ANOVA and ANCOVA.

III. PRACTICAL

It is recommended that the theory topics be accompanied with practical based on computer software of statistics.

IV COURSE OUTCOME

The students may / will

- Know how to organize, manage, and present data.
- Use and apply a wide variety of specific statistical methods.
- Demonstrate understanding of the properties of probability and probability distributions.
- Demonstrate understanding of the probabilistic foundations of inference.
- Apply inferential methods relating to the means of Normal distributions.
- Understand the concept of the sampling distribution of a statistic, and in particular describe the behavior of the sample mean.
- Effectively communicate results of statistical analysis.
- Demonstrate understanding of statistical concepts embedded in their courses.
- Demonstrate proficiency in analyzing data using methods embedded in their courses.
- Demonstrate ability to select appropriate methodologies for analysis based on properties of particular data sets.

REFERENCES:

Best J.W (1971) research in Education, new jersey: Prentice Hall, Inc

Clark D.H (1999) Research Problem in Physical Education 2nd edition, Eaglewood Cliffs, Prentice Hall, Inc.

Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities. Illonosis; Human Kinetics;

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Sivaramakrishnan S (2006) Statistics for Physical Education, Delhi; Friends Publication

Thiurumalaisamy (1998), Statistics in Physical Education, Karaikkudi, Senthilkumar Publications.

MPEC-203 - INFORMATION & COMMUNICATION TECHNOLOGY (ICT)

IN PHYSICAL EDUCATION

I. OBJECTIVES

1. To apprise different materials used in sports.
2. To explain concept related to ICT.
3. Describe the importance of computer in physical education.
4. Identify the integration in teaching and learning process.
5. To know the MS office thoroughly.

II. COURSE OUTLIINE

UNIT – I – COMMUNICATION & CLASSROOM INTERACTION

Concept, Elements, Process & Types of Communication

Communication Barriers & Facilitators of communication

Communicative skills of English – Listening, Speaking, Reading & Writing Concept & Importance of ICT Need of
ICT in Education
Scope of ICT: Teaching Learning Process, Publication Evaluation, Research and Administration
Challenges in Integrating ICT in Physical Education

UNIT II – FUNDAMENTALS OF COMPUTERS
Characteristics, Types & Applications of Computers Hardware of Computer: Input, Output & Storage Devices Software of Computer: Concept & Types Computer Memory: Concept & Types
Viruses & its Management
Concept, Types & Functions of Computer Networks Internet and its Applications
Web browsers & Search Engines Legal & Ethical Issues

UNIT III – MS OFFICE APPLICATIONS
Ms Word: Main Features & its Uses in Physical Education
Ms Excel: Main Features & its Applications in Physical Education
Ms Access: Creating a Database, Creating a Table, Queries, Forms & Reports on Tables and its Uses in Physical Education
Ms Power Point: Preparation of Slides with Multimedia Effects
Ms Publisher: News letter& Brochure.
Need and scope of computer education in sports.

UNIT IV – ICT INTEGRATION IN TEACHING LEARNING PROCESS
Approaches to Integrating ICT in Teaching Learning Process
Project Based Learning (PBL)
Co-operative Learning
Collaborative Learning
ICT and Constructivism: A Pedagogical Dimension

UNIT V – E-LEARNING & WEB BASED LEARNING
E – Learning – Professional communication and sports information through Internet.
Web Based Learning – Sports Websites
Visual Classrooms – Use of current software for class room presentation.
Sports multimedia packages – Role of Computer Education in Sports.

III. PRACTICAL

It is recommended that the theory topics be accompanied with practical based on computer applications.

IV. COURSE OUTCOME

The students may

- Differentiate different materials used in sports.
- Demonstrate and prepare programmes related to sports dynamics and facility management

REFERENCES:

B. Ram, New Age international Publication, Computer Fundamental, Third Edition 2006
Brain Unders IDG Book. India (p) Ltd Teach Yourself Office 2000, Fourth Edition- 2001
Douglas E.Comer, The Internet Book, Purduce University, West Lofayette in 2005
Heidi Steel Low price Edition, Microsoft Office Word 2003-2004
ITL Education Solution Ltd. Introduction to information Technology, Research and Development Wing- 2006

Pradeep K. Sinha &Priti; Sinha, Foundations computing BPB Publications – 2006
Rebecca Bridges Altman Peachpit Press, Power point for window, 1999
Sanjay Saxena, Vikas Publication House, Pvt, Ltd. Microsoft Office for ever one, Second Edition – 2006.

MPEE-204 - FITNESS AND WELLNESS (ELECTIVE)

I. OBJECTIVES

1. To appraise the concept of holistic health through fitness and wellness
2. To explain the students about the concept of physical fitness, health related and motor fitness
3. To describe the contemporary health issues.
4. To apply practical principles of the fitness & wellness.

II. COURSE OUTLIINE

UNIT – I – INTRODUCTION

Meaning and Definition" of Physical Fitness, Physical Fitness Concepts and Techniques, Principles of physical fitness, Physiological principles involved in human movement, Components of Physical Fitness. Leisure time physical activity and identify opportunities in the community to participate in this activity. Current trends in fitness and conditioning, components of total health fitness and the relationship between physical activity and lifelong wellness.

UNIT II NUTRITION

Nutrients; Nutrition labelling information, Food Choices, Food Guide Pyramid, influences on food choices – social, economic, cultural, food sources, Comparison of food values. Weight Management – proper practices to maintain loseand gain. Eating disorders, Proper hydration, and the effects of performance enhancement drugs.

UNIT III – AEROBIC EXERCISE

Cardio respiratory Endurance Training, Safety techniques (including modifications for health conditions, i.e., asthma, obesity; breathing techniques; proper movement forms, i.e., correct stride, arm movements, body alignment; proper warm-up, cool down, and stretching), monitoring heart rates during activity. Assess cardio respiratory fitness and set goals to maintain or improve fitness levels. Cardio respiratory activities including i.e. power walking, pacer test, interval training, incline running, distance running, aerobics and circuits. Awareness of cardio respiratory fitness opportunities in the community.

UNIT IV – ANAEROBIC EXERCISE

Resistance Training for Muscular Strength and Endurance; principles of resistance training, Safety techniques (spotting, proper body alignment, lifting techniques, spatial, awareness and proper breathing techniques). Weight training principles and concepts; basic resistance exercises (including free hand exercise, free weight exercise, weight machines, exercise bands and tubing, medicine balls, fit balls) Advanced techniques of weight training.

UNIT V – FLEXIBILITY EXERCISE

Flexibility Training, Relaxation Techniques and Core Training. Safety techniques (stretching protocol; breathing and relaxation techniques) types of flexibility exercises (i.e dynamic, static), Develop basic competency in relaxation and breathing techniques. Pilates, Yoga.

III. PRACTICAL

The Fitness tests should be taught in the indoor and outdoor test area

IV. COURSE OUTCOME

- Understand the concept of holistic health through fitness and wellness
- Explain the concept of physical fitness , health related and motor fitness
- Evaluate primary health status
- Prepare fitness schedules& evaluate fitness

REFERENCES:

David K.Miller& T. Earl Allen, Fitness, A life time commitment, Surjeet Publication Delhi 1989.

Dificore Judy, the complete guide to the postnatal fitness, A & C Black Publishers Ltd. 35 Bedford 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 Kinetics Publishers 2002.

Lawrence, Debbie, Exercise to Music. A & C Black Publishers Ltd 37, Sohe Square, London 1999. Robert Malt. 90 day fitness plan, D.K. Publishing Inc. 95. Madison Avenue, New York 2001.

MPEE-205 –EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION (ELECTIVE)

I. OBJECTIVES

1. To know the nature and scope of technology in sports.
2. To know the effectiveness of Communication in instructional system
3. technology in teaching learning situation.

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II. COURSE OUTLIINE

UNIT – I NATURE AND SCOPE

Educational technology – concept, Nature and Scope. Forms of educational technology teaching technology, instructional technology, and behaviour technology; Transactional usage of educational technology; integrated, complementary, supplementary stand-alone (independent); Historical development – programmed learning stage; media application stage and computer application stage.

UNIT II – SYSTEMS APPROACH TO PHYSICAL EDUCATION AND COMMUNICATION

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

UNIT III – INSTRUCTION DESIGN

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

UNIT IV – AUDIO VISUAL MEDIA IN PHYSICAL EDUCATION

Audio-visual media – meaning, importance and various forms Audio/Radio; Broadcast and audio recordings – strengths and Limitations, Criteria for selection of instructional units, script writing, pre-production, post – production process and practices, Audio Conferencing and Interactive Radio Conference. Video/Educational Television: Telecast and Video recordings Strengths and limitations, Use of Television and CCTV in instruction and Training, Video Conferencing, SITE experiment, countrywide classroom project and Satellite bead instructions. Use of animation films in Teaching Physical Activities.

UNIT V – NEW HORIZONS OF EDUCATIONAL TECHNOLOGY

Recent innovations in the area of ET interactive video – Hypertext, video – texts, optical fibre technology – laser disk, computer conferencing. Procedure and organization of Teleconferencing/Interactive video-experiences of institutions, schools and universities. Computer Assisted Instruction / Teaching in Physical Education and Sports.

III. PRACTICAL

It is recommended that the theory topics be accompanied with practical by using education technology equipments / projectors/ computers.

IV. COURSE OUTCOME

The students may

- Correlate the of ICT & Education Technology in Physical Education and Sports concepts with the sports and athlete specific situations
- Integrate the knowledge aboutCommunication Process and Teaching for learner.
- List down the Information Technology utilized in the field of sports.
- Analyze the issues related to Internet, Networking, E-learning and Cyber Security

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 Doabal House) 1959.

Communication and Education, D.N. Dasgupta, Pointer Publishers

Education and Communication for development, O.P Dahama, O.P BhatnagarOxfordb& Page 68 of 711BH Publishing company, New Delhi

Essentials of Educational Technology, Madan Lal, Anmol Publications

K.Sampath, A. Pannirselvam and S.Santhanam. Introduction to Educational Technology (New Delhi: Sterling Publishers Pvt.Ltd):1981.

Kochar, S.K. Methods and Techniques of Teaching (New Delhi, Jullandhar, Sterling Publishers Pvt.Ltd)1982.

Kozman, Cassidy and kJackson. Methods in Physical Education

(W.B. Saunders Company, Philadelphia and London), 1952.

MPEC-301 - PHYSIOLOGY OF EXERCISE

I. OBJECTIVES

1. To assess basic concepts of exercise physiology
2. To employ students to apply the knowledge of energy systems during exercise.
3. To explain the effect of environment and ergogenic aids on exercise and training.
4. Develop a thorough understanding of the relationship between physical activity and health.
5. To develop the understanding of the physiological processes.

II. COURSE OUTLIINE

UNIT I – SKELETAL MUSCLES AND EXERCISE

Structure of the Skeletal Muscle, Chemical Composition, Sliding Filament theory of Muscular Contraction. Types of Muscle Fiber. Muscle Tone, Chemistry of Muscular Contraction – Heat Production in the Muscle, Effect of exercises and Training on the muscular system. Physiology of Muscular Activity, Neurotransmission and Movement mechanism.

UNIT II – CARDIOVASCULAR SYSTEM AND EXERCISE

Heart Valves and Direction of the Blood Flow – Conduction System of the Heart – Blood Supply to the Heart – Cardiac Cycle – Stroke Volume – Cardiac Output – Heart Rate – Factors Affecting Heart Rate – Cardiac Hypertrophy – Effect of exercises and training on the Cardio vascular system.

UNIT – III – RESPIRATORY SYSTEM AND EXERCISE

Physiology of Respiration - Mechanics of Breathing – Respiratory Muscles and Training Minute Ventilation – Ventilation at Rest and During Exercise. Diffusion of Gases – Exchange of Gases in the Lungs – Exchange of Gases in the Tissues – Control of Ventilation – Ventilation and the Anerobic Threshold. Oxygen Debt – Lung Volumes and Capacities – Effect of exercises and training on the respiratory system.

UNIT IV – METABOLISM AND ENERGY TRANSFER

Metabolism – ATP – PC or Phosphagen System – Anaerobic Metabolism – Aerobic Metabolism – Aerobic and Anaerobic Systems During Rest and Exercise. Short Duration High Intensity Exercises – High Intensity Exercise Lasting Several Minutes – Long Duration Exercises. Glycolysis, Bioenergetics and recovery process.

UNIT – V – CLIMATIC CONDITIONS AND SPORTS PERFORMANCE AND ERGOGENIC AIDS

Variation in Temperature and Humidity – Thermoregulation – Sports performance in hot climate, Cool Climate, high altitude. Factors influencing performance in sports, Ergogenic aids and doping. Influence of: Amphetamine, Anabolic steroids, Androstenedione, Beta Blocker, Choline, Creatine, Human growth hormone on sports performance. Narcotic Stimulants: Amphetamines Caffeine, Ephedrine, Sympathomimetic amines. Stimulants and sportsperformance.

III. PRACTICAL

Note:*Laboratory Practical's in Physiology be designed and arranged internally.*

IV. COURSE OUTCOME

The students may

- Describe and apply the fundamental and advanced concepts of exercise physiology.
- Define and describe the term exercise physiology
- Recognize the energy system for aerobic and anaerobic components of exercise.
- Summarize the underlying physiological basis of physical fitness, physical training, health and wellness.
- Discover the nutritional aspect of fitness and performance.

REFERENCES:

Amrit Kumar, Moses (1995) Introduction to Exercise Physiology. Madras PoompugarPathipagam.

Clarke, D.H (1975) Exercise Physiology. New Jersey: Prentice hall Inc., Englewood Cliffs.

David, L Costill (2004) Physiology of Sports and Exercise, Human Kinetics.

Fox, E.L., and Mathews, D.K (1981) the Physiological basis of Physical Education and Athletics. Philadelphia: Sanders College Pushing.

Guyton, A.C (1976) textbook of Medial Physiology. Philadelphia: W.B.Sanders co.

Richard, W. Bowers (1989) Sports Physiology. WMC: Brown Publishers, SandhyaTiwaji. (1999) Exercise Physiology. Sports Publishers.

Shaver, L (1981) Essentials of Exercise Physiology. New Delhi: Subject Publication.

Vincent, T. Murche (2007) Elementary Physiology. Hyderabad; Sports Publication

William, D.McAradle (1996) Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.

SandhyaTiwaji. (1999). Exercise Physiology. Sports Publishers

MPEC-302 - SPORTS MEDICINE, ATHLETIC CARE AND REHABILITATION

I. OBJECTIVES

1. To apprise the students about the introduction to Athletic Care & Rehabilitation
2. To synthesize a basic concept of sports injuries and rehabilitation.

3. To appraise the varied therapeutic aspects of exercise.
4. To appraise the understanding of the preventive and curative aspects of sports injuries.
5. To explain the understanding of the rehabilitation aspects of sports injuries
6. To describe the knowledge in the field of positive life style.

II. COURSE OUTLIINE

UNIT – 1 INTRODUCTION

Meaning definition and importance of Sports Medicine. Definition and Principles of therapeutic exercises, Co-ordination exercise, Balance training exercise, Strengthening exercise, Mobilization exercise, Gait training, Gym ball exercise. Injuries: acute, sub-acute, chronic. Advantages and Disadvantages of RICER, PRICER therapy, Aquatic therapy. Posture, Postural deformation and Corrections.

UNIT – II – BASIC REHABILITATION

Basic rehabilitation: Strapping/Tapping: Definition, Principles Precautions Contraindications. Proprioceptive neuromuscular facilitation: Definition hold, relax, repeated contractions. Show reversal technique exercises. Isotonic, Isokinetic, Isometric Stretching. Definition. Types of stretching, Advantages, dangers of stretching, Manual muscle grading.

UNIT III- SPINE INJURIES AND EXERCISE

Head, Neck and Spine injuries: Causes, Presentation of spinal anomalies, Flexion, Compression, Hyperextension, Rotation injuries. Spinal range of motion. Free exercises, stretching and strengthening exercise for head neck, spine. Supporting and aiding techniques and equipment for Head, Neck and Spine injuries. Massage Manipulation and therapeutic exercises.

UNIT IV – UPPER EXTREMITY INJURIES AND EXERCISE

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

UNIT V – LOWER EXTREMITY INJURIES AND EXERCISE

Lower Limb and Abdomen injuries: Hip: Adductor strain, Dislocation, Strapping. Knee: Sprain, Strain, and Strapping. Ankle: Sprain, Strain, Strapping. Abdomen: Abdominal wall, Contusion, Abdominal muscle strain. Free exercises – Stretching and strengthening exercise for Hip, knee, ankle and Foot. Supporting and aiding techniques and equipment for Lower limb and Abdomen injures. Physiotherapy – Importance, Role of Physiotherapy in Rehabilitation.

III. PRACTICAL

Practical's: *lab. Practical's and visit to Physiotherapy Centre to observe treatment procedure of sports injuries: data collection of sports injury incidences, should be planned internally*

IV. COURSE OUTCOME

The students may

- ❖ Illustrate and apply the concepts of sports injuries and rehabilitation.
- ❖ Interpret the concept of therapeutic aspects of exercise.
- ❖ Demonstrate and take care of the preventive and curative aspect of sports injuries.
- ❖ Apply the concept of rehabilitation of sports injuries
- ❖ Interpret the concept toward positive lifestyle

REFERENCES:

Christopher M.Norris (1993) Sports injures Diagnosis and Management for Physiotherapists. 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: Surjeet Publication.

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.

MPEC-303 - SCIENTIFIC PRINCIPLES OF SPORTS TRAINING

I. OBJECTIVES

1. To provide knowledge and concept of sports training.
2. To develop an understanding of the technical and tactical training.
3. To provide the role of sport sciences to achieve the excellence.

II. COURSE OUTLIINE

UNIT – 1 – INTRODUCTION

Sports training: Definition – Aim, Characteristics, Principles of Sports Training, Over Load: Definition, Causes of Over Load, Symptoms of Overload, Remedial Measures – Super Compensation – Altitude Training – Cross Training. Technical and Tactical Preparation for sports.

UNIT II – COMPONENTS OF PHYSICAL FITNESS

Strength: Methods to improve Strength: Weight Training, Isometric, Isotonic, Circuit Training, Speed: Methods to Develop Speed: Repetition Method, Downhill Run, Parachute Running, Wind Sprints, Endurance, Methods to Improve Endurance. Continuous Method, Interval Method, Repetition Method, Cross Country, Fartlek Training.

UNIT III – FLEXIBILITY

Flexibility: Methods to Improve the Flexibility – Stretch and Hold Method, Ballistic Method, Special Type Training: Plyometric Training. Training for Coordinative abilities: Methods to improve Coordinative abilities: Sensory Method, Variation in Movement Execution Method, Combination of Movement Method. Types of Stretching Exercises.

UNIT IV – TRAINING PLAN

Training Plan: Macro Cycle, Meso Cycle, Micro cycle. Short Term Plan and Long Term Plans – Periodisation: Meaning, Single, Double and Multiple Periodisation, Preparatory Period, Competition Period and Transition Period. Principles of Motor – Skill Aquisition, Transfer of Training Effects. Sports talent identification - process and Procedures.

UNIT V – DOPING

Definition of Doping - Side effects of drugs – Dietary supplements – IOC list of doping classes and methods. Blood Doping – The use of erythropoietin in blood boosting – Blood doping control – The testing programmes – Problems in drug detection – Blood testing in doping control – Problems with the supply of medicines subject to IOC regulations: Over – the – counter drugs (OTC) – prescription only medicines (POMs) – Controlled drugs (CDs). Reporting test results.

III. PRACTICAL

It is recommended that the theory topics be accompanied with practical by using relevant training methodologies

IV. COURSE OUTCOME

The students may

- Understand the concepts of super compensation.
- Able to do the different training modalities.
- Know clear cut ideas about doping and its effects.

REFERENCES:

Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, Prentice Hall Inc.

Caret, E. Klafs& Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. Louis C.V. Mosphy Company.

Daniel, D. Arnheim (1991_ Principles of Athletic Training, St. Luis, Mosby Year Book David R. Mottram (1996) Drugs in Sport, School of Pharmacy, Liverpool: John Moores University.

Gary, T. Moran (1997) – Cross Training for Sports, Canada: Human Kinetics Hardayal Singh (1991) Science of Sports Training, New Delhi, DVS Publiations Jensen, C.R. & Fisher A.G (2000).

Ronald, P.Pefiffer (1998) Concepts of Athletics Training 2nd Edition, London: Jones and Bartlett Publications.

