

# MAHARSHI DAYANAND UNIVERSITY ROHTAK

## DEPARTMENT OF PHYSICAL EDUCATION

### Program Outcomes

#### Physical Education:-

PO 1: To develop a string commitment to promoting equity, acknowledging diversity and establishing supportive environment with respect to Health, Physical Education and Personal Development.

PO 2: To develop and refine motor skill necessary for participation in physical activity and acquire and apply movement Concepts to enhance performance.

PO 3: Develop positive attitude towards participation in regular physical activity and an appreciation of the benefits of physical activity and of the aesthetic and technical qualities of movement.

PO 4: Enhance their own and other self concept and self esteem and develop the skill for creating and main tearing positive interaction and relationship.

PO 5: To evaluate the influence of Physical Activity / Exercise on Biological, Social, Psychological and Physical development of mankind.

### **B.P.ED (Two Year Course) w.e.f 2015-16**

#### **Program Specific Outcomes**

PSO 1: Student would gain conceptual and theoretical knowledge of Anatomy and Physiology, Yoga, Educational Technology and Method of Teaching in Physical Education, Health Education, Physiotherapy and Rehabilitation.

PSO 2: Students would understand the application of statistical principles, principles of sports training, principles of Physiotherapy and Rehabilitation and would be able to apply them in professional areas of Physical Education and Sports.

PSO 3: Students would gain the competency and advance skill for coaching the player of different games.

#### Scheme of examinations

##### **B.P.Ed. (Semester-I)**

Sr. No.	Title of the papers with code	Internal Marks	External marks	Total
1	History, Principles and foundation of Physical Education(101)	20	80	100
2	Anatomy andPhysiology(102)	20	80	100
3	Yoga Education(103)	-	60	60
4	Sports Training (104)	20	80	100

**(Practical)**

		Teaching practice	External marks	Total
5	Game skill	20	80	100
6	Athletics Skill	20	80	100
7	Other Activity	20	80	100
8	Yoga Practical	--	40	40
	<b>Total</b>	120	580	700

**GROUND ACTIVITIES TO BE TAKEN UP DURING 1ST SEMESTER**

A-Games: - 1.swimming\*/ (Badminton/ table tennis), .Basket Ball & Volley ball 100 marks

B-Athletics:-Sprints,Discus&Pole-Vault 100 marks

C-Other Activities: -Aerobics, Action Song & Motion –Story, 100 marks

Note:-

1. In case of swimming the student will have to opt for swimming where facilities exists and the students will be evaluated during the course prior to closer of swimming pool by an internal and external examiner.
2. For practical the students have to prepare and deliver lesson in school, he will have to impart two lesson in each of three practicals subjects on their skills. One of the lesson will be evaluated internally. In addition to these two lesson in each skill/activity, the students will also prepare three lessons in each skills/activity in their practical note book.
3. The practical classes shall be held as per the scheme of each semester. The final practical examinations for each semester shall be conducted by external & internal examiners at the end of each semester. Minimum Five students must opt an optional paper to run the option.

**B.P.Ed. (Semester-II)**

Sr.	Title of the papers with code	Internal Marks	External marks	Total
1	Officiating, Coaching & Theory of Games (201)	20	80	100
2	Educational Technology and Methods of Teaching in Physical Education(202)	20	80	100
3	Computer Applications in Phy. Education(203)	-	60	60
4	Health Education and Environmental Studies(204)	20	80	100
<b><u>(Practical)</u></b>				

		Teaching Practice	External Marks	Total
5	Game SKILL	20	80	100
6	Athletics SKILL	20	80	100
7	Other Activity	20	80	100
8	Computer Practical	--	40	40
	<b>Total</b>	120	580	700

**GROUND ACTIVITIES TO BE TAKEN UP DURING 2nd SEMESTER**

GAME:- Boxing, Cricket & Hand Ball	100 marks
ATHLETICS- Middle & Long Distance Race, High Jump, Hammer	100 marks
Other Activity- Dumble, March-Past, Opening- Closing Ceremony	100 marks

**B.P.Ed. (Semester-III)**

Sr. No.	Title of the papers with code	Internal Marks	External Marks	Total
1	Research & Statistics in Physical Education (301)	20	80	100
2	Sports Medicine, Physiotherapy and Rehabilitation (302)	20	80	100
3	Educational Psychology (303)	20	80	100
4	Optional:- a) Bio-mechanics (304-i) b) Nutrition & Weight Mgt. (304-ii)	20	80	100
<b>(Practical)</b>				
		Teaching Practice	External Marks	Total
6	Games skill	20	80	100
7	Athletics skill	20	80	100
8	Other Activity	20	80	100
	Total	140	560	700

**GROUND ACTIVITIES TO BE TAKEN UP DURING 3rd SEMESTER**

Game :- Judo, Foot Ball & kabaddi	100 marks
Athletics- Middle & Relay- Race, Triple Jump, Shot-Put	100 marks
Other Activity- Mass PT, Elementary Gymnastics	100 marks

**B.P.Ed. (Semester-IV)**

Sr.No.	Title of the papers with code	Internal Marks	External marks	Total
1	Measurement and Evaluation in Physical Education(401)	20	80	100
2	Kinesiology and Biomechanics (402)	20	80	100
3	Olympic Movement(403)	20	80	100
4	Sports Management(404)	20	80	100
<b><u>(Practical)</u></b>				
		Teaching practice	External Marks	Total
5	Game skill	20	80	100
6	Athletics skill	20	80	100
7	Other Activity	20	80	100
	Total	140	560	700

**GROUND ACTIVITIES TO BE TAKEN UP DURING 4th SEMESTER**

Game-Wrestling, Hockey & KHO-KHO	100marks
Athletics- Hurdle, Long Jump, Javelin	100marks
Other Activity- Lazium, Tipri, Flag March	100marks

Distribution of marks for Practicals to be conducted by the External & Internal Examiners of Games, Athletics & Other Activities of 50 marks each for both semesters.

a) Teaching Lesson (Demonstration, Presentation and fault Corrections):	25 marks
	25 marks
b) Viva (markings, rules, regulations and officiating):	15 marks
c) Practical Lesson Plan:-	15 marks
d) Note-book of lesson plan:-	

Distribution of marks for Teaching practice will be as follows:-

a) Teaching Skill	10 marks
b) Attendance	05 marks
c) Teaching Aid	05

Note:-

1. The practical classes shall be held as per the scheme of each semester. The final practical examinations for each semester shall be conducted by external & internal examiners at the end of each semester. Minimum Five students must opt an optional paper to run the options.

