UNIVERSITY OF PUNE

M. Ed. (PHY. EDU.)

REVISED SYLLABUS (2008)

SEMESTER SYSTEM (TOTAL MARKS -1600)

Objectives

1. **To develop highly skilled scholars in the field of physical education.**
2. **To master the competencies and skills needed to become professionals in the areas of specialization.**
3. **To be sensitive about emerging issues such as health & fitness, wellness, technology, environment.**
4. **To develop in the students an inquiring mind & ability to employ reasoning, rational thinking, critical thinking in the problems & issues relating to the field.**
5. **To provide opportunity for creativity, self expression & provide information on continued professional growth.**

Admission requirements:

Any candidate, who has passed any one of the following examinations of Pune University or any other statutory university recognized by this university, will be eligible for admission to the master degree program in Physical Education provided he/she fulfills all the other conditions required in the admission procedure.

B.Ed (Phy. Edu), B.P.Ed, B.P.E., H.D.Ed., D.P.Ed.

Admission will be given on the basis of merit.

Duration of the program:

The duration of the master's degree program will be of two academic years divided in four semesters.

Structure of the program:

Semester	Course	Internal	External	Total (marks)
I	Course 1 (Compulsory)	20	80	100
	Course 2 (Compulsory)	20	80	100
	Course 3 (Optional-Specialization Group)	20	80	100
	Course 4 (Optional-Specialization Group)	20	80	100
	Course 16 – Special Course			
II	Course 5 (Compulsory)	20	80	100
	Course 6 (Compulsory) Practical compulsory			
	Part 6.1 Sport/game of student's choice	10	40	50
	Part 6.2 Measurement & evaluation practical	10	40	50
	Course 7 (Optional-Specialization Group)	20	80	100
	Course 8 (Optional-Specialization Group)	20	80	100
	Course 16 – Special Course			
III	Course 9 (Compulsory)	20	80	100
	Course 10 (Compulsory)	20	80	100
	Practical- Specialization Group			
	Course 11(Optional-Specialization Group)	20	80	100
	Course 12 (Optional-Specialization Group)	20	80	100
	Course 16 – Special Course			
IV	Course 13 (Compulsory)	20	80	100
	Course 14 (Compulsory)- Dissertation	20	80	100
	Course 15 (compulsory)- Open Course	20	80	100
	Course 16 – Special Course	20	80	100
	Total	**320**	**1280**	**1600**

The detailed structure is given on the subsequent pages.

Important Instructions:

1. The Master's degree program in Physical Education consists of four semesters spread over two academic years
2. The entire program will be evaluated for a total of 1600 marks.
3. The program will be divided in 4 semesters consisting of 400 marks each.
4. Each course will have 80% of marks as semester end examination and 20% marks as internal assessment.
5. A student has to successfully complete 16 courses totally for the completion of this program.
6. Each student has to opt for only one group for specialization area. (Group A- Sports Coaching, Group B- Fitness Science, Group C- Management, Group D- Yoga)
7. Each student will have choice only for the specialization group and not for separate courses.
8. Every student must note that course no.16, special course in Spoken English, Soft Skills & Computer Practical will be taught through out the program and final evaluation of this course will be done only in the semester IV.
9. Semester I will comprise three compulsory courses (course no.1, 2 & 16) & two courses in the area of specialization (course no.3- A3/B3/C3/D3 & course no.4 – A4/B4/C4/D4). A total of 400 marks will be given for the final evaluation of 4 courses except course no.16.
10. Semester II will comprise three compulsory courses (course no.5, 6 & 16) & two courses in the area of specialization (course no.7- A7/B7/C7/D7 & course no. 8– A8/B8/C8/D8). A total of 400 marks will be given for the final evaluation of 4 courses except course no.16.

    10.1. Course 6 comprises a compulsory course of core practical in Physical Education & sports. This course will comprise two parts. Part 6.1 will be game/sport of the student's choice & part 6.2 will consist of practical courses in measurement & evaluation.

11. Semester III will comprise three compulsory courses (course no.9, 10 & 16) & two courses in the area of specialization (course no.11-A11/B11/C11/D11 & course no. 12 – A12/B12/C12/D12). A total of 400 marks will be given for the final evaluation of 4 courses except course no.16.

11.1. Course 10 comprises a practical course in the group of specialization. Syllabus & evaluation scheme of this course will be prepared by the college teachers and approved by the college committee & 2 experts from outside.

12. Semester IV will comprise three compulsory courses (course no.13, 14, 15, 16) course no.14 consists of a research dissertation for 100 marks. The problem of research dissertation must be selected from the area of specialization only. A total of 400 marks will be given for the final evaluation of 4 courses in semester IV.

12.1. Course no. 15 (OA15, OB15, OC15, OD15) will consist of an open course. The syllabus of the open course will comprise latest trends & latest research in area of specialization (OA15, OB15, OC15, OD15). The syllabus & evaluation scheme of this course will be prepared by the teachers & approved by the college committee & 2 experts from outside.

12.2 Course no.16 will be a special course in Spoken English, Soft Skill, & computer practical. This course will be taught through out the entire program. Internal evaluation of this course will be done through practical examination in all the four semesters. External evaluation of this course will be done through a practical examination in semester IV only.

