

BHARATI VIDYAPEETH DEEMED UNIVERSITY
(Established u/s 3 of UGC Act 1956, vide notification no. F9. 15.U.3 of Govt. of India)

COLLEGE OF PHYSICAL EDUCATION
Dhankawadi, Pune-411 043 (Maharashtra),
Tel.020-24373741

REACCREDITED 'A' GRADE BY NAAC



Master of Physical Education
(M.P.Ed)-2Years

(4 Semester Programme)

Curriculum Framework & Syllabus

CURRICULUM FRAMEWORK

**GUIDELINES OF REGULATIONS AND SYLLABUS STRUCTURE FOR M.P.
ED. TWO YEARS PROGRAMME (FOUR SEMESTERS)
CHOICE BASED CREDIT SYSTEM (CBCS)**

Preamble: The Master of Physical Education (M.P.Ed.) two years (Four Semesters, Choice Based Credit System) programme is a professional programme meant for preparing Physical Education Teachers for senior secondary (Class XI and XII) level as well as Assistant Professor/Directors/Sports Officers in Colleges/Universities and teacher educators in College of Physical Education.

The M.P.Ed. programme is designed to integrate the study of childhood, social context of Physical Education, subject knowledge, pedagogical knowledge, aim of Physical Education and communication skills. The programme comprise of compulsory and optional theory, Specialization and Teaching Practice

Programme Outcome

1. The Master of Physical Education (M.P. Ed.) two years (Four Semesters, Choice Based Credit System) programme is a professional programme meant for preparing Physical Education Teachers for senior secondary (Class XI and XII) level as well as Assistant Professor/Directors/Sports Officers in Colleges/Universities and teacher educators in College of Physical Education.
2. To prepare the leaders who can work in Health and Fitness Industry as Fitness and Wellness experts.
3. To prepare Sports Experts in various capacities like Trainers, Physiotherapists, Rehabilitation Experts, Sports Counsellors, Game Officials, Scorers, Referees etc.
4. To prepares Experts who can work with various Sports Federations/Organisations/Leagues/Media Houses.

Intake, Eligibility and Admission Procedure: The Intake, Eligibility and Admission Procedure are as per the NCTE norms and standards.

Eligibility

(a) Bachelor of physical education (B.P.Ed.) or equivalent with at least **50% marks.**

Or

(b) A candidate, who has passed any one of B.Ed (Phy.Edu), B.P.E. (4 yrs) or any other equivalent degree.

Number of seats: As approved by NCTE for M.P.Ed. Course.

Note:-

*Married girl is eligible for admission to M.P.Ed. programme. But, it is also compulsory for her to sign an undertaking that she will discontinue the programme at once for at least one academic year, if she gets pregnant during the course of study. She can join back afresh from the beginning of the semester keeping the guidelines pertaining to the maximum duration of the course in mind.

*No differently-abled candidate is eligible for the admission in M.P.Ed. programme.

Admission procedure: Admission shall be made on merit on the basis of marks obtained in the entrance examination consisting of 100 marks based on the following.

a- Written test	50 marks
b- Sports proficiency test	30 marks
c- Interview	10 marks
d- Sports achievement	10 marks

The total entrance test will be conducted in two days and could be extended, if needed and it will be conducted at College of Physical Education, Bharati Vidyapeeth University.

- (A) **Theory Paper** comprising of 50 multiple-choice questions of one and half hours duration carrying 50 marks. Questions shall be based on B.P.Ed. course.
- (B) There shall be **Physical Fitness** of 30 marks will be conducted by Internal Examiners of College of physical education.
- (C) **Interview** comprising of 10 marks will be conducted by Internal Examiners of College of Physical Education

(D) Weightage :- Candidate shall be given maximum 10 marks weightage on the basis of their sports participation in any one of the following level:

Participation	Marks
➤ International:	10
➤ Senior National championship/ National Games:	
1st Place :	10
2nd Place :	08
3rd Place :	07
Participation:	05
➤ All India Inter-Zonal Inter University Competitions:	
1st Place :	08
2nd Place :	07
3rd Place :	06
Participation:	05
➤ Zonal Inter University Competitions/Junior National Competitions:	
1st Place :	07
2nd Place :	06
3rd Place :	05
Participation:	04
➤ Senior State Championship/Rural national games/Women festival:	
1st Place :	05
2nd Place :	04
3rd Place :	03
Participation:	02

Note:-

*The marks will be given in only those games/sports, which are in the competition list of Association of Indian Universities (AIU) and/or School Games Federation of India (SGFI).

*The obtained position must be during last five academic sessions.

*The school state championship and inter collegiate championship participation shall be considered for eligibility criteria only; candidate shall not get any marks for sports weightage.

Medical examination: Qualified candidates will have to submit medical certificate by CMO and blood group certificate to the concern College

Course fee: It has been decided by the B.O.S. that the convener of the B.O.S. is authorized to submit the proposal of the M.P.Ed Fees Structure to the University Authorities with consultation with the Internal members of B.O.S.

Duration: The M.P.Ed programme shall be of duration of two academic years, that is, four semesters. However, the students shall be permitted to complete the programme requirements within a maximum of 4 years from the date of admission to the programme.

The student, who discontinue the programme after one year or more semesters due to extraordinary circumstances, are allowed to continue and complete the programme with due approval from the Principal.

The CBCS System: M.P.Ed Programmes shall run on Choice Based Credit System (CBCS). It is an instructional package developed to suit the needs of students, to keep pace with the developments in higher education and the quality assurance expected of it in the light of liberalization and globalization in higher education.

Course: The term course usually referred to, as 'papers' is a component of a M.P.Ed programme. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise Lectures/ tutorials/laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/ seminars/ term papers/assignments/ presentations/ self-study etc. or a combination of some of the

Courses of Programme: The M.P.Ed. Programme consists of a number of courses, the term 'Course' applied to indicate a logical part of subject matter of the programme and is invariably equivalent to the subject matter of a "paper" in the conventional sense. The following are the various categories of courses suggested for the M.P.Ed. Programme.

a) Theory:

Core Course

Elective Course

b) Practicum:

c) Specialization

d) Teaching Practices:

Programme Outcome

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Professor/Directors/Sports Officers in Colleges/Universities and teacher educators in College of Physical Education.

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4. To prepares Experts who can work with various Sports Federations/Organizations/Leagues/Media Houses

Semesters: An academic year is divided into two semesters. Each semester will consist of 17-20 weeks of academic work equivalent to 100 actual teaching days. The odd semester may be scheduled from July to November/December and even semester from November / December to April/May.

Credits: The term 'Credit' refers to a unit by which the programme is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or one and half hours of practical work/field work per week. The term 'Credit' refers to the weight given to a course, usually in relation to the instructional hours assigned to it. The total minimum credits, required for completing a M.P.Ed. Programme is 90 credits and for each semester 20 credits. Total Number of hours required to earn 1 credit is 20-25 hrs in theory and 30 hrs in Practical.

