PART – A: THEORY COURSES PHE-610

Course Title: KINESIOLOGY & SPORTS BIOMECHANICS

COURSE OBJECTIVES:

- 1. To develop the basic understanding of biomechanics and kinesiology and its application in human 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

STUDENT LEARNING OUTCOMES:

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

UNIT I: Introduction to Kinesiology and Sports Biomechanics

- Meaning nature, role and scope of applied kinesiology and sports biomechanics
- Meaning of Axis and planes,
- Dynamics, Kinematics, Kinetics, Statics Centre of Gravity-
- Line of Gravity plane of the body and axis of motion,
- Vectors and Scalars
- Meaning of work, power, energy, kinetic energy and potential energy,

UNIT II – Major Muscles – their Location & Action

- Origin, Insertion and action of muscles:
- Pectoralis major and minor,
- Deltoid, Biceps, Triceps (Anterior and Posterior),
- Trapezius, Serratus, Sartorius, Rectus femoris, Abdominis, Quadriceps,
- Hamstring, Gastrocnemius

UNIT III – Kinematic and Kinetics of Human movement

- 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.
- Leverage-classes of lever, practical application, Projectiles,
- Equation of projectiles stability factors influencing equilibrium.

UNIT IV: Air & Fluid Mechanics

- Flotation
- Fluid Resistance: Air & Water
- Drag & lift
- Spin

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test/ Project Work/ Assignments/ Presentations/ Practical Work/Teaching lesson plan

TEXT & REFERENCES:

- McGinnis, P. (2013). Biomechanics of sport and exercise. Champaign, IL: Human Kinetics. ISBN 9780736079662
- Blazevich, A. (2007). Sports biomechanics. London: A. & C. Black. ISBN 9780713678710
- Bartlett, R. (2007). Introduction to sports biomechanics. London: Routledge, Taylor & Francis Group. ISBN 9780415339933
- Hall, S. (2014) Basic biomechanics. Mcgraw Hill Higher Educat. ISBN 9780073522760
- Knudson, D. (2007). Fundamentals of biomechanics. New York, NY: Springer. ISBN 978-0-387-49311-4
- Deshpande S.H. (2002), Manav Kriya Vigyan Kinesiology (Hindi Edition) Amravati: Hanuman Vyayam Prasarak Mandal.
- Hoffman S.J. Introduction to Kinesiology (Human Kinesiology Publication in 2005).
- Steven Roy,& Richard Irvin (1983). Sports Medicine, New Jersey: Prentice Hall.
- Thomas. (2001). Manual of structural Kinesiology, New York: Me Graw Hill.
- Uppal A.K. Lawrence Mamta MP Kinesiology (Friends Publication India (2004)
- Uppal, A.K. (2004), Kinesiology in Physical Education and Exercise Science, Delhi Friends Publication
- Williams M (1982) Biomechanics of Human Motion, Philadelphia, Saunders Co.

PART – A: THEORY COURSES PHE-611 Course Title: GENDER, DISABILITY & INCLUSIVE SPORT EDUCATION

COURSE OBJECTIVES:

- Define Gender and gender inequality.
- Explain the construction of Gender to gain a solid understanding of the patterns and constraints of gender inequality around the world up to the present day,
- Review what policies and programmes can work to close gender gaps, with a focus on developing countries.
- Elaborate on the constitutional provisions for gender equality in India.
- Identify gender perspectives in some major policy documents in India

UNIT I: Understanding & Construction of Gender

- Defining Gender and features of gender inequality
- Gender inequality in Education in India
- Gender based violence as a development and rights challenge
- Historical roots of gender construction in India –patriarchy and its socio- cultural origins
- Impact of gender as a social construct.
- Gender roles and the female stereotype in India
- The Global Gender Equality Agenda

UNIT II: Gender and Schooling

- Gender issues in access to education & physical education
- Quality of work and equal opportunity
- Gender in the physical education classroom and peer interactions
- Gender issues in participation in sports

UNIT III: Gender and Constitution of India

- Constitutional provisions for education of women in India
- UEE and programmes for education of women in India
- Gender and policy perspective
- Class and Inequality

UNIT IV: Disability & Inclusive Education

- Definition, concept and importance of inclusive education.
- Historical perspectives on education of children with diverse needs.
- Difference between special education, integrated education and inclusive education.
- Advantages of inclusive sports education for all children.
- Educational approaches and measures for meeting the diverse needs
- Building inclusive learning friendly sports facilities, overcoming barriers for inclusion.
- Creating and sustaining inclusive practices.
- Role of teachers, parents and other community members for supporting inclusion of children with diverse needs for participation in sports.