13. Internal evaluation of the program will be done by the respective colleges. For the internal evaluation the college teachers should select various techniques of assessment as mentioned ahead: oral examinations, written tests, mid term test, journal/lecture/library notes, seminar presentations,

poster presentations, quizzes, assignments, extension work, core practical, group practical etc.

Rules & Regulations

1. The M.Ed (Phy.Edu) Degree will be awarded to a student who completes a total of 16 courses divided in 4 semesters.
2. The college will complete the internal assessment. The internal assessment will be in the form of marks. For the rationalization of internal marks college will appoint a moderation committee. The Committee will take the review of the internal marks given by the college and advice the college if necessary. The college should take the appropriate action as per the advice of the committee & submit the internal marks to the University.
3. Each course (Course No.1 to 16) will be evaluated both internally and externally. 80% of marks will be given through semester end examinations and 20% of marks will be given on the basis of achievements in the internal examinations.
4. A candidate must record at least 90% attendance at the periods in college for all the semesters. He/she should complete all the practical and internal assessment work expected in all the semesters up to the satisfaction of the principal. He/she should obtain such a certificate from the principal of the college. Unless and until the candidate obtains such a certificate, he/she will not be allowed to appear for semester end examinations.

Norms for passing

1. Each course is a separate head of passing. To pass the examination, the student must obtain at least 45% of marks in each head of passing and an aggregate of 50% marks.
2. To pass the examination in “First class with Distinction” the student must obtain at least 65% of marks in each head of passing and an aggregate of 70% marks.
3. To pass the examination in “First class” the student must obtain at least 55% of marks in each head of passing and an aggregate of 60% marks.
4. To pass the examination in “Second class with B+” the student must obtain at least 50% of marks in each head of passing and an aggregate of 55% marks.
5. To pass the examination in “Second class” the student must obtain at least 50% of marks in each head of passing and an aggregate of 50% marks.

Other important rules

- Student who has fails or remains absent for the semester end examination may reappear for the semester end examination in the succeeding semesters.
- A candidate, who wants to improve his /her class, may reappear in the succeeding Semester end examinations of any course (except course no.6, 10, 14,15 & 16), provided his or her internal assessment work is satisfactory.

LIST OF COURSES OFFERED BY THE UNIVERSITY

SEMESTER	COMPULSORY	OPTIONAL - SPECIALIZATION GROUP
I **(**400 Marks)	**COURSE 1 (**100 Marks) Research and statistics **COURSE 2 (**100 Marks) Evaluation in physical education & sports **Course 16** Special course- Spoken English, Soft Skill, Computer Practical	**COURSE 3 (**100 Marks) & **COURSE 4 (**100 Marks) **A3:** Scientific Principles of Training and Coaching. **A4:** Biomechanics and kinesiology **B3:** Anatomy and Physiology **B4:** Exercise Science **C3:** Principles of management & organizational behavior **C4:** Human Resource Development & Management **D3**: Anatomy and Physiology **D4:** Foundation of Yoga
II **(**400 Marks)	**COURSE 5 (**100 Marks) Research and statistics **COURSE 6 (**100 Marks) **Practical courses** Part 6.1 Game/sport of choice Part 6.2 Measurement & evaluation practical **Course 16** Special course- Spoken English, Soft Skill, Computer Practical	**COURSE 7 (**100 Marks) **& COURSE 8(**100 Marks) **A7:** Athletic Care and Rehabilitation **A8:** Psychology of Sports **B7:.**Exercise Therapy **B8:** Fitness Management **C7:** Facility Design, Development and Management **C8:** Recreation and Leisure Time Management **D7:** Yogic Science **D8:** Yoga & physical education
III **(**400 Marks)	**COURSE 9 (**100 Marks) Modern trends in physical education & sports **COURSE 10 (**100 Marks) Group practical (Sports coaching / Fitness science/ Sports management / Yoga) **Course 16** Special course- Spoken English, Soft Skill, Computer Practical	**COURSE 11(**100 Marks) **& COURSE 12(**100 Marks) **A11:** Exercise Physiology **A12:** Sports Nutrition **B11:** Fitness Nutrition **B12:** Personal training & sports conditioning **C11:** Event Management **C12:** Finance & Sports Marketing **D11:** Yogic Therapy **D12:** Yoga & wellness
IV **(**400 Marks)	**COURSE 13 (**100 Marks) Professional preparation & curriculum design **COURSE 14** (100 Marks) Dissertation **Course 16** (100 marks) **Practical** Special course- Spoken English, Soft Skill, Computer Practical	**COURSE 15 (**100 Marks) Open course **OA15** Sports coaching **OB15** Fitness science **OC15** Sports management **OD15** Yoga

OPTIONALGROUPS- SPECIALIZATION AREA

GROUP	COURSES (3, 4, 7, 8, 11, & 12)
A] SPORTS COACHING	A3.Scientific Principles of Training and Coaching. A4.Biomechanics and kinesiology A7.Athletic Care and Rehabilitation A8.Psychology of Sports A11.Exercise Physiology A12.Sports Nutrition
B] FITNESS SCIENCE	B3.Anatomy and Physiology B4.Exercise Science B7.Exercise Therapy B8.Fitness Management B11.Fitness Nutrition B12.Personal training & sports conditioning
C] SPORTS MANAGEMENT	C3.Principles of management & organizational behavior C4.Human Resource Development and Management C7.Facility Design, Development and Management C8.Recreation and Leisure Time Management C11.Event Management C12.Finance & Sports Marketing
D] YOGA	D3.Anatomy and Physiology D4. Foundation of Yoga D7. Yogic Science D8. Yoga & physical education D11. Yogic Therapy D12. Yoga & wellness