Condonation: Student must have 75% of attendance in each course for appearing the examination. Students who have 74% to 65% of attendance shall apply for condonation in the prescribed form along with the Medical Certificate or proof of participation in intercollege or inter university competitions. Students who have 64% to 50% of attendance shall apply for condonation in prescribed form along with the Medical Certificate. Students who have below 50% of attendance are not eligible to appear for the examination.

Provision of Bonus Credits Maximum 06 Credits in each Semester

S. No.	Special Credits for Extra Co-curricular Activities	Credit
1.	Sports Achievement at Stale level Competition (Medal Winner)	1
	Sports Achievement National level Competition (Medal Winner)	2
	Sports participation International level Competition	4
2.	Inter Uni. Participation (Any one game)	2
3.	Inter College Participation (min. two game)	1
4.	National Cadet Corps / National Service Scheme	2
5.	Blood donation / Cleanliness drive / Community services	2
6.	Mountaineering - Basic Camp, Advance Camp / Adventure Activities	2
7.	Organization / Officiating - State / National level in any two game	2
8.	News Reposting / Article Writing / book writing / progress report writing	1
9.	Research Project by any funding agencies	4

Students can earn maximum **06 Bonus credits** in each semester by his/her participation in the above mentioned activities duly certified by the Head of the institution / Department. **This Bonus credit will be used only to compensate loss of credits in academic activities.**

Examinations:

- i. There shall be examinations at the end of each semester, for first semester in the month of November /December: for second semester in the month of April/May. A candidate who does not pass the examination in any course(s) shall be permitted to appear in such failed course(s) in the subsequent examinations to be held in November/December or April/May.
- ii. A candidate should get enrolled /registered for the first semester examination. If enrollment/registration is not possible owing to shortage of attendance beyond condonation limit / rules prescribed OR belated joining OR on medical grounds, such candidates are not permitted to proceed to the next semester. Such candidates shall redo the semester in the subsequent term of that semester as a regular student; however, a student of first semester shall be admitted in the second semester, if he/she has successfully kept the term in first semester.

Pattern of Question Papers:

A) For papers having Max. Marks- 60: [12+12+12+12+(4x3)=60 marks]

For University examination each question paper shall consist of 9 questions (2 long answer questions from each unit and 1 combined question of 4 short notes from all 4 units). The candidate will attempt any one question from each unit. The 5th question will be compulsory consisting 4 short notes of 3 marks each.

B) For Semester-end Examination in Activity Courses, the breaks-up of 100

Marks shall be as follows:

- Skill proficiency/playing ability : 60
- Diary / Record book : 40

C) For Specialization Sports Practice and Sports Training, the break-up of 100 Marks shall be as follows:

- P=(Practical) Skill proficiency : 60
- IA=(Internal Assessment)Written Test : 40

D) For Lesson Plan, student needs to complete perform lesson at college itself.-

Lesson Plan : 100 marks

- P=(Practical) Skill proficiency : 60
- IA=(Internal Assessment)Written Test : 40

Examiners: There will be one internal and one external examiner based on the Game specialization that is from **Athletics, badminton, basketball, cricket, football, handball, kabaddi, kho-kho, table-tennis, volleyball and yoga.**

Evaluation: The performance of a student in each course is evaluated through continuous internal assessment (CIA), one test of 20 marks and of one to two hours duration is to be conducted around 10-14 weeks of academic work from the start of each semester; evaluation is to be done in terms of percentage of marks with a provision for conversion to grade point. If, any student is not able to give the internal test due to Medical reason or participation in inter college or inter university competitions, the concerned course teacher must conduct the student examination within a month time (there is no provision for seeking improvement of internal assessment). The marks obtain in CIA is added with end semester examination and will be consolidated at the end of course. The components for continuous internal assessment are;

Internal Test	20 Marks
Seminar / Lab Practical / presentations	5 Marks
Open Book Test	5 Marks
Attendance	10 Marks
Total	40 Marks

Attendance shall be taken as a component of continuous assessment, although the students should have minimum 75% attendance in each course. In addition to continuous evaluation component, the end semester examination, which will be written type examination of at least 3 hours duration, would also form an integral component of the evaluation. The ratio of marks to be allotted to continuous internal assessment and to end semester examination is 30:70. The evaluation of practical work, wherever applicable, will also be based on continuous internal assessment and on an end-semester practical examination.

Attendance in Percentage	Marks
Above 95	10
95-90	8
89-85	6
84-80	4
79-75	2
Below 75	0

Minimum Passing Standard: The minimum passing standard for CIA (Continuous Internal Assessment) and External Examinations shall be 40%, i.e. 16 marks out of 40 marks and 24 marks out of 60 marks respectively for theory courses. The minimum passing for both CIA & external examination shall be 50%, i.e. 20 marks out of 40 and 30 marks out of 60 marks for the practical courses.

Grading: Once the marks of the CIA (Continues Internal Assessment) and SEA (Semester End Assessment) for each of the courses are available, both (CIA and SEA)

will be added. The marks thus obtained for each of the courses will then be graded as per details provided in **Letter Grades and Grade Points table** from the first semester onwards the average performance within any semester from the first semester is indicated by Semester Grade Point Average (**SGPA**). while continuous performance (including the performance of the previous semesters also) starting from the first semester is indicated by Cumulative Grade Point Average (**CGPA**). These two are calculated by the following formula:

(i) **SGPA(S_i)** $S_i = \frac{\sum(C_i \times G_i)}{\sum C_i}$

where C_i is the number of credits of the ith course and G_i is the grade point scored by the student in the ith course.

(ii) The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e. $CGPA = \frac{\sum (C_i \times S_i)}{\sum C_i}$

Where S_i is the SGPA of the ith semester and C_i is the total number of credits in that semester.

(iii) The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcript or certificate or marksheet.

Classification of Final Results: For the purpose of declaring a candidate to have qualified for the Degree of Master of Physical Education in the First class / Second class / Pass class or First class with Distinction, the marks and the corresponding CGPA earned by the candidate in Core Courses will be the criterion. It is further provided that the candidate should have scored the First / Second Class separately in both the grand total and end Semester (External) examinations.

Award of the M.P.Ed. Degree: A candidate shall be eligible for the award of the degree of the M.P.Ed. Only if he/she has earned the minimum required credit including Bonus Credits of the programme prescribed above.

A.T.K.T.: A candidate may be allowed to take admission in succeeding year of the course irrespective of number of papers/ practical events in which he/she fails. It is mandatory that the whole course shall be completed within a period of 4 years from the date of admission. Failing which candidate name will be removed from college.

(Choice Based Credit System)

Standard of Passing:

For all courses, both UE and IA constitute separate heads of passing. In order to pass in such courses and to earn the assigned credits, the learner must obtain a minimum grade point of 5.0(40% of marks) at UE and also a minimum grade point of 5.0(40% marks) at IA.