YograjThani (2003), Sports Training, Delhi: Sports Publications.

MPEE-304 - VALUE AND ENVIRONMENTAL EDUCATION (ELECTIVE)

I. OBJECTIVES

1. To get knowledge with the Concepts of Values, Value Education.
2. To know the Scope, Need and Importance of environmental studies.

3. To know the Rural Health Problems, Causes of Rural Health Problem.

II. COURSE OUTLIINE

UNIT 1 – INTRODUCTION TO VALUE EDUCATION

Values: Meaning, Definition, Concepts of Values, Value Education: Need, Importance and Objectives. Moral Values: Need and Theories of Values. Value Systems: Meaning and Definition, Personal and Communal values, corporate values, Consistency, Internally consistent, internally inconsistent, Judging value System, Commitment, Commitment to values.

UNIT II – VALUE SYSTEMS

Meaning and Definition, Personal and Communal Values, Corporate values, Consistency, Internally consistent, Internally inconsistent, Judging Value System, Commitment, Commitment to values.

UNIT III- ENVIRONMENTAL EDUCATION

Definition, Scope, Need and Importance of environmental studies., Concept of environmental education, Historical background of environmental education, Celebration of various days in relation with environment, Plastic recycling & probation of plastic bag/cover, Role of school in environmental conservation and sustainable development.

UNIT – IV RURAL SANITATION AND URBAN HEALTH

Rural Health Problems, Causes of Rural Health Problem, Points to be kept in Mind for improvement of Rural Sanitation, Urban Health Problems, Process of Urban Health, Services of Urban Area, Suggested Education Activity, Services on Urban Slum Area, Sanitation at Fairs & Festivals, Mass Education.

UNIT – VNATURAL RESOURCES AND RELATED ENVIRONMENTAL ISSUES

Water resources, food resources and Land resources, Definition, effects and control measures of: Air Pollution, Water Pollution, Soil Pollution, Noise Pollution, Thermal Pollution Management of environment and Govt. Policies, Role of pollution control board.

IV. COURSE OUTCOME

REFERENCES:

Miller T.G. Jr Environmental Science (Wadsworth Publishing Co)

Odum, E.P. Fundamentals of Ecology (U.S.A W.B Saunders Co) 1971)

Rao, M.N &Datta, A.K Waste Water Treatment (Oxford & IBH Publication Co.Pvt Ltd) 1987)

Townsend C and others, Essentials of Ecology (Black well Science)

Heywood, V.H and Watson V.M., Global biodiversity Assessment (U.K Cambridge University Press) 1995.

Jadhav, H and Bhosale, V.M Environmental Science System and Solution (Web enhanced Ed) 1996.

Miller T.G Jr., Environmental Science (Wadsworth Publishing Co)

Dhananjay Joshi (2010) Value Education in Global Prespective. New Delhi: Lotus press.

MohitChakrabarti (2008): Value Education; Changing Perspe New Delhi: Kanishka Publication.

Mc Kinney, M.L. and Schoel, R.M (1996) Environmental Science System and Solution (Web enhanced Ed.)

Venkataiah.N (2009) Value Education – New Delhi: APH Publishing Corporation.

MPEE- 305 - SPORTS ENGINEERING (ELECTIVE)

I. OBJECTIVES

1. Define the relationship between sports and engineering.
2. To apprise different materials used in sports.
3. To explain concept related to sports dynamics and facility management.
4. Describe the importance of ethics within both sports and manufacturing.
5. Identify technologies and sustainable solutions to manufacturing apparel.
6. Assess and understand the manufacturing techniques within two companies.

II. COURSE OUTLIINE

UNIT – I INTRODUCTION TO SPORTS ENGINEERING AND TECHNOLOGY

Meaning of sports engineering, human motion detection and recording, human performance, assessment, equipment and facility designing and sports related instrumentation and measurement.

UNIT – II MECHANICS OF ENGINEERING MATERIALS

Concept of Internal force, axial force, shear force, bending movement, torsion, energy method to find displacement of structure, strain energy. Biomechanics of daily and common activities – Gait, Body levers, posture, ergonomics. Sports Dynamics: Introduction to dynamics, Kinematics to particles – rectilinear and plane curvilinear motion coordinate system. Kinetics of particles.

UNIT – III BUILDING AND MAINTENANCE

Sports Infrastructure – Gymnasium, Pavilion, Swimming Pool, Indoor Stadium, Play Park, Academic Block, Administrative Block, Research Block, Library, Sports Hostels.

UNIT – IV BUILDING 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 (eco-free), Internal arrangement according to need and nature of activity to be performed, Corridors and Gates for free movement of people. Emergency provisions of lighting, fire and exits, Eco-friendly outer surrounding. Maintenance staff, financial consideration.

UNIT V BUILDING PROCESS

Building process: Design phase (including brief documentation), construction phase functional (occupational) life, Re-evaluation, refurnish, demolish. Maintenance Policy, preventive maintenance, corrective maintenance, record and register for maintenance. Facility life cycle costing: SBasics of

theoretical analysis of cost, total life cost concepts, maintenance costs, energy cost, capital cost and taxation.

III. COURSE OUTCOME

The students may

- Apply the concept of engineering and technology in sports.
- Differentiate different materials used in sports.
- Demonstrate and prepare programmes related to sports dynamics and facility management

REFERENCES:

Franz K.F et. Al., Editor, Rout ledge Handbook of Sports technology and Engineering (Rout ledge, 2013)

Steve Hake, Editor, The Engineering of Sport (CRC Press, 1996)

Franz K. Editor The Impact of Technology on Sports II (CRC Press, 2007)

Helge N., Sports Aerodynamics (Springer Science & Business Media, (2009) Youlin Hong, Editor Rout ledge Handbook of Ergonomics in Sport and Exercise (Rout ledge, 2013)

Jenkins M., Editor Materials in Sports Equipment, Volume (Elsevier, 2003)

Colin White, Projectile Dynamics in Sport: Principles and Applications

Eric C at al., Editor Sports Facility Operations management (Rout ledge, 2010)

MPEC- 401 - SPORTS BIOMECHANICS AND APPLIED KINSESIOLOGY

I. OBJECTIVES

1. To develop the basic understanding of biomechanics and kinesiology and its application inhuman body movements in performing sports activities.
2. To explain the concept of mechanical laws involved in human motion.
3. To develop a comprehensive understanding of movement analysis
4. To develop the ability to perform mechanical analysis of various fundamental movements and sports skills.

II. COURSE OUTLIINE

UNIT 1 – INTRODUCTION

Meaning Nature, role and scope of Applied kinesiology and Sports Biomechanics. Joints and their Movements – Planes and Axes. Meaning of Dynamics, Kinematics,(linear and angular), Kinetics, Statics Centre of gravity – line of gravity, plane of the body and axis of motion, Vectors,andScalars.

UNIT II – MUSCLE ACTION

Origin, Insertion and action of muscles: Pectoralis major and minor, Deltoid, Biceps, Triceps (Anterior and Posterior), Trapezius, Seratus, Sartorius Rectus femoris, RectusAbdominous, Quadriceps, Hamstring, Gastronemius. Posture: Postural deformation nd Corrections. Muscular analysis of Motor Movements.

UNIT III – MOTION AND FORCE

Meaning and definition of Motion. Types of Motion: Linear motion, angular motion, circular motion, uniform motion. Principals related to the law of Inertia, Law of acceleration, and Law of counter force. Meaning and definition of force – Sources of force – Force components Force applied at an angle – pressure – friction – Buoyancy, Spin – Centripetal force – Centrifugal force.

UNIT IV – PROJECTILE AND LEVER

Freely falling bodies – Projectiles – Equation of projectiles stability –Principles of Equilibrium, and force, spin and elasticity. Factors influencing equilibrium – Guiding principles for stability – static and dynamic stability. Meaning of work, power, energy, kinetic energy and potential energy. Leverage – classes of lever – practical application – Water resistance – Air resistance – Aerodynamics.

UNIT V – MOVEMENT ANALYSIS

Analysis of Movement: Types of analysis: Kinesiological, Biomechanical. Cinematographic. Methods of analysis – Visual, Instrument. Mechanical Analysis of various sports activities: Walking, Running, Jumping,Throwing, Pushing, Pulling, Lifting, Catching, Hitting, Spiking, Kicking. Analysis of skill / techniques of games: Basketball, Cricket, Football, Hockey, Volleyball, Track and Field, Swimming and Gymnastics.

III. PRACTICAL

It is recommended that the theory topics be accompanied with practical.

IV. COURSE OUTCOME

The Students may

- Explain the basic mechanical concepts and will be able to interpret its relation to human body movements
- Organize and specify the overall goal of the course.
- Apply and analyze the factors of mechanical laws involved in human movement.
- Explain the principles of movement analysis
- Analyze the mechanical principles of motor skills and sports related skills along with their proper techniques and corrective measures

REFERENCES:

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)

Upal, A (2004) Kinesiology in Physical Education and Exercise Science, Delhi Friends publications.

Williams M (1982) Biomechanics of Human Motion, Philadeiphia; Saunders co.

MPEC- 402 - SPORTS MANAGEMENT AND CURRICULUM DESIGN

I. OBJECTIVES

1. To describe organization and administration of sports programmes.
2. To analyze and interpret sports philosophy, sports sociology, business systems, sportsmanagement, public administration and marketing techniques.
3. To develop opportunities to construct & design the curriculum of PE in broader aspects realizingthe age group, gender consideration and physiological basis.

II. COURSE OUTLIINE

UNIT 1 – INTRODUCTION TO SPORTS MANAGEMENT

Management: Concept and Principles of Management. Sports Management: Definition, Importance, Basic Principles and Procedures of Sports Management. Functions of Sports Management. Personal Management: Objectives of Personal Management, Personal Policies, role of Personal Manager in an organization, Personnel recruitment and selection.

UNIT II – PROGRAM MANAGEMENT

Management of infrastructure, equipment, finance and personnel Programme management. Factors influencing programme development. Steps in programme development, Organisation and Functions of Sports bodies. Competitive Sports Programs, Benefits, Management Guidelines for School, College Sports Programs, and Management Problems in instruction programme, Community Based Physical Education and Sports program.

UNIT III – EQUIPMENTS AND PUBLIC RELATION

Purchase and Care of Supplies of Equipment, Guidelines for selection of Equipment and Supplies, Purchase of equipments and supplies, Equipment Room, Equipment and supply Manager. Guidelines for checking, storing, issuing, care and maintenance of supplies and equipments. Public Relations in Sports; Planning the Public Relation Program – Principles of Public Relation – Public Relations in school and Communities – Public Relation and the Media. Professional Ethics.

UNIT IV - CURRICULUM

Meaning and Definition of Curriculum. Principles of Curriculum Construction: Students centred, Activity centred, Community centred, Forward looking principle, Principles of integration. Approaches to Curriculum; Subject centred, Learner centred and Community centred, Curriculum Framework. Application of Idealism, Naturalism, Realism, Pragmatism, Existentialism, Humanism in Physical Education. Course content for academic and professional courses.

UNIT V – CURRICULUM SOURCES

Factors 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. Method of Evaluation of Curriculum, Methods of evaluation.

III. COURSE OUTCOME

The students may

- ❖ Identify issues relevant to modern physical education and sport management.
- ❖ Explore the area as a career perspective

REFERENCES:

Aggarwal, J.C (1990). Curriculum Reform in India – World overviews, Doaba World Education Series – 3 Delhi: Dobra House, Book seller and Publisher.

Arora, G.L 91984): 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 (10^{th} ed.,) St, Louis: Mobsy Publishing Company.

Carl, E, Will goose. (1982. Curriculum in Physical Education, London: Prentice Hall.

Charkraborthy&Samiran. (1998), Sports Management, New Delhi: Sports Publication.

Charles, A, Bucher & March, L, Krotee. (1993). Management of Physial Education and Sports. St.Louis: Mosby Publishing Company.

Chelladurai, P. (1999) Human Resources Management in Sports and Recreation. Human Kinetics.

John, E, Nixon & Ann, E, Jewett (1964). Physical Education Curriculum, New York: The Ronald Press Company.

McKernan, James (2007) Curriculum and Imagination: Process, Theory, Pedagogy and Action Research, U.K.Routledge.

NCERT (2000). National Curriculum Framework for School Education. New Delhi: NCERT.

NCERT (2000). National Curriculum Framework for School Education, New Delhi: NCERT

NCERT (2005). National Curriculum Framework, New Delhi: NCERT

NCERT (2005). National Curriculum Framework-2005, New Delhi: NCERT.

Williams, J.F (2003). Principles of Physical Education. Meerut: College Book House.

Yadvnider Singh. Sports Management, New Delhi: Lakshay Publication.

MPEC- 403 -DISSERTION

1. The student shall have dissertation for M.P.Ed in IV Semester. The title and proposal shall be approved by the Guide, class teacher/ Coordinator, and Head of the Department of Physical Education.
2. The dissertation must be submitted on or before the last theory examination of the IV Semester duly signed by the Guide, class teacher / Coordinator, and the Head of the Department of Physical Education.
3. The Format Prescribed by the Department shall be followed.

MPEE- 404 – PROFESSIONAL PREPARATION FOR SLET / NET

IN PHYSICAL EDUCATION (ELECTIVE)

(Question Paper Pattern: 75 Multiple Choice Questions)

I. OBJECTIVES

1. To understand the ever evolving curriculum of physical education
2. To develop opportunities to construct & design the curriculum of PE in broader aspects realizingthe age group, gender consideration and physiological basis.

II. COURSE OUTLIINE

UNIT I - Teaching Aptitude

a. Teaching: Nature, Objectives, Characteristics and basic requirements.
b. Learners Characteristics.
c. Factors affecting Teaching.
d. Methods of Teaching.
e. Teaching Aids.
f. Evaluation Systems.

UNIT II – Research Aptitude

a. Research : Meaning, Characteristics and type
b. Steps of research
c. Methods of research
d. Research Ethics
e. Research Paper, article, workshop, and seminar. Conference and symposium
f. Thesis writing: Its Characteristics and format.

UNIT III–COMPREHENSION:

Reading Comprehension: A passage to be set with questions to beanswer

UNITIV – COMMUNICATION

Nature, characteristics, types, barriers and effective classroom communication.

UNIT V – REASONING

Reasoning (Including Mathematical): Number series; letter series; codes; Relationships; classification.

UNIT VI – LOGICAL REASONING

a. Understanding the structure of arguments
b. Evaluating and distinguishing deductive and inductive reasoning.
c. Verbal analogies: Word analogy – Applied analogy
d. Verbal classification
e. Reasoning Logical Diagrams: Simple diagrammatic relationship, multi diagrammatic relationship.

f. Venn diagram
g. Analytical Reasoning.

UNIT VII – DATA INTERPRETATION

a. Sources, acquisition and interpretation of data.
b. Quantitative and Qualitative data.
c. Graphical representation and mapping of data.

UNIT VIII – INFORMATION & COMMUNICATION TECHNOLOGY (ICT)

a. ICT: meaning, advantages, disadvantages and uses.
b. General abbreviations and terminology
c. Basics of internet and e-mailing

UNIT IX – PEOPLE AND ENVIRONMENT

a. People and environment interaction
b. Sources of pollution
c. Pollutants and their impact on human life, exploitation of natural and energy resources
d. Natural hazards and mitigation

UNIT X – HIGHER EDUCATION SYSTEM:

Governance, Polity and Administration

a. Structure of the institutions for higher learning and research in India.
b. Formal and distance education
c. Professional /Technical and general education
d. Value education : governance, polity and administration
e. Concept, institutions and their interactions.

III. COURSE OUTCOME

- Students will be able to design need based curriculum of PE various groups.

REFERENCES

Sajit Kumar, M.Gagan. (2012) UGC University Grants Commission NET/SET for lectureship Exam**,**(Paper I), New Delhi: Danika Publishing Company.

Authors Guide (2012) UGC University Grants Commission NET/SET for lectureship Exam Paper I, New Delhi: G.K Publications.

Lal Jain, K.C Vashistha (2010) UGC NET/JRF/SLET Teaching and Research Aptitude, (General Paper – I) NewDelhi:Upkar.

Sanjay Gupta (2012) Practice Work Book – UGC NET/JRF/SLET Teaching and Research Aptitude, New Delhi: Upkar.

Kamlesh M.L.(2010) UGC NET Digest Teaching and Research Aptitude (General Paper – I) New Delhi: KhelSahitya Kendra.

Ansari M.S (2010) UGC – JRF and Lectureship Paper I Teaching and Research Aptitude New Delhi: Gupta

MPEE- 405 - SPORTS JOURNALISM AND MASS MEDIA (ELECTIVE)

I. OBJECTIVES

1. To apprise the students about the origin and evolution of journalism and mass media.
2. To synthesize a basic concept of reporting and editing.
3. To appraise the varied aspects of advertising.

II. COURSE OUTLIINE

UNIT I- INTRODUCTION

Meaning and Definition of Journalism, Ethics of Journalism – Canons of Journalism – Sports Ethics and Sportsmanship – Reporting Sports Events. National and International Sports News Agencies.

UNIT II SPORTS BULLETIN

Journalism and sports education – Structure of sports bulletin – Compiling a bulletin – Types of bulletin – Role of Journalism in the Field of Physical Education: Sports as an integral part of Physical Education – Sports organization and sports journalism – General news reporting and sports reporting.

UNIT III MASS MEDIA

Mass Media in journalism: Radio and T.V Commentary – Running commentary on the radio – Sports experts' comments. Role of Advertisement in Journalism. Sports Photography: Equipment – Editing – Publishing. Media and Sports.

UNIT IV REPORT WRITING ON SPORTS

Brief review of Olympic Games, Asian Games, Common Wealth Games, World Cup, National Games and Indian Traditional Games. Preparingreport of an Annual Sports Meet for Publication in Newspaper. Organization of Press Meet.

UNIT V – JOURNALISM

Sports organization and Sports Journalism – General news reporting and sports reporting. Methods of editing a Sports report. Evaluation of Reported News. Interview with and elite Player and Coach.

III. PRACTICAL

Practical assignments to observe the matches and prepare report and news of the same; visit to News Paper office and TV Centre to know various departments and their working. Prepare an Album of newspaper cuttings of sports news.

IV. COURSE OUTCOME

- Apply the concept of reporting and editing.
- Illustrate and apply the advertising concepts.
- Interpret the concept of journalism and mass media

REFERENCES:

Ahiya B.N (1988) Theory and Practice of Journalism: Set to Indian cntext Ed3. Delhi: Surjeet Publications.

AhiyaB.N.Chobra S.S.AA (1990) Concise Course in Reporting. New Delhi: Surjeet Publication.

Bhatt S.C (1993) Broadcast Journalism Basic Principles. 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. Haranand Publication

Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.

Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication MohitChakrabtti (2008): Value Education: Changing Perspective, New Delhi. Kanishka Publication.

Padmanabhan. A &Perumal A (2009), Science and Art of Living, Madurai: Pakavathi Publication.

Shiv Khera (2002), You can Win, New Delhi: Macmillan India Limited

Varma A.K (1993) Journalism in India from Earliest Times to the Present period. President Sterling Publication Pvt, Ltd.

Venkataiah, N (2009) Value Education, New Delhi: APH Publishing Corporation.43

Annexure-III

ANNAMALAI UNIVERSITY

FACULTY OF EDUCATION

DEPARTMENT OF PHYSICAL EDUCATION

B.P.Ed

[Bachelor of Physical Education]

New Regulation

[2018-19 Onwards]

B.P.Ed THEORY PAPER [2018-19] onwards

SEMESTER - I

BPDC-101 HISTORY OF PHYSICAL EDUCATION RECREATION AND CAMPING

COURSE OBJECTIVE:

Know the scope, aims and objectives of physical education

- Develop the understanding of the relationship of physical education with general education
- Acquire knowledge regarding the historical development of physical education in India
- Familiarize with the aim, scope and significance of recreation and camping
- Familiarize with various agencies offering recreation
- Know the different aspects of leadership

COURSE CONTENT:

UNIT I - Introduction

Meaning, Definition and Scope of Physical Education, Aims and Objective of Physical Education - Importance of Physical Education in present era. Misconceptions about Physical Education. Relationship of Physical Education with General Education., Physical Education as an Art and Science.