Suggested structure-format of question papers

Sr. No	Type of Question	Test of	Word limit	No. of Que.	Marks	Total Marks
1.	Critique	Critical ability & ability to apply knowledge	30	5	5	25
2.	Definitional/Specific answer question	Ability to make exact statement & precise understanding	30	3	5	15
3.	Analytical/evaluative questions	Ability to reason & hold argument	180	2	10	20
4.	Essay/Application level question	Ability to expound a theme at length with discrimination & justification	500	1	20	20
					Total marks	**80**

Details of the Courses

Course 1: Research & Statistics

Objectives:

1. To gain understanding of terminologies & methods that enables the students to be knowledgeable, critical consumers of research & professional literature.
2. To understand research dissemination (publication & presentation) process.
3. To gain experience & skill using library data bases to search for literature.
4. To be better prepared to prepare & conduct research.

Unit1: Introduction to Research process

1.1 Introduction to research in physical activity

1.2 Developing research problem & using literature

1.3 Presenting problem & Formulating method

Unit2: Types of research

2.1 Historical research in physical activity

2.2 Philosophic research in physical activity

2.3 Experimental & quasi experimental research

Unit3: Writing research report

Completing the research process – research proposal – Proposal process, developing good introduction, describing method, Preparing & presenting research proposal

Unit4: Statistical & measurement concepts in research

4.1 Becoming acquainted with statistical concepts

4.2 Relationship among variables

Suggested Reading:

1. Best, J. W. and Khan, J. V. (1995). Research in education (9th ed.). New Delhi: Prentice Hall.

2. Vincent, W. J. (1995). Statistics in Kinesiology. Champaign: Human Kinetics.

3. Bhattacharyya, D.D. and Bhattacharyya, A. (1977). Evaluation and statistics in education. Calcutta: Blacki India Employees Co-operative Industrial Society Ltd.

4. Clarks, D. H. & Clark, H. H. (1979). Research process in physical education, recreation & health. Englewood Cliffs: Prentice hall.

Course 2: Evaluation in Physical education & sports.

Objectives:

1. To understand terminologies & methods of evaluation in sports & physical Education.
2. To understand the evaluation process.
3. To gain experience & skill to evaluate the human performance.
4. To be better prepared to prepare & conduct measurement & evaluation.

Unit1:

1.1 Concept of Test, measurement, evaluation and assessment.

12. Classification of test

1.3 Need and its importance to the director of physical education in colleges.

1.4 Trends in evaluation in Phy. Edn.

Unit2:

2.1 Criteria of test selection

2.2 Construction of – Knowledge test, Physical fitness test & Sports skill test.

2.3 Administration of Paper pencil test & psychomotor test.

2.4 Fitness assessment Tests for Special Population

Unit3:

3.1 Measurement of HRPF, SRPF, GMA & Motor educability.

3.2 Measurement of skills of various sports & games: Soccer, Hand ball, Tennis, Basket ball, volley ball.

3.3 Testing of psychological variable.

Unit4:

4.1 Meaning & characteristics of Test batteries: AAHPERD youth fitness test.

4.2 Factors affecting measurement in physical education.

4.3 Anthropometric measurement & somatotype.

4.4 Rating scales.

Suggested Reading:

1. Miller, David. K. (2002). Measurement by the Physical Educator. New York: McGraw Hill companies.
2. John & Nelson (1998). Practical Measurements for Evaluation in Phy.Edu. Delhi: Surjit Publication.
3. Barrow, H.M.(1979).Practical Approach to Measurement in Phy.Edu. Ed. (3rd Ed.). Philadelphia: Lee & Febigeer,
4. Clarke, H. (1987). Application of Measurement in Health & Phy.Edu. Ed. (6th Ed.). New Jersey Prentic Hall,Inc 1987.
5. Kansal, D.K. (1996). Test & Measurement in Sports & Phy.Edu. New Delhi:.D.V.S.Publications,

Course 3 (A3, B3, C3, & D3)

Course A3: Scientific Principles of Training and Coaching.

Objectives:

1. To understand the scientific sports training process.
2. To develop attitudes & skill in developing champion athletes.
3. To be better prepared to be a good coach & advisor.

Unit1: Sports training

1.1 Definition, meaning & importance sport training
1.2 Aim, objective & characteristics sport training
1.3 Principles of sport training
1.4 Training load

Unit2: Training means & methods

2.1 Health related physical fitness
2.2 Skill related physical fitness
2.3 Psychological / mental training
2.4 Planning, organization, & evaluation of training

Unit3: Sports coaching

3.1 Definition, meaning & importance sport coaching
3.2 Aim, objective & characteristics sport coaching
3.3 Principles of sport coaching
3.4 Talent identification

Unit4: Coaching means & methods

4.1 Skills & techniques
4.2 Tactics & strategies
4.3 Competition planning & preparation
4.4 Planning, organization, & evaluation of coaching

Suggested Reading:

1. Singh, H. (1991). Science of sports training. New Delhi: DVS publication
2. Uppal. A. K. (2001). Principles of sports training. New Delhi: Friends publication.