If a student fails in IA, the learner passes in the course provided he/she obtains a minimum of 25% in IA and GPA for the course is at least 6.0 (50 % in aggregate). The GPA for a course will be calculated only if the learner passes at the UE.

A student who fails at UE in a course has to reappear only at UE as a backlog candidate and clear the head of passing. Similarly, a student who fails in a course at IA has to reappear only at IA as a backlog candidate and clear the head of passing.

The 10-point scale Grades and Grade Points according to the following table:

Range of Marks (Out of 100)	Grade	Grade Point
$80 \leq \text{Marks} \leq 100$	O	10
$70 \leq \text{Marks} \leq 80$	A+	9
$60 \leq \text{Marks} \leq 70$	A	8
$55 \leq \text{Marks} \leq 60$	B+	7
$50 \leq \text{Marks} \leq 55$	B	6
$40 \leq \text{Marks} \leq 50$	C	5
$\text{Marks} \leq 40$	D	0

The performances at UE and IA will be combined to obtain the Grade Point Average (GPA) for the course. The weights for performance at UE and IA shall respectively be 60% and 40%.

GPA is calculated by adding the UE marks of 60 and IA marks out of 40. The total marks out of 100 are converted to grade point, which will be the GPA.

Formula to calculate Grade Points (GP)

Suppose that Max is the maximum marks assigned for an examination or evaluation based on which GP will be computed. In order to determine the GP. Sex x -Max/10 (since we have adapted 10-point system). Then GP is calculated by the formulas shown as below.

Range of marks at the evaluation	Formula for the Grade Point
$8x \leq \text{Marks} \leq 10x$	10
$5.5x \leq \text{Marks} \leq 8x$	Truncate (Marks/ x)+2
$4x \leq \text{Marks} \leq 5.5x$	Truncate (Marks/ x)+1

Two kinds of performance indicators, namely, the semester Grade Point Average (SGPA) and the Cumulative Grade Point Average (CGPA) shall be computed at the end of each term. The SGPA measures the cumulative performance of a learner in all the courses in a particular semester. While the CGPA measures the cumulative performance in all courses since his/her enrolment. The CGPA of learner when he/she completes the B.P.E.S programme is the final result of the learner.

The Formula to compute equivalent percentage marks for specified CGPA:

% Marks (CGPA)	10x CGPA -10	If $5.00 \leq \text{CGPA} \leq 6.00$
	5x CGPA +20	If $6.00 \leq \text{CGPA} \leq 8.00$
	10x CGPA -20	If $8.00 \leq \text{CGPA} \leq 9.00$
	20x CGPA -110	If $9.00 \leq \text{CGPA} \leq 9.50$
	40x CGPA -300	If $9.50 \leq \text{CGPA} \leq 10.00$

Award of Honors:

A student who has completed the minimum credits specified for the M.P.Ed programme shall be declared to have passed in the programme. The final result will be in terms of letter grade only and is based on the CGPA of all courses studied and passed. The criteria for the award of honors are given below.

Range of CGPA	Final Grade	Performance Descriptor	Equivalent Range of Marks (%)
$9.50 \leq \text{CGPA} \leq 10.00$	O	Outstanding	$80 \leq \text{Marks} \leq 100$
$9.00 \leq \text{CGPA} \leq 9.49$	A+	Excellent	$70 \leq \text{Marks} \leq 80$
$8.00 \leq \text{CGPA} \leq 8.99$	A	Very Good	$60 \leq \text{Marks} \leq 70$
$7.00 \leq \text{CGPA} \leq 7.99$	B+	Good	$55 \leq \text{Marks} \leq 60$
$6.00 \leq \text{CGPA} \leq 6.99$	B	Average	$50 \leq \text{Marks} \leq 55$
$5.00 \leq \text{CGPA} \leq 5.99$	C	Satisfactory	$40 \leq \text{Marks} \leq 50$
CGPA Below 5.00	F	Fail	Marks Below 40

Note:

1. SGPA is calculated only if the candidate passes in all the courses i.e. get minimum C grade in all the courses.
2. CGPA is calculated only when the candidate passes in all the courses of all the previous and current semesters.
3. The cumulative grade point average will be calculated as the average of the SGPA of all the semesters continuously, as shown above.
4. For the award of the class, CGPA shall be calculated on the basis of:
 - Marks of each Semester End Assessment and
 - Marks of each Semester Continuous Internal Assessment for each course.
5. The final Class for M.P.Ed. Degree shall be awarded on the basis of last CGPA (grade) from all the one to four semester examinations.

Grievance Redressal Committee: The college/department shall form a Grievance Redressal Committee for each course in each college/department with the course teacher / Principal / Director and the HOD of the faculty as the members. This Committee shall solve all grievances of the students.

Revision of Syllabi: Syllabi of every course should be revised according to the NCTE.

- Revised Syllabi of each semester should be implemented in a sequential way.
- In courses, where units / topics related to governmental provisions, regulations or laws, that change to accommodate the latest developments, changes or corrections are to be made consequentially as recommended by the Academic Council.
- All formalities for revisions in the syllabi should be completed before the end of the semester for implementation of the revised syllabi in the next academic year.
- During every revision, up to twenty percent of the syllabi of each course should be changed so as to ensure the appearance of the students who have studied the old (unrevised) syllabi without any difficulties in the examinations of revised syllabi.
- In case, the syllabus of any course is carried forward without any revision, it shall also be counted as revised in the revised syllabi.

Miscellaneous:

1. The procedural details may be given by the university from time to time.
2. Any unforeseen problems/difficulties may be resolved by Vice Chancellor, whose decision in the matter shall be final.
3. The provision of any order, rules or regulation in force shall be inapplicable to

the extent of its inconsistency with these regulations.

Semester-I

Part- A Theoretical Course						
Course Code	Title of the papers	Total No of Class	Credits	Internal Assessment	University Exam	Total
Core Course						
SOE/PE/C-501	Research Method in Physical Education	64	4	40	60	100
SOE/PE/C-502	Physiology of Exercise & Sports	64	4	40	60	100
SOE/PE/C-503	Psychology of Sports	64	4	40	60	100
Elective course(Anyone)						
SOE/PE/E-501	Sports technology/	64	4	40	60	100
SOE/PE/E-502	Adapted Physical Education					
Part - B Practical Course						
SOE/PE/P -501	Conditioning	96	4	40	60	100
SOE/PE/P -502	Lab Practical (Sports Psychology, Biomechanics & Kinesiology, Test & Measurement	96	4	40	60	100
Part - C Specialization						
SOE/PE/S -501	Games Specialization	96	4	40	60	100
Part - D Teaching Practices						
SOE/PE/T -501	Game Specialization Teaching Lesson theory Sports	96	4	40	60	100
	Total	40	32	320	480	800

