



ALAGAPPA UNIVERSITY

(A State University Established in 1985)
Karaikudi - 630003, Tamil Nadu, India



<p>2017</p>  <p>Accredited with A+ Grade by NAAC (CGPA: 3.64)</p>	<p>2018</p>  <p>MHRD Govt. of India</p>  <p>UGC University Grants Commission</p> <p>Graded as Category - 1 & Granted Autonomy</p>	<p>2018</p>  <p>MHRD GOVERNMENT OF INDIA</p> <p>Swachh Campus Rank : 4</p>	<p>2019</p>  <p>NIRF NATIONAL INSTITUTIONAL RANKING FRAMEWORK</p> <p>Rank : 28</p>	<p>2019</p>  <p>QS</p> <p>India Rank : 28 BRICS Rank : 194 Asia Rank : 216</p>
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ALAGAPPA UNIVERSITY COLLEGE OF PHYSICAL EDUCATION



M.P.Ed.

[Choice Based Credit System (CBCS)]

[For the candidates admitted from the academic year 2019 -2020]

**ALAGAPPA UNIVERSITY COLLEGE OF PHYSICAL EDUCATION
KARAIKUDI – 630003
TAMILNADU INDIA**

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CURRICULUM FRAME WORK FOR MPED PROGRAMME

GUIDELINES OF REGULATION AND MODEL SYLLABI STRUCTURE FOR THE MASTER OF PHYSICAL EDUCATION PROGRAMME (M.P.Ed -2yrs- FOUR SEMESTERS (CBCS))

I. PROGRAMME GENERAL OBJECTIVES:

Master of physical education degree is an honor students spend years working towards as part of a graduate program. This degree can qualify them to find work in their field or obtain a doctoral degree.

Master in Physical Education degree that provides students with the skills they need to work as a physical education instructor. Those enrolled in this program should expect to graduate with a thorough understanding of health and physical fitness and how to implement successful athletic programs in schools. Coursework in this program may include psychology, sports theory, anatomy, cardiovascular science, and athletics curriculum and instruction.

II. PROGRAMME SPECIFIC OBJECTIVES:

1. Master's degree in physical education can equip graduates with well-developed coaching, teamwork and public speaking skills. These skills can help graduate secure a rewarding career after graduation.
2. Master's degree in physical education depend on if the student chooses to study full time and the Students are encouraged to reach good physical education teacher.
3. The students after receiving their degree, graduates may find rewarding job opportunities as teachers in schools of all grades. They may also be able to work as a personal trainer, gym owner and operator, sports coach or activities director.
4. The Students working with kids isn't appealing, graduates may be able to find work in health clubs, at spas, at colleges or with the elderly helping coordinate exercise activities. Those who wish to maximize their earning potential may be able to do so by pursuing higher education or working as a freelance consultant or trainer.
5. As many schools are hiring an extra gym teacher or two to add to their staff to help promote physical activities in schools due to the rise in childhood obesity and lack of physical activity kids are receiving. So, they have a lot of career scopes for them.
6. As Master's degree is needed to teach at a college level so many high school teachers are also in charge of coaching the school sports teams, where they can then move on to eventually coaching college sports.
7. Another area is the sports where they can be given many types of jobs as they can become a coach, instructor and referee, etc.

III. PROGRAMME OUTCOME:

1. On successful completion of the programme

Candidates those who are physically well and have a lot of interest in physical education and its related activities can go for this course.

Those who have intellectual skills that require thought processes, interpretation of presented information, movement and muscle control and perceptual skills involving the thought, interpretation and movement skills are a good match for it.

Third, those who are capable of drawing and handling the verbal instructions, demonstration, video, diagrams and photo sequences, etc. also are suitable for it.

2. ELIGIBILITY FOR ADMISSION TO THE COURSE

- a) Bachelor of Physical Education (B.P.Ed) or equivalent with at least 50% marks
- b) Minimum intercollege level participation in sports and games is compulsory.
- c) The candidates should not have completed 35 years of age as on 1st July. However, relaxation of 3 years shall be given for SC/ST candidates.
- d) Ex-Servicemen / Experienced Physical Education Teachers shall be given relaxation of 6 years of age.
- e) The candidate should be medically fit and free from any deformity.
- f) Pregnant women are not permitted either for admission or to undergo the course. If violated, they will not be permitted to continue the course.
- g) Admission shall be made on the basis of ranking in the entrance and fitness test.

II COURSE OF STUDY

1. **Duration:** The M.P.Ed programme shall be of a duration of two academic years, that is, four semesters. However, the students shall be permitted to complete the programme requirements within a maximum of Four years from the date of admission to the programme.
2. **The CBCS system:** All 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.
3. **Course:** The term course usually referred to, as papers' is a component of a 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 these.
4. **Courses of Programme:** The M.P.Ed programme consists of a number of courses, the term 'Course' applied is to indicate 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.

❖ CORE COURSE

❖ ELECTIVE COURSE

❖ PRACTICAL COURSES

❖ INTERNSHIP COURSES

❖ DISSERTATION

5. **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 institution shall work for a minimum of 36 working hours in a week.
6. **Working days :** There shall be at least 200 working days per year exclusive of admission and examination process etc

7. **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 equals to one hour of teaching (lecture or tutorial) and two 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 M.P.Ed programme is 90 credits and for each semester 20 credits.

Provision of Bonus Credits Maximum of 6 Credits in each Semester

SL.No	Special Credits for Extra Co-curricular Activities	Credit
1	Sports Achievement at Stale level Competition (Medal Winner) Sports	1
	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 games)	1
4	National cadet corps / National service scheme	2
5	Blood donation/Cleanliness drive/Community services/	2
6	Mountaineering – Basic Camp, Advance Camp/Adventure Activities	2
7	Organization/ Officiating – State /National level in any two games	2
8	News Reposting / Article Writing / book writing / progress report writing	1
9	Research Project	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.

THEORY/PRACTICAL/INTERNSHIP

SEMESTER – I

S.No	Paper type		Paper code	Subject title
Part-A	Core subjects	CC - I	811 101	Research Process in Physical Education & Sports Sciences
		CC - II	811 102	Physiology of Exercises
		CC - III	811103	Yogic Sciences
		CC - IV	811104	Test , Measurement and Evaluation in Physical Education
	Elective Subject	EC - I	811105	Sports Technology
		EC -2	811106	Value and Environmental Education
				Library
Part - B	Practic um	PC -I	811107	Track and Field (Running Events),
		PC -II	811108	Game of Specialization - II (Second Best)
		PC -III	811109	Yoga
Part -c	Intern ship	PC -IV	811110	Class Room Teaching /coaching/officiating Field /laboratory work: test, measurement and evaluation, fitness training

SEMESTER – II

S. No	Paper type		Paper code	Subject title
Part -A	Core subjects	CC - V	811201	Applied Statistics in Physical Education & Sports
		CC - VI	811202	Sports Biomechanics & Kinesiology

		CC- VII	811203	Athletic Care and Rehabilitation
	Elective Course	EC - III	811204	Sports Management and curriculum Designs in Physical Education
		EC-IV	811205	Sports Journalism and Mass Media
	NME -1		811206	
	SLC - I			MOOCS
				Library, yoga carrier Guidance
Part - I - Practicum		PC -V	811207	Track and field (Jumping Events)
		PC -VI	811208	Game of Specialization - II (Second Best)
Part - C Internship		PC -VII	811209	Teaching Lessons (Track)
		PC - VIII	811210	Teaching Lessons (Game)

SEMESTER – III

No	Paper type		Paper code	Subject title
Part-A	Core Subjects	CC-VIII	811301	Scientific Principles of Sports Training
		CC – IX	811302	Sports Medicine
		CC- X	811303	Health Education and Sports Nutrition
	EC	EC - V	811304	Physical Fitness and Wellness
		EC- VI	811305	Sports Engineering
	NME -II		811306	
	SLC - II			MOOCS
			Library, yoga carrier Guidance	
Part - B	Practicum	PC -IX	811307	Track and Field III: Field events (Jumping and throws)
		PC -X	811308	Games Specialization – III (First Best)
Part - C	Internship	PC -XI	811309	Coaching Lessons of Track and Field 5 Lessons
		PC -XII	811310	Coaching Lessons of Game of Specializations'
			-	VPP (Village Placement Program)

SEMESTER – IV

S.No	Paper type		Paper code	Subject title
Part-A	Core Subjects	CC - XI	811401	Communication Technology
		CC – XII	811402	Sports Psychology
		CC - XIII	811403	Education Technology In Physical Education
		CC - XIV	811404	Dissertation (Project Work)
Part - B	Practicum	PC -XIII	811405	Track and Field IV

		PC -XIV	811406	Games Specialization – IV (First Best)
Part -c	Internship	PC -XV	811407	Coaching Lessons of Track and Field
		PC -XVI	811408	Coaching Lessons - Game of Specializations
		-	-	Adventure 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 shall be admitted in the second semester, if he/she has successfully kept the term in first semester.

8. Attendance/ Condonation

Student must have 75% of attendance in each course for appearing the examination. Students who have 70% to 74% of attendance shall apply for condonation in the prescribed form with the prescribed fee. Students who have 60% to 69% of attendance shall apply for Condonation in prescribed form with the prescribed fee along with the Medical Certificate. Students who have below 60% of attendance are not eligible to appear for the examination. They should redo the semester.

9. Pattern of Question Papers:

Question Papers shall have five questions (with option for each) corresponding to four units of each theory course.

Format of Question Paper for 4 Units

Question No.	Description	Marks
PART A- 2x10=20	12 Questions- (Answer any 10) Minimum two question form each unit	20
PART B- 5x5=25	8 Question –(Answer any 5)Minimum one not more than two question form each unit	25
PART C- 10x3=30	5 Question- (Answer any 3) Minimum one question form each unit	30
TOTAL		75

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

Best of two Test	15 Marks
Seminar/Quiz	5 Marks
Assignments	5 Marks
Total	25 Marks

Attendance shall be taken as a component of continuous assessment. Even though 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 25:75. The evaluation of practical work. Wherever applicable, will also be based on continuous internal assessment and on an end semester practical examination.

11. Minimum Passing Standard:

The minimum passing standard for CIA (Continuous Internal Assessment) and External Examinations shall be 40% i.e. 10 marks out of 25 marks and 30 marks out of 75 marks respectively for theory courses. The minimum passing for both CIA & external examination shall be 50% i.e 12 marks out of 25 and 35 marks out of 75.

12. 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 M.P.Ed. from the first semester onwards the average performance within any semester from the first semester is indicated by Semester Grade Point Average (GPA) while continuous performance (including the performance of the previous semesters also) starting from the first semester is indicated by Cumulative Grade Point Average (GPA). **Classification of Final Results:**

For the purpose of declaring a candidate to have qualified for the Degree of Bachelor 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.

13. 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.

14. Letter Grades and Grade Points:

- i. Two methods-relative grading or absolute grading – have been in vogue for awarding grades in a course. The relative grading is based on the distribution (usually normal distribution) of marks obtained by all the students in the course and the grades are awarded based on a cut-off mark of r percentile. Under the absolute grading, the marks are converted to grades based on pre-determined class intervals. To implement the following grading system, the colleges and universities can use any one of the above methods.
- ii. The grades for each course would be decided on the basis of the percentage marks obtained at the end-semester external and internal examinations as per following table:

CGY-Category	Category(CGY)
CDT-Credit	1. Theory (Core)
GRD-Grade	2. Practical (Core)
GPT-Grade Point	3. Inter-Disiplinary-Theory
GPA-Grade Point Average	4. Inter-Disciplinary-Practical
	5. Elective\Optional
	6. Comprehensive Viva/Seminar
	7. Extension Programmes
	8. Project And Viva-Voce

M.P.Ed/B.P.Ed/ M.Phil Programmes

Marks	Grade Point	Letter Grade	Description
95 & above	10	S+	First class-Exemplary
91-95	9.5	S	
86-90	9.0	D++	First Class-Distinction
81-85	8.5	D+	
76-80	8.0	D	
71 – 75	7.5	A++	First class
66-70	7.0	A+	
61-65	6.5	A	
56-60	6.0	B	Second Class
50.55	5.5	C	
Below 50	-	F	Fail
		AA	Absent

GPA =	$\frac{\sum(CDTXGPT)}{\sum CDT}$
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Note:

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

Grievance Redressed Committee: The Grievance Redressed Committee with course teacher/Principal and the HOD of the faculty as the members will solve all the grievances of the students.

Revision of Syllabus:

1. Syllabi of every course should be revised according to the NCTE norms.
2. Revised Syllabi of each semester should be implemented in a sequential way.
3. 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.
4. 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.
5. 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.
6. In case, the syllabus of any course is carried forward without any revision, it shall also be counted as revised in the revised syllabi.