3. Rainer Martens (2005). Successful coaching.

4. Beashel & Taylor (). The world of sports examines.

Course B3: Anatomy and Physiology

Objectives:

1. To enable the students to understand the basic structure and functions of Human body and its role in sports performance.
2. To enable the student to understand the effect of Exercise on different system or/and on the body as a whole.
3. To enable the student to understand the energy system and its optimal functioning in various sports and its role in different activities.

Unit1:

1.1 Skeletal system- axial & appendicular system, skeletal differences in men & women,
1.2 Classification of joints, planes & axes in body, types & range of movement at different types of joints
1.3 Muscular system- skeletal muscle structure, origin, insertion of muscles, prime movers, antagonists, synergists

Unit2:

2.1 Central nervous system – spinal cord, brain, brainstem, cerebellum, cerebrum, functional areas of cortex, functions of autonomic nervous system
2.2 Endocrine system – classification of hormones, how hormones work, glands
2.3 Anatomy of cardiovascular system

Unit3:

3.1 Bioenergetics – energy sources, energy production, energy transfer in body & in exercise, measurement of energy expenditure during rest & exercise
3.2 Exercise at medium & high altitude, exercise during hot, humid & cold conditions

Unit4:

4.1 Adaptation of muscles to training
4.2 pulmonary responses to training
4.3 cardiovascular responses to training

Suggested Reading:

1. Birch, MacLaren, George. (2005). Sports & exercise physiology – instant notes. UK: BIOS scientific publishers

2. McArdle, Katch F & McArdle V. (2003). Exercise physiology (3rd Ed.). Phi: Lea & Febiger

3. Thibodeau & Patton. (2003). Anthony's textbook of Anatomy & Physiology. (17th Ed.). ND: Elsevier

Course C3: Principles of Management & organizational behavior

Objectives:

1. To acquaint the students with the concept of management.
2. To introduce to the theories of management.
3. To acquaint the students with duties, roles & managerial skills.
4. To understand the concept of organizational behavior & its management.

Unit1:

1.1. Basic Concepts of Management, Definition, Need and scope. Different Schools of management – Behavioral, Scientific, Systems, Contingency
1.2 Modern theories of Management
1.3 Managerial skills and functions, Levels of management
1.4 Functions of management: Planning, Organsing, Directing, Leading, Coordinating, Staffing, Decision making, Controlling

Unit2:

2.1 The role of individual behavior in organizations.
2.2 Motivation and needs, Classification of motives.
2.3Contribution of Maslow, Herzberg, Alderfer, Porter and Lawler theories of motivation.
2.4 Foundations of Individual Behavior.

Unit3:

3.1 Communication and perceptions
3.2 Shaping of personality.
3.3 The self concept, self esteem self efficiency.

Unit4:
4.1 Leadership, Team Building & Group Dynamics, leadership Traits, Working teams, and team effectiveness.Dynamics of Group Behavior, Influence of the group on individual and group decision making.
4.2 Concept of Top Management, Japanese styles of management, QCs, TQM.
4.3 Knowledge workers, Corporate Social Responsibility.

Suggested Reading:

1. Koontz & O'Donnel. Principles of Management .McGraw Hill
2. Joseph I, Massie.Essentials of Management. India: Prentice Hall
3. Peter F Drucker .The Practice of Management .Allied Publishers
4. Peter F Drucker. Tasks, Management, Responsibility & Practice
5. Stoner, James A.F. Management. India: Prentice Hall
6. Fred Luthans. Organizational Behaviour (10th Ed). McGraw Hill
7. Keith Davis. Human Behaviour at Work (7th Ed) Tata McGraw Hill
8. Robins S.P. Organizational Behaviour
9. Staw B.M.Psychological Dimensions of Organizational Behaviour
10. R.S. Dwivedi.Human Relations & Organizational Behaviour
11. Heinz Weirich, & Harold koontz .Management-global perspective
12. P.C.Tripathi, & P.N.Reddy Principles of Management (3rd Edition).
13. Harold Koontz, & Heinz Weihrich. Essentials of Management-(7th Edition).
14. T.Ramaswamy. Principles of Management

Course D3: Anatomy and Physiology

Objectives:
1. To enable the students to understand the basic structure and functions of Human body and its role in sports performance.
2. To enable the student to understand the effect of Exercise on different system or/and on the body as a whole.
3. To enable the student to understand the energy system and its optimal functioning in various sports and its role in different activities.