Semester-II

Part- A Theoretical Course						
Course Code	Title of the papers	Total no of Class	Credits	Internal Assessment	University Exam	Total
Core Course						
SOE/PE/C -601	Statistics for Research in Physical Education	64	4	40	60	100
SOE/PE/C -602	Kinesiology & Biomechanics	64	4	40	60	100
SOE/PE/C-603	Science of Sports Training & Advanced Coaching	64	4	40	60	100
Elective course (Anyone)						
SOE/PE/E-601	Athletic care and Rehabilitation	64	4	40	60	100
SOE/PE/E -602	Sports Journalism & Mass Media					
Part - B Practical Course						
SOE/PE/P-601	Pilot Study	96	4	40	60	100
SOE/PE/P -602	Measurement & Evaluation	96	4	40	60	100
Part - C Specialization						
SOE/PE/S-601	Games Specialization	96	4	40	60	100
Part - D Teaching Practices						
SOE/PE/T -601	Game Specialization Practical Lesson Plan (5 Lesson)	96	4	40	60	100
	Total		32	320	480	800

Semester-III

Part- A Theoretical Course						
Course Code	Title of the papers	Total no of Class	Credits	Internal Assessment	University Exam	Total
Core Course						
SOE/PE/C-701	Professional preparation	64	4	40	60	100
SOE/PE/C -702	Management in PE & Sports	64	4	40	60	100
SOE/PE/C -703	Measurements and Evaluation in Physical Education	64	4	40	60	100
Elective Course (Anyone)						
SOE/PE/E-701	Information and communication technology in physical education	64	4	40	60	100
SOE/PE/E-702	Health Education and Sports Nutrition					
Part - B Practical Course						
SOE/PE/P -701	Conditioning	96	4	40	60	100
SOE/PE/P -703	Lab Practical (Sports Psychology, Biomechanics & Kinesiology, Test and Measurement)	96	4	40	60	100
Part - C Teaching Practices						
SOE/PE/T -701	Teaching Lesson theory	96	4	40	60	100

Semester-IV

Part- A Theoretical Course						
Course Code	Title of the papers	Total no of Class	Credits	Internal Assessment	University Exam	Total
Core Course						
SOE/PE/C-801	Sports Medicine	64	4	40	60	100
SOE/PE/C-802	Pedagogy of Physical Education	64	4	40	60	100
SOE/PE/C-803	Sports Entrepreneur	64	4	40	60	100
Elective Course (Anyone)						
SOE/PE/E-801	Dissertation	64	4	40	60	100
SOE/PE/E-802	Exercise Prescription & Fitness Management					

Note:-

- 1. Games specialization will be given in following Games and sports: Athletics, basketball, cricket, football, handball, hockey, kabaddi, kho-kho, table-tennis, volleyball and yoga. Student will select One Game specialization for I and II semester**
2. Teaching theory lesson plan will consist of 5 lessons from theory subject of Master degree which will be taken on college students itself.

SCHEME OF EXAMINATION FOR M.P.ED
(4 SEMESTERS)

Semester wise Distribution of Marks & Credits

		Sem-I	Sem-II	Sem-III	Sem-IV	Total
Part-A: Theory Courses	Marks	400	400	400	400	1600
	Credits	16	16	16	16	64
Part-B: Practical (Games/Sports)	Marks	200	200	200		600
	Credits	8	8	8		24
Part-C: Game/Sport Specialization	Marks	100	100			200
	Credits	4	4			8
Part D :- Teaching Ability	Marks	100	100	100		300
	Credits	4	4	4		12
Grand Total	Marks	800	800	700	400	2700
	Credits	32	32	28	16	108

Semester I

SOE/PE/C-501: Research Process In Physical Education

Learning outcomes

1. Identify the research problem in the field of physical Education and sports
2. Know to Summarize the various research literature
3. Understand and apply the basics of statistics in research
4. Organize the samples and sampling techniques which is relevant to the study.
5. Apply the systematic methods in writing research thesis

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, Judgement Sampling, Quota Sampling.

Research Proposal and Report

Cauterization 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 conference and to publish in journals ,Mechanics of writing Research Report, Footnote and Bibliography writing.

Reference:

- Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey; Prentice Hall Inc.
Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illinois;

Human Kinetics;

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

Rothstain, 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

SOE/PE/C-502: PHYSIOLOGY OF EXERCISE AND SPORTS

Learning outcomes

1. Understand the basic principles of physiology and Exercise Physiology
2. Apply the knowledge in the field of physical education and movement activity.
3. Analyze the practical knowledge during the practical situation.
4. Remember and recall the definition of physiology and co-relate the principles of physiology.
5. Appraise the effects during the training and practical sessions

UNIT I – Skeletal Muscles and Exercise

Macro & Micro 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.

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

Mechanics of Breathing – Respiratory Muscles, 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 Anaerobic 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- 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.

Climatic conditions and sports performance and ergogenic aids

Variation in Temperature and Humidity – Thermoregulation – Sports performance in hot climate, Cool Climate, high altitude. 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 sports performance.

Reference:

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

PoompugarPathipagam.

BeotraAlka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.

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 Publishing.

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

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

SOE/PE/C-503: SPORTS PSYCHOLOGY

Learning outcomes

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 analyse social problems

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 Traits. Effects of Personality on Sports Performance.

UNIT II - Motivation

Meaning & 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, Causes. Stress and Sports Performance. Aggression: Meaning and Definition, Method of Measurement. Aggression and Sports Performance. Self-Concept: Meaning and Definition, Method of Measurement.

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.

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.

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.

References:

Jain. (2002), Sports Sociology, Heal Sahety Kendre Publishers.

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

John D Lauther (2000) Psychology of Coaching. New Jersy: Prenticce Hall Inc.

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

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

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

SOE/PE/E-501: SPORTS TECHNOLOGY

Learning Objectives:

1. To enable students to learn the fundamental of sports technology.
2. To equip the students to learn the technology used in sports.
3. To understand the different types of playfield surfaces, sports equipment's and its advantages.
4. To familiarize the students with the latest technology involved in sports and games.

Unit I - Sports Technology

Meaning, definition, purpose, advantages and applications, General Principles and purpose of instrumentation in sports, Workflow of instrumentation and business aspects, Technological impacts on sports.

Unit II - Science of Sports Materials

Adhesives- Nano glue, nanomoulding technology, Nano turf. Foot wear production, Factors and application in sports, constraints. Foams- Polyurethane, Polystyrene, Styrofoam, closed-cell and open-cell foams, Neoprene, Foam. Smart Materials - Shape Memory Alloy (SMA), Thermo chromic film, High-density modeling foam.

Unit III - Surfaces of Playfields

Modern surfaces for playfields, construction and installation of sports surfaces. Types of materials - synthetic, wood, polyurethane Artificial turf. Modern technology in the construction of indoor and outdoor facilities. Technology in manufacture of modern play equipments. Use of computer and software in Match Analysis and Coaching.