SYLLABUS CREDIT STRUCTURE FOR M.P.Ed PROGRAMME

SEMESTER	COURSE/ TITLE	COURSE CODE	CREDIT	HOURS/ WEEK	MARKS		MARKS	
					Internal	External		
I	Research Process in Physical Education & Sports Sciences (CC)	811101	3	3	25	75	100	
	Physiology of Exercise (CC)	811102	3	3	25	75	100	
	Yogic Sciences (CC)	811103	3	3	25	75	100	
	Test, Measurement and Evaluation in Physical Education (CC)	811104	3	3	25	75	100	
	Sports Technology (EC)	811105	3	3	25	75	100	
	Values and Environmental Education (EC)	811106						
	Library			4				
	Track and Field (Running Events)	811107	2	4	25	75	100	
	Game of Specialization - I (Second Best)	811108	2	4	25	75	100	
	Yoga	811109	2	4	25	75	100	
	Class Room Teaching / Sports teaching and coaching/officiating (IP)	811110	2	4	25	75	100	
	Total		23	35	225	675	900	
II	Applied Statistics in Physical Education & Sports (CC)	811201	3	3	25	75	100	
	Sports Biomechanics & Kinesiology (CC)	811202	3	3	25	75	100	
	Athletic Care and Rehabilitation (CC)	811203	3	3	25	75	100	
	Sports Management and curriculum Designs in Physical Education (CC)	811204	3	3	25	75	100	
	Sports Journalism and Mass Media (EC)	811205						
	IDC (NME)	811206	2	3	25	75	100	
	MOOCS	Extra Credit						
	Track and field (Jumping Events)	811207	2	5	25	75	100	
	Game of Specialization - II (Second Best)	811208	2	5	25	75	100	
	Teaching Lessons (Track)	811209	2	5	25	75	100	
	Teaching Lessons (Game)	811210	2	5	25	75	100	
	Total		22	35	225	675	900	
SEMESTER	COURSE/ TITLE	COURSE CODE	CREDIT	HOURS/ WEEK	MARKS		MARKS	
III	Scientific Principles of Sports Training (CC)	811301	3	3	25	75	100	
	Sports Medicine (CC)	811302	3	3	25	75	100	

	Health Education and Sports Nutrition (CC)	811303	3	3	25	75	100
	Physical Fitness and Wellness (EC)	811304	3	3	25	75	100
	Sports Engineering (EC)	811305					
	IDC (NME)	811206	2	3	25	75	100
	MOOCS			Extra Credit			
	Library, Yoga Carrier Guidance			4			
	Track and Field III: Field events (Jumping and throws)	811307	2	4	25	75	100
	Games Specialization – III (First Best)	811308	2	4	25	75	100
	Coaching Lessons of Track and Field 5 Lessons	811309	2	4	25	75	100
	Coaching Lessons of Game of Specializations'	811310	2	4	25	75	100
	VPP (Village Placement Program)		-	-	-	-	-
	Total		22	35	225	675	900
IV	Communication Technology (CC)	811401	3	3	25	75	100
	Sports Psychology (CC)	811402	3	3	25	75	100
	Education Technology In Physical Education (CC)	811403	3	3	25	75	100
	Dissertation (CC)	811404	6	6	25	75	100
	Track and Field IV	811405	2	4	25	75	100
	Games Specialization – IV (First Best)	811406	2	4	25	75	100
	Coaching Lessons of Track and Field (IP)	811407	2	4	25	75	100
	Coaching Lessons - Game of Specializations (IP)	811408	2	4	25	75	100
	Adventure Activities			4			
		Total		23	35	200	675

CC: Core Course, **EC:** Elective Course, **NME:** Non Major Elective Course, **SLC:** Self Learning Course (MOOCs) and **NEC:** Non Exam Course.*Credits earned through Self Learning Courses (MOOCs) shall be transferred in the credit plan of the program as extra credits.

Semester - I			
Course code: 811 101	Research Process In Physical Education And Sports Sciences	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To know the basic concept of research ❖ To know about the methods of research ❖ To understand the experimental research ❖ To know the sampling methods ❖ To understand writing research proposal and report 			
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 research – Hypothesis – Meaning , Importance , Types – Formulation of Testing.		
Unit-II	METHODS OF RESEARCH: Descriptive Methods of Research; Survey Study, Case study, Philosophical Research, Introduction of Historical Research, Steps in Historical Research, Sources of Historical Research: Primary Data and Secondary Data, Historical Criticism: Internal Criticism and External Criticism.		
Unit III	EXPERIMENTAL RESEARCH: Experimental Research – Meaning, Nature and Importance, Meaning of variable, Types of Variables. Experimental Design – Single Group Design, Reverse Group Design, Repeated Measure Design, Static Group Comparison Design, Equated Group Design, Factorial Design.		
Unit IV	SAMPLING: Meaning and Definition of Sample and Population. Types of Sampling; Probability Methods; Systematic Sampling, Cluster sampling, Stratified Sampling. Area Sampling – Multistage Sampling. Non-Probability Methods; Convenience Sample, Judgment Sampling, Quota Sampling.		
Unit V	RESEARCH PROPOSAL AND REPORT: Chapter of Thesis/Dissertation, Front Materials, Body of Thesis – Back materials. Method of Writing Research proposal, Thesis/Dissertation; Method of writing abstract and full paper for presenting in a conferences, Seminar and to publish journals, Mechanics of writing Research Report, Footnote and Bibliography writing, Reviews of Literature – Ethical Issues in Research – Areas of Scientific Dishonesty, Ethical Issues regarding copyright, Responsibility of Researcher, working Ethics in the faculty, Projecting human Participants.		
References			
Best J.W (1971) <i>Research in Education</i> New jersey; Prentice Hall. Inc. Clarke David. H & Clarke H. Harrison (1984) <i>Research Processes in Physical Education</i> , New Jersey; Prentice Hall Inc. Craig Williams and Chris Wragg (2006) <i>Data Analysis and Research for Sport and Exercise Science</i> , Londonl Routledge Press Jerry R Thomas & Jack K Nelson (2000) <i>Research Methods in Physical Activities</i> , Illonosis; Human Kinetics; Kamlesh, M.L. (1999) <i>Research Methodology in Physical Education and Sports</i> . New Delhi.			
Outcomes			
<ul style="list-style-type: none"> ❖ To define research and describe the research process and research methods. ❖ To understand the research context within the area of physical Education and sports. ❖ To understand the processes and requirements for conducting successful research in physical education and sports. ❖ Understand and apply basic research methods. ❖ Students use print and electronic library resources effectively and appropriately. ❖ To understand the process of sampling, the uses of questionnaires as data-gathering instruments, how a survey is carried out in terms of process and method, the uses of surveys and to be able to capture their own data. 			

Semester - I			
Course code: 811 102	Physiology Of Exercise	Credits:3	Hours: 3
Objectives	After studying this paper the student teachers will be able: <ul style="list-style-type: none"> ❖ To know the effect of exercise on skeletal system ❖ To know the effect of exercise on cardiovascular system. ❖ To know the effect of exercise on respiratory system. ❖ To understand metabolism a energy transfer. ❖ To understand the climatic conditions, sports performance & ergogenic. 		
Unit –I	Introduction: SKELETAL MUSCLES AND EXERCISE: Meaning and Definition of Physiology & Exercise Physiology, Importance of Exercise Physiology, Structure of the Skeletal Muscle, Voluntary, Involuntary and Cardiac Muscle – Fiber type Characteristics & Athletic Performance – Skeletal Muscle response to Exercise - Chemical Composition, Sliding Filament theory of Muscular Contraction.		
Unit-II	EFFECT OF EXERCISE ON VARIOUS SYSTEMS OF THE BODY: Circulatory System – Respiratory System – Muscular System – Thermo – Regulatory System – Digestive System – Neuro – Muscular Functions & Muscular Activity: Neurons & Motor unit – Transmission of Nerve Impulse - Bio electric potentials - Neuro-muscular function& transmission of nerve impulse across it - Proprioception & kinesthetics — tone, posture & equilibrium.		
Unit III	BLOOD: Composition & functions of Blood - Effect of exercise on Blood - Blood pressure & its maintenance - Effect of exercise on Blood Pressure (normal) - High BP (effect of exercise on) - Low B.P (effect of exercise on).		
Unit IV	PULMONARY VENTILATION: Minute Ventilation - Ventilation at Rest - Ventilation during Exercise - Alveolar Ventilation & Dead Space - Other lung Volumes & Capacities - Importance of Pulmonary Volumes and Capacities - Second Wind - Oxygen Dept and Oxygen Deficit.		
Unit V	METABOLISM AND ENERGY TRANSFER: Metabolism – ATP – PC or Phosphate System – Anaerobic Metabolism – Aerobic Metabolism – Aerobic and Anaerobic Systems During Rest and Exercise. Short Duration High Intensity Exercises – High Intensity Exercise Lasting Several Minutes – Long Duration Exercises – Electrolyte Imbalance.		
References			
<p>Amrit Kumar, r, Moses 91995) <i>Introduction to Exercise Physiology</i>. Madras Poompugar Pathipagam.</p> <p>Clarke, D.H (1975) <i>Exercise Physiology</i>. New Jersey: Prentice hall Inc., Englewood Cliffs.</p> <p>David, L Costill (2004) <i>Physiology of Sports and Exercise</i>, Human Kinetics.</p> <p>Fox, E.L., and Mathews, D.K (1981) <i>the Physiological basis of Physical Education and Athletics</i>. Philadelphia: Sanders College Pushing.</p> <p>Guyton, A.C (1976) <i>textbook of Medial Physiology</i>. Philadelphia: W.B.Sanders co.</p> <p>Richard, W. Bowers (1989) <i>Sports Physiology</i>. WMC: Brown Publishers, Sandhya Tiwaji. (1999) <i>Exercise Physiology</i>. Sports Publishers.</p> <p>Shaver, L (1981) <i>Essentials of Exercise Physiology</i>. New Delhi: Subject Publication.</p> <p>Vincent, T. Murche (2007) <i>Elementary Physiology</i>. Hyderabad; Sports Publication</p> <p>William, D.Mc Aradle (1996) <i>Exercise Physiology, Energy, Nutrition and Human Performance</i>. Philadelphia: Lippincott Williams and Wilkins Company.</p>			
Outcomes			
<ul style="list-style-type: none"> ❖ Describe and apply the fundamental and advanced concepts of exercise physiology. ❖ Define and describe the term exercise physiology ❖ Recognize the energy system for aerobic and anaerobic components of exercise. ❖ Summarize the underlying physiological basis of physical fitness, physical training, health and wellness. 			

Semester - I			
Course code: 811 103	Yogic Sciences	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To understand the concept of yogasanas. ❖ To know about asanas & pranayan. ❖ To understand kriyas. ❖ To understand mudras. ❖ To know the concept of yogic therapy. 			
Unit –I	INTRODUCTION: Origin, History and Evolution of Yoga, Meaning and Definition of Yoga. Development of Yoga, Various Schools of Yoga, Method of Teaching yoga - Patanjali Yoga Sutra, Yama, Niyama, Aasna, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi, Concept of Yogic Practices; Principle- Breathing – Awareness – relaxation, Sequence – Counter pose – Time – Place – Clothes – bathing – emptying the bowels – Stomach – Diet – No Straining – Age – ContraIndication – Inverted asana – Sunbathing.		
Unit-II	AASANAS AND PRANAYAMA: Preparatory Asanas, techniques, types and benefits of Asanas, Types – Techniques and Benefits of Surya namaskar and Chandra Namaskar – Methods, types and benefits of Pranayama, Types and benefits of Nadis, Meaning, methods and benefits of Chakras, benefits of cleaning and balancing Chakras, Concept of TriGunas , Meaning, types and benefits of Koshas.		
Unit III	KRIYAS AND BANDHAS: Shat Kriyas – Meaning, Techniques and benefits of Neti – Dhauti – Kapalapathi – Trataka – Nauli – Basti, Bandhas: Meaning, techniques and benefits of Jalendra bandha, Jihva Bandha, Uddiyana bandha, Mula Bandha, Maha Bandha.		
Unit IV	MUDRAS AND MEDITATION: Meaning, Techniques and Benefits of Hasta Mudras, Asamyukta hastam, Samyukta hastam, Mana muda, kaya Mudra, banda Mudra, Adhara Mudra. Meditation: meaning, Techiques, types and Benefits of Meditation – Passive and active Meditation – Meaning and Importance of Prayer – Psychology of Mantras- Different Mudras during Prayers.		
Unit V	YOGA THERAPY: Yoga and Health – Integrated Approach of Yoga, Yoga Supplemental Exercise – Yoga Compensation Exercise – Yoga Regeneration Exercise – Power Yoga Compensation Exercise – Yoga Regeneration Exercise. Yogic Diet, Role of Yoga in Psychological Preparation of athelete: Mental Welbeing, Anxiety, Depression Concentration, Self Actualization. Effect of Yoga on Physiological System: Circulatory, Skeletal, Digestive, Nervous Respiratory, Excretory and Endocrine System, Effect of Asana and Pranayama on Various System, Role of Yoga in Sports. (Note: laboratory Practical be designed and arranged internally.)		
References			
George Feuerstein. (1975). <i>Text Book of Yoga</i> . London: Motilal Bansaridass Publishers (P) Ltd. Gore, (1990), <i>Anatomy and Physiology of Yoga Practices</i> . Lonavata: Kanchan Prkashan. Helen Purperhart (2004). <i>The Yoga Adventure for Children</i> , Netherlands: A Hunter House book. Iyengar, B.K.S (2000), <i>Light on Yoga</i> . New Delhi: Harper Collins Publishers. Kenghe. C.T. (1976), <i>Yoga as Depth – Psychology and para-Psychology (Vol-1)</i> ” Historical Background, Varanasi: bhārata manishai. Kuvalyananada Swami & S.L. Vinekar, (1963), <i>Yogic Therapy – Basic Principles and Methods</i> . New Delhi: Govt. of India, Central Health Education and Bureau.			
Outcomes			
<ul style="list-style-type: none"> ❖ Differentiate between various paths of yoga ❖ Apply and demonstrate various benefits of yoga to be applied in the field of sports ❖ Relate Yoga with health and wellness 			