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/ Viva/ Seminars/ Term Papers/ Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test, Project Work, Assignments, Presentations

TEXT & REFERENCES:

- Chanana, Karuna (ed) Socialisation, Education and Women, Orient Longman, New Delhi, 1988
- Mandell, Nancy (ed), Feminist Issues: Race, Class and Sexuality, Prentice Hall, Ontario, 1995
- Nambissan, Geeta B, Gender and Education: The Social Context of schooling Girl Children in India, 1995.
- Erik Olin Wright, "From Paradigm Battles to Pragmatist Realism: towards an integrated class analysis", New Left Review (forthcoming)
- Daryl Glaser, "Class as a Normative Category: Egalitarian Reasons to Take It Seriously (With a South African Case Study)
- Daryl Glaser, 'Should An Egalitarian Support Black Economic Empowerment?', Politikon, vol. 34, no. 2, 105-123, 2007.
- John Roemer paper: "Should Marxist's care about exploitation" in Analytical Marxism and Philosophy & public affairs 1985
- Michael Marmot, Richard Wilkinson, Social Determinants of Health: The Solid Facts
- Mel Kohn, Class and Conformity, excerpts
- Mel Kohn and Carmi Schooler, Work and Personality, excerpts
- Gomberg, How to make opportunity equal (Blackwell, 2007)
- Ainscow, M., Booth. T (2003): The Index for Inclusion: Developing Learning and Participation in Schools. Bristol: Center for Studies in Inclusive Education.
- Ahuja. A, Jangira, N.K. (2002): Effective Teacher Training; Cooperative Learning Based Approach: National Publishing house 23 Daryaganj, New Delhi 110002.
- Jangira N.K. and Mani, M.N.G. (1990): Integrated Education for Visually Handicapped, Gurgaon, Old Subjimandi, Academic Press.
- Jha. M.(2002) Inclusive Education for All: Schools Without Walls, Heinemann Educational publishers, Multivista Global Ltd, Chennai, 600042, India.
- Sharma, P.L. (1990) Teachers handbook on IED-Helping children with special needs N. C. E R T Publication.
- Sharma P.L (2003) Planning Inclusive Education in Small Schools, R .I E. Mysore

PART – A: THEORY COURSES PHE-612 Course Title: ATHLETIC CARE AND REHABILITATION

COURSE OBJECTIVES:

- To apprise the students about the introduction to Athletic Care & Rehabilitation
- To synthesize a basic concept of sports injuries and rehabilitation.
- To appraise the varied therapeutic aspects of exercise.
- To appraise the understanding of the preventive and curative aspects of sports injuries.
- To explain the understanding of the rehabilitation aspects of sports injuries
- To describe the knowledge in the field of positive life style.

STUDENT LEARNING OUTCOMES:

- 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.

UNIT I: Introduction to Athletic Care & Rehabilitation

- Meaning, definition and importance of Athletic Care & Rehabilitation
- Concept & Categories of the athletic injuries: Traumatic, Overuse.
- Stages of healing, signs of inflammation.
- Common athletic injuries: Sprain, Strain, Contusion, Dislocation, Fracture
- Types of Skin Wounds: Open & closed wounds, Laceration, Abrasions, Complications of the open wounds of injured athletes.

UNIT II: Prevention & Treatment of Injuries

- Common predisposing factors of athletic injuries.
- Prevention of athletic injuries.
- Common treatment of soft tissue injuries.
- Immediate treatment: PRICE
- Sub acute Phase: General role of therapeutic modalities.
- Rehabilitation; General Principles, role of therapeutic exercises.
- Role of Massage in the treatment of athletic injuries.