UNIT II- Historical Development of Physical Education in India

Indus Valley Civilization Period. (3250 BC - 2500 BC), Vedic Period (2500 BC - 600 BC),Early Hindu Period (600 BC - 320 AD) and Later Hindu Period (320 AD - 1000 AD), Medieval Period (1000 AD - 1757 AD) of British Period (Before 1947), Physical Education in(After1947), Contribution of Akhadas and Vyayamshalso Y.M.C.A. and its contributions.

UNIT III- Recreation

Meaning, Definition, Aim, Scope and Significance of recreation – Aim and objectives of recreation - Recreation of play. Agencies offering recreation – Home, Governmental, Voluntary, Private-Commercial Agencies – Rural Urban, Community and industrial Recreation – Areas Facilities, Equipment and their maintenance..

UNIT IV—Camping

Definition and Meaning – Scope and significance of Camping – Types of camps – Selection and layout of campsites – organization and administration of camps – camp programmes and activities – Evaluation of camp work.

UNIT V– Leadership

Meaning and Definition of Leadership, Leadership style and method. Elements of leadership. Forms of Leadership. Autocratic – Laissez-faire Democratic Benevolent Dictator. Qualities of administrative leader. Preparation of administrative leader. Leadership and Organizational performance. Professional Ethics.

COURSE OUTCOME:

After completing the course, the learner will be able to:

- Understand the importance of physical education
- Learn the history of physical Education in India
- Understand the objectives of recreation and factors involved in learning.
- Organize and administer camps
- Improve their leadership qualities

REFERENCE

1. Bucher, C. A. (n.d.) Foundation of physical education. St. Louis: The C.V. Mosby Co.
2. Deshpande, S. H. (2014). Physical Education in Ancient India. Amravati: Degree college of Physical education.
3. Mohan, V. M. (1969). Principles of physical education. Delhi: Metropolitan Book Dep.
4. Nixon, E. E. & Cozen, F.W. (1969). An introduction to physical education. Philadelphia: W.B. Saunders Co.

BPDC-102 ANATOMY AND PHYSIOLOGY

COURSE OBJECTIVE:

- Realize the basic concepts relating to gender and to provide logical understanding of Anatomical and Physiological difference in Male and Female
- Gain awareness on various perspectives of blood and circulatory system.
- Gain insight on digestive system, functions of glands and nervous system.
- Make acquainted about physiology and its importance in the field of physical education
- Recognize the effect of exercise on cardiovascular system

COURSE CONTENT:

UNIT-I

Brief Introduction of Anatomy and physiology in the field of Physical Education. Introduction of Cell and Tissue. The arrangement of the skeleton - Function - of the skeleton - Ribs and Vertebral column and the extremities - joints of the body and their types Gender differences in the skeleton. Types of muscles.

UNIT-II

Blood and circulatory system: Constituents of blood and their function -Blood groups and blood transfusion, clotting of blood, the structure of the heart-properties of the heart muscle, circulation of blood, cardiac cycle, blood pressure, Lymph and Lymphatic circulation. Cardiac output. The Respiratory system: The Respiratory passage - the lungs and their structure and exchange of gases in the lungs, mechanism of respiration (internal and external respiration) lung capacity, tidal volume.

UNIT-III

The Digestive system: structure and functions of the digestive system, Digestive organs, Metabolism,The Excretory system: Structure and functions of the kidneys and the skin. The Endocrine glands: Functions of glands pituitary, Thyroid, Parathyroid. Adrenal, Pancreatic and the sex glands. Nervous systems: Function of the Autonomic nervous system and Central nervous system. Reflex Action, Sense organs: A brief account of the structure and functions of the Eye and Ear.

UNIT-IV

Definition of physiology and its importance in the field of physical education and sports. Structure, Composition, Properties and functions of skeletal muscles. Nerve control of muscular activity: Neuromuscular junction, Transmission of nerve impulse across it. Fuel for muscular activity, Role of oxygen- physical training, oxygen debt, second wind, vital capacity.

UNIT-V

Effect of exercise and training on cardiovascular system. Effect of exercise and training on respiratory system. Effect of exercise and training on muscular system, Physiological concept of physical fitness, warming up, conditioning and fatigue. Basic concept of balanced diet - Diet before, during and after competition.

COURSE OUTCOME:

After completing the course, the learner will be able to:

- Understand about the skeletal system, joints of the body and types of muscle
- Gain knowledge of the circulatory and respiratory systems
- Know structure and functions of the digestive system, kidneys, skin, glands, nervous system, eye and ear
- Familiar with the structure and functions of skeletal muscle, Fuel for muscular activity
- Identify the effect of exercise and training on cardiovascular, respiratory and muscular system and also the basic concept of balanced diet

REFERENCES:

1. Gupta, A. P. (2010). Anatomy and physiology. Agra: SumitPrakashan.
2. Gupta, M. and Gupta, M. C. (1980). Body and anatomical science. Delhi: Swaran Printing Press.
3. Guyton, A.C. (1996). Textbook of Medical Physiology, 9th edition. Philadelphia: W.B.Saunders.
4. Karpovich, P. V. (n.d.). Philosophy of muscular activity. London: W.B. Saunders Co.
5. Lamb, G. S. (1982). Essentials of exercise physiology. Delhi: Surjeet Publication.
6. Moorthy, A. M. (2014). Anatomy physiology and health Education.Karaikudi: MadalayamPublications.
7. Morehouse, L. E. & Miller, J. (1967). Physiology of exercise. St. Louis: The C.V. Mosby Co.

Pearce, E. C. (1962). Anatomy and physiology for nurses. London: Faber & Faber Ltd.

Sharma, R. D. (1979). Health and physical education, Gupta Prakashan.

Singh, S. (1979). Anatomy of physiology and health education. Ropar: Jeet Publications

BPDC-103 ORGANZATION, ADMINISTRATION & METHODS IN PHYSICAL EDUCATION

COURSE OBJECTIVE:

- Highlight the importance of Organization and Administration in physical education and Program planning
- Procedures in Maintenance of Records and Registers, methods of preparing budget
- Describe the Facilities and equipment in an educational institution.
- Make familiar about various methods of teaching physical activities
- To know the various types of teaching aids and its importance's.
- To teach the method of Preparing general and specific lesson plan, the types of tournaments

COURSE CONTENT:

Unit - I: Organization and administration

Meaning and importance of Organization and Administration in physical education Qualification and Responsibilities of Physical Education teacher and pupil leader Planning and their basic principles, Program planning: Meaning, Importance, Principles of program planning in physical education. Functions of Planning, organizing, staffing, directing, communicating, co-ordination, controlling, evaluating and innovating.

Unit- II: Office Management, Record, Register & Budget

Office Management: Meaning, definition, functions and kinds of office management Records and Registers: Maintenance of attendance Register, stock register, cash register, physical efficiency record, Medical examination Record. Budget: Meaning, Importance of Budget making, Criteria of a good Budget, Sources of Income, Expenditure, Preparation of Budget. Facilities and equipment management: Types of facilities Infrastructure-indoor, out door. Care of school building, Gymnasium, swimming pool, Play fields, Play grounds Equipment: Need, importance, purchase, care and maintenance. Time Table Management: Meaning, Need, Importance and Factor affecting time table

Unit-III: Teaching Techniques

Teaching Techniques - Lecture method, Command method, Demonstration method, Imitation method, Project method etc. - Whole method, whole - part - whole method, part - whole method. Presentation Techniques - Personal and technical preparation- Commands - Meaning, Types and its uses in different situations

Unit-IV: Teaching Aids,

Teaching Aids - Meaning, Importance and its criteria for selecting teaching aids. Teaching aids - Audio aids, Visual aids, Audio - visual aids, Verbal, Chalk board, Charts, Model, Slide projector, Motion picture etc.Team Teaching - Meaning, Principles and advantage of team teaching. Differences between Teaching Methods and Teaching Aids.

Unit-V: Lesson Planning, Teaching Innovations and Tournaments

Lesson Planning - Meaning, Type and principles of lesson plans. General and specific lesson plans. Micro Teaching - Meaning, Types and steps of micro teaching. Simulation Teaching - Meaning, Types and steps of simulation teaching. Importance of Tournament, Types of Tournament and its organization structure - Knock-out Tournaments, League or Round Robin Tournaments, Combination Tournament and challenge Tournament. Organization structure of Athletic Meet - Sports Event Intramurals & Extramural Tournament planning

COURSE OUTCOME:

After completing the course, the learner will be able to:

- Know the qualification and responsibilities of physical education teachers and the principles of Program planning
- Gain knowledge in maintenance of Records and Registers, methods of preparing budget
- Gain knowledge in construction and maintenance of gymnasium and swimming pools, layout of play fields

- Familiar with the various methods of teaching physical activities and presentation techniques
- Understand various types of teaching aids and principles and advantages of team teaching
- Prepare lesson plan and familiar with drawing of various types of fixtures
- Develop competence in organization and administration of various competitions

REFERENCES:

1. Broyles, F. J. &Rober, H. D. (1979). Administration of sports, Athletic programme: A
2. Managerial Approach. New York: Prentice hall Inc.
3. Bucher, C. A. (1983). Administration of Physical Education and Athletic programme.St.
4. Lolis: The C.V. Hosby Co.
5. Kozman, H.C. Cassidly, R. & Jackson, C. (1960).Methods in Physical Education. London:W.B. Saunders Co.
6. Pandy, L.K. (1977). Methods in Physical Education.Delhe: Metropolitan Book Depo. Sharma, V.M. & Tiwari, R.H.: (1979). Teaching Methods in Physical Education. Amaravati: Shakti Publication.
7. Thomas, J.P.(1967). Organization & administration of Physical Education. Madras:
8. Gyanodayal Press.
9. Tirunarayanan, C. &Hariharan, S. (1969). Methods in Physical Education. Karaikudi: South
10. India Press.
11. Voltmer, E. F. &Esslinger, A. A. (1979).The organization and administration of Physical
12. Education. New York: Prentice Hall Inc.

BPDE-104- (a) - ADAPTED PHYSICAL EDUCATION (Elective)

COURSE OBJECTIVE:

- Emphasize the purpose and goals of adapted physical education
- Explore the different classification of disability
- Teach the classification of activities according to the disabilities and ground marking.
- To know the various competitions.
- To teach the rules of adopted games and class management

COURSE CONTENT:

Unit-1: Introduction to adapted Physical Education.

- Meaning of the term Adapted Physical Education
- Purpose and goals of adapted Physical Education.
- Movement Educational concept.

Unit-II: Classification of Disability

- Disability
- Differentially able classification and sub classification in each disability.
- Blind, Deaf and Dumb,
- Orthothopaedical disability,
- Mentally Challenged-
- Autism-Cereboralpalsy.

Unit-III: Adaptation of Motor Activities

- Principles for adaptation of motor activities-
- Classification of activities according to the disabilities
- Equipments and ground marking

- Equipments for personal and group activities
- Rules.

Unit-IV: Classification Structure

- International Competition
- Classification structure
- Dark Olympics- Silent Olympics
- Paralytic Olympics -Special Olympics.

Unit –V: Rules of Adapted Games

- Rules of adapted games and class management
- Adapted Physical Education for Blind Volleyball
- Adapted Kabaddi
- Adapted Track and Field Events
- Teaching methods to be adapted by Special Educator in Sports

COURSE OUTCOME:

After completing the course, the learner will be able to:

- Understand the movement educational concept and objectives of adapted physical education
- Know the Differentially able classification and sub classification in each disability
- Understand the Principles for adaptation of motor activities, activities according to the disabilities
- Know about the international competitions for disables.
- Understand rules of adopted games, class management and teaching methods

REFERENCE:

1.Barrow, H.M., & McGee, R. A Practical Approach to Measurement in Physical Education, Philadelphia, Lea and Febiger, 1964.

2.Camphell, W.R., and Tucker, N.M. An Introduction to Physical Education, London G,Bell and S'ons Ltd., 1967.

3. Jamitra S. Physical Education for Blind, Grace Printers, Chennai-1990.

4. Oxzendine, J.B. Psychology of Motor Learning, Prentice hall, Engle Wood, New Jersey.

BPDE-104-B - YOGA EDUCATION [Elective]

COURSE OBJECTIVE:

- Describe the concept of holistic personality from yogic point of view and the objectives of yoga
- Relate various yogic practices with different dimensions of personality
- To teach the classification of asanas with reference to physical education and sports
- Acquire knowledge about Bandhas, Mudras and Kriyas and its various types
- Develop understanding about the basic, applied and action research in yoga.

COURSE CONTENT:

Unit - I: Introduction

- Meaning and Definition of Yoga
- Aims and Objectives of Yoga
- Yoga in Early Upanishads
- The Yoga Sutra: General Consideration
- Need and Importance of Yoga in Physical Education and Sports

Unit - II: Foundation of Yoga

- The Astanga Yoga: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi.
- Yoga in the Bhagavadgita - Karma Yoga, Raja Yoga, Jnana Yoga and Bhakti Yoga

Unit –III :Asanas

- Effect of Asanas and Pranayama on various system of the body
- Classification of asanas with special reference to physical education and sports

Unit –IV :Bandhas, Mudras and Kriyas

- Influences of relaxative, meditative posture on various systems of the body
- Types of Bandhas and mudras
- Type of kriyas

Unit - V :Yoga Education

- Basic, applied and action research in Yoga
- Differences between Yogic practices and physical exercises
- Yoga education centers in India and abroad
- Competitions in Yogasanas

COURSE OUTCOME:

After completing the course, the learner will be able to:

- Understand the need and importance of yoga in physical education and sports
- Adopt different types of yogic practices to develop the personality
- Know the effect of yogic practices on various systems of the body
- Familiar with the meditative posture on various system of the body
- Identify the difference between yogic practices and physical exercises.

REFERENCES:

1. Sharma, S. K. (2010). Yoga. New Delhi: Sports

2. Yadav, Y. P. & Yadav, R. (2003). Art of yoga. New Delhi: Friends

3. Sharma, J. P. (2010). Teaching of yoga. New Delhi: Friends

4. Gore, C.S. (2011), Yoga and Health, New Delhi: Sports

THEORY PAPER

SEMESTER - II

BPDC-201 PRINCIPLES AND FOUNDATION OF PHYSICAL EDUCATION

COURSE OBJECTIVE:

- Emphasize the aims and objectives of physical education
- Understand the nature of physical education as a discipline/an area of study
- Examine critically about psychology and sports psychology and its relation to other sciences
- Teach the classifications of personality.
- To make understand the philosophies of physical education, individual differences and classification of body types.
- To teach the biological foundations of physical education
- Develop knowledge regarding theories of learning, types of learning and learning curve

COURSE CONTENT:

Unit – I : Introduction – Principles of Physical Education

Introduction - Meaning of the term Principle - Sources of principles of physical Education- Definition - Aim and objjectives of education and Physical Education- Physical Culture – Physical Training- Theories of play

Unit – II : Sociological and Psychological Foundations

Sociological Foundations- Meaning and Definition of Socialization - Socialization through Physical Education - Introduction - Meaning and defintion of Psychology and Sports Psychology - its scope - relation to other sciences - personality - types of personality - Intelligence - I.Q. Individual differences - Feeble minded Morons - imbeciles and idiots. Instincts and emotion.

Unit – III : Philosophies of Physical Education

Philosophies of Physical Education - Idealism, Realism, Pragmatism, Naturalism and Existentialism - Biological Foundations of Physical Education Hereditary traits - Muscle Tone - Athletic Heart - Unsynchronized development - Reciprocal innervation - Differences between boys and girls during the period of adolescence - Somato type classification according to Sheldon and Kretschmer

UNIT- IV : Biological Foundations:

Biological foundations of physical education - Hereditary traits - Muscle tone -Athletic heart- Unsynchronised development - Reciprocal innervations-Reflex arc - Vital capacity. Growth and Development at various Levels of Childhood: Pre - Adolescence –Adolescence – Adulthood. Differences in boys and girls. Chronological Age-Physiological Age and Mental Age. Classification of body types: Sheldon – Krestchmer.

UNIT-V: Learning – Theories and Types

Learning: Meaning and Definition – Theories of Learning :Trial and Error theory, Conditioned Response theory, Insightful Learning. Laws of Learning: Law of readiness, Law of

use and disuse, Law of effect, Law of Recency, Law of Frequency. Types of Learning : Primary, Associate, Concomitant; Transfer of Learning – Learning Curve .

COURSE OUTCOME:

After completing the course, the learner will be able to:

- Understand the basic concepts/issues of education and physical education
- Understands different approaches in pedagogy of education and apply suitable pedagogy for teaching.
- Understand the philosophies and biological foundations of physical education
- Develop different dimensions of personality
- Improve the learning process

Reference:

1. Bucher A. Charles. (1983). Foundations of Physical Education. St. Louis:Mosbyco.
2. Charles A. Bucher. (1982). Foundations of Physical Education. USA: The C.V. Mosby company.
3. Karl W. Bookwalter. (1969). Foundations and Principles of Physical Education. London: W.B. Saunders Company.

BPDC-202 HEALTH EDUCATION & ENVIRONMENT STUDIES

COURSE OBJECTIVE:

- Familiarize terminologies and concepts of the field of health education as an academic discipline.
- Conceptualize the vital significance of the concept, importance, scope and aims of environmental education
- Enable the students to develop Health Service and Guidance instruction in Personal hygiene
- Acquaint the prospective teacher educator, the need for addressing various issues of natural resources.

COURSE CONTENT:

Unit - I : Health Education

Concept, Dimensions, Spectrum and Determinants of Health Definition of Health, Health Education, Health Instruction, Health Supervision Aim, objective and Principles of Health Education Health Service and guidance instructions in personal hygiene.

Unit –II: Health Problems in India

Communicable and Non Communicable Diseases - Obesity, Malnutrition, Adulteration in food, Environmental sanitation, Explosive Population.

Unit – III: School Health Problem

Personal and Environmental Hygiene for schools - Objectives of school health services, Role of health education in schools Health Services - Care of skin, Nails, Eye health services, Nutritional services, Health appraisal, Health record, Healthful school environment, first- aid and emergency care etc.

Unit – IV: Environmental Science

Definition, Scope, Need and Importance of environmental studies. Concept of environmental education, Historical background of environmental education, Celebration of various days in relation with environment. Plastic recycling & probation of plastic bag / cover. Role of school in environmental conservation and sustainable development.

Unit – V: Natural Resources and related environmental issues

Water resources, food resources and Land resources Definition, effects and control measures of Air Pollution, Water Pollution, Soil Pollution, Noise Pollution, Thermal Pollution Management of environment and Govt. policies, Role of pollution control board.

COURSE OUTCOME:

After completing the course, the learner will be able to:

- Understand about spectrum and determinants of health, health education, health instruction, health supervision
- Recognize the objectives of School Health Service, Role of Health Education in schools
- Propagate values of education for sustainable environmental development
- Know the system of waste management at house hold level
- Identify and appraise the environmental hazards in terms of habitat destruction caused by human interference and as a follow up conduct class room discussion on the remedies

REFERENCES:

1. Pande, P. K. &Gangopadhyay, S. R. (2005). Health education for school children, New Delhi: Friends
2. Srivastava, A. K. (2010). Health and fitness. New Delhi: Sports
3. Dheer, S., Kamal, R. &Basu, M. (2005). Introduction to health education. New Delhi: Friends
4. Mishra, S. C. (2009). Health and physical education. New Delhi: Sports
5. Raman, B. M. T. (2010), Health Exercise and Fitness, New Delhi: Sports
6. K.Park (2015), Textbook of Preventive and Social Medicine: BanarsidasBhanot

BPDC- 203. RULES OF GAMES AND SPORTS- I

[Volleyball / Handball / Badminton / Softball /Cricket / Basketball and Athletics]

COURSE OBJECTIVE:

- Enable the students to understand the planning, construction and marking of standard and non-standard track
- Teach the method of marking throwing sectors, jumping events runway and landing area.
- To make understand the computation of RDR, stagger and diagonal excess distance.
- To teach the rules of track and field events and their interpretations
- To acquire knowledge regarding marking, rules of games and their interpretations

COURSE CONTENT:

UNIT – I:

Planning, Construction and Marking of Non-Standard Track – Arc start – Double arc start – Computation of R.D.R – Stagger distance and Diagonal Excess – Marking of Shotput and Discus throwing sector – Long Jump and High Jump, Runway and Landing area.

UNIT – II:

Rules and their Interpretations of Track Events (Sprint, Middle and Long Distances) – Field Events (Shotput – Discus throw – Long Jump and High Jump) - Officials and their duties for Track and field Events

UNIT – III:

Qualification and qualities of an official – General Principles of Officiating – Mechanism of Officiating: Volleyball, Handball, Badminton, Softball, Basketball and Cricket- Duties and powers of officials.