Semester - I			
Course code: 811104	Test, Measurement And Evaluation In Physical Education	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To know the basic of test, measurement & evaluation. ❖ To know the motor fitness tests. ❖ To know the physical fitness test ❖ To know the anthropometric, aerobic & anaerobic test. ❖ To know the specific skill test. 			
Unit –I	INTRODUCTION: Meaning and Definition of Test, Measurement and Evaluation. Need and Importance of Measurement and Evaluation. Criteria for Test Selection – Scientific Authenticity. Meaning, definition and establishing Validity, Reliability, Objectivity, Norms – Administrative Considerations.		
Unit-II	MOTOR FITNESS TESTS: Meaning and Definition of Motor Fitness. Test for Motor Fitness; Indiana Motor Fitness Test (for elementary and high school boys, girls and College Men) Oregon Motor Fitness Test (Separately for boys and girls) – JCR test. Motor Ability; Barrow Motor Ability Test – Newton Motor Ability Test – Muscular Fitness – Kraus Weber Minimum Muscular Fitness Test.		
Unit III	PHYSICAL FITNESS TESTS: Physical Fitness Test: AAHPERD Health Related Fitness Battery (revised in 1984). ACSM Health Related Physical Fitness Test, Roger’s physical fitness Index. Cardio vascular test; Harvard step test, 12 minutes run/walk test, Multi – stage fitness test (Beep test).		
Unit IV	ANTHROPOMETRIC AND AEROBIC –ANAEROBIC TESTS: Physiological Testing: Aerobic Capacity: The Bruce Treadmill Test Protocol, 1.5 Mile Run test for college age males and females. Anaerobic Capacity: Margaria – Kalamen test, Wingate Anaerobic Test, Anthropometric Measurements: Method of Measuring Height: Standing Height, Sitting Height. Method of measuring Circumference: Arm, Waist, Hip, Thigh. Method of Measuring Skin folds: Triceps, Sub scapular, Suprailiac Body Composition Analysis.		
Unit V	SKILL TESTS: Specific Sports Skill Test: Badminton: Miller Wall Volley Test, Lockhart Mc. Pherson Badminton test, French Short & Long Serve test, Hicks Badminton test - Basketball: Johnson Basketball Test, Harrison Basketball Ability Test, Knox Basketball test - Cricket: Sutcliff Cricket test. Hockey: Friendel Field Hockey Test, Harban’s Hockey Test, Schmithal’s Dribble test, Schmithal’s goal shooting, field & drive test - Volleyball, Russel Lange Volleyball Test, Brady Volleyball Test, French & Cooper’s repeated volleying test, French & Cooper’s serve test - Football: Mor-Chirstian General Soccer Ability Skill Test Battery, Johnson Soccer Test, Mc-Donald Volley Soccer Test. Tennis: Dyer Tennis Test. (Note: Practical’s of indoors and outdoor tests be designed and arranged internally.)		
References			
<p>Authors Guide (2013) <i>ACSM’s Health Related Physical Fitness Assessment Manual</i>, USA: ACSM Publications.</p> <p>Collins, R.D., & Hodges P.B (2001) <i>A Comprehensive Guide to Sports Skills Tester and Measurement</i> (2nd edition) Lanham: Scarecrow Press.</p> <p>Cureton T.K (1947) <i>Physical Fitness Appraisal and Guidance</i>, St.Louis: The C.Mosby Company.</p> <p>Getchell B (1979) <i>Physical Fitness A Way of Life, 2nd Edition</i> New York, John Wiley and Sons, Inc.</p> <p>Jenson, Clayne R and Cynt ha, C.Hirst (1980) , <i>Measurement in Physical Education and Athletics</i>, New York, Macmillan Publishing Co. Inc.</p>			
Outcomes			
<ul style="list-style-type: none"> ❖ Explain the basics of measurement and evaluation of various test and measurement techniques. ❖ Develop the concepts of measurement and evaluation in physical education and sports ❖ Develop ability to construct new tests for various need related to Physical Education and Sports with scientific authenticity ❖ To analyze various test and performance related to physical education 			

Semester - I			
Course code: 811105	Sports Technology	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To know the basic of sports technology. ❖ To understand various playing surfaces ❖ To know the modern technology equipments ❖ To know the training gadgets and its uses. ❖ To understand the sports building & maintaining concepts. 			
Unit -I	SPORTS TECHNOLOGY: Meaning, definition, purpose, advantages and applications, General Principals and purpose of instrumentation in sports, Workflow of instrumentation and business aspects, Technological impacts on sports.		
Unit-II	SCIENCE OF SPORTS MATERIALS: Adhesives – Nano gule, nano moulding technology, Nano turf. Foot Wear Production, Factors and application in sports, contains. Forams – 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.		
Unit V	TRAINING GADGETS: Basketball: Ball Feeder, Mechanism and Advantages. Cricket: Bowling Machine, Mechanism an Advantages, Tennis: Serving Machine, Mechanism and Advantages, Volleyball: Serving Machine Mechanism and Advantages. Lighting Facilities: Method of erecting Flood Light and measuring luminious. Video Coverage: Types, Size, Capapcity, Place and Position of Camera in live coverage of sporting events.		
REFERENCE:			
<p>Charles J.A Crane, F.A.A and Furnes, J.A.G (1987) “<i>Selection of Engineering Materials</i> “UK” Butterworth Heiremann.</p> <p>Finn. R.A and Trojan P.K (1999) “<i>Engineering Materials and their Applications</i>” UK Jaico Publisher.</p> <p>John Mongilo, (2001), “Nano Technology 101 “<i>New York: Green wood publishing group.</i></p> <p>Walia, J.S.Principals and <i>Methods of Education</i> (Paul Publishers, Jullandhar), 1999.</p> <p>Kochar, S.K.Mehtods and <i>Techniques of Teaching</i> (New Delhi, Jullandhar, Sterling Publishers Pvt. Ltd) 1982)</p> <p>Kozman, Cassidy and kJackson. <i>Methods in Physical Education</i> (W.B Saunders Company, Philadelphia and London) 1952.</p>			
Outcomes	<ul style="list-style-type: none"> ❖ Explain the basics of technology used in Sports and games ❖ The physical education Student know about the new technology utilize in play area and officiating part 		

Semester - I			
Course code: 811106	Value And Environmental Education	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To know about the concepts of values & value education ❖ To know about the value system ❖ To understand the environmental education ❖ To understand the rural and urban health ❖ To know about the natural resources 			
Unit -I	INTRODUCTION TO VALUE EDUCATION: Values: Meaning, Definition, Concepts of Values, Value Education: Need, Importance and Objectives. Moral Values: Need and Theories of Values. Classification of Values: Basic Values of religion, Classification of Values.		
Unit-II	VALUE SYSTEMS: Meaning and Definition, Personal and Communal Values, Corporate values, Consistency, Internally consistent, Internally inconsistent, Judging Value System, Commitment, Commitment to values.		
Unit III	ENVIRONMENTAL EDUCATION: Definition, Scope, Need and Importance of environmental studies., Concept of environmental education, Historical background of environmental education, Celebration of various days in relation with environment, Plastic recycling & probation of plastic bag/cover, Role of school in environmental conservation and sustainable development.		
Unit IV	RURAL SANITATION AND URBAN HEALTH: Rural Health Problems, Causes of Rural Health Problem, Points to be kept in Mind for improvement of Rural Sanitation, Urban Health Problems, Process of Urban Health, Services of Urban Area, Suggested Education Activity, Services on Urban Slum Area, Sanitation at Fairs & Festivals, Mass Education.		
Unit V	NATURAL RESOURCES AND RELATED ENVIRONMENTAL ISSUES: Water resources, food resources and Land resources, Definition, effects and control measures of: Air Pollution, Water Pollution, Soil Pollution, Noise Pollution, Thermal Pollution Management of environment and Govt. Policies, Role of pollution control board.		
REFERANCE:			
<p>Miller T.G. Jr <i>Environmental Science</i> (Wadsworth Publishing Co)</p> <p>Odum, E.P. <i>Fundamentals of Ecology</i> (U.S.A W.B Saunders Co) 1971)</p> <p>Rao, M.N & Datta, A.K <i>Waste Water Treatment</i> (Oxford & IBH Publication Co.Pvt Ltd) 1987)</p> <p>Townsend C and others, <i>Essentials of Ecology</i> (Black well Science)</p> <p>Heywood, V.H and Watson V.M., <i>Global biodiversity Assessment</i> (U.K Cambridge University Press) 1995.</p> <p>Jadhav, H and Bhosale, V.M <i>Environmental Science System and Solution</i> (Web enhanced Ed) 1996.</p> <p>Miller T.G Jr., <i>Environmental Science</i> (Wadsworth Publishing Co)</p>			
Outcomes	<ul style="list-style-type: none"> ❖ Getting more knowledge in pollution ❖ Student know about the rural station in india ❖ Student know about the public health ❖ Student know about the air, water, soil, noise pollution etc.. 		

Semester - II			
Course code: 811 201	Applied Statistics In Physical Education And Sports	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To understand the basics of statistics ❖ To know the data classification, tabulation and measure of central tendency ❖ To know the measure of dispersions and scales ❖ To know about the measure of dispersions and scale ❖ To know about the probability distribution & groups ❖ To understand about inferential & comparative statistics 			
Unit –I	INTRODUCTION: Meaning and Definition of Statistics - Function- Need and Importance of Statistics in Physical Education -Types of Statistics-Meaning of the Terms- Population ,Sample ,Data- Type of Variables, Discrete, Continuous- Parametric and Non Parametric Statistics-Nature of Data-Nominal, Ordinal, Interval, Ratio. Sampling Distribution of means, standard error of means.		
Unit-II	DATA CLASIFICATION, TABULATION AND MEASURES OF CENTRAL TENDENCY: Meaning and Definition, Types of Data- Uses and Construction of Frequency Table- Class Interval- Meaning, Purpose Calculation and Advantages of Measure of Central Tendency-Mean, Median, Mode		
Unit III	MEASURES OF DISPERSIONS AND SCALES: Meaning Purpose- Calculation and Advances of Range, Quartile, Deviation, Mean Deviation, Probable Error- Meaning Purpose- Calculation and Advantages of Scoring Scales- 6 Sigma Scale- Z Scale- T-Scale- Deciles and Percentiles type-1 and II error one tail and two tail error.		
Unit IV	PROBABLITY DISTRIBUTIONS AND GRAPHS: Normal Curve, Meaning of Probality- Principles of Normal Curve- Properties of Normal Curve, Divergence form Normality-Skewness and Kurtosis-Graphical Representation in Statistics, Line Diagram, Bar Diagram, Histogram, Frequency Polygon, Ogive Curve, null hypothesis , coefficient of variation and sampling error.		
Unit V	INFERETIAL AND COMPARTIVE STATISTICS: Tests of Significance, Independent ‘t’ Test, Dependent ‘T’ Test, Chi-Square Test, Level of Confidence and Interpretation of Data, Meaning and Type of Correlation, Co-Efficient of correlations, its uses, Spearman Rank order Correlation, Concept, Analysis of Variance with equal and unequal sample size, Need Importance and Purpose of One way Analysis of Variance Calculation and Analysis of Co-Variance, Post-hoctest (Practical implementation, To prepare the class intervals & write the frequencies by using the tally counts, Computation of correlation matrix, Calculation of partial correlation, Calculation of multiple correlation, Calculation oft-ratio for related and unrelated gruoups, Calculation of Z-ratio for testing the hypothesis, Preparing the percentile scale, Calculation of chi-square, Calculation of the one way ANOVA with equal & unequal sample sizes).		
References			
<p>Best , John W. <i>research in education</i> (4 th edition)new Delhi, prentice hall India 1981</p> <p>Clarke, David H.Clarke,Harision H.<i>Research process in physical education</i>, Englewood cliffd; new jersey(2nd edition) Need Delhi, prentice hall India 1981</p> <p>Garrett, Henrye.Woodworth,R.S. <i>statistics in psychology and education</i> Bombay; wakil &son ltd. India 1981</p> <p>Jerry R Thomas & jack k nelson (2000) <i>research methods in physical actives</i>. Illonosis, human kinetics</p> <p>Kamlesh.m.l (1999) <i>research methodology in physical education and sports</i> Delhi.</p>			
Outcomes			
<ul style="list-style-type: none"> ❖ Know how to organize, manage, and present data. ❖ Explore and organize data for analysis. ❖ Use and apply a wide variety of specific statistical methods. 			

- ❖ Demonstrate understanding of the properties of probability and probability distributions.
- ❖ Demonstrate understanding of the probabilistic foundations of inference.