UNIT III: Therapeutic Modalities

- Cryotherapy modalities: General description, physiological and therapeutic effects, Methods of application & contraindications.
- Ice, cold packs, immersion, evaporating sprays
- Hydrotherapy Modalities: General description, physiological and therapeutic effects, Mehtods of applications and contraindication: Contrast Bath, Whirl Pool
- Heating Modalities (Thermotherapy): General description, physiological and therapeutic effect, methods of application & contradictions : Hot Moist Packs, Infra-red Radiation, Wax Bath, Short Wave Diathermy, Microwave Diathermy, Ultra Sound

- Electrotherapy Modalities: General description, physiological and therapeutic effects, Methods of application & contraindications: TNS, Interferential therapy (IFT)
- Advanced Therapeutic Modalities : Introduction, Diapulse, LASER Therapies

UNIT IV: Common Regional Injuries of Head, Neck, Spine, Shoulder, Knee & Ankle

- Head Injuries: General concept, explanation of concussion
- Neck Injuries: Mechanism of injuries, general approach.
- Lumbar Spine Injuries: General introduction to ligamentous and muscular injuries, Complications of injuries to nervous tissues.
- Low Back pain: Common causes, general care and prevention.
- Shoulder Injuries: Introduction to shoulder dislocation & rotator cuff injuries.
- Knee Injuries: Introduction to injuries of main ligaments of knee and meniscus tear.
- Ankle Injuries: Introduction to ankle sprains, grades of ankle sprain.
- Overuse Injuries: General approach, brief explanation of shin splints, tennis elbow.

LIST OF PRACTICUM

- Demonstration & practice of Therapeutic Modalities: Infrared, Hot Moist Pack, Wax Bath, Shortwave Diathermy, Ultrasound, Contrast Bath, Whirl Pool.
- Demonstration of Athletics Injuries: Shin Splint, Tennis Elbow, Ankle Sprain, Knee Sprain.
- Demonstration and Practice of Massage

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test, Project Work, Assignments, Presentations, Practical Work **TEXT & REFERENCE:**

- Fritz, S. (2013)Sports & exercise massage. Elsevier mosbyISBN-13: 978-0323083829
- ISBN-10: 032308382X
- McKone, W. (1997). Osteopathic athletic health care. London: Chapman & Hall.ISBN-13: 978-0412590900ISBN-10: 0412590905
- Magee, D. (2011). Athletic and sport issues in musculoskeletal rehabilitation. St. Louis, Mo.: Elsevier/Saunders.ISBN-13: 978-1416022640. ISBN-10: 1416022643
- Miniaci, A., & Iannotti, J. (2014). Disorders of the shoulder. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins Health.ISBN-13: 978-1451130584. ISBN-10: 1451130589
- Puddu, G., Giombini, A., & Selvanetti, A. (2001). Rehabilitation of sports injuries. Berlin: Springer.ISBN-13: 978-3540674757. ISBN-10: 3540674756

PART – A: THEORY COURSES PHE-661 (E) Course Title: DISSERTATION

COURSE OBJECTIVES:

- To enable the students to develop skills and competencies for conducting rigorous, theoretically correct and practically relevant research in Physical Education & Sports
- Student Learning Outcome:
- Develop scholarly inquiry into a problem or issues, involving a systematic approach of gathering and analysis of information/data, leading to production of a structured report.

UNIT – I: Introduction & Review of Related Literature

- Writing Introduction,
- Preparation of review of literature,
- Meta-Analysis, operationalization of terminologies, writing hypothesis.

UNIT – II: Preparation and presentation of report.

- Procedure of selection of subjects,
- Collection of data, administration of tools and statistical procedures, analysis of data,
- Discussion of findings and discussion of hypothesis
- Referencing, plagiarism.

UNIT – III: Types of research proposal:

- Historical Research Proposal,
- Philosophical Research Proposal,
- Experimental Research Proposal and Survey studies

UNIT – IV: Practicum

- Writing research proposal for different types of research
- Reviewing of different research documents
- Meta-Analysis
- Learning the use of different referencing styles, APA etc.

TEACHING LEARNING STRATEGIES: The students shall be encouraged to discussion, use of library, seminars &presentations.

ACTIVITIES: Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc. **ASSESSMENT RUBRIC:** Developing of a synopsis (draft proposal for dissertation)

PART – A: THEORY COURSES PHE-661 (E) Course Title: CURRICULUM DESIGNS IN PHYSICAL EDUCAITON

COURSE 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 realizing the age group, gender consideration and physiological basis.