UNIT – IV:

Measurement and markings of the following games: Volleyball, Handball, Badminton, Softball and Cricket

UNIT – V:

Rules of the following games and their Interpretation: Volleyball, Handball, Badminton, Soft-ball and Cricket

COURSE OUTCOME:

After completing the course, the learner will be able to:

- Gain knowledge regarding the layout of athletic track and marking of various throwing sectors, runway and landing areas
- Familiar with the rules of track and field events and their interpretations
- Understand the rules of various games and their interpretations
- Become a qualified official in athletics and also in major games by acquiring depth knowledge in these sports and games
- Attend any type of interview with confidence borne out of knowledge gained.

REFERENCE BOOKS:

1. George Immanuel, "Track and Field event layout and Marking".
2. AAFI Rules Book.
3. R.L. Anand, Play Field Manual Patiala: "NIS Publication", 1990.
4. H.C. Buck, Rules of Games and Sports, Madras: YMCA Publications, 1992.
5. Bunn, J. W. The Art of officiating Sports, Prentice Hall, Englewood Cliff. M.J. 1951.

BPDE- 204. (a) FITNESS AND WELLNESS (Elective Paper)

COURSE OBJECTIVE:

- Learn about the issues about the issues in curriculum, teaching and learning process
- Conceptualize the vital significance of fitness and wellness
- Enable the students to understand the physical education and its relevance in inter disciplinary context
- Acquire knowledge regarding fitness and prevention and management of hypo kinetic diseases.
- Teach the students the scope, concept and components of wellness
- Make understand the concept of designing different fitness training programmes

COURSE CONTENT:

Unit- I: Issues in physical education

Issues in curriculum - Issue in teaching learning (Approaches in teaching games, Formal and informal model of assessment in Physical Education) - Issues related to teaching aids - Issues encountered by Physical education teachers.

Unit- II: Concept of Physical Education and Fitness

Definition ,aims , and objectives of physical education, fitness and wellness - Importance and scope of fitness and wellness -Modern concept of physical fitness and wellness - Physical Education and its relevance in inter disciplinary context

Unit-III: Fitness and Lifestyle

Fitness-types of fitness and components of fitness - Understanding of fitness - Modern lifestyle and hypo kinetic disease-prevention and management - Physical activity and health benefits

Unit-IV: Wellness and Lifestyle

Meaning, Definition and Scope of wellness - Concept and Components of wellness - Dietary guidelines of good health- health promotion and diseases prevention- Nutrition - Issues related to body image, stress management, mental health, and wellness throughout life- healthy aging.

Unit-V: Principle of Exercise Program

Means of fitness development-aerobic and anaerobic exercise - Exercise and heart rate zones of various aerobic exercise intensities - Concept of free weight Vs machine, sets, and repetition etc - Concept of designing different fitness training program for different age group

COURSE OUTCOME:

After completing the course, the learner will be able to:

- Develop the approaches, methods and forms involved in curriculum evaluation
- Understand the role of assessment in the teaching and learning process

- Get acquainted with the new challenges
- Relate the underlying science of wellness and disease to opportunities for promoting and protecting health across the life course.
- Identify the socio-economic, behavioral, biological, environmental, and other factors that impact physical fitness and contribute to health disparities.
- Apply the principles of training and maintain a physical fitness.

REFERENCE:

1. Difiore,J.(1998). Complete guide to Postnatal Fitness. London: A & C Black,.
2. Giam, C.K & The, K.C. (1994). Sport Medicine Exercise and Fitness Singapore: P.G. Mcglynn, G., (1993).
3. Dynamics of Fitness Madison: W.C.B Brown. Medical Book Sharkey, B.J. (1990). Physiology of Fitness, Human Kinetics Book

BPDE- 204. (b) GUIDANCE AND COUNSELING (Elective Paper)

COURSE OBJECTIVE:

- Promote the knowledge of historical perspective, meaning and scope of guidance and counseling
- Identify the major areas required for guidance and counseling
- Enable the students to understand the characteristics of guidance
- Teach the students the nature of counseling
- To gain a knowledge about guidance movement and various agencies of guidance

COURSE CONTENT:

Unit-I - Guidance

- A Brief Historical perspective
- Guidance Programme in India and meaning of the term Guidance
- Need for guidance in changing society
- Scope of Guidance.

Unit-II - Major Areas of Guidance

- Educational Guidance,
- Vocational Guidance, Personal-Social Guidance.
- Aims and objectives of Guidance in the above areas
- Contributions of Rousseau, Pestalozzi, Froebel and Dewey to Guidance.

Unit-III - Characteristics of Guidance.

- Guidance as process.
- Guidance services.
- Objectives of Guidance at primary, secondary and college levels of education

Unit-IV- Meaning and nature of counseling.

- Counseling services or approaches.
- Personality of Counselor
- Tools and techniques of Guidance and Counseling.
- Guidance of the exceptional (gifted, personality deviate, under achievers etc,).

UNIT V - Guidance movement

- The inter-disciplinary Basis of Guidance.
- Aims and objectives of Guidance.
- Agencies of Guidance.

COURSE OUTCOME:

After completing the course, the learner will be able to:

- Understand the need for guidance in changing society
- Get acquainted with the major areas required for guidance
- Know the objectives of guidance at primary, secondary and college level of education
- Identify the tools and techniques of guidance and counseling
- Understand the need of inter-disciplinary basis of guidance and counseling.

REFERENCES:

1. Agarwal, J.C. Educational and Vocational Guidance and Counseling. New Delhi: Doba House, 1977.
2. Kochhar, S.K. Educational and Vocational Guidance in Secondary Schools. New Delhi: Sterling Publisher Pvt. Ltd, 1976.
3. Kaur, Surjith. Foundation of Counseling and Guidance. New Delhi: Sterling Publishers Pvt. Ltd, 1971.

B.P.Ed THEORY PAPER

SEMESTER – III

BPDC-301. SPORTS TRAINING

BPDC-301- SPORTS TRAINING

Course Objectives

1. Understand the scientific principles of sports training.
2. Fix and adopt the training load
3. Prepare the sports person for the competition

Course Content:

UNIT- I

Sports Training: Meaning, Definition, Characteristics and Principles – Training Load: External and Internal Load - Principles of Training Load – Overload: Symptoms and Tackling – Periodization : Types, Aims and Content of Various Periods – Preparatory, Competition and Transition – Plan : Short term and Long term

UNIT- II

Warming Up: Definition – Types – Importance of Warming Up – Types of Sports Training and their Purpose: Weight Training (Free Weight and Machine

Weights) – Circuit Training – Interval Training – Plyometric Training - Fartlek Training – Swiss Ball Training – Medicine Ball Training – Cross Training.

UNIT- III

Strength - Definition of strength - Types of Strength: Maximum strength, explosive strength, strength endurance, general strength, specific strength, relative strength. Importance of strength- Factors determining strength- Training method for strength improvement - Loading procedure for strength training.

UNIT- IV

Speed - Definition of speed - Forms of speed, reaction speed, movement speed, acceleration ability, loco-motor ability. Speed endurance - Factors determining speed performance - Training methods for increasing speed.

UNIT- V

Endurance: Definition – Types – Importance – Training Methods for improving Endurance – Coordinative Abilities: Definition – Types and Training Methods for Improving Coordinative Abilities – Flexibility : Definition – Types - Methods for Improving Flexibility

Course Outcome:

After completing the course, the learner will be able to:

1. Understand training as performance based science
2. Know different means and methods of various training
3. Prepare training schedule for various sports and games
4. Appraise types of periodization for performance development
5. Create various training facilities and plans for novice to advance performers

REFERENCE BOOKS:-

1. Anand, R.L (1987) Play Field Manual, Patiala : NIS Publication.
2. Arnheim, D., & William, E Prentice. (1991). Principles of Athletic Training. St.Louis: Mosby Year Book.
3. Arnheim D., & William E Prentice. (1978). Athletic Training. St. Louis: Mosby Year Book.
4. Authors Guide (2014) IAAF Competition Rules 2014-2015, Monaco Cedex: IAAF Publishing .
5. Authors Guide (2002) Rules of Games and Sports, New Delhi : YMCA Publishing House
6. Bonder, J.B (1984). How to be a Successful Coach. New York: Prentice Hall, Inc.
7. Breshahan, Tuttle., & Cretzmeyer. (1997). Track and Field Athletics. New Jersey: Prentice Hall, Inc.
8. Bunn, J. W (1951) The Art of Officiating Sports, Englewood Cliff.: Prentice Hall,
9. Cart E.Klafs., &D Arnheim. (2000) Modern Principles of Athletic Training St.Louis: C. V. Mosphy Company.

10. Gangopaddhayoy, S. R. (2008). Encyclopedia of Sports Training. New Delhi: Sport Publication.
11. Thomas, J.P. (1982). Let us Coach Soccer. New Delhi: The YMCA Publishing House.

BPDC- 302 - EDUCATIONAL TECHNOLOGY AND COMPUTER APPLICATION IN PHYSICAL EDUCATION

Course Objectives

1. To know the necessity of educational technology and computer application in physical education
2. Helps to improves the computer assisted works in sports
3. Able to use the applications of computer in sports

Course Content:

UNIT - I Introduction to Educational Technology

Education and Educational Technology- Meaning and Definitions - Types of Education- Formal, Informal and Non- Formal education- Educative Process - Importance of Devices and Methods of Teaching. Teaching aids- Audio aids, Visual aids, Audio- Visual Aids, Verbal, Chalk board, Charts, Model, Slide projector, Motion picture etc

UNIT - II Teaching Technique

Teaching Technique - Lecture method, Command method, Demonstration method - Imitation method, project method, etc. - Teaching Procedure - Whole method, whole - part - whole method, part – whole method - Presentation Technique - Personal and technical preparation - Micro Teaching - Meaning, Types and steps of micro teaching - Simulation Teaching - Meaning, Types and steps of simulation teaching.

UNIT - 3 Introduction to Computer

Meaning, need and importance of Information and Communication Technology (ICT). Application of Computers in Physical Education-Components of Computer, Input and Output devices – Hardware and Software - Application software used in Physical Education and Sports.

UNIT - 4 MS Word & MS Excel

Introduction to ***MS Word*** - Creating, Saving and Opening a Document - Formatting and Editing features, Page setup, Paragraph Alignment, Spelling and grammar check, Printing option, Inserting Tables, Page number, Header and Footer. Introduction to ***MS Excel***- Creating, Saving and Opening Spreadsheet - Creating Formulas and Functions - Format and Editing features adjusting columns width and row height - understanding charts.

UNIT - 5 MS Power Point and Internet

Introduction to MS Power Point - Creating, saving and opening a ppt. file - Format and editing features slide show, design, inserting slide number- Picture, graph, table. Network – Types of Network: LAN, MAN, WAN. Internet - World Wide Web (www). Browsing, search engines, Electronic mail.

Note:

Practical: As per the topic mentioned above the concerned faculty will give them practical exposer as well as practical assignment and this will be evaluated as an integral part of the internal assessment.

Course Outcome:

After completing the course, the learner will be able to

1. Understand concept of educational technology and computer application in physical education field
2. Analyze sporting data of various types via astute use of statistical packages.
3. Practice mathematics, statistics, information technology in sport technology related problems.
4. Offer hands on knowledge in computer application and educational technology

REFERENCE BOOKS:-

1. Michael Miller. Absolute Beginner's Guide to Computer Basics, Portable Documents: Pearson Education
2. Rajaraman. Fundamentals of Computers: Prentice-Hall of India Pvt. Limited
3. Psrija M. Computer Education: Introduction, Lakshya Publication, New Delhi.
4. Jayachitra M. Computer Application in Physical Education, Friends Publication, New Delhi.
5. Kumar S. Computer Application in Physical Education, Nipun Prakashan, New Delhi.
6. Bhatia,& Bhatia,(1959). The Principles and Methods of Teaching. New Delhi: Doaba House.
7. Sampath, K.,Pannirselvam, A. & Santhanam, S. (1981) Introduction to Educational Technology. New Delhi: Sterling Publishers Pvt. Ltd.

BPDC- 303. SPORTS PSYCHOLOGY AND SOCIOLOGY

Course Objectives

1. To know and to understand the sportsmen behaviour.
2. To know the various psychological factors affecting sport performance.
3. To know the relationship of the sports person with society in various sports settings.

UNIT- I

Meaning, Definition, Need and Importance of Sports Psychology. Motor Learning: Basic Considerations in Motor Learning – Motor Perception - Factors Affecting Perception – Perceptual Mechanism. Intelligent Quotient.

UNIT- II

Personality: Meaning, Definition, Structure, Types, Effects of Personality on Sports Performance. Motivation: Meaning and Definition, Types of Motivation: Intrinsic, Extrinsic. Achievement Motivation. Theories and Dynamic of Motivation in sports.

UNIT- III

Anxiety: Meaning and Definition, Nature, Causes, Competitive Anxiety and Sports Performance. Stress: Meaning and Definition, Causes. Stress and Sports Performance. Aggression: Meaning and Definition, Aggression and Sports Performance. Self Concept: Meaning and Definition

UNIT- IV

Sports Sociology: Meaning and Definition – Sports and Socialization of Individual, Sports as Social Institution. National Integration through Sports. Fans and Spectators: Meaning and definition, Advantages and disadvantages of Sports Performance. Leadership: Meaning, Definition, types. Leadership and Sports Performance.

UNIT- V

Group: Meaning and Definition, Group Size, Groups on Composition, Group Cohesion, Group Interaction, Group Dynamics. Current Problems in Sports and Future Directions – Sports Social Crisis Management - Women in Sports: Sports Women in our Society, Participation pattern among Women, Gender inequalities in Sports.

Course Outcome:

After completing the course, the learner will be able to

1. Explain group mechanisms and group psychology in a sports context
2. Reflect upon motivational psychology as applied to sports activities
3. Formulate relevant constructs of exercise psychology
4. Demonstrate the ability to discuss sociological theories, concepts, and ideas in large and small groups and to express empirically as well as theoretically-based opinions.
5. To apply core sociological theories to specific social problems in order to analyze social problems.

REFERENCE BOOKS:-

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

1. Jay Coakley. (2001). Sports in Society - Issues and Controversies in International Education, Mc-Craw Seventh Ed.
2. John D Lauther (2000) Psychology of Coaching. Ner Jersy: Prenticce Hall Inc.
3. Jain. (2002), Sports Sociology, Heal Sahety Kendre Publishers.
4. John D.Lauther (1998) Sports Psychology. Englewood, Prentice Hall Inc.
5. Miroslaw Vauks & Bryant Cratty (1999) . Psychology and the Superior Athlete. London: The Macmillan Co.
6. Richard, J. Crisp. (2000). Essential Social Psychology. Sage Publications.
7. Robert N. Singer(2001). Motor Learning and Human Performance. New York: The Macmillan Co.
8. Robert N. Singer. (1989) The Psychology Domain Movement Behaviour. Philadelphia: Lea and Febiger.
9. Thelma Horn. (2002). Advances in Sports Psychology. Human Kinetic.
10. Whiting, K, Karman.,. Hendry L.B & Jones M.G..(1999) Personality and Performance in Physical Education and Sports. London: Hendry Kimpton Publishers.

ELECTIVE PAPER

BPDE- 304. (a). PROFESSIONAL PREPARATION AND CURRICULUM DESIGN

Course Objectives

1. To identify the role of the teacher in curriculum development.
2. To know about the various steps in curriculum construction.
3. To identify important issues and future trends in the field of curriculum design
4. Understand curriculum according to the needs of the students
5. Construct the curriculum for various levels
6. Update the present need which is mandatory

UNIT-I

Need and importance of curriculum, need and importance of curriculum development, the role of the teacher in curriculum development.- Factors affecting curriculum- social factors - personal qualifications - climatic consideration - equipment and facilities - time suitability of hours. National and professional policies, research findings

UNIT-II

Focalization - Socialization - Individualization - Sequence and operation - Steps in curriculum construction.

UNIT-III

Basic principles of curriculum construction - Curriculum design, meaning, importance and factors affecting curriculum design- Principles of curriculum design according to the needs of the students and state and national - level policies - Role of

teachers

UNIT-IV

Areas of health education, Physical Education and recreation - Curriculum design - experience of education, field and laboratory - Teaching practice - Professional competencies to be developed - facilities and special resources for library, laboratory and other facilities.

UNIT-V

Multimodal curriculum - Instructional models - Establishing a safe environment-Class management-Effective teaching behaviour - Instructional strategies

Course Outcome:

After completing the course, the learner will be able to

1. Know the need and importance of curriculum and the factors affecting curriculum.
2. Understand the principles of curriculum design according to the needs of the students.
3. Introduce the teaching and curriculum objectives and course module design
4. Analyze the planning strategies, teaching, learning and assessment
5. Develop strategies to promote quality learning, practice marking and consider methods of course and self-evaluation
6. Evaluating learning intentions and the process that is guided through explicit and manageable criteria

REFERENCE BOOKS:-

1. Barrow,H.M. (1983). Man and Movement: Principles of Physical Education. Philadelphia: Lea and Febiger.
2. Bucher, C. A. (1986). Foundation of Physical Education: St. Louis: The C. V. Mosby & „
   Cassidy, R. (1986). Curriculum Development in Physical Education. New York: Harper & Company.
3. Cowell, C.C & Hazelton, H.W. (1965). Curriculum Designs in Physical Education. Englewood Cliffs: N.J. prentice Hall Inc.
4. Larson, L.A. (1983)Curriculum Foundation in Physical Education. Englewood Cliffs: N.J. prentice Hall Inc.
5. Underwood, G.L. (1983), The Physical Education Curriculum in Secondary School: Planning and implementation. England: Taylor and Francis Ltd.
6. Willgoose, C.E. (1979). Curriculum in Physical Education. 3rd Ed. Englewood Cliffs.: N.J. Prentice Hall, Inc.

ELECTIVE PAPER

BPDE- 304. (b). SPORTS MEDICINE PHYSIOTHERAPY AND REHABILITATION

Course Objectives

1. By learning the subject the students will be aware of the various injuries in sports.

2. Know the importance of physiotherapy

2. The students after learning will gain knowledge about the treatment of various injuries in sports.

3. After completion of this subject the students will learn how to give rehabilitation.

4. This subject will also make the student learn about prevention of injuries.

UNIT-I:

Sports Medicine: Meaning, Definition, Aims, Objectives, Modern Concepts and Importance. Athletes Care and Rehabilitation: Contribution of Physical Education Teachers and Coaches. Sports Injuries: Meaning, Importance, Prevention of injuries in sports – Common sports injuries- Diagnosis.

UNIT-II:

Physiotherapy: Definition- Guiding Principles of Physiotherapy, Importance of Physiotherapy, Introduction and Demonstration of Treatments- Electrotherapy – Infrared rays – Ultraviolet Rays- Short Wave Diathermy- Ultrasonic rays.

UNIT-III:

Hydrotherapy: Introduction and demonstration of treatments of cry therapy, Thermo therapy. Contrast Bath, Whirlpool Bath – Steam Bath – Sauna Bath – Hot Water Fomentation – Massage: History of Massage – Classification of Manipulation (Swedish System) physiological Effect of Massage.

UNIT-IV:

Therapeutic Exercise: Definition and Scope – Principles of Therapeutic Exercise – Classification, Effects and uses of Therapeutic exercise – passive Movements (Relaxed, Forces and passive- stretching) – active movements (concentric, eccentric and static) application of the therapeutic exercise: Free Mobility Exercise – Sholuder, Elbow – Wrist and Finger Joints- Hips, Knee, Ankle and Foot joints – Trunk, Head and Neck Exercises.

UNIT-V:

Thermotherapy: Meaning, Definition, Methods and Uses. Posture, Postural Deformities: Kyposis, Lordosis, and Scoliosis. Therapeutic Exercises and Uses. First Aid- Treatment – Shock, Sun Stroke- General Rule, Fainting, Abrasion, Dog Bite, Snake Bite, Cuts, Poisoning, Drowning, Bleeding, Laceration- Blisters – Contusion- Strain – Sprain – Fracture- Dislocation and Cramps – Bandages- kinds of Bandages and Dressings- trapping and supports.