Semester - II			
Course code: 811 202	Sports Biomechanics And Kinesiology	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To know the basic of sports biomechanics & kinesiology. ❖ To understand the muscle action. ❖ To know the concept of motion and force. ❖ To know the concept of projectile and lever ❖ To know about movement analysis. 			
Unit –I	Introduction: Need and Importance of Bio Mechanics and Kinesiology, 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	PROJECTILE AND LEVER: Projectiles: Factors influencing projectile trajectory - Angular Kinematics of Human Movement - Angular Distance and Displacement - Angular Speed and Velocity - Units in angular kinematics - Angular Acceleration - Types of Equilibrium - Static Equilibrium - Dynamic Equilibrium – Levers -Types of Lever - Mechanical Advantages of Lever – Stability - Factors Affecting Stability - Stability and Potential Energy - Center of Gravity and - Stability and Human movement		
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, Law of counter force. Meaning and definition of force – Sources of force - Meaning of work, power, energy, kinetic energy and potential energy – Force components Force applied at an angle – pressure – friction – Buoyancy, Spin and its Types – Application of Centripetal force Centrifugal force Sports and Games		
Unit IV	MUSCLE ACTION: Origin, Insertion and action of muscles: Pectoralis major and minor, Deltoid, Biceps, Triceps (Anterior and Posterior), Trapezius, Seratus, Sartorius Rectus femoris, Rectus femoris, Rectus Abdominous, Quadriceps, Hamstring, Gastronemius.		
Unit V	MOVEMENT ANALYSIS: Mechanical Principles – Running – 100 Mts , Walking, Jumping-Long Jump High Jump and Throwing – Discuss – Shot put , Games and Their Skills Football-Kicking & Heading , Volleyball- Service Spiking , Cricket Forward Defense Catching, Hockey Dribbling – Hitting , Basketball Dribbling Lay up Analysis of Movement: Types of analysis: Kinesiological, Biomechanical. Cinematographic. Methods of analysis – Qualitative, Quantitative, Predictive, Muscular analysis.		
Reference			
<p>Hoffman S.J <i>Introduction to Kinesiology</i> (Human Kinesiology publication in – 2005) Steven Roy, & Richard Irvin (1983). <i>Sports medicine</i>. New Jersey: Prentice hall. Thomas. (2001) <i>manual of structural Kinesiology</i>, New York: Me Graw hill Uppal A.K. <i>Lawrence mamta MP Kinesiology</i> (Friends Publication India 2004) Upal, A (2004) <i>Kinesiology in Physical Education and Exercise Science</i>, Delhi Friends publications. Williams M (1982) <i>Biomechanics of Human Motion</i>, Philadelphia; Saunders co.</p>			
Outcomes			
<ul style="list-style-type: none"> ❖ Explain the basic mechanical concepts and will be able to interpret its relation to humanbody movements ❖ Organize and specify the overall goal of the course. ❖ Apply and analyze the factors of mechanical laws involved in human movement. ❖ Explain the principles of movement analysis 			

Semester - II			
Course code: 811 203	Athletic Care And Rehabilitation	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To know the basic and sports injuries. ❖ To know about wound, hydrotherapy & electrotherapy. ❖ To understand massage techniques & effects. ❖ To know about exercises and approaches. ❖ To understand about protective equipments & posture. 			
Unit –I	POSTURE: Normal curve of the spine and its utility, Kyphosis, Lordosis, Deviations in posture: Kypholodsis, flat back, Scoliosis, round shoulders, Knock Knee, Bow leg, Flat foot, cause for these deviations and treatment including exercise.		
Unit-II	MESSAGE: Brief history of massage – massage as an aid for relaxation – Points to be considered in giving massage – Physiological Chemical, Psychological effect 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.		
Unit III	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, Ultra Sound – Ultrasonic, Therapy – Short wave diathermy therapy. Principles and techniques of Strapping and Bandages, Traction Therapy, Thermo Therapy, Hydrotherapy, Cryotherapy, Contrast Bath and Whirlpool Bath. General and Specific Training to avoid injuries.		
Unit IV	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 V	REHABILITATION EXERCISES: Passive, Active, Assisted, Resisted exercise for Rehabilitation, Stretching, PNF techniques and principles. Recovery Exercises for reduce Injuries (Sprain and Strain).		
Reference			
<p>Dohenty. J. Meno. Wetb, Moder D (2000) <i>Track & Field, Englewood Cliffs</i>, Prentice hal Inc.</p> <p>Lace, M.V (1951) <i>massage and Medical Gymnastics</i>, London: J & A Churchill Ltd.</p> <p>Mc Ooyand Young (1954) <i>Teat and Measurement</i>, New York: Appleton Century.</p> <p>Naro, C.L. (1967) <i>manual of Massage and, Movement</i>, London: Febra and Febra Ltd.</p> <p>Rathbome, J.I (1965) <i>Corrective Physical education</i>, Londone: W.B Saunders & Co.</p> <p>Staffordand Kelly, (1968) <i>Preventive and Corrective Physical Education</i>, New York.</p>			
Outcomes	<ul style="list-style-type: none"> ❖ Understand the first aid methods ❖ Students know about the sports injury ❖ Students know about the Resisted exercise for Rehabilitation ❖ Students know about the human body deformity 		

Semester - II			
Course code: 811 204	Sports Management And Curriculum Design In Physical Education	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To know the concept & sports management. ❖ To understand programme management ❖ To understand equipment & public relation ❖ To know the concept of curriculum ❖ To know the curriculum sources. 			
Unit –I	INTRODUCTION TO SPORTS MANAGEMENT: Definition, Importance. Basic Principles and Procedures of Sports Management. Functions of Sports Management. Personal Management: Objectives of Personal Management, Personal Policies, role of Personal Manager in an organization, Personnel recruitment and selection.		
Unit-II	PROGRAM MANAGEMENT: Importance of Programme development and the role of management, Factors influencing programme development. Steps in programme development, Competitive Sports Programs, benefits, Management Guidelines for School, Colleges Sports Programs, management Problems in instruction programme, Community Based Physical Education and Sports program.		
Unit III	EQUIPMENTS AND PUBLIC RELATION: Purchase and Care of Supplies of Equipment, Guidelines for selection of Equipment and Supplies, Purchase of equipments and supplies, Equipment Room, Equipment and supply Manager. Guidelines for checking, storing, issuing, care and maintenance of supplies and equipments. Public Relations in Sports; Planning the Public Relation Program – Principles of Public Relation – Public Relations in school and Communities – Public Relation and the Media.		
Unit IV	CURRICULUM: Meaning and Definition of Curriculum – Purpose of Curriculum design - Principles of Curriculum Construction: Students centered, Activity centered, Community centered, Forward looking principle, Principles of integration, theories of curriculum development Conservative (Preservation of Culture). Relevance, flexibility, quality, conceptuality and plurality. Approaches to Curriculum; Subject centered, Learner centered and Community centered, Curriculum Framework.		
Unit V	CURRICULUM SOURCES: Factors that affecting curriculum: Sources of Curriculum materials – text books – Journals – dictionaries, Encyclopaedias, Magazines, Internet. Integration of Physical Education with other Sports Sciences – Curriculum research, Objectives of Curriculum research – Importance of Curriculum research. Evaluation of Curriculum, Methods of evaluation.		
REFERENCE:			
<p>Aggarwal, J.C (1990). <i>Curriculum Reform in India – World overviews</i>, Doaba World Education Series – 3 Delhi: Doaba House, Book seller and Publisher.</p> <p>Bucher A. Charles (1993) <i>Management of Physical Education and Sports</i> (10th ed.), St, Louis: Mobsy Publishing Company.</p> <p>Carl, E, Will goose. (1982. <i>Curriculum in Physical Education</i>, London: Prentice Hall.</p> <p>Charkraborty & Samiran. (1998), <i>Sports Management.</i>, New Delhi: Sports Publication.</p>			
Outcomes			
<ul style="list-style-type: none"> ❖ Identify issues relevant to modern physical education and sport management. Explore the area asa career perspective ❖ To describe organization and administration of sports programmes. ❖ To analyze and interpret sports philosophy, sports sociology, business systems, sports management, public administration and marketing techniques. ❖ To develop opportunities to construct & design the curriculum of PE in broader aspects realizing the age group, gender consideration and physiological basis 			

Semester - II			
Course code: 811 205	Sports Journalism And Mass Media	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To know the basic ethics of journalism. ❖ To know about the journalism and sports education. ❖ To know about the influence of mass media ❖ To know about the report writing on sports ❖ To understand about methods of editing a Sports report 			
Unit –I	INTRODUCTION: Meaning and Definition of Journalism, Ethics of Journalism – Canons of Journalism – Sports Ethics and Sportsmanship – reporting Sports Events. National and Internal 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 experts 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.		
Unit V	JOURNALISM: Sports organization and Sports Journalism – General news reporting and sports reporting. Methods of editing a Sports report. Evaluation of Reported News. Interview with and elite Player and Coach. Practical assignments to observe the matches and prepare report and news of the same; visit to News Paper office and TV Centre to know various departments and their working. Collection of Album of newspaper cuttings of sports news.		
REFERENCE:			
<p>Ahiya B.N (1988) <i>Theory and Practice of Journalism: Set to Indian context</i> Ed3. Delhi: Surjeet Publications.</p> <p>Ahiya B.N.Chobra S.S.AA (1990) <i>Concise Course in Reporting</i>. New Delhi: Surjeet Publication.</p> <p>Bhatt S.C (1993) <i>Broadcast Journalism Basic Principles</i>. New Delhi: Surjeet Publication</p> <p>Bhatt S.C (1993) <i>broadcast Journalism Basic Principles</i>. New Delhi. Haranand Publication</p> <p>Dhananjay Joshi (2010) <i>Value Education in Global Perspective</i>. New Delhi. Haranand Publication</p> <p>Dhananjay Joshi (2010) <i>Value Education in Global Perspective</i>. New Delhi: Lotus Press.</p> <p>Kannan K (2009) <i>Soft Skills, Madurai: Madurai: Yadava College Publication</i> Mohit Chakrabtti (2008): <i>Value Education: Changing Perspective</i>, New Delhi. Kanishka Publication.</p>			
Outcomes			
<ul style="list-style-type: none"> ❖ Apply the concept of reporting and editing. ❖ Illustrate and apply the advertising concepts. ❖ Interpret the concept of journalism and mass media 			

Semester - III			
Course code: 811 301	Scientific Principles Of Sports Training	Credits:3	Hours: 3
Objectives			
After studying this paper the student teachers will be able:			
<ul style="list-style-type: none"> ❖ To understand sports training concept. ❖ To know the components of physical fitness ❖ To understand flexibilities ❖ To understand training pan ❖ To understand coaching. 			
Unit –I	INTRODUCTION: Sports training: Definition – Aim, Characteristics, Principles of Sports Training - Definition of Training Load – Importance and features of training load – Principles of Training load - Over Load: Definition, Causes of Over Load, Symptoms and adaptation process of Overload, Remedial Measures – Super Compensation .		
Unit-II	COMPONENTS OF PHYSICAL FITNESS: Strength: Methods to improve Strength: Weight Training, Isometric, Isotonic, Circuit Training, Speed: Methods to Develop Speed: Repetition Method, Downhill Run, Parachute Running, Wind Sprints, Endurance, Methods to Improve Endurance. Continuous Method, Interval Method, Repetition Method, Cross Country, Fartlek Training, Pressure training, Plyometrics, Competition and test method. Altitude Training – Cross Training. Non Traditional Resistance training.		
Unit III	FLEXIBILITY: Flexibility and Co ordinative Abilities: Methods to Improve the Flexibility – Stretch and Hold Method, Ballistic Method, Iso Kinetic Method, Special Type Training: Plyometric Training. Training for Coordinative abilities: Methods to improve Coordinative abilities: Sensory Method, Variation in Movement Execution Methods, Combination of Movement Method. Types of Stretching Exercises.		
Unit IV	TRAINING PLAN: Training Plan: Macro Cycle, Meso Cycle, Micro. Short Term Plan and Long Term Plans – Periodisation: Meaning, Single, Double and Multiple Periodisation, Preparatory Period, Competition Period and Transition Period, Multi Gym Training		
Unit V	DOPING: Definition of Doping - Side effects of drugs – Dietary supplements, Glycogen, Loading – Ioc list of doping classes and methods. Blood Doping – The use of erythropoietin in blood boosting – Blood doping control – The testing programmes – Problems in druc 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. WADA and NADA.		
References			
<p>Bunn, J.N. (1998) <i>Scientific Principles of Coaching</i>, New Jersey Engle Wood Cliffs, Prentice Hall Inc.</p> <p>Caret, E. Klafs & Daniel, D. Arnheim (1999) <i>Modern Principles of Athletic Training</i> St. Louis C.V. Mosphy Company.</p> <p>Daniel, D. Arnheim (1991) <i>Principles of Athletic Training</i>, St. Luis, Mosby Year Book David R. Mottram (1996) <i>Drugs in Sport, School of Pharmacy</i>, Liverpool: John Moores University.</p> <p>Gary, T. Moran (1997) – <i>Cross Training for Sports</i>, Canada: Human Kinetics Hardayal Singh (1991) <i>Science of Sports Training</i>, New Delhi, DVS PUBLIATIONS Jensen, C.R. & Fisher A.G (2000).</p>			
Outcomes			
<ul style="list-style-type: none"> ❖ Understand the concept, scientific principles and forms of sports training. ❖ develop Methods of Training for all of the Fitness components ❖ Technical and Tactical training methods to develop ❖ Acquaint the students with dimensions and actual markings of different play fields, courts and arenas. 			