STUDENT LEARNING OUTCOMES:

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

UNIT - I: Curriculum Meaning and Definition of Curriculum

- Principles of Curriculum Construction: Students centered, Activity centered, Community centered,
- Forward looking principle.
- Principles of integration
- Theories of curriculum development, Conservative (Preservation of Culture).
- Relevance, flexibility, quality, contextually and plurality
- Approaches to Curriculum; Subject centered, Learner centered and Community centered
- Curriculum Framework.

UNIT – II: Factors & Resources

- Factors that affecting curriculum.
- Sources of Curriculum materials text books Journals Dictionaries, Encyclopedias, Magazines, Internet.
- Integration of Physical Education with other Sports Sciences Curriculum research.
- Objectives of Curriculum research Importance of Curriculum research.
- Methods of evaluation.

UNIT – III: Curriculum Practices

- Preparation & selection of content of the curriculum at elementary school level.
- Preparation of the curriculum at the middle and secondary school.
- Organising for instruction in the middle school.
- Organising the program of physical education at the urban and rural areas.
- Disciplinary strategies in physical education.

UNIT – IV: Safety Consideration & Evaluation

- Planning for safety in outdoor settings.
- Planning for safety in indoor settings.
- Planning for safety of spectators.
- Legal liability.
- Negligence and its prevention.
- Curriculum evaluation.
- Evaluation procedure in curriculum design.

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test, Project Work, Assignments, Presentations, Practical Work

TEXT & REFERENCE:

- 1. Kelly, L., & Melograno, V.(2014) Developing the physical education curriculum. ISBN-13: 978-1478627043ISBN-10: 1478627042
- James, J. (2005). Curriculum design in physical education and sports. New Delhi: Friends Publications (India).ISBN-10: 8172161433. ISBN-13: 978-8172161439
- Shinde, B. (2011). Curriculum design in physical education. New Delhi: Sports Publication. ISBN-10: 8178796260. ISBN-13: 978-8178796260
- 4. Mohnsen, B. (2008). Teaching middle school physical education. Champaign, IL: Human Kinetics. ISBN-13: 978-0736068499ISBN-10: 073606849X
- Gupta, R., Sharma, A., & Sharma, S. (2004). Professional preparation and curriculum designs in physical education and sports. New Delhi: Friends Publications. ISBN 13: 9788172160821 (978-81-7216-082-1)ISBN: 8172160828 (81-7216-082-8)
- To observe children and the teaching learning process in a systematic manner.
- To learn to relate to and communicate with children during physical education activity.
- To evaluate physical education curriculum in the schools.
- To experience the school in its totality; activities in addition to classroom teaching include school activities and interaction with parents.
- To assume the role of a regular physical education teacher with appropriate planning taking into account the diverse needs of students and the varying contexts that impact the teaching learning process in physical education.
- To be able to innovate within teaching & coaching of game / sport skills.
- To learn to conduct meaningful classroom activities by careful selection and
- Organization of such activities.
- To learn to assess different aspects of children learning in physical education.

UNIVERSITY OF ALLAHABAD

Department of Physical Education

Detailed Syllabus of the Courses

MPED Semester-IV

PART – B

PHE-641: PRACTICUM COURSES (SPORTS SPECIALIZATION)

(A) TRACK AND FIELD (B) GYMNASTIC (C) SWIMMING (D) COMBATIVE SPORT: BOXING/JUDO/TAEKWONDO/MARTIAL ART & KARATE/ WRESTLING (E) INDIGENOUS SPORT: MALKHAMB/ KABADDI/ KHO-KHO (F) TEAM GAME: BASEBALL/ BASKETBALL/ CRICKET/ FOOTBALL/ HANDBALL/ HOCKEY/ NETBALL/ SOFTBALL/ VOLLEYBALL (G): RACKET GAME: BADMINTON/ TABLE TENNIS/ TENNIS/ SQUASH

Select any one game on the basis of the administrative feasibility

ESSENCE OF THE COURSE

The course of Sports Specialization is designed to provide an opportunity to teacher educators to learn the basic techniques of the game/sport and are not only able to display them but also systematically teach them.