2. Each candidate will be evaluated in one Skill given under various heads i.e. Games, Athletics & Other Activities in each semester.
3. The Draw of skill will be drawn seven days before the practical examination.
4. Since this is a professional course aimed at improving the standards of games and sports, therefore, special attention be given to practical aspect covering various areas. For this, 15 hours per week must be devoted to practicals involving teaching skills, out of which three hours will be for their teaching lessons under the supervision of the concerned teacher. To fulfill this aim, the students shall be required to prepare & take one supervisory lesson in each of the activities given under Games, Athletics and Other Activities.
5. The Chairperson/HOD will certify on the student's note-book that all requirements pertaining to teaching practice have been fulfilled by the student. The same has to be verified by the teacher concerned before it is submitted to the Chairperson/HOD.
6. The student is free to choose any one of the events for the examination lesson i.e. Pole-vault, Hammer Throw, Hurdles and triple jump, as these involve difficult skills to demonstrate and teach.
7. Duration of Practical examination will be 3 hours per group followed by Viva-voce.
8. Final lesson will be prepared on a separate chart for practical examination.
9. Each & every student will take part in the intra-mural activities and have the following dress-code for practicals/Intra murals. The colour for different courses will be different: a. For Theory-classes:- Trouser & Shirt (Summer Season), Trouser, Shirt, Tie & Blazer (Winter-season) b. For Practical classes:- T-Shirt & shorts/lowers (Summer Season) T-Shirt with track-suits (Winter Season)
10. All practical external examiners will be appointed by the University out of the panel recommended by the UG/PGBOS. However, internal examiners for these practical examinations will be appointed by the Chairperson/HOD/Principal of the concerned College.

**B.P.ED 1<sup>ST</sup>**  
**HISTORY & PRINCIPLES OF PHYSICAL EDUCATION (101)**

**Maximum Marks: 100**  
**Internal Marks: 20**  
**External Marks: 80**  
**Time: 3 hours**

**COURSE OUTCOMES**

- CO 1: Students would be able to understand the meaning, aim & objectives of Physical Education.
- CO 2: Students would be able to know the Contribution on Physical Education towards general education and misconception about physical education.
- CO 3: Students would be able to know the history of Physical Education in India, Ancient Greek, Germany, Sweden, and Denmark. Students would be able to know the present status of Physical Education in Russia and Japan.
- CO 4: Students would be able to know about IOC policies of Developing of Physical Education & Sports.
- CO 5: Students would be able to know about Indian sports personality and National awards: Arjuna Award, Rajive Gandhi Khel Ratna Award, Dronacharya Award, MAKA Trophy.

**Course Contents**

**UNIT-I**

- Concept of Physical Education: Meaning, Definition & Scope
- Aims & Objectives of Physical Education
- Relationship of Physical Education & Recreation
- Contribution of Physical Education towards General Education
- Foundation of Physical Education, Misconception about Phy. Education

**UNIT-II**

- History of Physical Education in Ancient Greek, Comparative Study of Spartan and Athenian Education.
- The Origin and Development of Olympic Games.
- Development of Asian Games
- Biological Activity, its need, Principles of use & disuse
- Age & Sex Difference
- Classification of Physique

**UNIT-III**

- Physical Education in Germany, Sweden & Denmark (Emphasis only on contribution of Basedaw, Guts-Muths, John Speiss, Machtegal, Long).
- Present status of Physical Education & Recreation in Russia and Japan.
- History of Physical Education in India (Pre- Independence & Post Independence Era).

**UNIT-IV**

- Post Independence development of Phy. Education in India
- IOC Policies of Developing of Physical Education & Sports

- IOC Policies of Developing of Physical Education & Sports
- National awards: Arjuna Award, Rajiv Gandhi Khel Ratna, Award, Dronacharya Award, MAKA Tophy
- Indian Sports Personality-Hockey, Cricket, Wrestling, Badminton
- Haryana Sports Department

### **Suggested Readings**

1. Charles & Bucher, Foundations of Physical Education.
2. Harold M. Barrow, Man & His Movement Principles of Physical Education.
3. J.F.Williams, Principles of Physical Education.
4. Cowel & France, Philosophy and Principles of Physical Education.
5. D.G. Wakhakar, Manual of Physical Education
6. M.L.Kamlesh & M.S.Sangral, Principles & History of Physical Education.
7. Upadyke Johnson, Principles of Modern Physical Education, Health & Recreation.

## **ANATOMY AND PHYSIOLOGY (102)**

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

### **COURSE OUTCOMES**

CO 1: The students would be able to know the skeletal system, cell, tissue, organ , ligament, cartilage, Spinal column, Pelvic Girdle, The extremities, Joints and their movements.

CO 2: The students would be able to know the muscular system & nervous system and effects of exercise on both systems.

CO 3: The students would be able to know Fatigue, staleness, muscle cramp.

CO 4: The students would be able to know about circulatory system and effects of exercise on it.

CO 5: The students would be able to know the digestive system, respiratory system & excretory system and effects of exercise on it.

### **Course Contents**

#### **UNIT-I**

1. . Description of the following: Cell, Tissue, Organ, Ligament, Cartilage etc.
2. The Skeletal System: Its structure and functions
3. Spinal column, Pelvi Girdle-Male & Female, The Thorax, The Extremities, Joints and their Movements.