Unit IV - Modern equipment

Playing Equipments: Balls: Types, Materials and Advantages, Bat/Stick/ Racquets: Types, Materials and Advantages. Clothing and shoes: Types, Materials and Advantages. Measuring equipments: Throwing and Jumping Events. Protective equipments: Types, Materials and Advantages. Sports equipment with nano technology, Advantages.

Training Gadgets

Basketball: Ball Feeder, Mechanism and Advantages. Cricket: Bowling Machine, Mechanism and Advantages, Tennis: Serving Machine, Mechanism and Advantages, Volleyball: Serving Machine Mechanism and Advantages. Lighting Facilities: Method of erecting Flood Light and measuring luminous. Video Coverage: Types, Size, Capacity, Place and Position of Camera in Live coverage of sporting events.

References:

- Charles J.A. Crane, F.A.A. and Furness, J.A.G. (1987) "Selection of Engineering Materials" UK: Butterworth Heiremann.
- Finn, R.A. and Trojan P.K. (1999) "Engineering Materials and their Applications" UK: Jaico

Publisher.

John Mongilo, (2001) "Nano Technology 101 "New York: Green wood publishing.

Walia, J.S. Principles and Methods of Education (Paul Publishers, Jullandhar), 1999.

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

SOE/PE/E-502: ADAPTED PHYSICAL EDUCATION

Learning outcome

1. To equip the students to understand the basic of skills acquisitions of sports performance.
2. To make them understand the basic of skills and selected sports movement pattern
3. To enable them to understand the link between motor skills, ability, learning and performance
4. To familiarize the students with various theories improving and affecting the sports skills performance

Unit 1: An Introduction to Adapted Physical Education

- 1.1 Meaning, Need & Importance of Adapted Physical Education and Sports
- 1.2 Purpose, Aims and Objectives of Adapted Physical Education and Sports
- 1.3 Program organization of Adapted Physical Education and Sports
- 1.4 Adapted Sports- Para Olympics

Unit 2: Development of Individual Education Program (IEP)

- 2.1 The student with a disability
- 2.2 Components and Development of IEP.
- 2.3 Principles of Adapted Physical Education and Sports
- 2.4 Role of Physical Education teacher
- 2.5 Teaching style, method & approach in teaching Adapted Physical Education

Unit 3: Developmental Considerations of an Individual

- 3.1 Motor development
- 3.2 Perceptual Motor development
- 3.3 Early childhood and Adapted Physical Education

Unit 4: Individual with unique need and activities

- 4.1 Behavioral and Special learning disability
- 4.2 Visual Impaired and Deafness
- 4.3 Health Impaired students and Physical Education
- 4.4 HRPF and its development for Individual with unique need

4.5 Role of games and sports in Adapted Physical Education

Reference

1. Beverly, N. (1986). *Moving and Learning*. Times Mirror/Mosby College Publishing.
2. Cratty, B.J. *Adapted Physical Education in the Mainstream*. (4th Edition) Love Publishing Company.
3. Houser, L.D. *Integrated Physical Education- A guide for the elementary classroom teacher*.
4. Winnick, J. P. (2005). *Adapted Physical Education and Sports*. Human Kinetics (4th Edition).
5. Pangrazi, R.P. and Dauer, V. P. *Dynamics Physical*

Semester II

SOE/PE/C-601: STATISTICS FOR RESEARCH IN PHYSICAL EDUCATION

Learning Outcome

1. To equip the students to understand the basic of skills acquisitions of sports performance.
2. To make them understand the basic of skills and selected sports movement pattern
3. To enable them to understand the link between motor skills, ability, learning and performance
4. To familiarize the students with various theories improving and affecting the sports skills performance

UNIT I - 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 from normality - Skewness and Kurtosis. Graphical Representation in Statistics; Line diagram, Bar diagram, Histogram, Frequency Polygon, O give Curve.

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.

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; Illinois; 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

SOE/PE/C-602: KINSESIOLGY AND BIOMECHANICS

Learning Outcomes

1. Analyze and explain the mechanisms underlying biomechanical, physiological, and psychological changes that occur during after acute and chronic exercise.
2. Understand mechanical principles can be applied to the analysis of human movement to assess and improve performance and reduce risk of injury.
3. Know effectiveness of human movement using mechanical principles.

UNIT I - Introduction

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.

UNIT II - Muscle 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 - 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 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.

Movement Analysis: Analysis of Movement, Equipment's used for Analysis, Methods of analysis - Qualitative, Quantitative, Predictive,

References:

Deshpande S.H. (2002). Manav Kriya Vigyan - Kinesiology (Hindi Edition) Amravati :Hanuman Vyayam Prasarak Mandal.

Hoffman S.J. Introduction to Kinesiology (Human Kinesiology publication Inc. 2005

Thomas. (2001). Manual of structural Kinesiology, New York: McGraw Hill.

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

Williams M (1982) Biomechanics of Human Motion, Philadelphia; Saunders Co.

SOE/PE/C-603: SCIENCE OF SPORTS TRAINING AND ADVANCED COACHING

Learning Outcomes

1. Understand training as performance based science
2. Explain 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

UNIT I

Introduction Sports training: Definition – Aim, Characteristics, Principles of Sports Training, Meaning of Coaching, Definition, Aim Characteristics, Principles of coaching, Over Load: Definition, Causes of Over Load, Symptoms of Overload, How to tackle over load, Judgement of Training load

UNIT II

Sports Training, various Sports Training Methods: Continuous Training Method, Interval Training Method, Repetition Method, Circuit Training Method, Fartlek Training Method, Weight Training Method, and Plyometric Training Method. Components of Physical Fitness, Development of Physical fitness. Endurance, Strength, speed, flexibility, Co-ordinative Abilities

UNIT III

Preparing for Competitions-Build-up competitions, Main Competition, Competition Frequency & Psychological Preparation, Training Plan: Macro Cycle, Meso-Cycle. Short Term Plan and Long Term Plans - Periodisation: Meaning, Single, Double and Multiple Periodisation, Preparatory Period, Competition Period and Transition Period.

UNIT IV

Preparing lesson Plan, significance of lesson plan, Types of lesson plan, principles of lesson plan, contents in lesson plan, time allotment

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 – Education

References:

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

Cart, 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 Moore University

Hardayal Singh (1991) *Science of Sports Training*, New Delhi, DVS Publications

Jensen, C.R. & Fisher A.G. (2000) *Scientific Basic of Athletic Conditioning*, Philadelphia

SOE/PE/E-601: ATHLETIC CARE AND REHABILITATION

Learning outcomes

1. Understand the primary responsibilities the sports trainer has in preventing sports injuries and providing initial care for injured athletes.
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.

Unit I – Corrective Physical Education

Definition and objectives of corrective physical Education. Posture and body mechanics, Standards of Standing Posture. Value of good posture, Drawbacks and causes of bad posture. Posture test – Examination of the spine.