COURSE OBJECTIVES:

- 1. To define and acquaint training preparation of Game/Sport
- 2. To employ the rules and regulation of Game/Sport
- 3. To emphasis on preparation for the Game/Sport.
- 4. To acquaint the student with progressive teaching stages of fundamentals skills of Game/Sport.
- 5. To orient & employ the rules and regulation in organization of competition in Game/Sport.

STUDENT LEARNING OUTCOMES:

- 1. After Completion of the course the students shall be able to:
- 2. Gain knowledge of the Game/Sport.
- 3. Learn the layout and marking for the Game/Sport.
- 4. Demonstrate various drills & lead up activities related to Game/Sport.
- 5. Develop the skills to teach rules, fundamentals and strategies of Game/Sport.

COURSE CONTENTS:

(General guidelines for development of required course contents in particular game/sport are given below)

Note: The course contents to be followed for the purpose of developing practical knowledge		regarding	
marking, rules & regulation, officiating, technical training, tactical training,	psychological	preparation	&
preparation of training schedules)			

UNIT – 1: Introduction

• Layout and marking of play filed/ground/courts and measurement of equipments used in Game/Sport.

UNIT – II: Techniques/Skills development:

- Classification of techniques/skills.
- Technique/skill training: Preparatory, Basic, Supplementary exercises.
- Identification & Correction of faults.
- Training for mastery in technique/skill.
- Recreational and lead-up activities.
- Warm-up and cool down for game/sports.

UNIT –III: Officiating:

- Mechanics of officiating.
- Qualities of good official.
- Duties of official (pre, during and post game)
- Rules & their interpretations.

UNIT - IV: Training (Means & Method)

- Training methods and means for the development of motor abilities (Strength, Speed, Endurance and Flexibility)
- Basic Concept of preparation of training schedules.
- Tactical training in game/sport.
- Psychological preparation required during competition in game/sport.
- Preparation of short term and long term training plans in game/sport.
- Periodization in training of players in game/sport.
- General/specific fitness tests and performance/skill test in game/sport.

TEACHING LEARNING STRATEGIES: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

ACTIVITIES: Lecture//Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRIC: Classroom Test/ Performance Test/ Project Work/ Assignments/ Presentations/ Practical Work/Theory lesson plan

SUGGESTED READINGS

Latest Official Rule Books of International Federations of particular game/sport and Coaching manuals will be utilized.

PART – C: INTERNSHIP TEACHING PHE-642: INTERNSHIP

ESSENCE OF THE COURSE

Internship is a programme with the teacher education institution for the students acting as interns at identified physical education related organisations focusing towards bridging gap between theory and practice through planned and structured tasks or projects designed in-cooperation with the teacher education institute and host association or organization. The programme should be considered as a mentored component whereby faculty from teacher education institution called as faculty mentor and a member from host association or organization known as field mentor together guide groups of students.

COURSE OBJECTIVE

- 1. To facilitate a bridge between what students learn in classroom and observe in the field.
- 2. To provide sustained field work opportunity for students to acquire professional skills in physical education and sports.
- 3. To develop capacities and capabilities for teaching, coaching, officiating in physical education and sports related activities.

STUDENT LEARNING OUTCOMES:

- Demonstrate the practical concepts of teaching practice.
- Develop teaching proficiency for outdoor and indoor activities.
- Organize and compose mass demonstration /displays.
- Develop the knowledge of equipment that can be used for different indigenous activities.

Develop the knowledge of free hand exercises emphasizing on physical fitness, rhythmic sense and neuromuscular co-ordination

COURSE CONTENTS

• Planning, Development and Presentation theory and practical Lessons one the basis of selected sports specialization (Theory/ Marking/ Apparatus/ Equipment/ Officiating/ Technique/ Tactics) on school children/ school team/ club team/stadium trannies/ university students the

TEACHING LEARNING STRATEGIES

• The class will be taught by using the latest/innovative method, as per available resources and teaching aids in the classroom and on the field.

SUGGESTED MODE OF TRANSACTION

• Demonstration/Explanation/Field Work/learning by doing etc.

ASSESSMENT RUBRICS

Other document sheets/records as per list of documents annexure