#### **UNIT-II**

1. The Muscular System: Structure, Types, Functions & Contraction of Muscles
2. Effect of Exercise on the Muscular System
3. Fatigue, Staleness, Muscle Cramp .
4. The Nervous System: The Neuron, Spinal Cord, The Brain, The Autonomic System, Reflex Action, Peripheral Nerves, Influence of Exercise on the Nervous System.

#### **UNIT-III**

1. The Circulatory System: General Arrangement of Circulatory System, Functions of the Circulatory System, Blood, Hameonhage.



2 . The Heart and Blood Vessels, Pulse, Blood Pressure and its Measurement, Effect of Exercise on Circulatory System, Athletic Heart.

#### UNIT-IV

1. The Digestive System: Anatomy of Digestive System, Digestion of Food, Metabolism. Effect of Exercise on the Digestive System.

2. The Excretory System: Anatomy of Excretory System and its Function, the Heat Regulating Mechanism.

3. The Respiratory System, Anatomy of Respiratory System, Mechanism of Respiration, Vital

Capacity, Role of Oxygen in Exercise on the Respiratory System.

#### **Suggesting Readings**

1. Clarke David H., Exercise Physiology Englewood Cliffs. N.J.Prentice Hall Inc 1975

2. Crouch, James E., Functional Human Anatomy, 2<sup>nd</sup> ed. Philadelphia: Lea & Febniger, 1972 6

3. Morehouse and Miller, Physiology of Exercise, St Louis The C.V. Mosby Company, 1

### **YOGA EDUCATION (103)**

**Maximum Marks: 60**

**Time: 3 hours**

### **COURSE OUTCOMES**

CO 1: The students would be able to know the historical background of yoga and importance of yoga.

CO 2: The students would be able to know the Astang yoga, Pranayam, its type, benefit of pranayam and types of Yoga.

CO 3: The students would be able to know the effect of exercise on digestive system, respiratory system, circulatory system.

CO 4: The students would be able to know Satkarms, its benefits, Asanas: types of Asnas, their benefits.

CO 5: The students would be able to know Mudra & Bandha, their benefits.

#### UNIT-I

Historical Background of Yoga Definition of Yoga and its Objectives Importance of Yoga in the

Modern Society Yogic diet, Suitable place, time, dress for practice

#### UNIT-II

Meaning & Importance of Astang Yoga Pranayam, its types and techniques, Benefits of Pranayam,

Shitali, Sheetkari, Kumbak, Kapal Bhatti. Types of Yoga- Hath Yog, Karam Yog, Bhakti Yog, Raj

Yog .

#### UNIT-III

Effect of Yogic Exercises: Digestive System, Respiratory System and Circulatory System. Internal

Purification/Satkarms -Jal Neti and its benefits & technique, Sutar Neti and its technique and benefits

and Vaster Dhoti and its technique & benefit. Asanas: Types of Asnas, their benefits (How Asana are

useful) prevention of diseases through Asana.

## UNIT-IV

Mudra & Bandha:- Jalander Bandh, Mula Bandh and Uddyuan Bandh, their Benefits and technique

Gyan Mudra, Prana Mudra, their techniques and benefits Famous Yogis: Maharishi Patanjali, Gorkh

Nath, Swami Daya Nand, and Arvind Ghosh Famous Institutions: Gurukul Kangri Haridwar, Viveka

Nand Yog Institutions, Bagnlore Yog Bharti Munger (Bihar).

**Reference Book:** YOGA PHILOSOPHY – **S.N. Dasgupta**

BHARAT KA MAHAN YOGI:- **Vishwnath Mukherjee**

TEXT BOOK OF YOGA- **Yogeshwar**

ANATOMY & PHYSIOLOGY – **J.P. Brothers**

ANATOMY & Physiology for Nurses PATANJALI YOGA PRADEEP- **Geeta Press Gorakhpur**

## SPORTS TRAINING (104)

**Time: 3 hours**

**Max. Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

## COURSE OUTCOMES

CO 1: Students would be able to know the meaning, importance, aim-objectives and principles of sports training.

CO 2: Students would be able to know about strength, speed, endurance, coordination, flexibility and training load

CO 3: Students would be able to know the technical and tactical training and their methods.

CO 4: Students would be able to know the meaning and types of periodization, its aim and content of periods.

CO 5: Students would be able to Planning in training session, talent identification.

## Course Contents

### Unit – I Introduction to Sports Training

- Meaning and Definition of Sports Training
- Aim and Objective of Sports Training
- Principles of Sports Training
- System of Sports Training – Basic Performance, Good Performance and High Performance Training

### Unit – II Training Components

- Strength–Mean and Methods of Strength Development
- Speed–Mean and Methods of Speed Development
- Endurance - Mean and Methods of Endurance Development
- Coordination–Mean and Methods of coordination Development
- Flexibility–Mean and Methods of Flexibility Development

### Unit – III Training Process

- Training Load- Definition and Types of Training Load
- Principles of Intensity and Volume of stimulus

- Technical Training–Meaning and Methods of Technique Training
- Tactical Training–Meaning and Methods of Tactical Training

#### **Unit – IV Training programming and planning**

- Periodization–Meaning and types of Periodization
- Aim and Content of Periods–Preparatory, Competition, Transitional etc.
- Planning–Training session
- Talent Identification and Development

#### **References:**

Dick, W. F. (1980). *Sports training principles*. London: Lepus  
 Harre, D. (1982). *Principles of sports training*. Berlin: Sporulated.  
 Matvyew, L.P. (1981). *Fundamental of sports training*. Moscow: Progress Publishers.  
 Singh, H. (1984). *Sports training, general theory and methods*. Patiala: NSNIS.  
 Uppal, A.K., (1999). *Sports Training*. New Delhi: Friends Publication.