Semester - III			
Course code: 811 302	Sports Medicine	Credits:3	Hours: 3
Objectives			
After studying this paper the student teachers will be able:			
<ul style="list-style-type: none"> ❖ To know about the price prince therapy ❖ To know about the types of rehabilitation ❖ To know about sports injuries ❖ To understand the upper extremity injuries ❖ To know the abdomen injuries 			
Unit –I	INTRODUCTION: Meaning definition and importance of Sports Medicine, Definition and Principles of therapeutic exercises, Injuries: acute, sub-acute, chronic – Types of Skin Wounds Injuries, Causes, classification, Preventive measures of Injury - Stages of healing – sign of Inflammation – causes, classification, Preventive measures - Advantages and Disadvantages of PRICE, PRINCE therapy, Aquatic therapy- Role of Sports Physician / Physical Educator / Athletic Trainer, the coach and the player in sports medicine.		
Unit-II	BASIC REHABILITATION: Basic rehabilitation: Strapping/Tapping: Definition, Principles Precautions Contraindications, Proprioceptive neuromuscular facilitation: Definition hold, relaxation Techniques – Jackupson Deep Relaxation, Quick Instant, repeated contractions. Show reversal technique exercises. Isotonic, Isokinetic, Isometric Stretching. Definition. Types of stretching, Advantages, dangers of stretching, Manual muscle grading - Meaning and Definition of Doping – history – classification – preventive measures.		
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, Fracture, Dislocation, Strapping. Elbow: Sprain, Strain, Strapping. Wrist and Fingers: Sprain Strain, Strapping, Thorax, Rib fracture. Breathing exercises, Relaxation techniques, Free hand exercise, Stretching and strengthening exercise for shoulder, Elbow, Wrist and Hand. Supporting and aiding techniques and equipment for Upper Limb and Thorax Injuries, Modalities and its uses – Mobilization of joints. Abdomen: Abdominal wall, Contusion, Abdominal muscle strain.		
Unit V	LOWER EXTREMITY INJURIES AND EXERCISE: Lower Limb and Abdomen injuries: Hip: Adductor strain, Dislocation, Strapping. Knee: Sprain, Strain, Strain, Strapping, Preventive of joint stiffness - Free exercises – Stretching and Strengthening exercise for Hip, knee, ankle and Foot. Supporting and aiding techniques and equipment for Lower limb and Abdomen injures, Gym Ball Exercise. Practical's: lab. Practical's and visit to Physiotherapy Centre to observe treatment procedure of sports injuries: data collection of sports injury incidences, Visit to TV Centre, etc. should be planned internally.		
Reference			
Christopher M.Norris (1993) <i>Sports injures Diagnosis and Management for Physiotherapists</i> . East Kilbride: Thomson Litho Ltd. James, A. Gould & George J.Davies (1985). <i>Toronto Scientific Principles of Coaching</i> , New Jersey Engle Wood Cliffs, Prentice Hall Inc. Caret, E. Klafs & Daniel, D. Arnheim (1999) <i>Modern Principles of Athletic Training</i> St. Louis C.V. Mosphe Company. Daniel, D. Arnheim (1991) <i>Principles of Athletic Training</i> , St. Luis, Mosby Year Book David R. Mottram (1996) <i>Drugs in Sport</i> , School of Pharmacy, Liverpool: John Moores University. Gary, T. Moran (1997) – <i>Cross Training for Sports</i> , Canada: Human Kinetics Hardayal Singh			

(1991) *Science of Sports Training*, New Delhi, DVS Publications Jensen, C.R. & Fisher A.G (2000).

Outcomes

- ❖ Importance of sports medicine
- ❖ Scope of sports medicine
- ❖ Role of sports medicine expert in enhancing sports performance
- ❖ Sports injuries, their prevention, management and rehabilitation
- ❖ Ill effects of drug use.

Semester - III			
Course code: 811 303	Health Education And Sports Nutrition	Credits:3	Hours: 3
Objectives After studying this paper the student teachers will be able:			
<ul style="list-style-type: none"> ❖ To understand health education concepts ❖ To know the health problems in India ❖ To understand about hygiene and health ❖ To know the introduction of sports nutrition ❖ To know nutrition and weight management relations. 			
Unit –I	HEALTH EDUCATION: Concept, Dimensions, Spectrum and Determinants of Health Definition of Health, Health Education, Health Instruction, Health Supervision - Levels of Health Care in India – Primary, Secondary, Tertiary - Role of Heredity – Genetics on positive Health – Health for all 2010AD - Aim, objective and Principles of Health Education - Health Service and guidance instruction in personal hygiene - Health Care during camp and travelling.		
Unit-II	HEALTH PROBLEMS IN INDIA: Communicable and Non Communicable Diseases - Obesity, Malnutrition, Adulteration in food, Environmental sanitation, Explosive, Population - Personal and Environmental Hygiene for Schools - Objective of school health service, Role of health education in schools Health Services – Care of skin, Nails, Eye health service, Nutritional service - Health appraisal, Health record, Healthful school environment first – aid and emergency carte etc - Responsibility of Individual / Community on Health.		
Unit III	HYGIENE AND HEALTH: Meaning of Hygiene, Type of Hygiene, dental Hygiene, Personal Hygiene, Hygiene in Camps, Sports Hygiene and Competitions. Effect of Alcohol on Health, Effect of Tobacco on Health, Life Style Management, Management of Hypertension, Obesity, Stress, Health Agencies and organization: Red Cross, WHO, St. Johns Ambulance, UNICEF, UNIESCO.		
Unit IV	INTRODUCTION OF SPORTS NUTRITION: Meaning and Definition of Sports Nutrition, Role of nutrition in sports, basic Nutrition guidelines, Balanced Diet(Carbohydrate, Protein and Fat), Role of carbohydrates, Fat, protein, micro nutrients and hydration during exercise.		
Unit V	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.		
REFERENCE: Bucher A. Charles (1993) “ <i>Administration of Health and Physical Education Programme</i> ” Delbert, Oberteuffer, et. A.I “ <i>The School Health Education</i> ” Ghosh, B.N “ <i>Treaties of Hygiene and Public Health</i> ” Hanlon, John J. “ <i>Principles of Public Health Administration</i> ” 2003. Turner, C.E “ <i>The School Health and Health Education</i> ”. Moss and et. At “ <i>Health Education</i> ” (Harber and Brothers, New York) Nemir A. ‘ <i>The School Health Education</i> ” (Harber and Brothers, New York) <i>Nutrition Encyclopedia</i> , edited by Delores C.S James, The Gale Group, Inc.			
Outcomes			
<ul style="list-style-type: none"> ❖ Understand the concept of holistic health through fitness and wellness ❖ Explain the concept of physical fitness , health related and motor fitness ❖ Evaluate primary health status ❖ Prepare fitness schedules& evaluate fitness 			

Semester - III			
Course code: 811 304	Physical Fitness And Wellness	Credits:3	Hours: 3
Objectives			
After studying this paper the student teachers will be able: <ul style="list-style-type: none"> ❖ To know the introduction of physical fitness ❖ To know nutrition for fitness ❖ To understand about aerobic exercise ❖ To understand about anaerobic exercise ❖ To understand about flexibility exercise. 			
Unit –I	INTRODUCTION: Meaning and Definition” of Physical Fitness, Physical Fitness Concepts and Techniques, Principles of physical fitness, Physiological principles involved in human movement, Components of Physical Fitness. Leisure time physical activity and identify opportunities in the community to participate in this activity. Current trends in fitness and conditioning, components of total health fitness and the relationship between physical activity and lifelong wellness.		
Unit-II	NUTRITION: Nutrients; Nutrition labeling information, Food Choices, Food Guide Pyramid, influences on food choices – social, economic, cultural, food sources, Comparison of food values. Weight Management – proper practices to maintain, lose, gain, Eating disorders, Proper hydration, the effects of performance enhancement drugs.		
Unit III	AEROBIC EXERCISE: Cardio respiratory Endurance Training, Safety techniques (including modifications for health conditions, i.e., asthma, obesity; breathing techniques; proper movement forms, i.e., correct stride, arm movements, body alignment; proper warm-up, cool down, and stretching), monitoring heart rates during activity. Assess cardio respiratory fitness and set goals to maintain or improve fitness levels. Cardio respiratory activities including i.e power walking, pacer test, interval training, incline running, distance running, aerobics and circuits. Awareness of cardio respiratory fitness opportunities in the community.		
Unit IV	ANAEROBIC EXERCISE: Resistance Training for Muscular Strength and Endurance; principles of resistance training, safety techniques (spotting, proper body alignment, lifting techniques, spatial, awareness and proper breathing techniques). Weight training principles and concepts; basic resistance exercises (including free hand exercise, free weight exercise, weight machines, exercise bands and tubing. Medicine balls, fit balls) Advanced techniques of weight training.		
Unit V	FLEXIBILITY EXERCISE: Flexibility Training, Relaxation Techniques and core Training. Safety techniques (stretching protocol; breathing and relaxation techniques) types of flexibility exercises (i.e dynamic, static), Develop basic competency in relaxation and breathing techniques. Pilates, Yoga.		
REFERENCE:			
David K.Miller & T. Earl Allen, <i>Fitness, A life time commitment</i> , Surjeet Publication Delhi 1989. Dificore Judy, <i>the complete guide to the postnatal fitness</i> , A & C Black Publishers Ltd. 35 Bedford row, London (1998) Dr. A.K. Uppal, <i>Physical Fitness, Friends Publications</i> (India), 1992. Warner W.K Oeger & Sharon A. Hoeger, <i>Fitness and Wellness, Morton Publishing Company</i> , 1990. Elizabeth & Ken day, <i>Sports fitness for women</i> , B.T Batsford Ltd, London, 1986.			
Outcomes			
<ul style="list-style-type: none"> ❖ Understand the concept of holistic health through fitness and wellness ❖ Explain the concept of physical fitness , health related and motor fitness ❖ Evaluate primary health status ❖ Prepare fitness schedules& evaluate fitness 			

Semester - III			
Course code: 811 305	Sports Engineering	Credits:3	Hours: 3
Objectives After studying this paper the student teachers will be able:			
<ul style="list-style-type: none"> ❖ To know about the designing and sports related instrumentation and measurements. ❖ To know about the concepts of internal force, axial force, shear force, bending movement ❖ To understand the energy impulse and momentum ❖ To create the new sports Infrastructure 			
Unit –I	INTRODUCTION TO SPORTS ENGINEERING AND TECHNOLOGY: Meaning of sports engineering, human motion detection and recording, human performance, assessment, equipment and facility designing and sports related instrumentation and measurement.		
Unit-II	MECHANICS OF ENGINEERING MATERIALS: Concepts of Internal force, axial force, shear force, bending movement, torsion, energy method to find displacement of structure, strain energy. Biomechanics of daily and common activities – Gait, Body levers, posture, ergonomics, Mechanical principles in movements such as lifting, walking, running, throwing.		
Unit III	SPORTS DYNAMICS: Introduction to Dynamics, Kinematics to particles – rectilinear and plane curvilinear motion coordinate system. Kinetics of particles – Newton’s Law, work, energy impulse and momentum.		
Unit IV	BUILDING AND MAINTENANCE: Sports Infrastructure – Gymnasium, Pavilion, Swimming Pool, Indoor Stadium, Out-door Stadium, Play Park, Academic Block, Administrative Block, Research Block, Library, Sports Hostels, etc. Requirements: Air ventilation, Day light, Lighting arrangement, Galleries, Store rooms, Office, Toilet Blocks (M/F), Drinking Water, Sewage and Waste Water disposal system, Changing Rooms (M/F), sound system (exo-free), Internal arrangement according to need and nature of activity to be performed, Corridors and Gates for free movement of people, Emergency provisions of lighting , fire and exits, Eco-friendly outer surrounding. Maintenance Building process: design phase (including brief documentation), construction phase functional (occupational) life, Re-evaluation, refurbish, demolish. Maintenance Policy, preventive maintenance, corrective maintenance, record and register for maintenance.		
Unit V	FACILITY LIFE CYCLE COSTING: Basics of theoretical analysis of cost, total life cost concepts, maintenance costs, energy cost, capital cost and taxation.		
REFERENCE			
<p>Franz K.F et. Al., Editor, <i>Rout ledge Handbook of Sports technology and Engineering</i> (Rout ledge, 2013)</p> <p>Steve hake, Editor, <i>The Engineering of Sport</i> (CRC Press, 1996)</p> <p>Franzx K.F., at al., Editor <i>The Impact of Technology on Sports II</i> (CRC Press, 2007)</p> <p>Helge N., <i>Sports Aerodynamics</i> (Springer Science & Business Media, (2009) Youlin Hong, Editor Rout ledge Handbook of Ergonomics in Sport and Exercise (Rout ledge, 2013)</p> <p>Jenkins M., Editor <i>Materials in Sports Equipment, Volume</i> (Elsevier, 2003) <i>Colin White, Projectile Dynamics in Sport: Principles and Applications</i> Eric C at al., Editor <i>Sports Facility Operations management</i> (Rout ledge, 2010)</p>			
Outcomes			
<ul style="list-style-type: none"> ❖ Design, properties and testing of sports equipment; ❖ Explain the concepts of designing sports shoes, sports surfaces, racquets, bats and clubs; ❖ Explain the principles of equipment performance and matching; ❖ Design sports equipment based on the rules of governing sporting bodies; ❖ Demonstrate the capability of designing protective equipment; ❖ Calculate mechanical properties of equipment; 			

Semester - IV			
Course code: 811 401	Information And Communication Technology (Ict) In Physical Education.	Credits:3	Hours: 3
Objectives After studying this paper the student teachers will be able:			
<ul style="list-style-type: none"> ❖ To understand the concept of communication & classroom interaction. ❖ To know the fundamental of computers ❖ To know MS-Office & E. Learning concepts ❖ To know the nature and scope of educational technology ❖ To understand the instructional design. 			
Unit –I	COMMUNICATION AND CLASSROOM INTERACTION: Concept, Elements, Process and Types of Communication Barriers and Facilitators of communication Communicative skills of English – Listening, Speaking, Reading and Writing Concept and 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 and Applications of Computers Hardware of Computer: Input, Output and Storage Devices Software of Computer: Concept and Types Computer Memory: Concept and Types Viruses and its Management Concept, Types and Functions of Computer Networks Internet and its Applications Web browsers and Search Engines – Google, Pubmat, Google Edu, Legal & Ethical Issues		
Unit III	MS OFFICE APPLICATIONS: Ms Word: Main Features and its Uses in Physical Education Ms Excel: Main Features and its Applications in Physical Education Ms Access: Creating a Database, Creating a Table, Queries, Forms and Reports on Tables and its Uses in Physical Education, Game Management Systems Power Point: Preparation of Slides with Multimedia Effects Ms Publisher: News letter and 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 Plagiarism Checking.		
Unit V	E-LEARNING & WEB BASED LEARNING: Introduction – E learning and web based learning – Need and Importance of ‘e’ learning – Online Teaching and Learning MOOCS and Swayam - Selection of course – Collection of Study Material – Assignment preparation and publication. Media and Sports – Visual Training		
REFERENCES:			
<p>B. Ram, New Age international Publication, <i>Computer Fundamental</i>, Third Edition 2006 Brain Unders IDG Book. India (p) Ltd Teach Yourself Office 2000, Fourth Edition- 2001 Douglas E.Comer, <i>The Internet Book</i>, Purduce University, West Lofayette in 2005 Heidi Steel Low price Edition, <i>Microsoft Office Word 2003-2004</i> ITL Education Solution Ltd. <i>Introduction to information Technology</i>, Research and Development Wing- 2006 Pradeep K. Sinha & Priti; Sinha, <i>Foundations computing BPB Publications</i> – 2006 Rebecca Bridges Altman Peachpit Press, Power point for window, 1999</p>			
Outcomes			
<ul style="list-style-type: none"> ❖ Correlate the of ICT & Education Technology in Physical Education and Sports concepts with the sports and athlete specific situations ❖ Integrate the knowledge about Communication Process and Teaching for learner. ❖ List down the Information Technology utilized in the field of sports. ❖ Analyze the issues related to Internet, Networking, E-learning and Cyber Security 			