Unit1:
1.1 Skeletal system- axial & appendicular system, skeletal differences in men & women,
1.2 Classification of joints, planes & axes in body, types & range of movement at different types of joints
1.3 Muscular system- skeletal muscle structure, origin, insertion of muscles, prime movers, antagonists, synergists

Unit2:
2.1 Central nervous system – spinal cord, brain, brainstem, cerebellum, cerebrum, functional areas of cortex, functions of autonomic nervous system
2.2 Endocrine system – classification of hormones, how hormones work, glands
2.3 Anatomy of cardiovascular system

Unit3:
3.1 Bioenergetics – energy sources, energy production, energy transfer in body & in exercise, measurement of energy expenditure during rest & exercise
3.2 Exercise at medium & high altitude, exercise during hot, humid & cold conditions

Unit4:
4.1 Adaptation of muscles to training
4.2 pulmonary responses to training
4.3 cardiovascular responses to training

Suggested Reading:

1. Birch, MacLaren, George. (2005). Sports & exercise physiology – instant notes. UK: BIOS scientific publishers

2. McArdle, Katch F & McArdle V. (2003). Exercise physiology (3rd Ed.). Phi: Lea & Febiger

3. Thibodeau & Patton. (2003). Anthony's textbook of Anatomy & Physiology. (17th Ed.). ND: Elsevier

Course 4 (A4, B4, C4, & D4)

Course A4: Biomechanics and kinesiology

Objectives:

1. To introduce to the science of Biomechanics & Kinesiology in relation to human performance.
2. To acquaint with the various fundamental movements & understanding the relevance of analysis
3. To understand the body structure and apply the knowledge in analysis of movements

Unit1: Introduction to Biomechanics

1.1 Definition & meaning of sports Biomechanics
1.2 Need & importance of Biomechanics in physical education & sports
1.3 Organization of mechanics
1.4 Basic dimensions & units of measurement used in mechanics

Unit2: Human movements

2.1 Linear and angular kinematics of human movements
2.2 Movement analysis- Kinesiological, mechanical, & biomechanical
2.3 Video film analysis & tools of biomechanical analysis
2.4 Analysis of fundamental skills & sports skills

Unit3: Introduction to Kinesiology

3.1 Definition, objectives, & Role of Kinesiology
3.2 Fundamental concepts of Axes and Planes, Center of Gravity, & Line of Gravity
3.3 Anatomical and Physiological Fundamentals
3.4 Kinesiology in Daily living

Unit4: Kinesiology of joints

4.1 Upper Extremity
4.2 Lower Extremity
4.3 Major characteristics of Joints.
4.4 Analysis of Locomotion

Suggested Reading:

1. Hay James (1981).The Bio mechanics of Sports Techniques. New Jersey: Prentice Hall Inc.
2. Bunn J.W. (1981). Scientific Principles of Coaching**.** Englewood: Cliffs prentice Hall

3. Sunderajan G.S. Bio-mechanics of Sports and Games**.** Ludhiyana: Tondon Publications.
4. Dr. D Rajlakshmi (2007). Biomechanics for Games and sports. Sports Educational Technologies.
5. Susan, J. Hall, Basic Biomechanics (4^{th} ed.). McGraw Hill Publication.
6. Roger Bartlett. Introduction to Sports Biomechanics. E & FN SPON
7. Broer, M.R. (1966) Efficiency of Human Movement (Philadelphia : W.B. Saunders Co.
8. Duvall, E.N. (1956). Kinesiology (Engle wood cliffs : N.J. Prentice Hall Inc.
9. Rasch and Burke, (1967). Kinesiology and Applied Anatomy (Philadelphia : Lea and Fibger,
10. Scott, M. G. Analysis of Human Motion, New York.
11. Hoffman S.J. (2005). Introduction to Kinesiology (Human Kinesiology publication
12. Uppal A.K. & Lawrence M. P Kinesiology New Delhi: Friends Publication India

Course B4: Exercise Science

Objectives:
1. To get introduced to basic concept of fitness & its assessment.
2. To understand the principles of exercise prescription.
3. To understand the guidelines & be able to design the exercise plans for variety of population.

Unit1: Physical fitness, Health, & wellness
1.1 Components of Physical fitness, Health, & wellness
12. Prevalence, Barriers, & assessment of physical activity
1.3 Assessing physical fitness (Normal & Physically challenged)

Unit2: Principles of exercise
2.1 Ideal exercise program
2.2 Fitness concepts- preconditioning program, progressive resistance exercise Program (PRE)
2.3 General exercise guidelines

Unit3: Cardio respiratory fitness
3.1 Aerobic & anaerobic exercises
3.2 Measurement & Benefits of C. R. fitness
3.3 Comparing energy expenditure & designing C. R. fitness program

Unit4: strength & flexibility training
4.1 Importance of strength- endurance, & flexibility, factors affecting on these Components.
4.2 Principles of strength- endurance, & flexibility training
4.3 lifting techniques in weigh training

Suggested Reading:

1. Fahey, Insel, Roth (2004). Fit & well (6th Ed.). Boston: McGraw Hill co.
2. Greenberg, Dintiman, Oakes. (2004). Physical fitness & wellness (3rd Ed.). IL: human kinetics
3. Howley & Franks (1997). Health fitness instructor's handbook (3rd Ed.) IL: Human kinetics
4. ACSM (1998) ACSM's resource manual for guidelines for exercise testing & prescription (3rd Ed.) Lippincott, Williams & Wilkins

Course C4: Human Resource Development & Management

Objectives:
1. To provide students with an understanding of the functions, the basic concepts, and the principles of Human Resource Management.
2. To prepare them for their first sport related employment as either manager or employee
3. To introduce the process & functions of HRD.
4. To acquaint with various controls in management.