### **B.P.ED SEMESTER 2<sup>ND</sup> OFFICIATING COACHING AND THEORY OF GAMES**

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

#### **COURSE OUTCOMES**

CO 1: The students would be able to know the meaning, importance, principles of officiating.

CO 2: The students would be able to know to know the measurement, marking, equipment, rule & regulations of Kabaddi, badminton, judo, kho-kho.

CO 3: The students would be able to know to know the methods of conditioning:, interval training method, circuit training method, weight training method, fartlak method & warming up and cooling down

CO 4: The students would be able to know Doping and its effects on sports performance.

CO 5: The students would be able to know to know the criteria for selection of college/ university team.

#### **Course Contents**

##### **UNIT-I**

A Concept of Officiating: Meaning, Definition, Importance and Principles. B Duties of Officials in General, Pre, During and Post Game C Relation of Officials with Management, Players, Coaches and Spectators.

##### **UNIT-II**

Measurement, Marking, Equipment, Technique and Rule & Regulations of following: 400 meters,

200 mtrs, Track and Field Event Preparation of Score Sheet of Track & Field Events Layout of

Standard Track. Preparation of TA/DA bills Qualities of a Good Official.

##### **UNIT-III**

Measurement, Marking, Equipment, Basic Fundamentals, Rule & Regulations of following Games:

Kabaddi, Badminton, Judo, Kho-Kho Preparation of Score-Sheet of Kabaddi, Badminton, Judo & Kho-Kho  
UNIT-IV

Methods of Conditioning: Interval Method, Circuit Training Method, Weight Training Method, Fartlek Training Method Principles of Training Doping and its Effects on Sports Performance on the

Health of an Athlete. Criteria for Selection of College/University Team Warming up, Cooling Down

and its Physiological Effect.

### **Suggesting Readings**

1. Rules of Games and Sports by YMCA Madras.
2. Athletic training by Cliffs.
3. Rules of Games and Sports by Lokesh Hani.
4. R.L.Anand: Playing field manual NIS Publications.

## **EDUCATIONAL TECHNOLOGY AND METHODS OF TEACHING IN PHYSICAL EDUCATION (202)**

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

### **COURSE OUTCOMES**

CO 1: The students would be able to know the meaning and types of education and educative process and importance of methods of teaching,

CO 2: The students would be able to know about teaching techniques, personal and technical preparation in presentation technique.

CO 3: The students would be able to know about command and its types & teaching aids and Lesson planning.

CO 4.: The students would be able to know Micro teaching & macro teaching.

CO 5: The students would be able to know the meaning, types and steps of stimulation teaching.

### **Course Contents**

#### **Unit – I Introduction**

- Education and Education Technology- Meaning and Definitions
- Types of Education- Formal, Informal and Non- Formal education.
- Educative Process
- Importance of Devices and Methods of Teaching.

#### **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
- Command- Meaning, Types and its uses in different situations.

### **Unit – III 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.
- Difference between Teaching Methods and Teaching Aid.

### **Unit – IV Lesson Planning and Teaching Innovations**

- Lesson Planning–Meaning, Type and principles of lesson plan.
- General and specific lesson plan.
- Micro Teaching–Meaning, Types and steps of micro teaching.
- Simulation Teaching - Meaning, Types and steps of simulation teaching.

#### **References:**

- Bhardwaj, A. (2003). *New media of educational planning*. New Delhi: Sarup of Sons.
- Bhatia, & Bhatia, (1959). *The principles and methods of teaching*. New Delhi: Doaba House.
- Sampath, K., Pannirselvam, A. & Santhanam, S. (1981). *Introduction to educational technology*. New Delhi: Sterling Publishers Pvt. Ltd.
- Walia, J.S. (1999). *Principles and methods of education*. Jullandhar: Paul Publishers.

## **COMPUTER APPLICATION -203**

**Maximum Marks: 60**

**Time: 3 hours**

### **COURSE OUTCOMES**

CO 1: The students would be able to understand the basics & types of computer.

CO2: The students would be able to aware about fundamentals of computer hardware and software.

CO3: The students would be able to understand and able to use of different types of application software i.e. MS-word, MS-Excel etc.

CO4: The students would be able to use computers for collection and dissemination of information throughout the world.

#### **UNIT-I**

Concept of Computer & its Basics History, Application, Characteristics, Classification of Computers

(Analog, Digital, Hybrid) Physical Structure of Computer Use of Computers Human vs. Computer

Role of Computer in Various Fields. Aspects and Need of Computers Education

#### **UNIT-II**

**COMPONENTS OF COMPUTER SYSTEM: AN INTRODUCTION OF HARDWARE AND SOFTWARE** Components of Computer System CPU, (CU, ALU, Main Memory) Input Devices

(Keyboard, Mouse and Track Ball, Touchpad, Joysticks, Touch-Sensitive Screens, Data Scanning

Devices, Bar Code Readers) Output Devices (Monitor, Laser, LCD) Hard Copy Devices (Printers)

UPS and types of UPSs. Operating System Program Languages Translator Application Program,

Package

UNIT-III

INTRODUCTION TO WINDOWS Windows Features Windows Accessories-Calculator, Notepad, Word-pad, Paint. Structure of Window Screen (Desktop, Wallpaper, Taskbar, Icons) Start Button

Programms, Documents, Setting Search, Help & Support, Run, Concept of file & folders, Shut down.

Operating System: Functions & Types Function and type of Operating System. Virus:-

Types, Symptoms & Effects. Anti virus software.

UNIT-IV

MS OFFICE Word –Introduction to Word Processor, Creating & Saving Documents, Editing &

Formatting, a Document including Color, Size, Font, Alignment of Text, Printing a Document,

Inserting Word Art, Clipart & Picture, Page Sorting, Bullets and Numbering, Inserting Tables, Mail,

Merge. Power Point-Introduction to Excel, Need of Spreadsheet, Creating, Opening & Saving

Workbook, Editing Worksheet, Using Links, Applying Different Views, Types of Functions. Key

statistical functions. Benefits of Internet.