Semester - IV			
Course code: 811 402	Sports Psychology	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To understand the psychology concepts ❖ To understand about motivation ❖ To understand about goal setting ❖ To understand about role of Mental imagery ❖ To know about the psychological factors affecting sports performances 			
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 and Definition, Types of Motivation: Intrinsic, Extrinsic. Achievement Motivation: Meaning, Measuring of Achievement Motivation. Anxiety: Meaning and Definition, Nature, Causes, Method of Measuring Anxiety. Competitive Anxiety and Sports Performance. Stress: Meaning and Definition, 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, sports and socialization of individual sports as social institution. Current problems in sports and future directions- sports crisis management and definition, advantages and disadvantages on sports performance. Leadership: meaning, definition, types. Leadership and sports performance.		
Unit IV	Sports Social psychology: Sports sociology: Definition and Meaning, group size, groups on composition, group cohesion, group interaction, group dynamics,- women in sports: sports women in our society, participation pattern among women, gender inequalities in sports, national integration through sports. Fans and spectators.		
Unit V	Mental Training for Performance Enhancement: Concept of Psychological characteristics for peak performance such as Achievement Motivation, Self regulation, Biofeedback, Self Confidence, Self efficacy and Coping with stress & anxiety. • Relaxation Techniques in Sports • Goal setting and Sports Performance • Imagery, Types of Imagery and Intervention strategies for activation techniques. • Designing, Implementing, Importance and Common Problems of Psychological Skill Training Programme.		
REFERENCES:			
<p>Authors Guide (2013) <i>National Library of Educational and Psychological Test (NLEPT) Catalogue of Tests</i>, New Delhi: <i>National Council of Educational Research and Training Publication</i>.</p> <p>Jain. (2002), <i>Sports Sociology</i>, Heal Sahety Kendre Publishers.</p> <p>Jay Coakley. (2001) <i>Sports in Society – Issues and Controversies in International Education</i>, Mc-Craw Seventh Ed.</p> <p>John D Lauther (2000) <i>Psychology of Coaching</i>. Ner Jersey: Prenticce Hall Inc.</p> <p>Richard, J. Crisp. (2000). <i>Essential Social Psychology</i>. Sage Publications.</p> <p>Robert N. Singer (2001). <i>Motor Learning and Human Performance</i>. New York: TheMacmillan Co.</p> <p>Robert N. Singer. (1989) <i>The Psychology Domain Movement Behaviour</i>. Philadelphia: Lea and Febiger.</p> <p>Thelma Horn. (2002). <i>Advances in Sports Psychology</i>. Human Kinetic.</p> <p>Whiting, K, Karman., Hendry L.B & Jones M.G. (1999) <i>Personality and Performance in Physical Education and Sports</i>. London: Hendry Kimpton Publishers.</p>			
Outcomes			
<ul style="list-style-type: none"> ❖ Correlate the psychological concepts with the sports and athlete specific situations ❖ Integrate the knowledge about personality, motor learning for behavior modification of 			

athletes

- ❖ Relate different theories of motor learning with its influence on motor perception and related cognitive abilities of athletes.
- ❖ List down the strategies for motivation utilized in the field of sports.
- ❖ Analyze the issues related to social behavior based on physiological structure and function

Semester - IV			
Course code: 811 403	Education Technology In Physical Education And Sports	Credits:3	Hours: 3
Objectives After studying this paper the student teachers will be able:			
<ul style="list-style-type: none"> ❖ To know about the concept of teaching technology ❖ To know about system approach ❖ To know about the concept of instructional design ❖ To understand the media in physical education ❖ To know about the recent trends of research in educational technology. 			
Unit –I	NATURE AND SCOPE: Educational technology – concept, Nature and Scope. Forms of educational technology teaching technology, instructional technology, and behavior technology; Transactional usage of educational technology; integrated, complementary, supplementary standalone (independent); Historical development – programmed learning stage; media application stage and computer application stage.		
Unit-II	SYSTEMS APPROACH TO PHYSICAL EDUCATION AND COMMUNICATION: Systems Approach to Education and its Components: Goal Setting, Task Analysis, Content Analysis, Context Analysis and Evaluation Strategies; Instructional Strategies and Media for Instruction. Effectiveness of Communication in instructional system; Communication Modes, barriers and Process of Communication.		
Unit III	INSTRUCTION DESIGN: Instructional Design: Concept, Views, Process and stages of Development of Instructional Design. Overview of Models of Instructional Design; Instructional Design for Competency Based Teaching: Models for Development of Self Learning Material.		
Unit IV	AUDIO VISUAL MEDIA IN PHYSICAL EDUCATION: Audio-visual media – meaning, importance and various forms Audio/Radio; Broadcast and audio recordings – strengths and Limitations, Criteria for selection of instructional units, script writing, pre-production, post – production process and practices, Audio Conferencing and Interactive Radio Conference. Video/Educational Television: Telecast and Video recordings Strengths and limitations, Use of Television and CCTV in instruction and Training, Video Conferencing, SITE experiment, countrywide classroom project and Satellite based instructions. Use of animation films for the development of children’s imagination.		
Unit V	NEW HORIZONS OF EDUCATIONAL TECHNOLOGY: Recent innovations in the area of ET interactive video – Hypertext, video – texts, optical fiber technology – laser disk, computer conferencing etc. Procedure and organization of Teleconferencing/Interactive video-experiences of institutions, schools and universities. Recent experiments in the third world countries and pointers for, India with reference to Physical education. Recent trends of Research in Educational Technology and its future with reference to education.		
REFERENCE: Amita Bhardwaj, <i>New Media of Educational Planning.</i> Sarup of Sons, New Delhi 2003 Bhatia and Bhatia. <i>The Principles and Methods of Teaching</i> (New Delhi Doabal House) 1959. <i>Communication and Education</i> , D.N. Dasgupta, Pointer Publishers <i>Education and Communication for development</i> , O.P Dahama, O.P Bhatnagar Oxfordb & Page 68 of 711BH Publishing company, New Delhi			
Outcomes	<ul style="list-style-type: none"> ❖ Understand the new methods of teaching with latest technology ❖ Students known to utilise audio visual aids in teaching ❖ Students know about Recent trends of Research in Educational Technology and its future with reference to education 		

Semester - IV			
Course code: 811 404	Dissertation (Project Work)	Credits:6	Hours: 6
Objectives			
<ul style="list-style-type: none"> ❖ A candidate shall have dissertation for M.P.Ed – IV Semester and must submit his/her Synopsis and get it approved by the Principal of College on the recommendation on C.R.C (College Research Committee). ❖ A candidate selecting dissertation must submit his/her dissertation not less than one week before the beginning of the IVth Semester Examination. ❖ The candidate has to face the Viva-voca conducted by College Research Committee and External Examiner. 			
Outcomes			
<ul style="list-style-type: none"> ❖ Identifying and selecting the problem. Defining the problem of Dissertation. ❖ Making Specific and related Literature survey. (Collection of 20-30 abstracts in the area related to the study/problem) ❖ Defining the procedure and developing a methodology of/ for the study on hand. ❖ Designing the study and preparation of a proposal to be justified in the colloquium. ❖ Formulation of Hypothesis. ❖ Collection of Data, Analysis of data, Analysis of results, Discussion of results, Interpretation of results. ❖ Drawing conclusion and making recommendations. ❖ Writing of abstract. 			

Course code: 811 405	Theories Of Track And Field	Credits:2	Hours: 4
Objectives			
<ul style="list-style-type: none"> ❖ To know the planning, construction marking of 200 & 400m. ❖ To know the duties of various officials ❖ To know the rules and interpretations of track events ❖ To know the rules and interpretations of throwing and combined events ❖ To know the rules and interpretations of jumping event 			
Unit –I	Planning Construction and Marking Of Standard and Non-Standard Track (200m, 400m) – Arc Start Double Arc Start- Computation Of RDR and CDR – Stagger Distance and Diagonal Excess – Marking Of Relays (4x100m, 4x400m) – Starting For All Track Events.		
Unit-II	Duties Of Management Officials – Duties Of Competition Officials – Additional Officials – Officials And Their Duties For Track Events – Field Events And Combined Events.		
Unit III	Rules and Their Interpretations Of Track Events – Sprint, Middle and Long Distance Events (100m,200m, 400, 110m Hurdles, 100m Hurdles, Relays, 800m, 1500m, 3000m, 5000m, 10000m and Marathon Race).		
Unit IV	Marking – Rules And Their Interpretations For Throwing and Combined Events – Shot Put – Discus, Javelin and Hammer Throw – Heptathlon and Decathlon.		
Unit V	Marking – Rules and Their Interpretations for Jumping Events – Long Jump, High Jump, Triple Jump And Pole Vault – Records Of all Events In National And International Level.		
REFERENCES:			
<p>Anand. (1990). <i>Play Field Manual</i> Patiala Nis Publication</p> <p>American Sports Education Program. (2008) <i>Coaching Youth Track and Field Human Kinetics</i>.</p> <p>Edmondson and Burn Up. (1979). <i>Basic Athletics</i>. London; Bell and Hyman.</p> <p>Ekta Gothi.(2000) <i>Manual Of Track And Field</i>. Delhi: Sports Publication</p> <p>H.C. Buck (1992). <i>Rules Of Games And Sports Madras</i>: Y.M.C.A Publication</p> <p>Harold Abranoms and Jack Crump. (1958). <i>Athletics Kings Wood Surrey</i>: The Naloret Press.</p> <p>Thani .V. (2003) <i>Encyclopedia of Track And Field</i>. New Delhi; Khel Shhityakendre.</p> <p>Vivek Thani. (1996) <i>New Encyclopedia of Track and Field</i> Delhi Khel Sahitya Kandra.</p>			
Outcomes			
<ul style="list-style-type: none"> ❖ Interpret the concept of therapeutic aspects of exercise. ❖ Demonstrate and take care of the preventive and curative aspect of sports injuries. ❖ Apply the concept of rehabilitation of sports injuries ❖ Interpret the concept toward positive lifestyle. 			

Semester - IV			
Course code: 811406	Theories Of Specialization Games	Credits:2	Hours: 4
Objectives			
❖ To know the origin and development of the game.			
❖ To know the fundamental skills and drills.			
❖ To understand the tactics and strategies.			
❖ To interpret the rules and regulations.			
❖ To plan the training and skill evaluation methods.			
Unit –I	History: Origin– Development of The Specialization Games - Level of Competition – Sports Development - Educational Institution- Society - Federation – Association – corporate sector - Affiliated Units.		
Unit-II	Fundamental Skills: Coaching – Teaching –Methods of Training – New Technology Adaptation – Play Area – Objective Utilized – Advance Coaching and Teaching Methods.		
Unit III	Tactics and Strategies: Defensive and Offensive Technique and Tactics for Specialization Games – Individual and Group Strategies In Specialization Sports – Offensive Play System – Defensive Play System.		
Unit IV	Rules and Regulation: Law of the Games, Interpretation of Rules – Officials – Signals – System of Officiating Layout and Maintenance of Play Field – Cares and Maintains of sports Equipment.		
Unit V	Teaching And Skill Evaluation: Training Methods – Training Schedule – Training Plan For Various Level – Talent Identification – Player Selection Procedure - Awards And Rewards – Top Sports Achievers.		
REFERENCES:			
Clair Bee And Ken Norton.(1959) <i>Basketball Fundamentals and Techniques</i> New York: The Renald Press Company.			
Mukesh Kumar. (2008) <i>Rules and Measurements in Sports</i> . New Delhi Sports Publication			
Anujan(2005). <i>Badminton Coaching Manual</i> . Delhi Sports Publication.			
Wilmore, Jack H. & Cistuk Davudm C (1994) <i>Physiology of Sport and Exercise Use Human Kinetics Publishers Inc.</i>			
Jack Fingleton.(1958). <i>Master of Cricket</i> , Ist Published By William Heinemann Led Cape town Auckland.			
The Cricket-Bat and How to Use It By An Old Cricketer. (2011). <i>General books Publishers</i> .			
Alex Welsh. (1989) <i>the Soccer Goal Kepping Hand Book</i> . Uk and C Black Publication.			
Outcomes	❖ More knowledge in officiating and coaching in all sports and games		
	❖ Students know about the history of sports and physical education		
	❖ Students know about the Rules and Regulation of the all sports		