Unit1:
1.1 Human resource management process- human resource department - functions
1.2 Pre employment inquiries, legal environment
1.3 Human resource planning – job analysis, writing job description – tasks & responsibilities
1.4 Attracting employees – recruiting – internal & external, selection process

Unit2:
2.1 Interviewing – preparing for interview, selecting candidate
2.2 Developing employees – orientation, training & development, job instructional training (JIT)
2.3 Training cycle, training methods
2.4 Performance appraisals – methods, process
Developing performance standards

Unit3:
3.1 Retaining employees- compensation, pay systems, determining pay, benefits, health & safety
3.2 Labor relations, union organizing
3.3 Collective bargaining, termination & outplacement

Unit4:
4.1 Human controls- coaching, importance of motivational feedback
4.2 Coaching corrective action, a coaching – How to Primer, Management by walking around (MBWA)
4.3 Problem employees, managers as counselors
4.4 Discipline – progressive discipline

Suggested Reading:

1. Lussier & Kimball (2004). Sports management – Principles, application, skill development. Ohio: Thomson- South Western

Course D4: Foundation of Yoga

Objectives:
1. To understand the foundation & background of Yoga.
2. To introduce to stages of yoga & importance of practicing yoga.
3. To understand the benefits & effects of kriyas, bandhas, pranayama.

Unit1:
1.1 Meaning & definition of yoga
1.2 Need & importance of yoga
1.3 Historical background of yoga
1.4Types of yoga

Unit2:
2.1 Ashtanga yoga (Eight stages of yoga)
2.2 Chitta Vrtti (Causes for the modification of the mind)
2.3 Chitta Viksepa (Directions & obstacles)
2.3 Sisya & Guru (A pupil & a master), Sadhana (A key to freedom)

Unit3: Yogasanas
3.1 Meaning & definition
3.2 Types of asanas
3.3 Need & importance of asanas
3.4 Benefits & effects of asanas

Unit4: Pranayam, Bandha, & Kriya
4.1 Meaning & definition
4.2 Types of asanas
4.3 Need & importance of asanas
4.4 Benefits & effects of asanas

Suggested Reading

1. Iyengar, B. K. S. (1989). Light on yoga, Yoga Dipika. London: UNWIN paperbacks.
2. Kappmeir, K. L. & Ambrosihi, D. M. (2006). Instructing hata yoga. Champaign: Human kinetics.
3. Alice, C. (2000). Yoga for sports. Chicago: CB.
4. Sawmi Kuvalayanand (19930). Asanas. Lonavla: Kaivalayadham.
5. Tiwari, O. P. (2002). Asanas why & how?. Lonavla: Kaivalayadham.

6. Shivananda yoga Vedanta centre (1998). Yoga mind & body. London: D. K. paperbacks.

Course 5: Research & Statistics

Objectives:

1. To gain understanding in ethical issues in research.
2. To understand types of researches & analytical techniques.
3. To gain experience & skill using software to analyze the statistical data.
4. To be better prepared to write & present research.

Unit1 Research

1.1 Ethical issues in research

1.2 Descriptive research in physical activity epidemiology

1.3 Qualitative research

Unit2 Types of research

2.1 Survey

2.2 Descriptive research & Other Descriptive research methods

2.3 Meta analysis (research synthesis)

Unit3 Statistical & measurement concepts in research

3.1 Differences among groups

3.2 Non parametric techniques

3.3 Measuring research variables

Unit4 Writing research report

4.1 Ways of reporting research- basic writing guidelines,
4.2 thesis & dissertation format
4.3 Journal writings, writing abstract
4.4 Making oral & poster presentations

Suggested Reading:

1. Best, J. W. and Khan, J. V. (1995). Research in education (9th ed.). New Delhi: Prentice Hall.

2. Vincent, W. J. (1995). Statistics in Kinesiology. Champaign: Human Kinetics.

3. Bhattacharyya, D.D. and Bhattacharyya, A. (1977). Evaluation and statistics in education. Calcutta: Blacki India Employees Co-operative Industrial Society Ltd.

4. Clarks, D. H. & Clark, H. H. (1979). Research process in physical education, recreation & health. Englewood Cliffs: Prentice hall.

Course 6: Practical courses

This course comprises two parts
Part 6.1 Game/sport of choice
Part 6.2 Measurement & evaluation practical

Objectives:

To introduce students to basic & advanced skills in sports & games.
To provide situations to develop skill levels.

Part 6.1 Game/sport of choice it is a compulsory course in sports & games.
The candidate has to opt for one of the games & sports listed below.