Type of connections: Dial-up, Dedicated or Leased Lines, Wi-fi. Using Search Engine

Downloading the information. Communication on the Internet: e-mail, Chatting, Internet Newsgroups.

COMPUTER PRACTICALS: (SEMESTER -1st)

I) Window operating system:- 10 marks

II) MS word :15 marks

III) Use of Internet: 15 marks

**Total: 40 marks**

**Suggested Readings**

1. Arora S.: Introduction to information and Technology Dhanpat Rai & Co. (Pvt.) Ltd. Education &

Technical publisher (2002)

2. Nasib Gill: Essential of Computer, and network Technologies. Khana book Publishing Company

Darya Ganj New Delhi (2000)

3. Hussain: Computer technology & application 1996

4. Carter Roger: The information Technology handbook, Heinmar Professional Publishing Ltd.

(1987) 5. Raja Raman V. Fundamentals of computer, Prentice Hall of India Pvt Ltd 1982. 6. Raja

Gopalan R: Understanding Computers, Tata Mcgraw Hill Publishing Company Ltd. 1990.

5. Bhattacharjee Dibyojyoti (2010), Practical Statistics: Using Microsoft Excel, Asian Books, Asian

Books Private Limited, New Deli

6. ITL Education Solution Limited (2012), Introduction to information Technology, Pearson, New

## HEALTH EDUCATION AND ENVIRONMENTAL STUDIES (103)

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

### COURSE OUTCOMES

CO1: The students would be able to know the meaning, importance of health education and its role in physical education.

CO 2: The students would be able to know care of personal hygiene and different aspects of school health programme.

CO 3: The students would be able to know the meaning, need and scope of environmental studies and environment conservation and sustainable development.

CO 4: The students would be able to know the meaning, effects and control measures of: air pollution, water pollution, soil pollution, noise pollution, thermal pollution.

CO 5: The students would be able to know the management of environment and govt. Policies, role of pollution control board.

### UNIT-I -Health Education

- Concept of Health Education: Meaning, Definition Importance of Health Education in Physical Education & Sports, Role of Health Educator
- Aim, objective and Principles of Health Education
- Scope of Health Education in Physical Education & Sports
- Concept of Health in Sports, Factors affecting Health in Sports
- Care of Skin, Hair, Eyes, Ear, Nose, Teeth, Hands and Clothes.

### UNIT-II -SCHOOL HEALTH PROGRAMME

Need and Importance of School Health Services

Health Supervision, Health Records of Students

Different Aspects of School Health Program

Personal and Environmental Hygiene for schools

Healthful school environment, first- aid and emergency care

### UNIT-III- 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 & prohibition of plastic bag / cover.
- Role of school in environmental conservation and sustainable development.

### UNIT-IV Natural Resources and related environmental

**issues:**

- Water resources, Food resources and Soil- 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.

**Suggested Readings** 1. Dehl: Healthful living, MC Graw Hill. 2. Physical Education & Health (Dr.

A.K. Uppal, Dr. G.P.Gautam) 3. Obertaufor: School Health Education 4. Agrawal, K.C. (2001).

**(Semester-3rd)**

**301- RESEARCH AND STATISTICS IN PHYSICAL EDUCATION**

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

**COURSE OUTCOMES**

CO 1: The Students would be able to know the Meaning, Need and importance of Research in Physical Education and sports.

CO 2: The Students would be able to know and understand the concept of Research Problem, review of related literature

CO 3: The Students would be able to know the Need for surveying, Research Proposal & Research Report

CO 4: The Students would be able to know the Meaning, Definition, Nature and Importance of Statistics.

CO 5: The Students would be able to know about the Statistical Models in Physical Education and Sports.

**Course Contents**

**Unit-I Introduction to Research**

- Definition of Research
- Need and importance of Research in Physical Education and Sports.
- Scope of Research in Physical Education & Sports.
- Classification of Research
- Research Problem, Meaning of the term, Location and criteria of Selection of Problem, Formulation of a Research Problem, Limitations and Delimitations.

**Unit-II Survey of Related Literature**

- Need for surveying related literature.
- Literature Sources, Library Reading
- Research Proposal, Meaning and Significance of Research Proposal.
- Preparation of Research proposal / project.
- Research Report: A group project is to be undertaken by a small batch of students under the supervision of a teacher, wherein it is expected to survey school facilities of physical education, health assessment programme evaluation, fitness status of the students, staff and other stakeholders etc. and submit the report to the institution.

**Unit-III Basics of Statistical Analysis**

- Statistics: Meaning, Definition, Nature and Importance
- Class Intervals: Raw Score, Continuous and Discrete Series, Class Distribution, Construction of Tables



- Graphical Presentation of Class Distribution: Histogram, Frequency Polygon, Frequency Curve. Cumulative Frequency Polygon, Ogive, Pie Diagram **Unit- IV Statistical Models in Physical Education and Sports**

- Measures of Central Tendency: Mean, Median and Mode-Meaning, Definition, Importance, Advantages, Disadvantages and Calculation from Group and Ungrouped data

- Measures of Variability: Meaning, importance, computing from group and ungroup data

- Percentiles and Quartiles: Meaning, importance, computing from group and ungroup data

**References:**

Best, J.W. (1963). *Research in education*. U.S.A.: Prentice Hall.

Clark, H. H., & Clark, D. H. (1975). *Research process in physical education*. Englewood cliffs, New Jersey: Prentice Hall, Inc.

Garrett, H.E. (1981). *Statistics in psychology and education*. New York: VakilsFeffer and Simon

Ltd.

Thomas, J.R., Nelson, J.K. & Silverman, S.J. (2011). *Research method in physical activity*.

U.S.A: Champaign, IL: Human Kinetics Books.

Uppal, A. K. (1990). *Physical fitness: how to develop*. New Delhi: Friends Publication.