Course Outcome:

After completing the course, the learner will be able to

1. Understand the primary responsibilities the sports trainer has in preventing sports injuries and providing initial care for injured athletes.
2. Realize the physiological effect of massage.
2. Demonstrate the basics of sport first aid during and after game situation.
3. Recognize and appropriately treat common sports injuries and conditions from onset through rehabilitation.
4. Identify and apply knowledge of anatomy to the design and execution of research studies.

REFERENCE BOOKS:-

1. Christrine, M.D., (1999), Physiology of sports and exercise. USA: Human Kinetics.
2. Conley, M.(2000), Bioenergetics of Exercise training. In T.R. Baechie, & R.W.Earle, (Eds).
3. Essentials of Strength Training and Conditioning(pp. 73-90). Champaign. IL: Human Kinetics.
4. David, R.M. (2005), Drugs in sports, (4th Ed). Routledge Taylor and Francis Group.
5. Hunter, M.D.(1979). A dictionary for Physical educators. In H.M. Borrow & R. Mc Gee, (Eds.), A Practical approach to measurement in Physical Education (pp:573-74). Philadelphia: Lea & Febiger.

B.P.Ed THEORY PAPER

SEMESTER – IV

BPDC-401. MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

Course Objectives

1. Administer a variety of tests as they apply to physical education, health and fitness.
2. Analyze and evaluate various fitness movements
3. Conduct the research study through test and measurement

UNIT-I

Meaning and Definition of Test, Measurement and Evaluation. Need and Importance of Test and Measurement in Physical Education

UNIT-II

Criteria and Administration Of test: Criteria of Test: Scientific Authenticity – Reliability, Objectivity, Validity, Availability of Norms, Administrative Feasibility and Education Application. Administration of Test :Duties of Advance Preparation – Duties during testing – Duties after testing

UNIT-III

Physical Fitness Test : AAPHERD Health Related Fitness Battery (Revised in 1984) – Roger's Physical Fitness Index. Cardio Vascular Test: Harvard Step Test, 12 Minutes Run /Walk Test, Multi Stage Fitness Test (Beep Test). Motor Fitness: Indiana Motor Fitness Test (for elementary and high school boys, girls and college men), JCR Test. SDAT World Beaters Battery Test for High School Boys and Girls.

UNIT-IV

Sports Skill Test: Badminton: Miller Wall Volley Test – French Short Service Test, Basketball: Johnson Basketball Test – Leilich Basketball Test, Hockey: Firedal Field Hockey Test, Schimithal French Field Hockey Test.

UNIT-V

Sports Skill Test: Football: Johnson Soccer Test – McDonald Soccer Test. Tennis: Dyer Tennis Test, Volleyball: Brady Volleyball Test – Rusel Lange Volleyball Test.

Course Outcome:

1. Understand the test, measurement and evaluation in physical education, health and fitness.
2. Know about the different types of test for different sports and games.
3. Apply the tests in minor research areas.
4. Analyze the performance and movements in the field of sports.
5. Evaluate the battery test and others tests prescribed by the government efficiently.

REFERENCE BOOKS:-

1. Barrow, H.M.. and McGee, R.,A (1964.) Practical Approach to Measurement in Physical Education, Lea and Febiger, Philadelphia.
2. Bovard, J.F., Cozens, F., W. and Hagman, P.E.(1949)Test and Measurements in Physical Education, W.B. Sunders Company, Philadelphia.
3. Campbell, W.R. and Tucker, N.M. (1967)An Introduction in Physical Education, G.Bell and Sons Ltd., London.
4. Cureton, T.K. (1947)Physical Fitness Appraisal and Guidance, The C.Mosby Company, St.Louis .
5. Getchell B. Physical Fitness (1979): A Way of Life, 2nd ed. New York: John Wiley and Sons, Inc.
6. Hunsicker, P.A. and Montoye, H.J. (1953) Applied Test and Measurements in Physical Education, Prentice Hall Inc., New York.
7. Luc Leger (1983), Testing Physical Fitness, Eurofit Experimental Battery Provisional Handbook, Strasbourg: UK
8. Meyers, C.R. and Belsh, E.T. (1962) Measurement in physical Education, The Ronald press Company. New York. Sports,New Delhi: Friends Publications.
9. Wilgoose, C.E (1967) Evaluation in Health Education and physical Education, McGraw Hill Book Company, Inc, New York.

BPDC- 402. KINESIOLOGY AND BIOMECHANICS

Course Objectives

1. Know the scientific principles of body movements
2. Know the mechanical analysis of sports
3. Know the importance of kinesiology and biomechanics to Physical Education teacher, athletes and coaches.

UNIT-I

Introduction to Kinesiology and Sports Biomechanics: Meaning and Definition of Kinesiology and Sports Biomechanics. Importance of Kinesiology and Sports Biomechanics to Physical Education Teacher, Athletes and Sports Coaches. Terminology of Fundamental Movements. Fundamental concepts of following terms: Axes and Planes, Centre of Gravity, Equilibrium, Line of Gravity

UNIT-II

Fundamental Concept of Anatomy and Physiology: Joints and Muscles, Types of Muscle Contractions. Posture: Meaning, Types and Importance of good posture. Fundamental concepts of following terms: Angle of Pull, All or None Law, Reciprocal Innervations.

UNIT-III

Mechanical Concepts: Force - Meaning, definition, types and its application to sports activities. Lever - Meaning, definition, types and its application to human body. Newton's Laws of Motion – Meaning, definition and its application to sports activities. Projectile – Factors influencing projectile trajectory.

UNIT-IV

Kinematics and Kinetics of Human Movement: Linear Kinematics – Distance and Displacement, speed and velocity, Acceleration Angular kinematics – Angular Distance and Displacement, Angular Speed and velocity, Angular Acceleration. Linear Kinetics – Inertia, Mass, Momentum, Friction. Angular Kinetics – Moment of inertia ,Couple, Stability.

UNIT-V

Biomechanical Analysis: Biomechanical Analysis of following Track and Field Events: Running, Horizontal and Vertical Jumping, Throwing Events Biomechanical Analysis of Skill of Major Games.

Course Outcome:

1. Identify biomechanical, health, physiological, and psychological limitations to and interventions for improving physical performance.
2. Analyze and explain the mechanisms underlying biomechanical, physiological, and psychological changes that occur during after acute and chronic exercise.
3. Develop physical conditioning programs based on scientific principles designed to develop physical fitness and improve athletic performance.
4. Understand mechanical principles can be applied to the analysis of human movement to assess and improve performance and reduce risk of injury.
5. Know effectiveness of human movement using mechanical principles.

REFERENCE BOOKS:-

1. Bunn, J. W. (1972).*Scientific principles of coaching.* Englewood Cliffs, N.J.: Prentice Hall Inc.
2. Hay, J. G. & Reid, J. G.(1982).*The anatomical and mechanical basis of human motion.*Englewood Cliffs, N.J.: Prentice Hall Inc.
3. Hay, J. G. & Reid, J. G.(1988).*Anatomy, mechanics and human motion.* Englewood Cliffs,N.J.: prentice Hall Inc.
4. Hay, J. G. (1970).*The biomechanics of sports techniques*. Englewood Cliffs, N.J.: Prentice Hall, Inc.

5. Simonian, C.(1911).*Fundamentals of sport biomechanics.* Englewood Cliffs, N.J.: Prentice Hall Inc.

BPDC 403. RULES OF GAMES AND SPORTS- II

[Hockey/Football/Kho-Kho/Kabaddi/Ballbadminton and Athletics]

Course Objective:

- Enable the students to understand the marking of hurdles and relay races
- Teach the method of marking throwing sectors, jumping events runway and landing area.
- To make understand the computation of hurdles and relay stagger distances.
- To teach the rules of track and field events and their interpretations
- To acquire knowledge regarding marking, rules of games and their interpretations

UNIT-I

Specifications and Markings of Hurdles – Relay Races – Triple Jump – Pole Vault and throwing Hammer- Duties and Responsibilities of the Officials

UNIT-II

Rules and their interpretations of Hurdle Races, Relay Races – Triple Jump – Pole Vault – Throwing the Hammer.

UNIT-III

Qualification and qualities of an official – General Principles of Officiating – Mechanisms of Officiating: Hockey, Football, Kho-Kho, Kabaddi and Ballbadminton - Duties and powers of officials.

UNIT-IV

Measurement and markings of the following games: Hockey, Football, Kho-Kho, Kabaddi and Ballbadminton

UNIT-V

Rules of the following games and their Interpretation: Hockey, Football, Kho-Kho, Kabaddi and Ballbadminton.

Course Outcome:

After completing the course, the learner will be able to:

- Gain knowledge regarding the marking of hurdles and relay races
- Familiar with the rules of track and field events and their interpretations

- Understand the rules of various games and their interpretations
- Become a qualified official in athletics and also in major games by acquiring depth knowledge in these sports and games
- Attend any type of interview with confidence borne out of knowledge gained.

REFERENCE BOOKS:

1. George Immanuel, "Track and Field event layout and Marking".
2. AAFI Rules Book.
3. R.L. Anand, Play Field Manual Patiala: "NIS Publication", 1990.
4. H.C. Buck, Rules of Games and Sports, Madras: YMCA Publications, 1992.
5. Bunn, J. W. The Art of officiating Sports, Prentice Hall, Englewood Cliff. M.J. 1951.
6. Bunn, J. W. The Basketball Coaches' Guide to Success, Prentice Hall, New York, 1951

ELECTIVE PAPER

404. (a). SPORTS MEDICINE

Course Objective:

1. To understand the concept and role of sports medicine.

2. To diagnose the acute and chronic injuries in sports.

3. Help to improve knowledge about physiotherapy modalities.
4. Acquire knowledge regarding drugs and medications used in athletics
5. Attain knowledge regarding goals and stages of rehabilitation

UNIT- I Introduction to Sports Medicine:

Definition, Meaning, Concept and Role of Sports Medicine – Preventive aspects of Sports Medicine – Purposes and procedures of the preparticipation, physical examination evaluation- disqualifying conditions.

UNIT- II Common Causes and Classification of Sports:

Basic principles of the diagnosis of acute and chronic injuries in sports- Diagnostic tools – Initial management of injuries in sports- Prevention of Sports injuries: Physical Conditioning and training, Diet, Protective equipments and Psychological stress.

UNIT- 3 Physiotherapy Modalities:

Guiding principles of Physiotherapy- Therapeutic modalities and procedures- Hydrotherapy- Cryotherapy- Thermotherapy- Electrotherapy: Meaning- indications, contraindications and application of: Ultrasound Therapy – Electrical Muscle Stimulation – Transcutaneous Electrical Nerve Stimulation (TENS) Interferential Therapy- Traction. Massage: Physiological Effects of Massage- Classification of Massage: Physiological Effects of Massage- Classification of Massage (Swedish System)

UNIT- 4 Injuries to the running Athlete:

Swimming injuries – Thermal injuries: Heat injuries, prevention of heat injuries syndromes(Heat Cramp, Heat fatigue, heat exhaustion, heat stroke and mixed heat- injury syndrome)- Drugs and medications commonly used in athletics.

UNIT- 5 Rehabilitation:

Definition, Meaning, Goals and Stages of Rehabilitation- Rehabilitation programme for Neck, Shoulder, Arm, Elbow, Wrist, Hand, Upper Back, Lower Leg, Ankle and Foot.

Course Outcome:

After completing the course, the learner will be able to

1. Know the primary responsibilities the sports trainer in preventing sports injuries and providing initial care for injured athletes.
2. Gain knowledge regarding initial management of injuries in sports.
3. Know the various types of massage and its physiological benefits
4. Demonstrate the basics of sport first aid during and after game situation.
5. Recognize and appropriately treat common sports injuries and conditions from onset through rehabilitation.

REFERENCE BOOKS:

1. Steven Roy – Richard In/in- Sport Medicine 1983, New Jersey, Prentice – Hall Inc.,".
2. Cleare Maxwell- Hudson – The Complete Book of Massage 1988. London Dorling Kind ersley Ltd.
3. Morris, B. Mellin, Sports injuries and Athletic Problems 1989. Surjeet Publication, New Delhi.
4. James, A. Gould III- Orthopedic and Sports George J. Davies – Physical Therapy 1985, C.V. Mosby Compaly, Toronto.
5. The Encyclopaedia of Sports Medicine The Olympic book of sports medicine edited by A. Dinx, H.G Knuttgen and K. Tittel Blackwell scientific Publications, 1998, Australia.
6. Dr. P.K. Pande, Sports Medicine(Curious Qunes), 1998, Khel Shitya Kendra, New Delhi.
7. Jay Smith, Mayo Clinic Rochester; Robert P. Wilder, Uni. of Virginia Charlottesville, Musculo Skeletal Rehabilitation and Sports Medicine Miscellaneous Sports Medicine Topic, Archives of Physical Medicine Miscellaneous Sports Medicine Topic, Archives of Physical Medicine and Rehabilitation Volume 80, May 1999.

ELECTIVE PAPER

BPDE 404. (b). SPORTS NUTRITIONS

Course Objective:

1. Identify dietary carbohydrate and protein sources, Identify proper hydration principles and discuss the importance of hydration for physical performance

2. Demonstrate knowledge of a healthy diet for physical performance and demonstrate an ability to utilize this knowledge to complete a self-diet critique.

3. Demonstrate an understanding of health and to develop determination and values of desirable body weight

UNIT-I. Introduction to the science of Nutrition

Basics of Nutrition- Malnutrition- Over Nutrition and Under Nutrition. Need and Importance of Nutrition- Functions, Sources and Recommended, daily allowance of Nutrients - Proteins, Carbohydrates, Fats, Vitamins, Minerals and Water.

UNIT-II. Food and Nutritional Planning.

Classification of Food: Acidic, Alkaline and Neutral foods. Nutritive and Caloric value of different food stuffs. Energy requirement for different Sports Activities. Balanced diet. Nutritional planning and Nutritional tips for Sports Persons

UNIT-III. Nutritional Status

Factors affecting Nutritional status. Measuring Nutritional status. Place of Nutrition in health, Importance of Nutrition in fitness. Obesity, Nutrition, diet, exercise and weight control.

UNIT-IV. Sports Nutrition

Introduction to Sports Nutrition – Nutrition, Sports Nutrition: Meaning and Definition – Basic Nutritional Guidelines – Role of Nutrition in Sports – Factors to be considered for developing Nutritional Plan- Supplementation of Sports Drink, Electrolytes and Vitamins.

UNIT-V. Special Considerations in Sport Nutrition

Brief concepts of the following: Use of Alcohol, drugs and doping and their effects on sports performance - Dietary fiber; fiber deficiency- Symptoms of various

nutrients and remedies for malnutrition- Glycogen loading; Importance of fluids in sports.

Course Outcome:

After completing the course, the learner will be able to:

1. Restate the role of nutrients and caloric requirements
2. Sketch the basic classification, functions and utilization of nutrients.
3. Point out diet for various competitions and nutrient supplements for performance.
4. Evaluate the factors affects health and solutions for wellness.
5. Design caloric requirements for various sports and age groups.

REFERENCE BOOKS:

1. Mc.Devitt, Maxine, E and Sumathy Rajagopal Mudambi, Human Nutrition: Principles and Application in India. New Delhi:, Prentice Hall of India, 1969.
2. Mottram, V.H. Human Nutrition London: Arnold Company, 1968.
3. Somagyi J.C. and others (Editors). Nutrition in Early Childhood and Its Effect on Later Life. Basel: Karger Phublishers, 1982.
4. Melwin H. William. Nutrition for Health Fitness And Sports. New York: McGraw-hill company, 1995.
5. Scott, K. Powers and Stephen L. Dodd. Total fitness: Exercise, Nutrition and Wellness. Boston: Allyn and Bacon , 1999.

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Annexure-III

ANNAMALAI UNIVERSITY

ANNAMALAINAGAR

DEPARTMENT OF PHYSICAL EDUCATION

BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S)

(THREE YEARS)

REGULATION & SYLLABUS

WITH EFFECT FROM THE ACADEMIC YEAR 2018-2019

I Introduction

The three year Bachelor of Physical Education (B.P.E.S) is a degree course designed on the basis of the new regulation 2018 of U.G.C. (Regulation Norms and procedures). The main aim of the programme is to prepare the component teacher educated with the skills needed to become effective educational administrators, with national and global vision.

The programme creates opportunities for students to develop the knowledge and understanding of education in depth.

II Objectives of the programme

Objective of the programme will be able to:

- Involve in understanding the attitudes of the teacher education.
- Understand the content, and organization of various resource required for education programme.
- Projecting the students for involving in various physical education activities.
- Develop competencies in organizing various level sports meet such as intramurals and extramural.
- Develop and improve the professional skill, attitudes, values and interests needed to become the best teacher educator.

PAPER:- BPET 101

TAMIL – I

PART – I TAMIL

Kjyhz;L Kjy; gUtk;

Objectives:

Internal Assessment Marks : 25 Marks
External Assessment Marks : 75 Marks

The student teacher

- To learn Tamil through great poets.
- To learn the history of sports and games in Tamil.
- Can learn Tamil grammar.

myF - 1

(1) ghujpahh; :
fhzp epyk; Ntz;Lk;
ey;yNjhh; tPiz

(2) Rujh:
rpf;fdk;

myF - 2

GJikg;gpj;jd; rpWfijfs;

1. flTSk; fe;jrhkpg; gps;isAk;
2. rhg tpNkhrdk;
3. nghd;dfuk;

myF - 3 (ciueil)

tpisahl;Lf;fspd; Njhw;wKk; tsh;r;rpAk;

tpisahl;L tiuaiw - tpisahl;bd; Njhw;wk; - jkpoh; tho;tpy; tpisahl;L - tpisahl;L tif njhif - tpisahl;Lf; nfhs;iffs;.

myF - 4 nkhopg; gapw;rp

1. nghUe;jpa nrhy; jUjy;
2. kuGj; njhlh;fs;
3. fiyr; nrhw;fs;

myF - 5 jkpo; ,yf;fpa tuyhW

1. ehl;Lg;Gw ,yf;fpa tuyhW> ehl;Lg;Gwg; ghly;fs;> ehl;Lg;Gwf; fijfs;> ehl;Lg;Gf; fijg; ghly;fs;> gonkhopfs;> tpLfijfs;.
2. ciueil ,yf;fpa tuyhW> rpWfijfs;> Gjpdq;fs; Njhw;wKk; tsh;r;rpAk;.
3. ftpij ,yf;fpa tuyhW kuGf; ftpijfs;> GJf; ftpijfs; Njhw;wKk; tsh;r;rpAk;.
4. ehlf ,yf;fpaj;jpd; Njhw;wKk; tsh;r;rpAk;.

Course outcome

The student should able

- To acquire Tamil knowledge through various poets stories.
- To acquire knowledge of small stories in Tamil.
- To know the history and its development of sports in Tamil.

Jiz E}w;gl;bay;

1. Nguh. vk;khu; milf;fyrhkp> (2000) jkpo; ,yf;fpa tuyhW> uhrp gjpg;gfk;> nrd;id - 73.
2. e. kiyaurp> (2013)> jkpo; ,yf;fpaq;fspy; tpisahl;Lf; $Wfs; - ghit gjpg;gfk;> kJiu-1.
3. nrh. gukrptk;> (2000)> ew;wkpo; ,yf;fzk;> gl;Lg; gjpg;gfk;> nrd;id-40.
4. rq;f ,yf;fpa E}y;fs; - fof ntspaPL.

PAPER:- BPEE 102

ENGLISH - I

SEMESTER - I

ENGLISH – I BASIC LANGUAGE SKILLS

Objectives:

Internal Assessment Marks : 25 Marks

External Assessment Marks : 75 Marks

The student teacher

- to learn English how to listen and speak
- to learn how to behave people with verbal conversation.
- Can observe the English writing skills.
- The students may learn how to read the books in English language.

LISTENING & SPEAKING:

UNIT – I

a) Greeting people & responding to greetings.
b) Introduction oneself & other people.
c) Asking for & giving personal details (name, occupation... etc.)

UNIT – II

a) Using the telephone – exchanging information & taking messages
b) Describing a visual clipping.

WRITING :

UNIT –III

a) Completing forms with personal details – bio-data & curriculum vitae.
b) Paragraph writing – converting note making to paragraph.
c) Interpreting advertisements.

UNIT - IV

a) Grammar in usage
b) Descriptive writing – describing a scene / a person / a situation
c) Translation – 50 words.

UNIT – V

a) Cabuliwallah – Rabindranath Tagore
b) The Least Leaf – H. Henry
c) Upper Division Love -Manohar Malgonkar.