Unit II – Posture

Normal curve of the spine and its utility, Deviations in posture: Kyphosis, lordosis, flat back, Scoliosis, round shoulders, Knock Knee, Bow leg, Flat foot. Causes for deviations and treatment including exercises.

Unit III – Rehabilitation Exercises

Passive, Active, Assisted

Resisted exercise for Rehabilitation

Stretching, PNF techniques and principles.

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 manipulation used massage and their specific uses in 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.

Sports Injuries Care, Treatment and Support

Principles pertaining to the prevention of Sports injuries – care and treatment of exposed and unexposed injuries in sports – Principles of apply cold and heat, infrared rays – Ultrasonic, Therapy – Short wave diathermy therapy. Principles and techniques of Strapping and

Bandages.

References:

Doherty. J. Meno. Wetb, Moder D (2000) Track & Field, Englewood Cliffs, Prentice Hal Inc.

Lace, M. V. (1951) Massage and Medical Gymnastics, London: J & A Churchill Ltd.

McOoyand Young (1954) Tests and Measurement, New York: Appleton Century.

SOE/PE/E-602: SPORTS JOURNALISM AND MASS MEDIA

Learning Outcome

1. Know how to seek accreditation to sporting events and to report on such events.
2. Demonstrate analytic skills in relation to reporting sporting events
3. Produce a number of assignments that demonstrate their own style and perception of events

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

Concept of 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 expert's comments. Role of Advertisement in Journalism. Sports Photography: Equipment- Editing – Publishing.

UNIT IV - Report Writing on Sports

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

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.

Reference:

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

Ahiya B.N. Chobra S.S.A. (1990) Concise Course in Reporting. New Delhi: Surjeet Publication

Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication
Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.
MohitChakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka
Publication.

Semester III

SOE/PE/C-701: PROFESSIONAL PREPARATION

Learning outcome

- 1 Students will develop understanding of the profession of Physical Education.
2. Students will be able to deal with issues experienced by Physical Education teachers.
3. Students will recognize that learning to teach is a lifelong process.
4. Students will develop a comprehensive view of Physical Education from a global perspective.
5. Students will understand the domains & hidden dimensions of Physical Education.
6. Students will Demonstrate basic knowledge & awareness about inclusion, differently-abled students & describe steps to inclusion

Unit 1: The profession

- 1.1 Meaning, criteria & evaluation of profession
- 1.2 A professional & professionalism in Physical Education & sports
- 1.3 Physical Education as a profession
- 1.4 Legal regulation of profession

Unit 2: Professional Preparation

- 2.1 Historical perspectives
- 2.2 Policy perspectives
- 2.3 Theoretical perspectives
- 2.4 Nature & content of professional preparation programs

Unit 3: Professional Development

- 3.1 Meaning & process
- 3.2 Growth on the job- in service concept
- 3.3 Self appraisal & parameter influencing self appraisal
- 3.4 Guiding principles & professional relations
- 3.5 Qualifications & duties, responsibilities & job profiles of school Phy. Edu. teachers, directors of Physical Education in colleges & university

Unit 4: Curriculum

- 4.1 Meaning, importance & fundamental principles of curriculum planning
- 4.2 Writing the curriculum guide
- 4.3 Physical Education curriculum models
- 4.4 Implementing the Physical Education curriculum

Suggested Reading:

1. Kiran Sandhu (2004). Professional preparation and career development in Physical Education and sports. New Delhi: Friends publication.
2. Kiran Sandhu (2004). Trends and developments in Professional preparation in Physical Education and sports. New Delhi: Friends publication.

3. Barrow, H.M. (1983). *Man & movement* (3rd Ed.). Philadelphia: Lea & Febiger.
4. Buchor, C. A. & Wuest, D. A. (1987). *Foundations of Physical Education and sports*. St. Louis: Times mirror / Mosby college publication.
5. Kelly, L. E. & Melograno, V. J. (2004). *Developing the Physical Education curriculum*. Champaign: Human Kinetics.
6. Pangrazi, R.P. & Dauer, V. P. (1995). *Dynamic Physical Education for elementary school children* (11th Ed.). Boston: Allyn and Bacon.
7. Pangrazi, R.P. & Dauer, V.P. (1985). *Dynamic Physical Education curriculum & instruction for secondary school student*. Minnesota: Burgess publishing company.
8. Lombardo, B. & Wuest, D. (1994). *Curriculum & instruction the secondary school Physical Education experience*. St. Louis: Mosby
9. Kasat, G. & Karmarkar, A. K. (1996). *Professional preparation in Physical Education and sports*. Amravati: Kasat

SOE/PE/C-702: MANAGEMENT IN PHYSICAL EDUCATION AND SPORTS

1. Students will know the basic concept of management of Physical Education and Sports in the school.
2. Students will know the basic methods and technique and its principles to manage the programme of competitions, intramurals the basic level of competitions.
3. Students will know the duties and responsibilities of manager
4. Students will know the budget management, school programme of Phy. Edu. and sports.

UNIT I

Introduction, Definition of Sports Management, Need & Importance. Basic Principles and Procedures of Sports Management. Functions of Sports Management, Scope of Sports Management

UNIT II

Introduction, Organisation at school level, Organisation at University level, Organisation at National level, basic guiding Principles for organizing physical education and sports Programmes in the Institutions, Intramurals need and importance, Organisation and Administration of Intramural Activities, Extra murals- General Objectives, Policies for Organisation and management of Extra mural Programmes, Management of Personnel.

UNIT III

Introduction , Importance, types and need of Sports Equipments, Procurement of Equipment, Principles of Purchase Procedure, Quotations and tenders, Principles of Equipment Purchase, Important considerations in Selecting sports Equipment, Receiving, Stock Taking and Storing Equipment, Disposal of Equipment.

UNIT IV

Introduction, Planning the Facilities, administrative Principles for Planning a Facility, General Principles for Planning the Facilities, Types of Facilities, Principles for planning the Indoor facility, Outdoor facilities, facility requirements, Planning, Construction and Management of sports infrastructure, guidelines for layout of sports infrastructure, Surface, Fencing, Drainage, lighting, Beautification, Management, Gymnasium,

Swimming Pool, Management of Indoor facilities, Management in Care and Maintenance of the facility.