Verma, J. P. (2000). *A text book on sports statistics*. Gwalior: Venus Publications.

**302 SPORTS MEDICINE, PHYSIOTHERAPY  
ANDREHABILITATION**

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

**COURSE OUTCOMES**

CO 1: The Students would be able to know the Meaning, Need & Importance of Sports Medicine in Physical Education.

CO 2: The Students would be able to know and understand the concept of Athletes Care and Rehabilitation and sports injuries

CO 3: The Students would be able to know and understand the concept of first aid.

CO 4: The Students would be able to know and understand the importance and Guiding principles of physiotherapy.

CO 5: The Students would be able to know the Definition, Scope and Principles of Therapeutic Exercise & Physiological Effect of Massage.

**Course Contents**

**Unit-I: - Sports Medicine:**

- Sports Medicine: Meaning, Definition, Aims, Objectives, Modern Concepts and Importance.

- Athletes Care and Rehabilitation: Contribution of Physical Education Teachers and Coaches.
- Need and Importance of the study of sports injuries in the field of Physical Education
- Prevention of injuries in sports–Common sports injuries–Diagnosis–
- First Aid - Treatment - Laceration – Blisters – Contusion - Strain – Sprain – Fracture – Dislocation and Cramps – Bandages – Types of Bandages – trapping and supports.

### **Unit-II: Physiotherapy**

- Definition – Guiding principles of physiotherapy,
- Importance of physiotherapy,
- Introduction and demonstration of treatments - Electrotherapy – infrared rays –
- Introduction and demonstration of treatments -Ultraviolet rays –short wave diathermy – ultrasonic rays.

### **Unit-III: Hydrotherapy**

- Introduction and demonstration of treatments of Cry therapy, Thermo therapy, Contrast Bath,
- Introduction and demonstration of treatments of 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, Forced and passive - stretching) – active movements (concentric, Eccentric and static) application of the therapeutic exercise:
- Free Mobility Exercise – Shoulder, Elbow – Wrist and Finger Joints Hips, Knee, ankle and Foot joints – Trunk, head and neck exercises.

### **References:**

- Christine, M. D., (1999). *Physiology of sports and exercise*.USA: Human Kinetics.
- David, R. M. (2005).*Drugs in sports*, (4th Ed).Routledge Taylor and Francis Group.
- Jayprakash, C. S., Sports Medicine, J.P. Brothers Pub., New Delhi, 2003.
- Pandey, P.K., (1987). *Outline of sports medicine*, New Delhi: J.P. Brothers
- Williams, J. G. P. (1962). *Sports medicine*. London: Edward Arnold Ltd.

## 303 EDUCATIONAL PSYCHOLOGY

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

### COURSE OUTCOMES

CO 1: The Students would be able know the Meaning, Need & Importance of Psychology in Physical Education.

CO 2: The Students would be able to know the Meaning, Definition & Nature and Types of Intelligence and personality.

CO 3: The Students would be able to know and understand the Nature of Human Growth and Development.

CO 4: The Students would be able to know the Concept of Learning

CO 5: The Students would be able to know and understand the Types and Nature of Individual Differences.

### **Course Contents**

#### UNIT-I -INTRODUCTION

- Psychology its Meaning & Definition. Psychology as a Science
- Scope & Importance of Psychology in Physical Education
- Intelligence Concept of Intelligence: Meaning, Definition & Nature
- Types of Intelligence. Theories of Intelligence

#### UNIT-II -DEVELOPMENTALPSYCHOLOGY

- Nature of Human Growth and Development
- General Characteristics of Physical, Intellect; Emotional and Social Development during Infancy, Childhood & Adolescence.
- PERSONALITY Concept of Personality: Meaning & Definition, Classification of Personality, Dimension of personality

#### UNIT-III-INDIVIDUAL PSYCHOLOGY

- Individual Differences: Types and Nature
- Determinants of Individual Differences: Heredity and Environment.
- LEARNING Concept of Learning: Meaning, Definition, Nature Laws & Theories of Learning, Plateau in Learning & Transfer of Learning

#### UNIT-IV

- Concept of Motivation: Meaning, Definition & its Nature, Factors influencing Motivation, Techniques of Motivation, Motivation & Sports Performance
- Anxiety: its Nature and Kinds, Anxiety and performance, Management of Anxiety.
- Concept of Adjustment: Meaning & Definition, Personal & Social Adjustment, Causes of Maladjustment, Role of Physical Education in Preventing Maladjustment & Promoting Mental Health.

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### **REFERENCE BOOKS**

1. Crow, Educational Psychology-Little field adams & Co., 1979.
2. J.Ross, Ground work of Education Psychology.
3. Mathur, S.S., Educational Psychology, Vinod Pustak Mandir, Agra-1962.
4. Jack H., Psychology of Coaching: Theory and Application

## 304 Options-(A) BIO-MECHANICS

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

### COURSE OUTCOMES

CO 1: The Students would be able to know the Meaning, definition, functions and importance of biomechanics in Physical Education and Sports.

CO 2: The Students would be able to know and understand the Fundamental Mechanical Concept of: Force, Pressure, Mass, Weight, Volume and Density.

CO 3: The Students would be able to know the Newton laws of motion, Force, levers and their application in sports.

CO 4: The Students would be able to know and understand the concept of Spin, Rebound and Swing and their application in Physical Education & Sports.

CO 5: The Students would be able to know and understand the Aerodynamic forces in Physical Education & Sports.

### UNIT-I

Meaning, definition, functions and importance of biomechanics in Physical Education and Sports. Fundamental Mechanical Concept of: Force, Pressure, Mass, Weight, Volume and Density. Forces acting on a system: properties of a force: Types of forces: Reaction Force, Friction Force, Centripetal and Centrifugal Force and their application in Sports.