Non Major Elective

Semester - II			
Course code:	FITNESS AND SPORTS TRAINING	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To help children know and accept individual and collective responsibility for healthy living at home, school and in the community. ❖ To help children know their health status, identify health problems and be informed for taking appropriate remedial measures. ❖ To create awareness among children about rules of safety in appropriate hazardous situations to avoid accidents and injuries. ❖ To acquaint them with first-aid measures about common sickness and injuries. 			
Unit -I	INTRODUCTION Definition and meaning of Sports Training Aims and objectives of Sports training Characteristics and principles of Sports training Training load, concept of training load and adaptation Types of load and loading principles		
Unit-II	Principles of training methods Strength training methods for developing maximal, explosive and strength endurance Training methods for Endurance development Training methods for Speed development Training methods for Flexibility development.		
Unit III	Planning of training programme - meaning and its importance Training cycles- macro and micro cycles Periodization- types of periodisation- short term and long term Components of Periodisation- Preparatory, competition and transition Structure and function of single, double periodisation and its importance.		
Unit IV	Fundamentals of Physical Education and Sports Coaching <i>Fundamentals of Training Principles in Sport Fitness Training and Test - Means and methods of Free hand training, Weight training, Circuit training, Interval training Fitness Assessment Tests Physical Fitness Tests.</i>		
Unit V	Movement Analysis - administration, scoring and interpretation Motor Fitness Tests- types, administration, scoring and interpretation Cardio-vascular Fitness Tests- types, administration, scoring and interpretation.		
REFERENCES · Singh Hardayal (1991). <i>Science of Sport Training</i> . Delhi: D.V.S Publication. Williams, J. (1977) <i>Athletic Training and Physical fitness</i> . Allyn and Bacon Inc., Singh H, (1984). <i>Science of sports Training</i> . Mateweyew L.P. <i>Fundamental Sports Training</i> .			
Outcomes			
<ul style="list-style-type: none"> ❖ Talent Scouting at micro level & Nurturing talent towards excellence ❖ Training & International Exposure ❖ Support Training with Scientific & Sports Equipment and scientific personnel ❖ Monitor and enhance Performance with a scientific evaluation system ❖ Training and preparation of National teams 			

Semester - III			
Course code:	Health and Physical Education	Credits:3	Hours: 3
Objectives			
<ul style="list-style-type: none"> ❖ To help children know and accept individual and collective responsibility for healthy living at home, school and in the community. ❖ To help children know their health status, identify health problems and be informed for taking appropriate remedial measures. ❖ To create awareness among children about rules of safety in appropriate hazardous situations to avoid accidents and injuries. ❖ To acquaint them with first-aid measures about common sickness and injuries. 			
Unit -I	INTRODUCTION Concept of Health Education Meaning, Definition, Aims, Objectives and Importance of Health Education - Nutrition - Malnutrition - Personal Hygiene - Physical Education Meaning, Definition, Aims, Objectives, Scope and Importance of Physical Education -		
Unit-II	Physical Fitness- Meaning, Definition, Components and Benefits - Origin and Development of Ancient and Modern Olympics - Recreational activities -Health Education in Schools - Health Instruction, Health Services, Safety Education: Importance with reference to Schools, Play fields, Road, School and Home.		
Unit III	Causes and Prevention of Diseases Life style disorders: Intentional & Unintentional Injuries, Diabetes and Obesity - Back Pain: Causes, Symptoms and Prevention - Communicable diseases Symptoms and Prevention.		
Unit IV	First Aid-Principles and Uses Principles of first aid, First aid equipments, Fracture - causes and symptoms and the first aid related to them, Muscular sprain causes, symptoms and remedies, Treatment of unconsciousness, Treatment of heat stroke.		
Unit V	Food and Nutrition Meaning of Food, Classification, Constituents of Food, Vitamins and Deficiency Diseases, Meaning of Nutrition, Malnutrition - Causes - Balanced Diet and Diet for Obesity and Under Weight.		
REFERENCES · Ajmer, S. (2003). <i>Essentials of physical education</i> . New Delhi: Kalyani Publishers Dambrosa, D., & Robert, D. (1993). <i>Prevention and treatment and running injuries</i> . New Jersey Hedge, (1997). <i>How to maintain good health</i> . New Delhi: UBPSD Publishers. · Kanele., B. S., & Kumar, C. P. (1996). <i>Text book on health and physical education</i> . Ludhiana: Kalyana Publishers. · Mangal, S. K. (2005). <i>Health and physical education</i> . Ludhiana: Tandon Publication book market Nash T.N. (2006). <i>Health and physical education</i> . Hydereabad: Nilkamal Publishers Reema, K. (1996). <i>Physical fitness</i> . New Delhi: Khel Sahitya Sports Publication. · S., Sothi, & Krishnan.P. (2005). <i>Health education and physical education</i> . Delhi: Surject Publications. ·			
Outcomes			
<ul style="list-style-type: none"> ❖ To help children learn correct postural habits in standing, walking, running, sitting and other basic movements so as to avoid postural defects and physical deformities. ❖ To help children improve their neuromuscular coordination through participation in a variety of physical activities in order to physical fitness. 6. To help children strive for excellence in games and sports. ❖ To provide skills for dealing with psycho-social issues in the school, home and the community ❖ To inculcate values and skills in children in order to promote self-control, concentration, peace and relaxation to avoid the ill effects of stress, strain and fatigue of routine everyday life. . 			

**CURRICULUM FRAME WORK FOR
MPED PROGRAMME**

CHOICE BASED CREDIT SYSTEM]

THE BOARD OF STUDIES FOR ALAGAPPA UNIVERSITY COLLEGE OF
PHYSICAL EDUCATION

ON 24.06.2019 AT 10.00 AM IN OUR COLLEGE CAMPUS

**THE FOREIGN COUNTRY EXPERTS, INDIAN EXPERTS AND THE
BOARD OF STUDIES COMMITTEE MEMBERS CURRICULUM
VITAE AS FOLLOWS**

CURRICULUM VITAE

Name : **Dr. Victor Selvarajah a/l Selvanayagam**
Designation : Senior Lecturer
Address : University of Malaya
Phone : +6012-5123301
Email : victors@um.edu.my



Educational qualification: Ph.D

Professional experience: Senior Lecturer 2012 – at present

Honours and Awards:

- 2018 University of Malaya Work Excellence Certificate
- 2017 University of Malaya Work Excellence Award
- 2016 University of Malaya Work Excellence Certificate

Recent publications:

- Hackett DA, Selvanayagam VS, Halaki M, Cobley SP (2019). Associations between Perceptual Fatigue and Accuracy of Estimated Repetitions to Failure during Resistance Exercises. *Journal of Functional Morphology and Kinesiology* 4 (3): 56
- Khong TK, Selvanayagam VS, Hamzah, SH, Yusof A. (2018). The Effect of Quantity and Quality of Pre-Exercise Carbohydrate Meals on Central Fatigue. *J Appl Physiol* 125 (4): 121-129.
- Khong TK, Selvanayagam VS, Sidhu SK, Yusof A. (2017). Role of carbohydrate in central fatigue: a systematic review. *Scandinavian Journal of Medicine & Science in Sports*, 27(4), 376-384.
- Selvanayagam VS, Riek S, de Rugy A, Carroll TJ (2016) Strength training biases goal-directed aiming. *Medicine and Science in Sports and Exercise* 48 (9), 1835- 1846.
- Selvanayagam VS, Riek S, Carroll TJ (2012) A systematic method to quantify the presence of cross-talk in stimulus-evoked EMG responses: Implications for TMS studies. *J Appl Physiol* 112: 259-265.
- Selvanayagam VS, Riek S, Carroll TJ (2011) Early neural responses to strength training. *J Appl Physiol* 111:367-375.

CURRICULUM VITAE

Dr. Rajesh Kumar
Professor at Osmania University, Hyderabad
Hyderabad, Telangana, India
09885911520,09246529013,
rajesh2sports@yahoo.co.in



Educational qualification: B Com, M.P.Ed., Diploma in Coaching,NIS(Athletics), J.R.F and N.E.T(UGC), Ph.D

Professional experience: professor Sep 1997 – Present22 years 2 months

Research Publications in the Journals.

1. A Study on the effect of Plyometric Exercises for development of Speed among Foot Ball Players of Osmania University. Asian Journal of Physical Education and Computer Science in Sports ISSN 0975-7732 Journal Impact Factor 0.5190 Volume 7, No.1, Dec.2012 pg.50-52
 2. A Comparative Study on the differences in Crouch Start and Standing Start in 100 M Run in Athletics. International Journal of Health, Physical Education and Computer Science in Sports ISSN 2231-3265 Volume No.2. No.1. June 2011 Pages:121-124
 - 3.A Comparative Study on speed among Long Jumpers and Triple Jumpers of Osmania University. International Scientific Journal of Sports Sciences. ISSN 2277-2804 Vol.1, No.1, April 2012 pages 55-58
 - 4.Effect of Plyometric training and SAQ Training followed by detraining on selected bio motor abilities of Osmania University soccer Players. Osmania Journal of Physical Educaton ISSN 0974-7109 Vol.6 July 2012 pages 15-21
 - 5.A Study on the An Aerobic Power and Body composition of Athletic Trained Vegeterian and Non Vegetarians. Golden Research Thoughts ISSN 2231-5063 Vol.1, No.5, November 2011 pages 3-6
 6. A Comparative Study of self concept and anxiety among sprinters and jumpers of Osmania University. Academic Sports Scholar ISSN 2277-3665 December 2012
 7. A Comparative Study of Aerobic Endurance among Foot Ball and Hockey Players in Hyderabad. Variorum Multi-disciplinary e research journal ISSN 0976-9714 Vol.2, Issue-1, August 2011
 8. Effect of Weight Training on Power Performance. Journal of Physical Education and Sport ISSN 2066-2483, June 2011.
- Study on the effect of Interval Training for development of endurance among Osmania University Athletes in India. NAPERSS Journal of Physical Education and Sports ISSN 2229-7049 pages 27 and 28

CURRICULUM VITAE

Dr.M.Sundar

Principal

Alagappa University College of physical education

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Employee Number : 41402

Date of Birth : 08-11-1965

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Academic Qualifications: B.P.E., M.P.E., Ph.D., NSNIS (ATHLETICS)

Examinations	Name of the Board/University	Year of Passing	Percentage of marks obtained	Division/ Class/Grade	Subject
Ph.D	Alagappa University	2007			Physical Education
NSNIS	NSNIS, kolkatta	1994	70%	I	Diploma in Athletics
M.P.E	Jiwaji University	1993	58.24%	II	Physical Education
B.P.E	Jiwaji University	1989	58.27%	II	Physical Education
Higher secondary	Board of HSC	1986	55.58%	II	Math's & science
High School/ Matric	Board of Secondary Education	1983	58%	II	Math's, science & social
Name of the eligibility Test		Subject		Month & Year of Passing	
<i>UGC (NET & JRF)</i>		<i>Physical Education</i>		<i>January 1991</i>	
<i>UGC (NET & JRF)</i>		<i>Physical Education</i>		<i>June 1994</i>	
<i>UGC (NET)</i>		<i>Physical Education</i>		<i>December 1999</i>	

Teaching Experience: 22 Years

University/College/ Institute	Designation held	Date of Joining	Date of Leaving
Sanjai Gandhi college	Physical director	1994	1995
Alagappa University College of Physical Education	Lecturer	10.07.1995	09.07.2006
	Reader	10.07.2006	09.07.2009
	Course coordinator	01.06.2009	1.11.2010
	Associate professor	10.07.2009	Till date
	Principal (i/c)	02.11.2010	January 2013
	Principal	January 2013	Till date

Research Experience: 20 Years

CURRICULUM VITAE

Dr.K.Murali Rajan Professor

Alagappa Institute of Educational Sciences

Alagappa University Karaikudi – 630 003 Tamil Nadu, INDIA

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 Date of Birth : 31.12.1967
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 Contact Phone (Mobile) : +91 9442276164
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Academic Qualifications: M.A./M.Sc./M.Phil./Ph.D.

BPE	JIWAJI	PHY. EDUCATION	1991	II
MPE	JIWAJI	PHY EDUCATION	1993	II
NET	UGC	PHY EDUCATION	1993	-
NSNIS CERTIFICATE	PATIALA	HOCKEY	1996	'A'
PhD	ALAGAPPA	PHYSICAL EDUCATION	2009	
P.G.Dip. Yoga	TPSU	Yoga	2009	II

Teaching Experience: 17 Years

Post	School / College	From- To	Year
Physical Director	K.B.J.G., Gurrukulam	Oct 1993 – Aug 1995	1 Year 8 Month
Physical Education Teacher	K.V.H.V.F Avadi	Aug 1995 – Aug 1999	4 Year
Lecturer	Alagappa university College of Physical education	Aug 1999 – Aug 2003	5 Years
Assistant Professor	Alagappa university College of Physical education	Aug 2003 – July 2013	5 Years
Associate Professor	Alagappa university College of Physical education	Aug – 2013 24.8.16	4 Years
Professor	Alagappa Institute Educational Sciences	25.08.16 to Till date	

Research Experience: 14 Years

CURRICULUM VITAE

Dr. S. Nagarajan Professor
Alagappa Institute of Educational Sciences

Alagappa University Karaikudi – 630 003 Tamil Nadu, INDIA

Employee Number 41404
Date of Birth : 27-05-1972
Contact Phone (Office) : +91 4565225212
Contact Phone (Mobile) : +91 9442127618
Contact e-mail(s) : naga.raksan@gmail.com



Academic Qualifications: M.COM., M.Sc., YOGA., M.P.ED., Ph.D.