Reference:

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

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

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

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

SOE/PE/C-703: MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

Learning outcome

1. Students will understand the concept of Test, Measurement, Evaluation and Assessment Procedure in Physical Education and give examples of each
2. Students will differentiate formative and summative evaluation, Process and Product evaluation
3. Students will identify the purposes of measurement and Evaluation
4. Students will describe the features of Technical and administrative feasibility that should be considered when selecting test
5. Students will locate and select physical fitness and sports skill tests
6. Students will properly administer psychomotor tests

Unit1: Basics of Measurement & Evaluation

- 1.1 Concept Test, measurement, evaluation & assessment & its importance
- 1.2 Classification of test in Physical Education
- 1.3 Different tools of evaluation in Physical Education
- 1.4 Trends in evaluation in Physical Education
- 1.5 Criteria of test selection

Unit2: Construction & Standardization of tools

- 2.1 Methods for testing Validity, Reliability & Objectivity
- 2.2 Construction of psychomotor test
- 2.3 Construction of Questionnaire and Opinionnaire
- 2.4 Administration of psychomotor test.
- 2.5 Concept, importance, construction & administrative concern of Rating scales

Unit3: Measuring fitness & sports skills

- 3.1 Measurement of HRPF, SRPF, GMA & Motor educability.
- 3.2 Measurement of skills of various sports & games: Soccer, Handball, Tennis, Basketball, volleyball.
- 3.3 Testing of psychological variable.
- 3.4 Fitness assessment Tests for SCoursecial Population & older adults

Unit4: Test batteries & norms for evaluation

- 4.1 Meaning & characteristics of Test batteries: AAHCOURSERD youth Fitness test, JCR, FITNESS GRAM & ACSM Fitness test
- 4.2 Factors affecting measurement in Physical Education.
- 4.3 Anthropometric measurement & somatoty Course.
- 4.4 Norm referenced tests & criterion referenced tests

Reference :

1. Miller, David. K. (2002). Measurement by the Physical Educator. New York: McGraw Hill companies.
2. John & Nelson (1998). Practical Measurements for Evaluation in Physical Education. Delhi: Surjit Publication.
3. Barrow, H.M.(1979).Practical Approach to Measurement in Physical Education. Ed.(3rd Ed.). Philadelphia: Lee & Febigeer,
4. Clarke, H. (1987). Application of Measurement in Health & Physical Education. Ed. (6th Ed.). New Jersey Prentic Hall,Inc 1987.
5. Kansal, D.K. (1996). Test & Measurement in Sports & Physical Education. New Delhi:.D.V.S.Publications
6. Acsm's (2001) Guidelines for Exercise Testing and Prescription by American College of Sports Medicine Human kinetics USA.
7. BalyanSunita (2006). SharirkShiksha main Parikshanevnmnmaapan. Khel Sahitya. Delhi.
8. Barrow H.M. and McGee R. (1979). A Practical Approach to Measurement in Physical Education. Lea &Febiger, Philadelphia. U.S.A.

SOE/PE/E-701: INFORMATION AND COMMUNICATION TECHNOLOGY IN PHYSICAL EDUCATION

Learning outcome

1. Understand concept of information and communication technology in physical education field
2. Analyse 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 information and communication Technology

Unit I - Communication & Classroom Interaction

Concept, Elements, Process & Types of Communication, Communication Barriers & Facilitators of communication
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: Newsletter & Brochure

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
E-Learning & Web Based Learning
E-Learning

Web Based Learning
Visual Classroom

References:

Douglas E. Comer, The Internet Book, Purdue University, West Lafayette in 2005.

Heidi Steel Low price Edition, Microsoft Office Word 2003- 2004.

Pradeep K. Sinha&Priti; Sinha, Foundations computing BPB Publications -2006. Rebecca Bridges Altman Peach pit Press, Power point for window, 1999.

Sanjay Saxena, Vikas Publication House, Pvt. Ltd. Microsoft Office for ever one, Second Edition-2006.

SOE/PE/E-702: HEALTH EDUCATION AND SPORTS NURTITION

Learning Outcomes

1. Understand the basic principles of Anatomy, Physiology and Health Education
2. Apply the knowledge in the field of physical education and movement activity.
3. Analyze the practical knowledge during the practical situation. .
4. Remember and recall the definition of anatomy and physiology and co-relate the principles of physiology.
5. Appraise the effects of health condition during the training and practical sessions

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 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 care etc.

Unit- III - Hygiene and Health

Meaning of Hygiene, Type of Hygiene, dental Hygiene, 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 to 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.

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.

References:

Bucher, Charles A. "Administration of Health and Physical Education Programme". Delbert, Oberteuffer, et. al." The School Health Education".
Ghosh, B.N. "Treaties of Hygiene and Public Health".
Hanlon, John J. "Principles of Public Health Administration" 2003.
Moss "Health Education" (National Education Association of U.T.A.)
Nemir A. "The School Health Education" (Harber and Brothers, New York). Nutrition Encyclopedia, edited by Delores C.S. James, The Gale Group, Inc.

Semester IV

SOE/PE/C-801: SPORTS MEDICINE

Learning Outcome

1. Perform and report on the exploratory analysis of data collected using sports technology
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. Support a conclusion based upon quantitative prediction, performance and analysis of a sporting team, code, or gaming environment

UNIT I - Introduction

Meaning, definition and importance of Sports Medicine, Definition and Principles of therapeutic exercises. Coordination exercise, Balance training exercise, Strengthening exercise, Mobilization exercise, Gait training, Gym ball exercise Injuries: acute, sub-acute, chronic. Advantages and Disadvantages of PRICE, PRINCE therapy, Aquatic therapy.

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

UNIT IV - Upper Extremity Injuries and Exercise

Upper Limb and Thorax Injuries: Shoulder: Sprain, Strain, Dislocation, and 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.

Lower Extremity Injuries and Exercise

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

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: Khel Shitya Kendra
- The Encyclopedia of Sports Medicine. (1998). The Olympic Book of Sports Medicine, Australia: Tittel Blackwell Scientific publications.

SOE/PE/C-802: PEDAGOGY OF PHYSICAL EDUCATION

Learning outcome

1. Students will use effective communication and pedagogical skills and strategies to enhance student engagement & learning.
2. Students will utilize assessments and reflection to foster student learning and to inform instructional decisions.
3. Students will inherit qualities essential to become effective professionals.
4. Students will understand the discipline

Unit 1: Systematic improvement in teaching skills

- 1.1 Science & Art of teaching – Teaching, Learning, & Pedagogy, appropriate practices-goals & feedback
- 1.2 Stages of skill development in teaching, sources of help, expert PE teacher
- 1.3 Effective teacher- how are they identified? Active teachers, contextual variations of active teaching
- 1.4 What teachers do in PE? What students do in PE? Effective PE teaching

Unit 2: Assessing and improving teaching

- 2.1 Assessment model, on-site assessment of teaching, steps in assessment process
- 2.2 Task system- ecology of PE, important concepts in ecological framework
- 2.3 Interpersonal skills in PE teaching – teacher-student interaction skills, effective communication skills
- 2.4 Legal, ethical & moral issues in teaching, promoting self growth in PE
- 2.5 Strategies for content development- factors affecting program level planning, differing visions of good in PE