### UNIT-II

Linear Movement, Linear speed and velocity. Linear acceleration. Relationship of force, mass and linear acceleration, Linear momentum, Linear impulse Newton laws of motion and their application in sports Rotatory Movement: (a) Angular speed and velocity (b) Angular acceleration

### UNIT-III

Spin, Rebound and Swing and their application in Physical Education & Sports  
( A) Spin and its types,  
( B) Effects of spin on speed of the ball on the surface.  
(C) Effects of spin on speed and direction of the ball in flight  
(D) The Magnus effect its application in Sports Meaning and Application of Following Aerodynamic forces in Physical Education & Sports: (a) Skin Friction (b) Profile Drag (c) Effects of Streamline on Drag (d) Terminal Velocity (Freefall)

### UNIT-IV

A Definition description and application of levers in Physical Education and Sports  
B Advantages of levers  
C Classes of lever, Balance and Equilibrium :- a. Stable, unstable and neutral equilibrium  
(b ) Balance in static position (c) Factors effecting stability

Reference Books:

1. Gowitzke, BA and Milner M. 1998, Scientific Basis of human movement (3rd Edition)

2. Hay, J (1978) The Bio-Mechanics of Sports Techniques 2nd Edition Englewood Cliffs: Prentice Hall
3. Kreighbaum & Bartheles, Biomechnis, Ny: Macmillan 1985.
4. Mood S.D. Beyond Biomechanics-New York – Taylor (1996)

### **304Option-(B) SPORTS NUTRITION AND WEIGHT MANAGEMENT**

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

#### **COURSE OUTCOMES**

CO 1: The Students would be able to know the Meaning and Definition of Sports Nutrition

CO2: The Students would be able to know the Role of carbohydrates, Fat and protein during exercise.

CO 3: The Students would be able to know and understand the Role of hydration during exercise.

CO 4: The Students would be able to know and understand the Concept of weight management in modern era.

CO 5: The Students would be able to know the Definition, meaning and types of obesity and planning of Weight Management

#### **Unit – I Introduction to Sports Nutrition**

- Meaning and Definition of Sports Nutrition
- Basic Nutrition guidelines
- Role of nutrition in sports
- Factor to consider for developing nutrition plan

#### **Unit – II Nutrients: Ingestion to energy metabolism**

- Carbohydrates, Protein, Fat–Meaning, classification and its function
- Role of carbohydrates, Fat and protein during exercise
- Vitamins, Minerals, Water–Meaning, classification and its function
- Role of hydration during exercise, water balance, Nutrition – daily caloric requirement and expenditure.

#### **Unit – III Nutrition and Weight Management**

- Meaning of weight management Concept of weight management in modern era Factor affecting weight management and values of weight management
- Concept of BMI (Body mass index), Obesity and its hazard, Myth of Spot reduction, Dieting versus exercise for weight control, Common Myths about Weight Loss
- Obesity–Definition, meaning and types of obesity,
- Health Risks Associated with Obesity, Obesity - Causes and Solutions for Overcoming Obesity.

#### **Unit – IV Steps of planning of Weight Management**

- Nutrition–Daily calorie intake and expenditure, Determination of desirable body weigh
- Balanced diet for Indian School Children, 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

#### **References:**

Bessesen, D. H. (2008). Update on obesity. *J ClinEndocrinolMetab.*93(6), 2027-2034.

DeMaria, E. J. (2007). Bariatric surgery for morbid obesity. *N Engl J Med*, 356(21), 2176-2183.

Dixon, J.B., O'Brien, P.E., Playfair, J. Adjustable gastric banding and conventional therapy for type 2 diabetes: a randomized controlled trial. *JAMA*. 299(3), 316-323.

### (Semester- 4th)

## 401 MEASUREMENTS AND EVALUATION

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

### COURSE OUTCOMES

CO 1: The Students would be able to know the Meaning, Need & Importance of Test, and Measurement & Evaluation in Physical Education

CO 2: The Students would be able to know and understand the concept of Administration of test.

CO 3: The Students would be able to know the Type and classification of Test

CO 4: The Students would be able to know and understand the different Physical and motor Fitness Tests.

CO 5: The Students would be able to know and understand the different Sports Skill Tests Course Contents

#### Unit- I

- - Introduction to Test, Measurement & Evaluation
- • Meaning of Test, Measurement & Evaluation in Physical Education
- • Need & Importance of Test, Measurement & Evaluation in Physical Education
- • Principles of Evaluation
- **Unit-II Criteria: Classification and Administration of test**
- • Criteria of good Test
- • Criteria of tests, scientific authenticity (reliability, objectivity, validity and availability of norms)
- • Type and classification of Test
- • Administration of test, advance preparation–Duties during testing–Duties after testing.
- **Unit- III Physical and motor Fitness Tests**
- • AAHPER youth fitness test
- • Indiana Motor Fitness Test
- • JCR test
- **Unit- IV Sports Skill Tests**
- • Lockhart and McPherson badminton test
- • Johnson basketball test
- • McDonald soccer test
- • S.A.I volleyball test

- S.A.I Hockey test
- **References:**
- Barrow, H. M., &McHee, R. (1997).*A practical approach to measurement in physical education*. Philadelphia: Lea and Febiger.
- Kansal, D.K. (1996).*Test and measurement in sports and physical education*. New Delhi: D.V.S. Publications.
- Mathews, D.K., (1973). *Measurement in physical education*, Philadelphia: W.B.SoundersCompnay.
- Phillips, D. A., &Hornak, J. E. (1979). *Measurement and evaluation in physical education*. New York: John Willey and Sons.

## 402 KINESIOLOGY& BIO-MECHANICS

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

### COURSE OUTCOMES

CO 1: The Students would be able to know the Meaning, Definition, and Scope & Importance of kinesiology.

CO 2: The Students would be able to know the concept and Terminology of various types of Movements around Joints.

CO 3: The Students would be able to know and understand the Structural and functional Classification of Muscles and Postural Defects Injuries

CO 4: The Students would be able to know the Basic Concept of Force, Motion, Newton;s Laws, Equilibrium and Centre of Gravity.