1. Athletics	11. Cricket
2. Yoga	12. Table Tennis
3. Kabaddi	13. Badminton
4. Kho-Kho	14. Tennis
5. Volley ball	15. Wrestling
6. Basket ball	16. Boxing
7. Hockey	17. Judo
8. Foot ball	18. Taekwondo
9. Hand ball	19. Mallakhamb
10. Soft ball	20. Gymnastics

Each student will undergo advanced training in the game/ sport of his/her choice. The selected game will be taught for the advanced level with reference to the following details:

1. Warming- up
   - 1.1 General Warming-up
   - 1.2 Specific Warming-up
2. Training for Motor Abilities
   - 2.1 Free hand exercises for general development
   - 2.2 Strength training (Isometric, Isotonic and Isokinetic Exercises and other strength training methods and means.
   - 2.3 Endurance Training (Continuous method, Interval method & Fartlek)
   - 2.4 Speed Training (Methods and means for developing sprinting speed, speed of movement and reaction time).
   - 2.5 Flexibility Training
3. Technical/Skill Training
   - 3.1 The skills of the sport/game will be taught with the help of following exercises:
     - 3.1.1 Preparatory Exercises
     - 3.1.2 Basic Exercises
     - 3.1.3 Supplementary Exercises
   - 3.2 Progressive Teaching Stages of skills
   - 3.3 Lead-up activities/Modified games
   - 3.4 Coaching of skills in relation to the game situation.
4. Tactics and Strategy:
   - 4.1 Individual Tactics (Attack, Defense and High Performance)
   - 4.2 Team Tactics (Attack, Defense and High Performance)
5. Officiating and Organization
   - 5.1 Organization of competition
   - 5.2 Rules and their interpretations
   - 5.3 Laying out of play field/arena for competitions
   - 5.4 Maintenance of play fields and equipment
6. Evaluation
   - 6.1 General Tests
   - 6.2 Specific Tests
   - 6.3 Evaluation of performance
7. Game participation

Evaluation

For the evaluation of this course a tool will be developed by the college teachers & approved by the college committee & 2 experts from outside.

Suggested Reading:

1. Pennycook, L. and Sykes, R. (1980). Olympic handball. London: Stanley Paul.
2. Carr, G.A. (1995). Fundamentals of track & fields. Mumbai: The marine sports.

3. Bosen, Ken O. (1993). Teaching Athletics skills & technique. Patiala: SAI, NSNIS.
4. Wissel, Hal. (1994). Basketball- Steps to success. IL: Human Kinetics.
5. Brittenham Greg. (1996). Complete conditioning for basketball. IL: Human kinetics
6. Lennox, J., Rayfield, J., Steffen, B. (2006). Soccer skills & drills. IL: Human Kinetics.
7. Ditchfield, M., Walter, B. (1998). Coaching soccer. NJ: Prentice Hall.
8. Werner, P.(2004). Teaching children gymnastics. (2nd Ed.). IL: Human Kinetics.
9. Debby, M., Barbara, D., Raim, L. (2002). Teaching fundamental gymnastics skills. IL: Human Kinetics.
10. Cox,R. (1994). Teaching Volleyball. Delhi: Surjeet Publications
11. Gonzansky, S.(1983). Championship Volley ball Techniques & skills. NY: Parkar Publishing.
12. Graham, G. et al. (1998). Children moving. (4th Ed.).Toronto: Mayfield Publishing Company.
13. Siendentop, D.et al. (2004). Complete guide to physical education. IL: Human Kinetics.
14. Our Physical Activity.(OPA)
15. Tiwari, O.P. (1991). Asanas why & how? (2nd Ed.). India: Kaivalyadham.
16. Chanchani, S., Rajiv, C. (2002). Yoga for children. Delhi,India.
17. Kangane, S. (2007). Handball. Pune: Diamond publication.
18. Lohar, A. (1998). Handball BasicTechnique. Mumbai: The marine sports.
19. Hopple, C.J. (1995). Teaching for outcomes in elementary physical education. IL: Human Kinetics.
20. Kamlesh, M.L. (2007). Field manual of sports & games. (2nd). Meerut: Nageen Prakashan.

Part 6.2 Measurement & evaluation practical it is a compulsory course in practical of measurement & evaluation.

Objectives:

1. To be able to understand the conduct of various measurement techniques.
2. To assess an individual, athlete, special person etc using appropriate tests.
3. To develop ability to measure accurately.

The candidate will be given an in depth training in advanced measurement & evaluation techniques & procedures of fitness assessment, skill testing, paper pencil testing & Psychological testing etc. Every candidate should be given ample opportunity to practically conduct, analyze & evaluate the various tests taught

through the theory and the practical classes. A record of this practical should be mentioned in a journal.

Evaluation

Evaluation of this course will be done through an objective test/viva voce examination, completion of journal and presentation of the tests conducted with details of planning & administration.

Suggested Reading:

1. Aiken, L. R. (1982). Psychological testing and assessment. Boston: Allyn and Bacon, Inc.
2. Alderman, R. B. (1974). Psychological behavior in sport. Philadelphia: W. B. Saunders Co.
3. American college of sports medicine. (1991). Guidelines for exercise testing and prescription. Philadelphia: Lea and Feviger.
4. American college of sports medicine. (1992). ACSM fitness book. Champaign, IL; Leisure press.
5. Anastasia, A. (1982). Psychological testing. New York: Macmillan publishing co., Inc.
6. Barrow, H. H. (1988). A practical approach to measurement in physical education. Philadelphia: Lea and Feighers.
7. Clarke, H. H. and Clarke, H. D. (1987). Application of measurement to physical education. Englewood cliffs, N. J.: Prentice hall, Inc.
8. Neil, Grahm I. and Zinn, J. L. (1981). Team handball individual skill tests. (www.education.ed.ac.uk/handball/papers/mc.html).
9. Safrit, M. J. (1998). introduction to measurement in physical education and exercise science. St. Louis, Toronto, Boston: Times Mirror/ Mosby college publishing.
10. Strand, B. S. and Wilson, R. (1993). Assessing sport skills. Champaign: Human Kinetics.