Unit 3: Developing effective units of instructions

- 3.1 Determining entry & exit levels, end of unit objectives, practical factors related to unit planning, constructing unit plan, writing instructional objectives
- 3.2 Generic instructional strategies- guided practice, independent practice, monitoring student performance
- 3.3 Instructional format- active teaching, task teaching, teaching through questioning, peer teaching, cooperative learning
- 3.4 Self-instructional formats- contracts, PSI, providing effective instruction for mainstream students

Unit 4: Measuring teaching & its outcomes

- 4.1 Traditional methods for assessing teaching- intuitive judgment, eyeballing, anecdotal records, checklists, rating scale

4.2 Systematic observation records- event recording, duration recording, interval recording, group time sampling, self recording

4.3 Combining observation techniques, important decisions in developing observation strategies, building observation system

4.4 What to observe, training observers, calculating reliability of observation data, examples of observation system

Suggested Readings:

1. Siedentop, D. (1991). Developing teaching skills in Physical Education. Ca: Mayfield Publishing company

2. Mosston, M., Ashworth, S. (1994). Teaching Physical Education (4th Ed). NY: Macmillan College Publishing Company

3. Kelly, L.E., Nelograno, V.J. (2004). Developing the Physical Education curriculum. Champaign, IL: Human Kinetics

4. Hopple, C.J. (2005). Elementary Physical Education teaching & assessment- A practical guide. Champaign IL: Human Kinetic

SOE/PE/C-803: SPORTS ENTREPRENEUR

Learning outcomes

- Identify the skills and knowledge base needed to foster entrepreneurial activity for individuals based on the experiences of successful sports entrepreneurs as well as assess and discuss the challenges they have faced.
- Critically discuss ways in which entrepreneurial-minded individuals can thrive in large sports organizations despite the tendency of such organizations to resist innovation and to favor the status quo or only seek marginal gains.
- demonstrate an understanding of, and identify, new opportunities and translate them into viable business solutions or opportunities

Unit I: Introduction to Sports Entrepreneurship

1. Concept of entrepreneurship, innovation & knowledge management in sports
2. Business Planning Process - The business plan as an entrepreneurial tool
3. Elements of Business Plan, Objectives, Market Analysis, Development of product / idea, Marketing, Finance, Organisation & Management, Ownership, Critical risk contingencies of the proposal, Scheduling and milestones, Value proposition, Business Model Canvas and Drafting Business Proposal for Funding Agency.

Unit II : Introduction to Finance in Sports

1. The Four Domains of Sports Marketing, Marketing Through Sports
2. Finance, Organisation & Management, Ownership, Critical risk contingencies of the proposal, Scheduling & milestones, Value proposition,
3. Business Model Canvas & Drafting Business Proposal for Funding Agency.

Unit II. Management of Physical Education and sports

1. Meaning, Need and scope of management of Physical Education
2. Principles of Sports Management
3. Construction, marking and maintenance of play grounds, track & field, gymnasium, swimming pool and athletic track

Unit IV: Organization of co-curricular activities & Physical Education programmes

1. Physical Education Budget : Need, Importance, procedure and principles of budget making,

2. Physical Education and sports programmes for - Primary, secondary and higher secondary School for sports awareness - demonstration, play days, sports rallies, sports exhibitions
3. Organization of National days (15th August & 26th January)., Organization of mass competition, sports day, hiking, trekking, Scout and Guide Camp and picnics
4. Ceremonies of competition - Opening, closing and victory

References:

- Sports Marketing By Melissa Jane Johnson Morgan Jane
- Small Business, Entrepreneurship and Enterprise Development. Harlow: Pearson Education.

SOE/PE/E-801: DISSERTATION

Learning Outcome

1. Students will have basic knowledge of Research in Physical Education, Fitness & Sports to Student
2. Students will know the fundamentals of research
3. Students will be able to select research problem & know the steps of developing it
4. Students will understand methodology & research procedure
5. Students will know different sampling techniques & data collection tools
6. Students will know basic statistics & statistical techniques
7. Students will apply & interpret descriptive statistics
8. Students will recognize appropriate inferential statistical tool as per research method
9. Students will understand data processing

SOE/PE/E-802: EXERCISE PRESCRIPTION & FITNESS MANAGEMENT

Learning objectives:

- 1. To make the students understand the concepts of fitness**
 - 2. To equip the students to learn the tests to measure each component of fitness**
 - 3. To acquire the skills of pre exercise screening**
 - 4. To learn the principles of training**
 - 5. To equip the students to prescribe the exercise to the clients**
 - 6. To understand the fitness norms and prepare fitness report of the clients**
- Learning objectives:**

Unit 1: Basic Principles of Physical Fitness

- 1.1. How much physical activity is enough? Benefits of physical activity
- 1.2. Health related components of physical fitness, skill related components of fitness
- 1.3. Principles of physical training: Specificity, progressive overload (FITT), Reversibility, individual difference
- 1.4. Designing your exercise program- guidelines for training, choosing activities for a balanced program

Unit 2: Developing fitness, improving quality of life

- 2.2. Benefits of aerobic exercises, monitoring heart rate
- 2.3. Developing aerobic exercise program- setting goals, applying FITT, building & maintaining aerobic fitness
- 2.4. Benefits of muscular strength & endurance, assessing muscular strength & endurance, creating a successful strength training program
- 2.5. Applying FITT principle, weight machines versus free weights, weight training safety
- 2.6. Determinants of flexibility, benefits & additional potential benefits of flexibility & stretching exercises, Flexibility improvement- FITT principle

Unit 3: Developing a personal fitness plan

- 3.1. Guidelines for personal fitness plan- set goals, select activity, set target, system of mini goals & rewards, lifestyle activity, monitoring, commitment
- 3.2. Putting plan into action, maintaining fitness program for life
- 3.3. Exercise guidelines for people with special concerns- arthritis, asthma, diabetes, heart disease, hypertension, obesity, and osteoporosis
- 3.4. Exercise guidelines for life stages- children & adolescents, pregnant women, older adults

Unit 4: Behavior change & fitness management

- 4.1. Psychosocial factors to consider, Behavioral change theories & exercise
- 4.2. Strategies to achieve fitness goals & maintaining fitness programs
- 4.3. Trends in weight loss, weight gain
- 4.4. Causes of obesity, implications of overweight & obesity
- 4.5. Underweight conditions & eating disorders

Suggested Readings:

1. Fahey, Insel, Roth (2004) Fit & well (6thEd.) Boston: McGraw Hill co. Greenberg
2. Dintiman, Oakes. (2004). Physical fitness & wellness (3rd Ed.). IL: Human Kinetics
3. Howley& Franks (1997). Health fitness instructor's Handbook (3rd Ed.)IL: Human kinetics
4. ACSM (1998) ACSM's resource manual for guidelines for exercise testing & Prescription (3rd Ed.) Lippincott, Williams & Wilkins
5. Destine& Moore (2003) ACSM's exercise management for person's with chronic diseases & disabilities (2nd Ed.) IL: Human Kinetics