Course outcome

The student should able

- To acquire English knowledge by learning skills.
- To acquire English writing skills.
- To know the grammatical skills in English.

Reference:

1. The last leaf & other stories by Anand Kumar (Balackle Books).

PAPER:- BPES 103
GENERAL KNOWLEDGE AND HISTORY OF PHYSICAL EDUCATION

GENERAL KNOWLEDGE

Objectives:

Internal Assessment Marks : 25 Marks
External Assessment Marks : 75 Marks

The student teacher

- To know the expansion of various abbreviation related with physical education.
- To know the meaning and definition of physical education and their aims and objectives.
- History of physical education in India and other countries.
- Acquire knowledge about youth welfare programmes offering by various agencies.

UNIT I: Abbreviations & Terminologies

a. Abbreviations (in sports) : AIU, AAFI, IAAF, IAF, AFC, AICS, AILTA, AIWHA, BAI, BCCI, FISU, IHF, IOA, IOC, ICC, FIBA, FIFA, FIVB, NCC, NSO, NSC
b. Sports Terminology: Archery, Billiards, Bowling, Equestrian, Fencing, Golf, Polo, Rugby, Skiing, Snooker, Yachting.

UNIT II: Awards, Trophies and Schemes

Honours and Awards. Outstanding National & International Personalities in various Sports & Games. Cups and Trophies - India and International . Functions and Schemes of Sports Authority of India , Sports Development Authority of Tamilnadu, Tamil Nadu Physical Education and Sports University.

HISTORY OF PHYSICAL EDUCATION

UNIT III: Physical Education in Ancient India

History of Physical Education in Vedic period, Epic period, Buddhist period. Development of Indigenous activities - Yogic system of physical exercise.

UNIT IV: Physical Education in Other Countries and Development of Physical Education

Physical Education in Ancient Greece, Rome and European countries. Contributions to the growth of Physical Education by leaders and movements: Germany: Johann Bernhard Basedow, Johann Christoph Friedrich GutsMuths, Adolph Spiess**,** Role of Philanthropinum and Turnverein Movement. Sweden: Per Henrik Ling and Swedish medical gymnastics. Denmark: Franz Nachtegall , Niels Bukh.

UNIT V: Physical Education Teacher Training and Sports Promotion

YMCA and its contribution: Contribution of H.C.Buck and Contribution of Mary Crowe Buck. Teacher Training Institutions in Physical Education. Indian Olympic Association, National Sports Federations and Associations. Youth Welfare Programmes: N.C.C., N.F.C., N.D.S., N.S.O., Scouting and Guiding, Youth hostels, Youth festivals, Camping Mountaineering. National Physical Fitness Programme

Course outcome

The student should able

- To attain the knowledge about various organization in India and their functions.
- Improve the knowledge in the area of physical education and its development in India and in the world.

References:

1. Competitions Success Review Year Book. (2014) New Delhi : Competition Review Pvt. Ltd.
2. General Knowledge Digest (2014), New Delhi: Wheelers Publishing.
3. Bucher, A.C. (1984). Foundations of physical Education, St.Louis. The L.V.Mosby Co.
4. Chelliah, S.N. (1989) Udarkalvi Enral Enna? Chennai: RajmohanPathippagam.
5. Khan, E.A. (2000) History of Physical Education, Patma, Scientific Books Co.
6. Knapp, C. & Hagman E.P. (1949) Teaching Methods-for Physical Education, New York: McGraw Hill Book Co. Inc.
7. Rajagopalan, K.A. (1969) Brief History of Physical Education in India. Delhi: Army Publishers
8. Thirunarayanan, C. & Hariharan S. (1969) Methods in Physical Education, Karaikudi.
9. Thomas, J.P. (1980) Physical Education Lesson: Chennai: Gnanodaya Press.
10. Thirunarayana. C (1967). Analytical History of Physical Education. Karaikudi.

PAPER:- BPEL 104
. FITNESS AND WELLNESS

Objectives:

Internal Assessment Marks : 25 Marks
External Assessment Marks : 75 Marks

The student teacher

- To know about the purpose and needs of physical fitness and wellness.
- To get an idea about various tests to assess the fitness and wellness.
- To know various diseases and their effects on human being.
- To know the difference between men and women fitness.

UNIT – I – INTRODUCTION

Meaning and Definition" of Physical Fitness, Physical Fitness Concepts and Techniques, Principles of physical fitness, Physiological principles involved in human movement, Components of Physical Fitness. Current trends in fitness and conditioning,.

UNIT II NUTRITION, BALANCED DIET

Components of total health fitness and the relationship between physical activity and lifelong wellness. Nutrients; balanced diet- mal nutrition. Weight Management – proper practices to maintain lose and gain..

UNIT III – ENDURANCE TRAINING

Endurance Training, Safety techniques - proper warm-up, cool down, and stretching. Assess cardio respiratory fitness and set goals to maintain or improve fitness levels. Cardio

respiratory activities including i.e. interval training, incline running, distance running, aerobics and circuits.

UNIT IV – ANAEROBIC TRAINING

Resistance Training for Muscular Strength and Endurance; principles of resistance training, Safety techniques. Resistance training principles and concepts; basic exercises (including free weight exercise, weight machines, exercise bands and tubing, medicine balls, fit balls) Advanced techniques of weight training.

UNIT V – FLEXIBILITY TRAINING

Flexibility Training, Relaxation Techniques - types of flexibility exercises (i.e dynamic, static), Develop basic competency in relaxation and breathing techniques. Pilates, Yoga.

III. PRACTICAL

The Fitness tests should be taught in the indoor and outdoor test area

Course outcome

The student should able

- To attain the knowledge about various components of fitness.
- Improve the knowledge in the area of physical fitness and the wellness of women at various stages in their life.
- **REFERENCES:**

- David K.Miller& T. Earl Allen, Fitness, A life time commitment, Surjeet Publication Delhi 1989.
- Dificore Judy, the complete guide to the postnatal fitness, A & C Black Publishers Ltd. 35 Bedford 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 Kinetics Publishers 2002.
- Lawrence, Debbie, Exercise to Music. A & C Black Publishers Ltd 37, Sohe Square, London 1999. Robert Malt. 90 day fitness plan, D.K. Publishing Inc. 95. Madison Avenue, New York 2001.

PAPER:- BPEA 105

GENERAL SCIENCE

Objectives:

Internal Assessment Marks : 25 Marks

External Assessment Marks : 75 Marks

The student teacher

- To know about basics in science.
- Can learn all the properties in physics, chemistry and biology.

UNIT - I

Importance of Science – Various basic sciences, Value of knowledge required for physical education. Physics - Mechanics – General Properties of Matter Motion, Velocity, Projectile, Laws of motion, Force, Centrifugal force, Centripetal force, Gravity, Force of gravity, Center of Gravity, Equilibrium, Work, Power and Energy, Transformation of Energy, Friction, Levers Barometer – Boyle's Law, Osmosis, Diffusion, Density, Specific gravity.

UNIT – II

Heat: Effect of hear, Thermometer, specific heat and latent heat, (Their importance in daily life), transfer of heat, (Conduction, Convection, Radiation).

Light: Nature of light, Reflection of light, at plane and curved surfaces, Lenses (Camera, Human eye, Astronomical Telescope and Compound Microscope)

UNIT – III

Sound: Characteristics of sound, elementary idea of production and transmission of sound, loudness, pitch, hearing process.

UNIT – IV Chemistry

Indestructibility of matter, Atom, Molecule, Element compound and Mixture. Oxygen, Oxidation and Reduction, Acids, Bases, Salts, Solubility, Crystallization, Hydrogen, water, Hard and soft water, Carbon, Carbon dioxide, Nitrogen, Ammonia, use of nitrates, chlorine.

Introduction to organic chemistry, Carbohydrates, Proteins, Amino acids, fats.

UNIT - V Biology

Living organism, cell, protoplasm, cell division, Cellular structure of plants and Animals, Reproduction in plants and Animals, An elementary study, Bacteria and virus, Inter dependence of plants and Animals, Evolution and Heredity.

Course outcome

The student should able

- To attain the knowledge about importance of physics, chemistry and biology.
- Attain the knowledge about heat, sound, indestructibility of matter, and living organism.

Reference Books:

1. Physics by W.L. Whitely Published by University Tutorial Press Ltd., Clifton House, Eouch Road, London, N.W.I. 1959 Sh.1961.
2. Chemistry for Matriculation By G.H. Baily and H.W. Bansor, University Tutorial press, London 1956.
3. Biology made Simple by E.P. Hanssure, Publishers Dudly and Co. Inc.Garden City, New York, 1956.

Semester - II

PAPER:- BPET 201

TAMIL – II

Kjyhz;L ,uz;lhk; gUtk;

Objectives: **Internal Assessment Marks : 25 Marks**
External Assessment Marks : 75 Marks

The student teacher

- To learn Tamil through literatures.
- To learn Tamil through various types of exercises.
- Can learn Tamil historical development.

myF - 1

1. ee;jpf; fyk;gfk;
2. jkpo; tpl J}J

myF - 2

1. jpUf;Fw;whyf; FwtQ;rp (Fwj;jp kiytsk; $Wjy;)
2. Kf;$ly; gs;S (ehl;L tsk;)

myF - 3. jkpohpd; tPu tpisahl;Lfs;
VW jOTjy;> kw;NghH> tpw;NghH> Ntl;il> rpyk;gk;> fshp

myF - 4 nkhopg; gapw;rp

1. gpio ePf;fk;
2. tpsk;gu thrfq;fis cUthf;Fjy;
3. NeHfhzy;

myF - 5 jkpo; ,yf;fpa tuyhW

1. rpw;wpyf;fpa tuyhW
2. fpUj;Jt ,yf;fpa tuyhW
3. ,Ryhkpa ,yf;fpa tuyhW
4. fhg;gpa ,yf;fpa tuyhW

Course outcome

The student should able

- To acquire Tamil knowledge through various literatures.
- To acquire knowledge of small stories in Tamil.
- To know the history and development of Tamil literature.

Jiz E}w;gl;bay;

1. Nguh.vk;khH milf;fyrhkp (2000) jkpo; ,yf;fpa tuyhW> uhrp gjpg;gfk;> nrd;id - 73.
2. j.kiyaurp> (2013), jkpo; ,yf;fpaq;fspd; tpisahl;Lf; $Wfs; - ghit gjpg;gfk;> kJiu-1.
3. nrh.gukrptk; (2000)> ew;wkpo; ,yf;fzk;> gl;Lg; gjpg;gfk;> nrd;id.40.
4. rq;f ,yf;fpa E}y;fs;-fof ntspaPL.

PAPER:- BPEE 202
ENGLISH- II
SEMESTER -II
ENGLISH – II DEVELOPING THE LANGUAGE SKILLS

Objectives: **Internal Assessment Marks : 25 Marks**
External Assessment Marks : 75 Marks

The student teacher

- to learn English how to listen and speak
- to learn how to invite, decline and accept a person.

- Can improve the English writing skills.
- The students may get knowledge by reading the books written by various authors in English language.

LISTENING & SPEAKING:

UNIT – I

a) Asking for & giving permission
b) inviting a person-accepting/declining

WRITING:

UNIT –II

a) Grammar in usage.
b) Translation-idoms & phrases.
c) Filling up forms – Bank chalans/pay in slips/Demands Draft, Railway Reservation/Cancellation.

UNIT - III

a) Welcoming a foreign visitor & describing region & country
b) Letter writing
c) Descriptive writing-describing on event.

UNIT – IV

a) Ode to the best wind- P.B.Shelley
b) The Gift of India- Sarojini Naidu

UNIT –V

a) The Man Who Could Work Miracles – H.G.Wells
b) The Verger – Somer Set Maugham.

Course outcome

The student should able

- To improve English knowledge by learning skills.
- To improve English writing skills.
- Can use various grammatical skills in English.

Reference:

1. The last leaf & other stories by Anand Kumar (Balackle Books).
2. The Silent Song- K.M.Tharakan (Macmillan)

PAPER:- BPES 203
ORGANISATION AND ADMINISTRATION

Objectives:

Internal Assessment Marks : 25 Marks
External Assessment Marks : 75 Marks

- To know how to organize and administrate various events in physical education.
- Understand about the play field facilities.
- Get the knowledge of importance of good teacher and handling time table.
- To know about the need and principles public relation.

UNIT – I

Meaning – Nature and scope of organization and administration, principles of organization and administration. Scheme of organization.

UNIT – II

Facilities:

a. Play field location, standard, preparation, layout and Maintenance.
b. Gymnasium – construction, factors, care and maintenance and allied facilities.
c. Swimming pool – construction, dimension, filtration and supervision of swimming pool.

Equipments in Physical Education:

Need and importance, lists of equipments, suggested type of equipments, criteria for selection procedure of purchase, care and maintenance, store- keeping routine care repairs, disposal etc.

UNIT – III

Staff and Leadership:

Importance of qualified teacher, qualifications of good teacher, values, staff co-operation, student leadership, values of student of leadership. Selection and training of student leaders, role of student leaders, recognition of student leaders. Time – Table: Physical Education classes, factors affecting time-table, required periods, instruction period, practice period, games period, participation periods.

UNIT – IV

Programme of Activities:

a. Intramurals - Importance of organizing Intramurals, Units of competition, activities, points systems role, awards and incentives for participation.
b. Extra murals: Educational emphasis, Civil practices, extent of participation, Selection conditioning of teams, Training team and management, sports tours.

Office Managements:

Setting up and management of office correspondence records and reports filing, relationship with superior officer and assistants, parents, pupils. Financial Budget: Physical Education Budget – budget making income and expenditure, accounting petty cash, fund imp rest.

UNIT – V

Public Relation:

Definition – Need of Public relations in physical education. Principles of public relations in physical education. Techniques and Media of Relation with the public, parents, pupils and other agencies.

Evaluation:

Need and importance – Method of evaluation in terms of objectives. Detection of deficiencies, examination in physical education - follow up action for improvement.

Course outcome

The student should able

- Attain knowledge of planning and coordinate various events in physical education.
- Can get innovative ideas after practically conducting various intramural and extramural tournaments.
- Acquire knowledge about using various teaching aids.

Reference Books:

1. Voltmer and Essliger – Organization and Administration, Times of India Press, Bombay 1964.
2. P.M. Joseph, Organization of Physical Education O.S: A.T.I.P.E. Kaudivali (Bombay), 1956.
3. Hughes and French – Administration of Physical Education. Ronald Press Co., New York, 1954.

4. Forsyth and Duncan, Administration of Physical Education, Prentice Hall, New York 1951.
5. Bucher, Administration of School Health and Physical Education Programmes, C.V. Mosby Co., St. Louis. 1967.
6. J.P. Thomas, Organization of Physical Education.
7. Bennett, Bruce L. Mapwell L. Howell and Vriel Simri Comparative Physical Education and Sports Lea and Fabiger Pub, Philadelphia, 1983

PAPER:- BPEL 204
SCIENCE OF YOGA

Objectives:

Internal Assessment Marks : 25 Marks
External Assessment Marks : 75 Marks

The student teacher

- To know the history of yoga and its sutras.
- To know the eight limbs of yoga.
- To learn various types of bandhas, mudras and kriyas.
- To know about the development of yoga in India and abroad.

UNIT I: Introduction to Yoga

Meaning, Definition, Aim, Concept, Scope of Yoga. Schools of Yoga Hastangayoga: Yama, Niyama, Asana, Pranayama, Prathyahara, Dharana, Dhyana and Samadhi.

UNIT II: Yoga and Physical Education

Meaning and Definition of Physical Education – Relationship between Yoga and Physical Education. Comparison of Yoga Practices and Physical Exercises.

UNIT III: Asana

Asana: Meaning, Definition, Types of asanas. Benefits of Asana: Physiological, Psychological and Therapeutical values.

UNIT IV: Pranayama and Meditation

Pranayama meaning., Definition, Aim, Concept of Pranayama - Types of pranayama - Physiological, psychological and Therapeutical values. Meaning, Definition, Aim, Concept of Meditation

UNIT V: Bandhas, Shatkriyas and Mudras

Bandhas and Mudras - Meaning. Definition, values. Shat kriyas Neti (Jala, Sutra) Dhauti (Varmana, Vastra) Bhasti, Nauli, Trataka, Kapalabhati. Surya Namaskar.

Course outcome

The student should able

- Attain the knowledge of yogic education.
- Get an awareness of advantages of yoga in the field of physical education.
- Have the knowledge of bandhas, mudras and kriyas and their advantages for sports personnals.

REFERENCES :

Gharote M.L. (1982) Guidelines forYogic Practice; Lonawala: Medha Publications.
Iyengar B.K.S(1985) The Art of Yoga; Indus: Harpic Collins P.Ltd.
Thirumalai Kumar. S and Indira S, (2011) Yoga in Your Life: Chennai: The Parkar Publication.

PAPER:- BPEA 205

ANATOMY AND PHYSIOLOGY

Objectives: **Internal Assessment Marks : 25 Marks**

External Assessment Marks : 75 Marks

The student teacher

- Understand the basics in anatomy and physiology.
- Find various muculo-systems of the body.
- To know about the constituents of blood and its function.
- Can understand the nervous system.

UNIT I: Introduction

Need and importance of anatomy and physiology for the students of physical education. Define Cell Tissue. Microscopic structure of the cell. Classification, Structure and functions of various types of tissues.

UNIT II: Musculo Skeletal System

Skeletal systems: Names of the bones of upper and lower extremities - Classification of joints. Names of the major muscles and their actions.

UNIT III: Cardio Respiratory System

Blood: Functions of blood, Composition of blood, lymph and its functions. Cardiovascular system: Structure of the heart, Systematic, pulmonary, Coronary circulation. Definition of respiration, Structure and functions of the respiratory system, Mechanism for respiration, Lung volumes.

UNIT IV: Nervous System

Structure and functions of Brain, Spinal cord reflex arc. Hormones and their roles.

UNIT V: Digestive System

Structure and functions of alimentary canal - Accessory organs - liver, Pancreas, Gall bladder.

Course outcome

The student should able

- To acquire knowledge about the structures of bones in our body.
- To understand the structures of cells and tissues.
- To know effects of various types of exercises on various systems.

REFERENCES:

1. Chelliah, N. (1989) Dhekathai Therindu Kolvom, Chennai: Rajmohan Pathippagam.
2. Murugesh, N. (1990) Anatomy physiology and Health Education, Madurai: Sathiya Publishers,
3. Pearce, E.B. (1962) Anotomy and Physiology for Nurses, London: Faber and Faber Ltd.
4. Pearce, J. W. (1959) Anatomy for students and Teacher of Physical Education, London: Edward Arnold and Co.

Semester - III

PAPER:- BPET 301

TAMIL – III

,uz;lhk; Mz;L %d;whk; gUtk;

Objectives:

Internal Assessment Marks : 25 Marks
External Assessment Marks : 75 Marks

The student teacher

- To learn Tamil through great poets.
- To learn the history of sports and games in Tamil.
- Can learn Tamil literature.

myF - 1

1. jpUthrfk; - khzpf;f thrfH
   (jpUfg;ghit Kjy; 5 nra;As;fs;
2. ehyhapuj; jpt;a gpuge;jk; - Mz;lhs;
   thuzk; Mapuk; njhlq;fp 5 nra;As;fs;

myF - 2

fk;guhkhazk;

(Re;ju fhz;lk; - Ch; NjL glyk; Kjy; 74 nra;As;fs;)

myF - 3. rKjha Nehf;fpy; jkpoh; tpisahl;Lf;fs; -1

tho;f;iff;F gad;gLk; tpisahl;L - tpisahl;L newpKiwfs;. tpisahLtjw;F Vw;w trjpfs;. tpisahl;L nghJ - tpisahl;by; Mz; ngz; ghFghL - tpisahl;Lk; ngz;fSk;.

myF -4 nkhopg; ngaw;rp

1. Ntiy tha;g;G Ntz;b tpz;zg;gk; vOJjy;
2. fbjk; vOJjy;
3. Neh;f;fhzy;

myF - 5 jkpo; ,yf;fpa tuyhW

1. gy;yth; fhy gf;jp ,yf;fpa tuyhW
2. gpw;fhyr; Nrhoh; fhy ,yf;fpa tuyhW

Jiz E}w;gl;bay;

1. Nguh. vk;khh; milf;fyrhkp> (2000) jkpo; ,yf;fpa tuyhW> uhrp gjpg;gfk;> nrd;id-73.
2. j.kiyaurp> (2013)> jkpo; ,yf;fpaq;fspy; tpisahl;Lf; $Wfs;-ghit gjpg;gfk;> kJiu-1.
3. nrh. gukrptk;> (2000)> ew;wkpo; ,yf;fzk;> gl;Lg; gjpg;gfk;> nrd;id-40.
4. rq;f ,yf;fpa E}y;fs; - fof ntspaPL.