Teaching Experience: 18 Years

Research Experience: 16 Years

Additional Responsibilities

1. Coordinator – Remedial coaching for SC/ST/OBC (Non Creamy layer) and minorities-
2. Selection Committee member Alagappa university Football team 2010-2016.
3. Selection committee member Alagappa university volleyball team 2012-2014.
4. University Representative for DD exam every year.
5. Flying squad of afflicted colleges.
6. Aucpe Extramural in charge of games 2009-2014.
7. Organizing secretary for state level inter collegiate football tournament every year.
8. Coordinator for college cultural club

CURRICULUM VITAE

Dr. D. Rajalakshmi Asso Professor

Alagappa Institute of Educational Sciences

Alagappa University Karaikudi – 630 003 Tamil Nadu, INDIA

Employee Number : 41409

Date of Birth : 10-11-1973

Contact Phone (Office) : +91 4565 224164

Contact Phone (Mobile) : +91 9442679541

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**Academic Qualifications: B.Sc., BMS., MPed., MS., FSS., Mphil., PhD.,
P DHE. PGDDE., PGDSM., PGDSO., PGDY., PGDND., CYED.**

Research Experience: 20Years

Additional Responsibilities

1. Head of the Dept - Bped Course
2. Director - Extramural And Intramural Sports And Games
3. Warden

Areas of Research

Exercise Physiology, Sports Medicine and Adapted Physical Education

CURRICULUM VITAE

Dr. P. Kaleeswaran Asso Professor

Alagappa Institute of Educational Sciences
Alagappa University Karaikudi – 630 003 Tamil Nadu, INDIA
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Contact e-mail(s) : dr.kaleesaucpe@gmail.com



**Academic Qualifications: B.Sc., Msc., (Yoga) M.P.Ed., M.Phil., SLET., D.S.Y.M., P.G.D.Y.,
Certi.NIS., Ph.D.,**

Teaching Experience: 24 Years

Research Experience: 24 Years

Areas of Research : Exercise Physiology, Sports Training & Kinesiology

CURRICULUM VITAE

Dr.S.Saroja, Assistant Professor
Alagappa University College of Physical Education
Alagappa University Karaikudi – 630 003 Tamil Nadu, INDIA
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Academic Qualifications: M.A., M.Sc(Phy Edu), M.Phil., Ph.D.

1. Doctor of Philosophy - Physical Education, Alagappa University, Karaikudi July 2000
2. Master of Philosophy - Physical Education, Alagappa University, Karaikudi, June 1992
3. Master of Physical Education: Alagappa University, Karaikudi, July 1991
4. M.Sc – Yoga TN P.E. & S University, Chennai Sep 2010
5. P G Diploma in Sports Management, Alagappa University, Karaikudi, Oct 1994
6. Diploma in Scientific Yoga & Meditation, M.K University, Madurai, May 1992
7. Diploma in Yoga & Massage Science, Alternative Medicine, Calcutta. April 1993
8. Certificate in Yoga, Alagappa University, Karaikudi, July 1994.

Teaching Experience: 22 Years

Research Experience: 11 Years

Areas of Research

1. Yoga
2. Sports Physiology
3. Sports Physiotherapy
4. Sports Training

CURRICULUM VITAE

Dr.S. Dhanaraj., Assistant Professor
Alagappa University College of Physical Education
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Contact e-mail(s) : drdhanaraj@gmail.com



Academic Qualifications: B.Sc.,M.P.Ed.,M.Phil., PGDYEd., Ph.D

Degree	Subject	Institution/ University	Year of completion	Class	%
BSc	Zoology	Adithanar College, Trichendur	1999	Second	57.83
MPed	Physical Education	Dr.Sivanthi Adithanar College of Physical Education, Trichendur	2001	First	66.52
MPhil	Physical Education	Alagappa University, Karaikudi	2002	First	62.56
Doctor of Philosophy	Physical Education	Alagappa University Karaikudi	2013	-	-
PGDYEd	Physical Education	Alagappa University, Karaikudi	2005	Second	58.66

Teaching Experience: 14 Years

Research Experience: 08 Years

Areas of Research

Sports training and sports psychology

CURRICULUM VITAE

Dr.Aanandhi , Assistant professor
Alagappa University college of physical education
Alagappa University Karaikudi – 630 003 Tamil Nadu, INDIA
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Contact Phone (Mobile) : +91 9629650542
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Academic Qualifications: M.B.B.S

Degree	Subject	Institution/ University	Year of completion	Class	%
M.B.,B.S	Bachleor of Medicine& Surgery	Mahatma Gandhi Medical College & Research Institute	NOV 2008	FIRST	67%

Teaching Experience: 04YEARS 9MONTHS

Additional Responsibilities

1. Member In Swacch Bharat Committee
2. Member (Clinician) In Reconstituted Ethics Committee Of Alagappa University
3. Member In Multi Model Material Production For Differentially Abled Centre, Alagappa University

CURRICULUM VITAE

Dr.K.Divya **Assistant professor**
 Alagappa University College of physical education
 Alagappa University Karaikudi – 630 003 Tamil Nadu, INDIA
 Employee Number : 41416
 Date of Birth : 30.05.1983
 Contact Phone (Office) : +91 4565 xxxxxx
 Contact Phone (Mobile) : +91 8220436393
 Contact e-mail(s) : dhivya_phy_edu@yahoo.co.in



Academic Qualifications: BA., M.Sc., B.P.Ed., M.P.Ed., M.Phil., Ph.D., PGDSM., PGDY., cert. NSNIS (Kho-Kho), cert.NSNIS (Fencing), TTCY., ISAK (I&II), NET Dec.2012 (UGC Ref No: 30891)

Degree	Subject	Institution/ University	Year of completion	Class	%
X	State Board	O.C.P.M.Hr.Sec.School, Madurai	1998-1999	I	65
XII	State Board	O.C.P.M.Hr.Sec.School, Madurai	2000-01	I	73.24
B.A.,	Economics	Holy Corss College, Trichy	2001-04	II	59.58
B.P.Ed	Physical education	Sri Saradha College of Physical education salem	2004-05	I	68
M.P.Ed	Physical education	Alagappa University, Karaikudi	2005-07	I	77
M.Phil	Physical education	Alagappa University, Karaikudi	2007-08	I	76
Ph.D	Physical education	Alagappa University, Karaikudi	2009-2011	Awarded	
NET	Physical education	National Eligibility Test, Bureau,	Dec.2012	(UGC Ref No: 30891)	
M.Sc	Yoga	Koviloor TNPE&SU, Chennai	May-2011	I	74.75

Teaching Experience: 7 Years

S. No	Name of the Institution	Designation	Date of From to	Scale of Pay
1	Koviloor Andavar College Physical Education, Koviloor, karaikudi	Assistant Professor	July 1st 2011 to 2nd March 2013	Rs.8,000
2	Alagappa university college of physical education	Assistant Professor	04.03.2013 onwards	UGC Norms

Research Experience: 7 Years

CURRICULUM VITAE

Dr.P. Yoga., Assistant professor
 Alagappa University College of Physical Education
 Alagappa University, Karaikudi – 630 003 Tamil Nadu, INDIA
 Employee Number : 41418
 Date of Birth : 04-03-1982
 Contact Phone (Office) : +91 4565 225212
 Contact Phone (Mobile) : +91 7373632007
 Contact e-mail(s) : yoga7373632007@gmail.com



Academic Qualifications: B.Sc., B.P.Ed., M.A (English), M.Sc (Yoga Therapy), M.Sc (Yoga), M.P.Ed., M.Phil (Yoga), M.Phil(Phy.Edu), M.Phil(English), PGDY., PGDYT., Certi. Course in Physical Fitness., Ph.D.,

Degree	Subject	Institution/ University	Year of completion	Class	%
B.Sc	Physical Education	Ayya Nadar Janaki Ammal College, Sivakasi-TN	2003	First Class	64%
B.P.Ed	Physical Education	Sri Ramakrishna Mission, Maruthi College of Physical education	2004	First Class	66%
M.Sc	Yoga	Tamil Nadu Physical Education & Sports University, Chennai-TN	2015	First Class	80%
M.Sc	YogaTherapy	Tamil Nadu Physical Education & Sports University, Chennai-TN	2012	First Class	77%
M.P.Ed	Physical Education	Pondicherry University Pondicherry	2006	First Class	72%
M.Phil.,	Physical Education	Alagappa University Karaikudi-TN	2007	First Class	72%
M.Phil.	Yoga	Tamil Nadu Physical Education & Sports University, Chennai-TN	2017	First Class Distinction	79%
M.Phil.,	English	Alagappa University Karaikudi-TN	2019	First Class	70%
Ph.D	Physical Education	Tamil Nadu Physical Education & Sports University, Chennai-TN	2012		

Teaching Experience: 07 Years

S. No	Name of the Institution	Designation	Date From - To	Years of Experience
1	Alagappa university college of physical education	Aast professor	28th June 2013 - Till	07

Research Experience: 12 Years

CURRICULUM VITAE

Dr. C.Vairavasundaram., Assistant professor

Alagappa University College of Physical Education
Alagappa University, Karaikudi – 630 003 Tamil Nadu, INDIA
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Contact e-mail(s) : dr.c.vairavan09@gmail.com



Academic Qualifications:

BP.Ed., PGDip(Fitness), PGDip(Phy Edu), M.Phil., Ph.D. UGC (NET) December 2013

Experience: Four (4) Years

Sl.No	Positions held	Name of the institutions	Duration	Years of experience
1	Guest Lecturer	Bharathiar University Coimbatore	August 2010-13	3years
2	Assistant professor		January 2016 Onwards	4 years

Research Experience: 04 Years

Additional Responsibilities

- 1.University Representative in DDE Exams
- 2.In-charge of Handball (W)
- 3.Intercollegiate selection committee member in Handball (W)

Areas of Research

- 1.Exercise physiology
- 2.Sports training

CURRICULUM VITAE

Dr.K.Sundar Assistant Professor
Alagappa Institute of Educational Sciences
Alagappa University Karaikudi – 630 003 Tamil Nadu, INDIA
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Academic Qualifications: B.A., M.A., MPES., MPhil., PhD., NSNIS & CYED

Teaching Experience: 15Years

University/College/ Institute	Designation held	Date of Joining	Date of Leaving
AUCPE	Asst professor	1 st FEB 2016	Onwards
Anna university CE CBE	Physical Director	6th NOV 2013	31st Jan 2016
Karpagam CE, CBE	Director of Physical Education	2nd April 2008	4th Nov 2013
Indra Group of Inst. Thiruvellur	Director of Physical Education	3rd Feb 2005	28th Mar 2008
Amrita Inst. Of Medical Science and Research Centre Kochin	Director of Physical Education	30th April 2002	1st Feb 2005

Research Experience: 4 Years

Additional Responsibilities

1. NSS Programme officer
2. Distance Education Examinations, **May 2016. at Tirupathi, Andrapredsh**
3. Distance Education Examinations, **Dec 2016. at Pollachi, Tamil Nadu**
4. Team coach in SDAT CM Trophy Boxing Championship at AUCPE Karaikudi Nov2016
Team won over all championship
5. Boxing in charge in AUCPE
6. Kabaddi Men team in charge in AUCPE

Areas of Research

- ❖ **Training Methods in Physical Education**
- ❖ **Sports psychology**

CURRICULUM VITAE

K.M.M.Jaskar Assistant Professor
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 Alagappa University Karaikudi – 630 003 Tamil Nadu, INDIA
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 Contact Phone (Mobile) : +91 9445120751,
 Contact e-mail(s) : jas.nce1975@gmail.com



Academic Qualifications:

BPE., MPES., MPhil., PhD

SLNo	DEGREE	UNIVERSITY	% OF MARKS	YEAR OF PASSING
1	BPE	LNIFE GWLIOR	53	1996
2	MPES	ANNAMALAI	69.7	1998
3	MPhil	ANNAMALI	65.8	1999
4.	Ph.D	MONOMANIAM SUNDARANAR	-	2015

Teaching Experience: 15Years

Name of the University/College/ Institute	Designation held	Date of Joining	Date of Leaving
AUCPE	Asst professor	1 st FEB 2016	On Wards
National College of Engg	Physical Director	30.10.2000	31.01.2016

Additional Responsibilities

1. SWACHH BHARAT SWAATH BHARAT COORDINATOR AUCPE
2. Distance Education Examinations, **May 2016. at New Delhi**
3. Distance Education Examinations, **Dec 2016. at Ambasamudram, Tamil Nadu**
4. Distance Education Examinations, **may 2017. at karim nagar , thelugana,**
5. Act as a selection committee member Alagappa University inter zone cross country (M/W)
6. Act as team manager and coach in Alagappa University and participated All India interuniversity Athletics (M/W) champion ship -2016 at alwas Mangalore
7. Act as team coach in Alagappa University and participated All India interuniversity Athletics (M/W) champion ship -2016 Anna University at Coimbatore
8. Act as team manager and coach in Alagappa University and participated All India interuniversity cross country race (M/W) champion ship -2017 at belagavi karnataga
9. Athletic in charge(M/W) in AUCPE

Areas of Research

Training Methods in Physical Education

CURRICULUM VITAE

Dr.T.P.Yokesh ., Assistant Professor

Alagappa University College of physical education
Alagappa University Karaikudi – 630 003 Tamil Nadu, INDIA

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Teaching Experience: 04 Year

Research Experience: 03 Years

Additional Responsibilities

S.No	Name of the Programme	Place were organized	Date
1	University Volleyball Women team Selection Committee Member	Dr. Zakir Husain College, Ilayangudi	12th to 13th December 2016
2	University Table Tennis Men & Women team Selection	Thassim Beevi Abdul Kadar College for Women	17th December 2016

Areas of Research

Yoga and Sports Training