CO 5: The Students would be able to know and understand the Characteristics and Functions of Shoulder Joint & Shoulder Girdle Muscles and Hip Joint Muscles.

### **Course Contents**

#### UNIT-I

INTRODUCTION Concept of Kinesiology: Meaning, Definition, Scope & Importance. Application

of Kinesiology in Phy. Education & Sports Balanced Posture: Common Posture Deformities Corrective Exercises for Postural Defects Injuries, Sprain, Strain & Contusion & their Treatment

#### UNIT-II

Terminology of various types of Movements Around Joints. (i) Body planes (ii) Body Axis and their

Types (i) Spine (ii) Shoulder (iii) Shoulder Girdle (iv) Hips (v) Elbow (vi) Knee (vii) Ankle

#### UNIT-III

Structural Classification of Muscles on the basis of Attachment. Functional Classification of Muscles

(iii) Technology of Muscular Attachment (iv) Method of Assessing a Joints Range of Motion (v)

Technique for Increasing Joint Flexibility (vi) Basic Concept of Force, Motion, Newton;s  
Laws,

Equilibrium and Centre of Gravity.

UNIT-IV

Characteristics and Functions of Shoulder Joint & Shoulder Girdle Muscles: Deltoid,  
Latissimus

Dorsi, Pectorals Major, Trepezius Characteristics and Functions of Elbow Joint Muscles.  
Biceps

Brachi, Brachialis and Triceps **Lower Extremity** Characteristics and Functions of Hip Joint  
Muscles; Gluteous Maximum, Characteristics and Function of Knee Joint, Gastrocnemius.  
Hamstrings, Biceps Femoris, Rectos Femoris, Sartoris Characteristics and Functions of  
Individual

Muscles Rectos Abdorminus, Sterno-Cleidomastoid.

### 403- OLYMPIC MOVEMENT

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

### COURSE OUTCOMES

CO 1: The Students would be able to know about the Origin of Olympic Movement, Educational and cultural values of Olympic movement.

CO 2: The Students would be able to know the concept of Modern Olympic Games and Olympic code of Ethics, Para Olympic, Summer Olympics, Winter Olympics and Youth Olympic Games.

CO 3: The Students would be able to know and understand the -Structure and Functions of International Olympic Committee.

CO4: The Students would be able to understand the role of National Olympic committees in Olympic movement

### *Course Contents*

#### **Unit – I Origin of Olympic Movement**

Philosophy of Olympic movement

- The early history of the Olympic movement

The significant stages in the development of the modern Olympic movement

- Educational and cultural values of Olympic movement

#### **Unit – II Modern Olympic Games**

- Significance of Olympic Ideals, Olympic Rings, Olympic Flag

- Olympic Protocol for member countries

- Olympic code of Ethics

- Olympism in action

- Sports for All

#### **Unit – III Different Olympic Games**

- Para Olympic Games

- Summer Olympics

- Winter Olympics

- Youth Olympic Games



#### **Unit – IV Committees of Olympic Games**

- International Olympic Committee - Structure and Functions
- National Olympic committees and their role in Olympic movement
- Olympic commission and their functions
- Olympic medal winners of India

#### **Reference:**

Osborne, M. P. (2004). *Magictree house fact tracker: ancient Greece and the Olympics: a nonfiction companion to magic tree house: hour of the Olympics*. New York: Random House Books for Young Readers.

Burbank, J. M., Heying Boulder, C. H. (2001). *Olympic dreams: the impact of megaeventson local politics*: Lynne Rienner

## 404 SPORTS MANAGEMENT

**Maximum Marks: 100**

**Internal Marks: 20**

**External Marks: 80**

**Time: 3 hours**

### COURSE OUTCOMES

CO 1: The Students would be able to know the concept, Meaning, Importance & Scope of Sports Management.

CO 2: The Students would be able to understand the concept of Factors Affecting Teaching and Various Methods of Teaching.

CO 3: The Students would be able to know the Meaning and Types of Class Management

CO 4: The Students would be able to know and understand the concept of Tournaments.

CO 5: The Students would be able to know the Meaning, Importance and Principles of Administration and Organization and management of sports equipment

### *Course Contents*

#### **UNIT-I**

Concept of Sports Management: Meaning, Importance & Scope, Factors Influencing Sports Management, Factors Affecting Teaching and Various Methods of Teaching, Steps of Personnel and Technical Preparation, Meaning Importance and Types of Audio Visual Aids.

#### **UNIT-II**

Meaning and Types of Class Management. Salient Features of Good Class Management Factors Affecting Class Management, Meaning & Values of Lesson Plan- Games, Gymnastic, Athletic and Indigenous Activity, Classification of Exercises and Activities and its Importance, Meaning & Importance of Tournaments, Types of Tournament Knockout and League, their Advantages and Disadvantages.

#### **UNIT-III**

Meaning Importance and Principles of Administration and Organization. Factors Influencing Good Administration Qualities of Physical Education Teachers. Playgrounds, Area, Location, Layout and Care of Sports Equipments. Need, Importance and Purchase of Sports Equipment., Storage of Sports Equipment, Categorization/type of sports equipment

#### **UNIT-IV**

Need & Importance of Curriculum Planning. Time-Table, Factors Affecting Time-Table, Objectives, Principles and Precautions in Preparation of Time-Table. Intramural Objectives and Organization Budget Importance and Criteria for a Good Budget. Meaning & Importance, Types of Records and

Registers. Evaluation-Meaning Need, Importance and Methods of Evaluation.  
Characteristics of a  
Good Supervision and Inspection, Qualities of Good Supervisor. Type of Supervision,  
Organization  
and Conduct of Tournaments and Athletic Meets.

RECOMMENDED BOOKS

1. P.M. Loseph, Organization of Physical Education.
2. Suraj Singh, Administration of Physical Education
3. D.G.Wakherker, Manual of Physical Education.