Course outcome

The student should able

- To acquire Tamil knowledge through various poets stories.
- To acquire knowledge of small stories in Tamil.
- To know the history and its development of sports in Tamil

PAPER:- BPEE 302

ENGLISH – III PROGRESSIVE LANGUAGE SKILLS

Objectives:

Internal Assessment Marks : 25 Marks
External Assessment Marks : 75 Marks

The student teacher

- to learn English how to listen and speak
- to learn how to use comprehension.
- Can improve the English descriptive writing and translation skills.

- The students may get knowledge by reading the books written by various authors in English language.

LISTENING & SPEAKING

UNIT-I

a) Discussing interests & leisure activities.
b) Checking in & out of a hotel.
c) Complaint & apology.

WRITING

UNIT – II

a) Comprehension.
b) Developing hints.

UNIT – III

a) Descriptive Writing – Comparing & Contrasting.
b) Translation – Sentences – English to Tamil.

UNIT - IV

a) Where The Cross is Made – O Eugene O'Neil
b) Pip & The Convict – Guy R. Williams

UNIT – V

a) The Dream of The Message – A.P.J. Abdul Kalam
b) Women of the Public Sphere – Dona.S.Sanzone.

Course outcome

The student should able

- To improve English knowledge by learning skills.
- To improve English writing skills.
- Can use various grammatical skills in English.

REFERENCE:

1. A.K. Rama Bushanam "Human Values through English Prose" – (Blackle)
2. Short Plays of Yesterday & Today – V. Sachidanandam.

PAPER:- BPES 303
METHODS IN PHYSICAL EDUCATION

Objectives:

Internal Assessment Marks : 25 Marks
External Assessment Marks : 75 Marks

The student teacher

- Can learn planning and presentation of various teaching aids
- to learn various methods of teaching physical activities such as, command-oral, demonstration, imitation and dramatization.
- Know the various types of drawing fixtures.

UNIT I: Method

Meaning – Factors influencing method, Presentation techniques: Planning - Presentation – Steps in the way of presentation. Teaching aids – Class management – General – Specific – Principles to be adopted for good class management.

UNIT II: Lesson Plan

Values – Types: General and Particular lesson plan. Command: Response Command – Rhythmic Command. Methods of Teaching Physical Activities: Command, Oral,

Demonstration, Imitation, Dramatization, At-will, Set-drill, Part, Whole, Whole-Part-Whole methods.

UNIT III: Tournaments

Meaning-Types. Method of drawing fixtures for knock out/elimination - league/Round Robin. Combination Tournament : Knock out – cum – knock out, knock out – cum – league, league – cum – league, league – cum – knock out . Challenge Tournament. Intramural – Extramural.

Unit IV: Methods of Teaching

Methods of teaching with special reference to different kinds of physical activities: Calisthenics - Gymnastics- Minor games- Major games- Rhythmic activities. Organisation and conduct of competition in sports and games : Individual sports- Group competition.

Unit V: Supervision

Supervision – Meaning and Need for supervision – Guiding principles of supervision: Qualities and qualification of a supervisor – supervisors relationship with the administrator and the physical education teacher. Techniques of Supervision: Visitation – Periodical – Surprise – Request- Social, Visitation.

Course outcome

The student should able

- Individually can draw fixtures.
- To know the individual sports and group competitions.
- Can improve their supervision.

REFERENCES:

Cosmin. H.Rosalind, C.& Jackson, C. (1960) Methods in Physical Education, London: W.B. Saunders Co.

Dheer, S., & Radhika Kamal (1991) Organization and Administration of Physical Education, New Delhi :Friends Publication.

Greyson Daughtrey. (1969). Methods in Physical Education and Health for Secondary Schools. London: W. B. Saunders Company.

Michael W. Metzler. (2000). Instructional Models for Physical Education. London: Allyn and Bacon.

Sachdeva, M.S (1983) Modern Approach to School Organization and Administration, Ludhina: Parkash Brothers Educational Publisher.

Sharad Chandra Mishra. (2009). Methods of Physical Education. New Delhi: Sports Publication.

Thirunarayanan, C. & Hariharan, S (1969) Methods in Physical Education Karaikudi: South India press.

Voltmer, Edward (1979) The Organization and Administration of Physical Education, New Jersey.: Prentice Hall, Inc.

PAPER:- BPES 304
SCIENTIFIC PRINCIPLES OF SPORTS TRAINING

Objectives:

Internal Assessment Marks : 25 Marks

External Assessment Marks : 75 Marks

The student teacher

- Can learn principles, characteristics and aims of sports training.
- To learn various components of physical fitness.
- Know the various methods of training.

UNIT I: Sports Training

Sports Training: Definition, Aims, Characteristics, Principles of sports training. Physical Fitness: components of physical fitness - importance of physical fitness – Training Load.

UNIT II: Strength, Speed and Endurance

Definition of strength -types of strength-importance of strength - factors determining strength – training method for strength improvement - loading procedure for strength training. Definition of speed - forms of speed - factors determining various speed performance - training - methods of increasing speed.

UNIT III: Endurance

Definition of endurance - types of endurance - importance of endurance- factors determining endurance training methods for improving endurance.

UNIT IV: Flexibility and Coordinative Abilities

Definition of flexibility - types of flexibility - factors determining flexibility - methods improving flexibility. Coordinative abilities – types – Characteristics - training methods for improving coordinative abilities.

UNIT V: Various Method of Training

Circuit Training Fartlek Training - Internal method - Weight training – Resistance training, Plyometric ,Core training - Functional training, Swiss ball training, Medicine Ball Training.

Course outcome

The student should able

- To improve sports training knowledge.
- To improve the knowledge about various components of physical fitness and their benefits for sports person.
- Can use various methods of sports training.

REFERENCES:

1. Jenson, G. and Fisher, A.G (1972) Scientific Basis of Athletic Conditioning, 2nd ed., Philadelphia: Lea and Fibiger.
2. Jones, B.J. (1982) Guide to Effective Coaching Principles and Practices. Allyn and Bacon, Inc.
3. Singh, H. (1984) Sports Training, General Theory and Physical Fitness NIS, Patiala.
4. Thomas, J.P (1964) Let us Coach Soccer, New Delhi:YMCA Publishing House.
5. Thomas, J.P (1971) Scientific Weight Training for Games and Sports, Chennai: Gnanodaya Press.

PAPER:- BPEA 305
HEALTH AND SAFETY EDUCATION

Objectives:

Internal Assessment Marks : 25 Marks

External Assessment Marks : 75 Marks

The student teacher

- Easily understand the concepts of health, heredity and environment.
- Can learn the how to solve the health problems at school.
- Know the various safety methods follow at home and school.

UNIT I: Introduction

Health - Meaning, Definition and concepts - Factors influencing health - Health determinants, Heredity and environment. Health problems of India - Population and health - Environment pollution. Personal hygiene.

UNIT II: School Health

Problems - Growth Stress of school planning Health instruction, Health appraisal follow up, Health service and supervision. Role of Physical Education Teacher in School Health Programmes.

UNIT III: Infections

Causes of diseases - Mode of infection, Spread of infection - Public health measure to combat infection - Public health administration - Sanitation - Water supply. Immunity - Prophylactic immunisation - Programmes – AIDS Communicable diseases, Malaria, Typhoid, Cholera, Dysentry, Leprosy, Tuberculosis, STD, Polio, Tetanus Drug abuse - Alcohol, Smoking Family welfare - Sex education

UNIT IV: Safety At Home

Environment and structure, Electrical connections, Bathrooms and Lavatory, Storing articles,. Kitchen and Fire place, Storing medicines, Principles of movements in daily living.

UNIT V: Safety at School and Physical Education

Safety at school structure and environment: Area, Surface, Building, Furniture and fixtures. School procedures and policies precautionary and emergency equipment. Collection of information: address of parents, hospitals and doctors, police, fire station, ambulance service. Safety in physical education and Sports: During Training and Competition, Dress and Safety equipments. Principles of safety: in organising Physical Education Classes, Demonstration and Competitions.

Course outcome

The student should able

- To solve the health related problems.
- Solve all the safety problems at home and schools.
- May improve the immunity power of the individuals.

REFERENCES :

Mangal, S.K. & Chandra, P.C. (1979) Health and Physical Education Ludhiana. R.D. Tandon Broth,.

Neiniah, (1997) School Health Education, New Delhi: Harper & Bros.:

Park, J.E. (2001)Text Book of Preventive and Social Medicine.: Chennai

Semester - IV

PAPER:- BPET 401

TAMIL - IV

,uz;lhk; Mz;L ehd;fhk;; gUtk;

Objectives: **Internal Assessment Marks : 25 Marks**
External Assessment Marks : 75 Marks

The student teacher

- To learn Tamil through great saints.
- To learn the history of sports and games in Tamil.
- Can learn Tamil exercises.

myF - 1

jpUf;Fws; : mwj;Jg;ghy;: tho;f;ifj; Jizeyk;> kf;fs; NgW> nghUl;ghy;: fy;tp> Nfs;tp. fhkj;Jghy;: Fwpg;G mwpjy;> Gzh;r;rp kfpo;jy;.

myF - 2

gj;Jg;ghl;L
neLey;thil

myF - 3

rKjha Nehf;fpy; jkpoh; tpisahl;Lf;fs; - 2.$l;Lzh;T tpiahl;Lf;fs;: rhh;G tpisahl;Lfs; - rkak; rhh;e;j tpisahl;Lf;fs;> tpisahl;by; ek;gpf;ifAk; gof;ftof;fq;fSk; - ,aw;ifNahL ,iajy; - tpisahl;by; mw czh;T - mwptpaYk; tpisahl;Lk; - tpisahl;Lk; tuyhw;W epfo;Tk; - tpisahl;by; Fw;wKk; jz;lidAk;.

myF -4

nkhopg;ngaw;rp

1. Mq;fpyj;jpy; ,Ue;J jkpOf;F nkhop ngah;j;jy;
2. jkpopy; ,Ue;J Mq;fpyj;Jf;F nkhop ngah;j;jy;

myF - 5

jkpo; ,yf;fpa tuyhW

1. rq;f ,yf;fpa tuyhW
2. mw ,yf;fpa tuyhW

Course outcome

The student should able

- To acquire Tamil knowledge through various literatures.
- To acquire Tamil literature knowledge.

Jiz E}w;gl;bay;

1. Nguh.vk;khu; milf;fyrhkp> jkpo; ,yf;fpa tuyhW> uhrp gjpg;gfk;> nrd;id-73.
2. Kidtu; j.kiyaurp> (2013)> jkpo; ,yf;fpaq;fspy; tpisahl;Lf; $Wfs;- ghit gjpg;gfk;> kJiu-1.
3. Kidtu;.nrh. gukrptk;> (2000)> ew;wkpo; ,yf;fzk;> gl;Lg; gjpg;gfk;> nrd;id-40.
4. rq;f ,yf;fpa E}y;fs; - fof ntspaPL.

PAPER:- BPEE 402

ENGLISH – IV- CAREER LISTENING AND SPEAKING

Objectives: **Internal Assessment Marks : 25 Marks**
External Assessment Marks : 75 Marks

The student teacher

- to learn spoken English.
- Can improve the report writing and interview taken in English.
- The students may get knowledge by reading the books written by various authors in English language.

UNIT – 1

a) Group discussion – predicting and describing future possibility.
   1. Globalization
   2. Consumerism
   3. Current event.

b) Interview – focus on personality development and body language.

WRITING

UNIT - II

a) Report Writing
b) Note Making

UNIT - III

a) How to write an e-mail
b) Descriptive writing – writing with a purpose.

UNIT - IV

a) How soon hath time – John Milton.
b) Leave this chanting – Robindranath Tagore.

UNIT – V

a) Dharma in Tirukural – C. Subramanian
b) Love all serve all – Derek Williams.

Course outcome

The student should able

- To improve English knowledge by learning skills.
- To improve English writing skills.
- Can use various grammatical skills in English.

REFERENCE:

1. A.K. Rama Bhushanam "Human values through English prose" (Blackle)
2. Shankuntala Bharvani "The best Words" Nissian Ezekial.

PAPER:- BPES 403
EXERCISE PHYSIOLOGY AND NUTRITION

Objectives:

Internal Assessment Marks : 25 Marks
External Assessment Marks : 75 Marks

The student teacher

- Can learn about the effect of exercise on various muscular contraction and various system.
- Can attain knowledge about the particles of food and its usages for sportsman.
- May get additional knowledge about sports nutrition.

UNIT I: Muscular Contraction and Exercise

Properties and composition of voluntary muscles. Minute structure of voluntary muscle. Sliding Filament Theory of Muscular Contraction- Conditions affecting muscular contraction.

UNIT II: Effect of Exercise on Human Body System

Effect of exercise on: Muscular system, Circulatory system – Respiratory system.

UNIT III: Effect of Exercise on Human Body System

Effect of exercise on: Nervous system- Digestive system - Endocrine system.

UNIT IV: Basic Food Group

Carbohydrates, Fats and Protein as a source of fuels. vitamins - Fat soluble and Water soluble- Minerals. Balanced diet. Importance of water in an athletic diet.

UNIT V: Sports Nutrition

Diet for sports competition- supplement to the daily diet. Vitamins, Minerals, Fluids. Electrolyte replacement, Carbohydrate loading, Protein loading, Calcium and iron supplement. Pre-event meal. Time for pre-event meal, Alternate eating pattern, Foods to avoid. Exercise and weight control, Crash dieting, Weight Control.

Course outcome

The student should able

- To attain the knowledge of functions of muscular system in the human body.
- To improve knowledge of various systems such as, muscular, circulatory, respiratory, nervous, digestive and endocrine systems.
- Can suggest various food particles such as, carbohydrate, protein, calcium and iron supplementation to the sportsmen.

REFERENCE:

1. Amrit Kumar (1995) Introduction to Exercise Physiology, Chennai: Poompugar Pathipagam.
2. Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc.,
3. David, L Costill. (2004). Physiology of Sports and Exercise. New Jersey: Human Kinetics.
4. Fox, E.L.,& Mathews, D.K. (1981). The Physiological Basis of Physical Education and Athletics. Philadelphia: Sanders College Publishing.
5. Gayton A.C (1984). Functions of the Human Body. London :W.B. Saunders & Co.
6. Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders co.
7. Karpovich & Sinnings(1955) Physiology of Muscular activity. London: W.B. Saunders Cp.,
8. Morehouse and Miller (1974) Physiology of Exercise. St.Louis : C.V. Mosby Co.
9. Reily T (1981) Sports Fitness and Sports Injuries , London :Faber and Faber.
10. Sandhya Tiwaji. (1999). Exercise Physiology. New Delhi :Sports Publishers.
11. Scott, N. Nisonson B. & Nicholos, J (1985) Principles of sports Medicine, London: William & Walkin,.
12. Vincent, T. Murche. (2007). Elementary Physiology. New Delhi ;Sports Publication.
13. William, D. Mc Aradle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams Company.
14. Williams, S. & Rod, W. (2001) Nutrition and Diet, Therapy 2nd Edition, London: W.B. Saunder College Publishing.

PAPER:- BPES 404
RULES OF GAMES AND SPORTS – I
(TRACK AND FIELD AND CROSS COUNTRY)

Objectives:

Internal Assessment Marks : 25 Marks

External Assessment Marks : 75 Marks

The student teacher

- Learn about the methods of marking of standard and non-standard track.
- Can attain knowledge about the marking of field events.
- Familiar with latest rules and their interpretations.

UNIT I: Methods of Marking Non Standard Track

Method of marking Non Standard Track: 200m, 400m track, Calculation of Stagger, Diagonal Excess, Compensated Arc Start, Relay Exchange Zones.

UNIT II: Methods of Marking Standard Track

Method of marking Standard Track: 400m track, Calculation of Stagger, Diagonal Excess, Compensated Arc Start, Relay Exchange Zones, Marking for Hurdles event.

UNIT III: Methods of Marking Field Events

Method of marking Shot-put Circle and Sector, Hammer Throw Circle and Sector, Discus Throw Circle and Sector, Long Jump, Triple Jump, High Jump and Pole Vault.

UNIT IV: General Competition Rules and Their Interpretations

Track event: Start, Race, Finish, Timing, Seeding and Draws, Tie Breaking, Hurdle Races, Relay races. Field Events: Vertical Jumps Horizontal Jumps Throwing Events General Competition Rules of Cross country races: Course, Distances, Start, drinking / sponging and refreshment stations, race.

UNIT V: Officials in Track and Field & Cross Country

Authorities and Duties of Officials in Track and Field Meet and Cross country races: International Officials, Competition Officials Additional Officials.

Course outcome

The student should able

- To familiar in marking various types of track.
- To familiar in marking various field events
- To update the knowledge of latest rules and their interpretations.

REFERENCES:

1. Authors Guide (2014) IAAF Competition Rules 2014-2015, Monaco Cedex: IAAF Publishing .
2. Viswanath, M.J.(2002) Track and Field Marking & Athletics Officiating Manual, Chennai: Silver Star Publication.
3. Wright Gary, A (1990) Step by Step guide-Track & Field, New Jeysey: Associates Mahan.

PAPER:- BPEA 405

ELEMENTARY STATISTICS

Objectives: **Internal Assessment Marks : 25 Marks**

External Assessment Marks : 75 Marks

The student teacher

- To completely describe a data set, using appropriate descriptive statistics.
- Students shall know how to organize, manage, and present data.
- Show ability to explore and organize data for analysis.

UNIT – 1 – INTRODUCTION

Meaning and Definition of Statistics. Function, need and importance of Statistics. Types of Statistics. Meaning of the terms, Population, Sample, Data, Types of data. Variables: Discrete, Continuous. Parametric and non parametric statistics.

UNIT II –MEASURES OF CENTRAL TENDENCY

Meaning, uses and formulation of frequency table. Meaning, advantages of Measures of central tendency – mean, median and mode - Grouped data and Ungrouped data.

UNIT – III – MEASURES OF VARIABILITY

Meaning, Purpose, Calculation and advances of Range, Quartile, Deviation, Mean Deviation, Standard Deviation – Grouped data and Ungrouped data.

UNIT – IV – NORMAL CURVE Normal Curve. Meaning of probability – Principles of normal curve – Properties of normal curve. Divergence form normality – Skewness and Kurtosis.

UNIT V – GRAPHICAL REPRESENTATIONS

Graphical representation in Statistics; Line diagram, Bar diagram, Histogram, Frequency Polygon, give Curve.

PRACTICAL

It is recommended that the theory topics be accompanied with practical based on computer software of statistics.

COURSE OUTCOME

The students may / will

- Know how to organize, manage, and present data.
- Demonstrate understanding of the properties of probability and probability distributions.
- Effectively communicate results of statistical analysis.

REFERENCES:

Best J.W (1971) research in Education, new jersey: Prentice Hall, Inc

Clark D.H (1999) Research Problem in Physical Education 2nd edition, Eaglewood Cliffs, Prentice Hall, Inc.

Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities. Illonosis; Human Kinetics;

Kamlesh,M.L. (1999) Research Methodology in Physical Education and Sports. New Delhi.

Rothstain, A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs: Prentice Hall, Inc.

Sivaramakrishnan S (2006) Statistics for Physical Education, Delhi; Friends Publication

Thiurumalaisamy (1998), Statistics in Physical Education, Karaikkudi, Senthilkumar Publications.

Semester - V

PAPER:- BPES 501

TEST, MEASUREMENT AND EVALUATION

Objectives: **Internal Assessment Marks : 25 Marks**
External Assessment Marks : 75 Marks

The student teacher

- Learn about the purpose of test, measurement and evaluation in physical education.
- Can attain knowledge in establishing a test (reliability, objectivity and validity).
- May know about various fitness and sports skill test.

UNIT I: Introduction to Test, Measurement and Evaluation

Meaning and Definition of test, measurement and Evaluation. Need and importance of test and measurement in physical education.

UNIT II: Criteria and Administration of Test

Criteria of test, Scientific authenticity (reliability, objectivity - validity - availability of norms). Administrative feasibility and educational application. Administration of test: advance preparation - Duties during testing - Duties after testing.

UNIT III: Fitness Test

Physical fitness test: AAHPERD Health-Related Fitness Battery (revised in 1984) - Roger's physical fitness Index. Cardio vascular test : Harvard step test, 12 minutes run test, Multi-stage fitness test (Beep test). Motor Fitness: Indiana. Motor Fitness Test (For elementary and high school boys, girls, and College Men), JCR test. SDAT World Beaters Battery Test (For VI, VII & VIII Standard School Boys and Girls)

UNIT IV: Sports Skill Test

Badminton - Miller wall volley test – French short service test. Basketball - Johnson Basket ball test – Leilich Basketball test. Cricket : Sutcliff Cricket test. Hockey - Friedal field Hockey test.

UNIT V: Sports Skill Test

Sports Skill Test: Football - Johnson soccer test – McDonald soccer test. Tennis - Dyer Tennis test. Volleyball - Brady volley ball test – Russell Lange Volleyball test.

Course outcome

The student should able

- To know the need and importance of test and measurement in physical education.
- To know the duties during and after testing.
- To attain knowledge on various physical fitness and sports skill test.

REFERENCES:

1. Barrow, H.M. and McGee, R.A. (1964) Practical Approach to Measurement in Physical Education, Philadelphia : Lea and Febiger.
2. Bovard, J.F., Cozens, F., W. & Hagman, P.E. (1949) Test and Measurements in Physical Education, Philadelphia: W.B. Sunders Company.
3. Campbell, W.R. & Tucker, N.M. (1967) An Introduction in Physical Education, London: G.Bell and Sons Ltd.
4. Getchell B. Physical Fitness (1979): A Way of Life, 2nd ed. New York: John Wiley and Sons, Inc.
5. Cureton, T.K. (1947) Physical Fitness Appraisal and Guidance, St.Louis: The Mosby Company.
6. Hunsicker, P.A. & Montoye, H.J. (1953) Applied Test and Measurements in Physical Education, New York: Prentice Hall Inc
7. Luc Leger (1983), Testing Physical Fitness, Eurofit Experimental Battery Provisional Handbook, : UK : Strasbourg

8. Meyers, C.R. & Belsh, E.T. (1962) Measurement in physical Education, New York: The Ronald press Company.
9. Wilgoose, C.E (1967) Evaluation in Health Education and physical Education, New York :McGraw Hill Book Company, Inc.

PAPER:- BPES 502

KINESIOLOGY AND BIOMECHANICS

Objectives: **Internal Assessment Marks : 25 Marks**
External Assessment Marks : 75 Marks

The student teacher

- Learn about the basics and usages of kinesiology in physical education.
- Can attain knowledge about various types of joints and muscles.
- May know about various mechanical principles.

UNIT I: Introduction of Kinesiology

Introduction: History and Development. Role of Kinesiology in physical education.

UNIT II: Muscles and Joints

Joints, Classification of Joints, Construction of synovial joints of the body movement. Origin, Insertion and action of muscles: Pectoralis major, Biceps, Triceps (Anterior and Posterior), Trapezius, Sartorius Rectus Femoris, Quadriceps, Hamstring. Types of muscles contraction: isotonic, isometric, Isokinetic.

UNIT III: Basics of Biomechanics

Biomechanics in Sports - Mechanical principles, laws of motion, types of Motion, Factors influencing motion, air, gravity and water friction, simple machines - Levers - Types of levers and examples in from the human body . Equilibrium: Meaning, Definition and types.

UNIT IV: Motion

Mechanics of movements: force production - application - follow pre-requisite of efficient motion, psychomotor - Mental and emotional. Preliminary motion considerations - Whole motion - Body segment motion.

UNIT V: Biomechanical Analysis in Sports

Application of Biomechanics to skill learning

1. Track and Field: Sprint, Shot-put and High Jump.
2. Games:
    a. Basketball
    b. Cricket
    c. Badminton
    d. Kabaddi
    e. Hockey

Course outcome

The student should able

- To know the need and importance of kinesiology.
- To know the types and functions of biomechanics in physical education.
- To attain knowledge about the applications of biomechanics in physical education.

REFERENCES:

Broor, (2000) Efficiency of Human Movements, London: Saunders & Co.,
Kelly, D. L. (1999) Kinesiology and Fundamentals of Motion Description, Prentice Hall.
McCIusg, A. (1989) Human Kinetics and Analysis of Body Movements, London:William Heinmann,
Sunderarajan, G. S. (1979) Bio-mechanics of Sports and Games, Chennai: Roshan Publication.
Neil D.E. (1992) Kinesiology and Anatomy and Motion, London: Mosby and Co.

PAPER:- BPES 503

RULES OF GAMES SPORTS - PART – II

(Football, Ball Badminton, Tennis & Tennikoit)

Objectives: **Internal Assessment Marks : 25 Marks**

External Assessment Marks : 75 Marks

The student teacher

- Learn about the prerequisites of an official.
- Can attain knowledge about the history of various organization of various games.
- Familiar with various dimensions of play field.
- Can know about the latest rules and their interpretations.

UNIT I: Prerequisites of an Official

Qualification and Qualities of officials, Philosophy of Officiating in the above listed four games.

UNIT II: History and Organizational Setup

History and Development, International, national level organisational setup, Major Tournaments and Trophies in the above listed four games.

UNIT III: Principles and Mechanism of Officiating

General principles of officiating - Duties and powers of officials - Mechanism of officiating in the above listed four games.

UNIT IV: Dimensions of Play Field

Measurements of play fields of the above listed four games.

UNIT V: Rules and Their Interpretations

Rules and interpretation of the above listed four games.

Course outcome

The student should able

- To familiar in marking of specific games.
- To familiar in principles and mechanism officiating.
- To update the knowledge of latest rules and their interpretations.

REFERENCES :

Anand, R.L. (1987) Play Field Manual Patiala: NIS Publication.

Bonder, J.B. (1984)How to be a Successful Coach. New York: Prentice Hall.

Bunn, J. W. (1951) The Art of Officiating Sports, Prentice Hall: Englewood Cliff.

Chelliah, S.N. (1984), Vilayattu Vithi Muraihal, Chennai: Raj Mohan Pathipagam.

Buck .H.C (2000)Rules of Games and sports, New Delhi: YMCA Publishing House, Masse Hall.

PAPER:- BPES 504

RULES OF GAMES AND SPORTS – III

(BASKETBALL, BADMINTON, KABADDI & SOFTBALL)

Objectives: **Internal Assessment Marks : 25 Marks**

External Assessment Marks : 75 Marks

The student teacher

- Learn about the prerequisites of an official.
- Can attain knowledge about the history of various organization of various games.
- Familiar with various dimensions of play field.
- Can know about the latest rules and their interpretations.

UNIT I: Prerequisites of an Official

Qualification and Qualities of officials, Philosophy of Officiating in the above listed four games.

UNIT II: History and Organizational Setup

History and Development, International, national level organisational setup, Major Tournaments and Trophies in the above listed four games.

UNIT III: Principles and Mechanism of Officiating

General principles of officiating - Duties and powers of officials - Mechanism of officiating in the above listed four games.

UNIT IV: Dimensions of Play Field

Measurements of play fields of the above listed four games.

UNIT V: Rules and Their Interpretations

Rules and interpretation of the above listed four games.

Course outcome

The student should able

- To familiar in marking of specific games.
- To familiar in principles and mechanism officiating.
- To update the knowledge of latest rules and their interpretations

REFERENCES :

1. Anand, R.L. (1987) Play Field Manual Patiala : NISPublication.
2. Authors Guide (2014) FIBA Official Basket Rules, Munich, Germany.
3. Bonder, J.B. (1984) How to be a Successful Coach. New York, Prentice Hall Inc.
4. Buck .H.C (2000)Rules of Games and sports, New Delhi: YMCA Publishing House, Masse Hall,
5. Bunn, J.W. (1951)The Basketball Coaches' Guide to Success, Prentice Hall,
6. Bunn, J. W. (1951) The Art of officiating Sports, Prentice Hall, Englewood Cliff.

Chelliah, S.N. (1984), Vilayattu Vithi Muraihal, Chennai : Raj Mohan Pathipagam

PAPER:- BPNE 505
ENVIRONMENTAL STUDIES

Objectives:

Internal Assessment Marks : 25 Marks
External Assessment Marks : 75 Marks

The student teacher

- Can obtain knowledge about the environment.
- To learn about the ecosystems of earth.
- To obtain knowledge about the natural resources.
- Can know about environmental pollution and preventive methods.

UNIT 1 : Introduction to Environmental Studies

- Multidisciplinary nature of environmental studies;
- Scope and importance; Concept of sustainability and sustainable development.

UNIT 2 : Ecosystems

What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems:

a) Forest ecosystem
b) Grassland ecosystem
c) Desert ecosystem
d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

UNIT 3 : Natural Resources: Renewable and Non-renewable Resources

- Land resources and landuse change; Land degradation, soil erosion and desertification.
- Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.

- Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).
- Energy resources: Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

UNIT 4: Biodiversity and Conservation

- Levels of biological diversity: genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega-biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity: Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

UNIT 5: Environmental Pollution

- Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.
- Pollution case studies.
- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture.
- Human population growth: Impacts on environment, human health and welfare.

Course outcome

The student should able

- To familiar in maintaining the ecosystems.
- To familiar in principles and mechanism officiating.
- To update the knowledge of latest rules and their interpretations

Suggested Readings:

1. Carson, R. 2002. Silent Spring. Houghton Mifflin Harcourt.

2. Gadgil, M., & Guha, R. 1993. This Fissured Land: An Ecological History of India. Univ. of California Press.

3. Gleeson, B. and Low, N. (eds.) 1999. Global Ethics and Environment, London, Routledge.

4. Gleick, P. H. 1993. Water in Crisis. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.

5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. Principles of Conservation Biology. Sunderland: Sinauer Associates, 2006.

6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. Science, 339: 36---37.

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8. McNeill, John R. 2000. Something New Under the Sun: An Environmental History of the Twentieth Century.

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Semester - VI

PAPER:- BPES 601

CARE AND PREVENTION OF SPORTS TRAUMA

Objectives: **Internal Assessment Marks : 25 Marks**

External Assessment Marks : 75 Marks

The student teacher

- Can obtain knowledge about the posture and its objectives.
- To learn about the normal curve and deviation in posture.
- Can learn about massage.
- Get knowledge in sport injuries and treatment.

UNIT I: Corrective Physical Education

Definition and objectives of Corrective Physical Education . Posture and body mechanics . Standards of standing posture . Values of good posture. Drawbacks and causes of bad posture . Postural tests-Examination of the spine.

UNIT II: Posture

Normal curve of the spine and its utility. Kyphosis, Lordosis, Deviations in posture: Kypholordosis, Flat back, Scoliosis, Round shoulders, Knock knee, Bow leg, Flat foot. Causes for these deviations and treatment including exercises.

UNIT III: Movements

Passive, Active, Assisted, Resisted exercise for Rehabilitation.

UNIT IV: Massage

Brief history of massage - Massage as an aid for relaxation - Points to be considered in giving massage - Physiological, Chemical, Psychological effects of massage - Indication/contra indication of massage - Classification of the manipulations used in massage and their specific uses on the human body - Stroking manipulation: Effleurage - Pressure manipulation : Petrissage Kneading (finger Kneading, circular) Ironing Skin Rolling - Percussion manipulation : Tapotement, Hacking, Clapping, Beating, Pounding, Slapping, Cupping, Poking, Shaking Manipulation, Deep massage.

UNIT V: Sports Injuries Care and Treatment and Supports

Principles pertaining to the prevention of Sports injuries - Care and treatment of Exposed and unexposed injuries in sports - Principles of apply cold and heat, Infra red rays-Ultrasonic. Therapy-Short wave diotherapy. Principles and techniques of Strapping and Bandages.

Note : Each student shall submit Physiotherapy record.

Course outcome

The student should able

- To get knowledge about finding the defects in body posture and corrective methods.
- To apply various types of massages to the injured sportsperson.
- To update the knowledge in the field of treatment with various types of equipments.
- To get additional information after submitting the physiotherapy record.

REFERENCE:

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PAPER:- BPES 602

FUNDAMENTALS OF SPORTS PSYCHOLOGY AND SOCIOLOGY

Objectives: **Internal Assessment Marks : 25 Marks**

External Assessment Marks : 75 Marks

The student teacher

- To obtain knowledge about the sports psychology.
- To learn about various types of motivation.
- Can learn about defects in learning and intelligence.
- Can learn about culture, civilization and relationships with society.

Sports Psychology

UNIT – I

Meaning and importance of psychology. Nature, relationship of sports with psychology, scope of sports psychology.

UNIT – II

Brief account of the development of self-influence of heredity and environment. Motivation extrinsic and intrinsic, motivations motive incentive, stimuli, motivation for learning and performance.

UNIT – III

Problems of achievement and adjustment among individuals in learning – influence of intelligence.

Sports Sociology

UNIT – IV

Nature and scope of sociology, relationship of sociology with other social sciences. Foundations of physical education – sociological aspect. Culture civilization and culture relationship and socialization.

UNIT – V

Socialization, socialization institutions, sports and socialization. Social stratification, Sports and social stratification.

Course outcome

The student should able

- To get knowledge about the scope of sports psychology.
- To apply various types of motivational methods to sportsperson.
- Additional knowledge may obtain about socialization with society.

Reference Books:

1. M.C. Iyer R.M. Society, London, Macmillan and company.
2. Jay J. Coakley, Sports in society issues and controversies St.. Louis, Mosby College Publishing Co., 1986.
3. Edwards, Sociology of Sports – III Iliinois Dorsey Press, 1986.
4. N.I. Ponomoryou, Sports and Society – Moscow: Progress Publisher, 1981.
5. John D. Lauther, Sports Psychology – Prentice Hall Inc., Englewood Cliffs,
6. Bryant J. Gatty, "Psychology – in contemporary sports" , Englewood Cliffs, New Jersey.1973.
7. Robert N. Singer, "Coaching Athletics and Psychology", McGraw Hill Book Co, New York.
8. H.T.A. Whiting K. Korman, L.B. Henry and M.G. Jones, "Personality and Performance in Physical Education and Sports", - Henry Kimton Publishers, London 1973.

PAPER:- BPES 603
RULES OF GAMES AND SPORTS - PART IV
(HOCKEY, HANDBALL, CRICKET, NETBALL)

The student teacher

- Learn about the prerequisites of an official.
- Can attain knowledge about the history of various organization of various games.
- Familiar with various dimensions of play field.
- Can know about the latest rules and their interpretations.

UNIT I: Prerequisites of an Official

Qualification and Qualities of officials, Philosophy of Officiating in the above listed four games.

UNIT II: History and Organizational Setup

History and Development, International, national level organisational setup, Major Tournaments and Trophies in the above listed four games.

UNIT III: Principles and Mechanism of Officiating

General principles of officiating - Duties and powers of officials - Mechanism of officiating in the above listed four games.

UNIT IV: Dimensions of Play Field

Measurements of play fields of the above listed four games.

UNIT V: Rules and Their Interpretations

Rules and interpretations of the above listed four games.

The student should able

- To familiar in marking of specific games.
- To familiar in principles and mechanism officiating.
- To update the knowledge of latest rules and their interpretations.

REFERENCES:

1. Ashok Kumar, (2004)Hand Ball, New Delhi: DPH Publishers.
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3. Claime Michal, Taverna (2009) Field Hockey – Techniques, Tactics, London: Human Kinetics.
4. Elizabet Ander (2009) Field Hockey – Steps to Success, London: Human Kinetics.
5. Jain (2005) Play and learn Hand ball, Bangalore :KSK Publishers.
6. Tan Poin (2009) coaching youth cricket, London: Human Kinetics.

PAPER:- BPES 604
RULES OF GAMES AND SPORTS - V
(VOLLEYBALL, KHO-KHO, TABLE TENNIS & THROWBALL)

The student teacher

- Learn about the prerequisites of an official.
- Can attain knowledge about the history of various organization of various games.
- Familiar with various dimensions of play field.
- Can know about the latest rules and their interpretations.

UNIT I: Prerequisites of an Official

Qualification and Qualities of officials, Philosophy of Officiating in the above listed four games.

UNIT II: History and Organizational Setup

History and Development, International, national level organisational setup, Major Tournaments and Trophies in the above listed four games.

UNIT III: Principles and Mechanism of Officiating

General principles of officiating - Duties and powers of officials - Mechanism of officiating in the above listed four games.

UNIT IV: Dimensions of Play Field

Measurements of play fields of the above listed four games.

UNIT V: Rules and Their Interpretations

Rules and interpretation of the above listed four games.

Course outcome

The student should able

- To familiar in marking of specific games.
- To familiar in principles and mechanism officiating.
- To update the knowledge of latest rules and their interpretations

REFERENCES:

1. Buck H.C. (2001)Rules of Games and sports, New Delhi: Y.M.C.A Publishing House
2. Then Lokesh (1995), Skills & Tactics-swimming, New Delhi: Sports Publication.
3. Saggar S.K.(1994) Play better Volleyball, New Delhi: Kay Kay Printers.
4. Jain Deepak (2001) Teaching and Coaching Table Tennis, New Delhi: Khel Sathiya Kendra.

PAPER:- BPNE 605
COMPUTING SKILLS

Objectives:

Internal Assessment Marks : 25 Marks
External Assessment Marks : 75 Marks

The student teacher

- Gain basic knowledge about computers.
- Can learn about the MS tool bar.
- Can use the MS excel title bar.
- Get knowledge in MS Power Point.

UNIT-I

Introduction to computer, Definition, Types of Computer, basic parts, Hardware, Soft ware Input and Output devices, Arithmetic & Logic Unit, Control Unit, CPU, Comparison of human being and computer.

UNIT-II

Microsoft Word: Title Bar, Menu bar, Standard tool bar, Formatting tool bar, Ruler, Status bar, task bar. Creating documents, formatting, editing, deleting, copying, saving.

UNIT - III

Microsoft excel Title Bar, Menu bar, Standard tool bar, Formatting tool bar, Formula bar, Rules, Status bar, task bar. Creating documents, formatting, editing, deleting, copying, saving, charts and mathematical operations.

Unit IV

Microsoft Power point Preparing a slide, Animation, Clipart, pictures from file background designing, Computers and Communications, Copying, saving, Presentation, working with slides, adding slides, printing, running a slide show presentations.

Unit – V

Internet: Introduction, History, Uses, Connection, Worldwide Web, Usage of internet explorer, Search box, E-mail, Outwork express, Inbox, Outbox, Sent items, Drafts, Sending Messages, save, print, reply, forward, previous message and text, chatting, Role of computer in coaching techniques in Sports Sciences, research & data analysis, literature collection through internet, Practical

MS-WORD

1. Create advertisements in MS WORD.
2. To illustrate the concept of mail merging in word.
3. Document creation with scientific notation
4. Text manipulation with scientific notation
5. Table creation, table formatting and conversion
6. Mail Merger and Letter preparation
7. Drawing and flow chart.
8. Show the different effect for the given text in the document
9. Create a table of employee and calculate the net salary.
10. Design a table with merge cells and split cells technique.

EXCEL SHEET

1. To create a spreadsheet to analyze the marks of the students in a class and to create appropriate charts.
2. Charts in spread sheets.
3. Formula and formula editor.
4. Conclusion of objects, pictures and graphics protecting the document and sheet.
5. Sorting and import! Export features.
6. Create suitable chart to show the census data in India for the year 2000 to 2004.
7. Create a suitable chart to show the students average in the class.
8. Create an electronic spreadsheet of student marks and find the total, average and respective class secured by each student.
9. Show the error tracing lines if an error occurred in a calculation
10. Generate the numbers vertically starting from 10 to 100 with step value *5.*

POWER POINT

1. To create the presentation for the department using the power point.
2. Animation in power point presentation
3. Designing the power point presentation
4. Timing for the slides in power point presentation
5. Back ground designing in power point presentation

Course outcome

The student should able

- To handle the computers individually after attending the computer practical classes.
- To familiar in MS Word, Excel and Power Point.
- To update the knowledge after the attending the practical classes on computer applications.

REFERENCE

Venugopal ,Fundamentals of Computers, Prentice All India.
Sudharsan.C & John Manojkumar Computer Fundamentals, RBA publication, Chennai
Dromwey, How to solve it by computer, Tata Mcgraw,Gill.
Jayashree., Computer for beginners, Vikas Publishing House , New Delhi.