Course 7 (A7, B7, C7, & D7)

Course A7: Athletic Care and Rehabilitation

Objectives:

To understand the historical background & development of sports medicine.
To introduce to common injuries and healing process.
To get acquainted with injury management of common injuries.
To understand various modalities & its uses.

Unit1: Introduction

1.1 History, concept, aim, objectives, need & importance
1.2 Role of physician, athlete trainer & coaches
1.3 Team medical care- concept & approaches

Unit2: Injury & tissue response

2.1 Micro & macro trauma, over use trauma
2.2 tissue response to stress
2.3 Inflammation & different steps of wound healing
2.4 Common regional injuries & their management (head, neck, face, thorax, abdomen, pelvis, upper & lower limbs).

Unit3: Therapeutic modalities & rehabilitation

3.1 Hydrotherapy, Cryotherapy, thermotherapy
3.2 Diathermy, infra-red, ultra sound
3.3 Contrast & paraffin bath
4.4 Approach to rehabilitation

Unit4:

4.1 Inactivity problems & their management
4.2 Concept of health club
4.3 Dopes
4.4 Athletic nutrition

Suggested Reading:

1. Ray, S. & Irwin (1983). Sports medicine. Prentice hall
2. Pande, P. K. (1987). Outline of sports medicine. New Delhi: Jaypee Bros.
3. Michael, H. (2001). Sports injuries recognition & management. (3rd Ed.). Oxford University press.
4. Armstrong & Tucker. Injuries in sports. London: Staples press.

Course B7:.Exercise Therapy

Objectives:

1. To introduce to the therapeutic aspects of exercise.
2. To introduce to the process of behavioral changes & role of exercise as therapy.
3. To understand the health conditions and exercise guidelines to manage them.

Unit1: Behavioral change & motivation technique

1.1 Psychosocial factors to consider
1.2 Behavioral change theories & exercise
1.3 Strategies to achieve fitness goals & maintaining fitness programs
1.4 Issues related to body image

Unit2: Weight loss, weight gain & control

2.1 Trends in weight loss, weight gain
2.2 Causes of obesity, implications of overweight & obesity
2.3 Underweight conditions & eating disorders

Unit3: Stress management & prevention, care of exercise injuries

3.1 Common stressors, reactivity, model of stress
3.2 Managing stress- strategies & techniques
3.3 Protecting body from injuries – 11 point program, tissue response to injuries
3.4 Prevention & emergency care treatment of common injuries- RICE, use of medication

Unit4: Special conditions & exercise

4.1 Hypertension, atherosclerosis, heart disease
4.2 Heart attack, stroke, failure, cancer
4.3 Major risk factors, protecting against CV diseases,
4.4 Exercise during pregnancy, exercise guidelines for senior citizens & individual with disease

Suggested Reading:

1. Fahey, Insel, Roth (2004). Fit & well (6^{th} Ed.). Boston: McGraw Hill co.
2. Greenberg, Dintiman, Oakes. (2004). Physical fitness & wellness (3^{rd} Ed.). IL: human kinetics.

Course C7: Facility Design, Development and Management

Objectives:

1. To provide foundation of facility management.
2. To understand the variety of facilities & its management.
3. To introduce to the day to day operation & management of different facilities.

Unit1:

1.1 Concept of facility management- planning, design, construction & management.
1.2 Programming- Need analysis, program development, implementation.
1.3 Scheduling, barriers, scheduling maintenance, space planning management
1.4 Typical facility contract, employment contract, court & fitness contract, contract for professional coach

Unit2:

2.1 Sports equipment & ancillary area- role of equipment, selecting & processing equipment, inventory & control.
2.2 Health & fitness club- liability for facility management, athletic training, sports medicine facility- location, space, training room, first aid area, rehabilitation & treatment area
2.3 Fitness laboratories- personnel, facility & environment, equipment & safety
2.4 Facility for seniors- design

Unit3:

3.1 Aquatic facilities- day to day operation
3.2 Laws & regulation, risk management
3.3 Indoor sports & activity- large court areas, small court areas.
3.4 Weight areas, dance & aerobics studios, mat rooms

Unit4:

4.1 Out door sports areas- playfields & surfaces, track & field areas, adjacent areas.
4.2 Adventure activity & rock climbing areas
4.3 Facilities for impaired persons- concept & planning
4.4Staff awareness & competitive sports.

Suggested Reading:

1. Walker, M. L., & Stotlan, D. K. (1997). Sport facility management. MS: Jones & Bartlett publishers

Course D7: Yogic Science

Objectives:

1. To provide the foundation of science to the concept of yoga.
2. To understand related states of health & its scientific control.
3. To get acquainted with new trends and research in yoga.

Unit1:

1.1 Concept & history of yoga, literature of yoga
1.2 Vital points of body & panchikarana prakriya
1.3 Limbs of yoga, kumbhkas- meaning & types
1.4 Ashtang yoga, mudras & bandhas, satkarma & siddhi

Unit2:

2.1 Mental health & hygiene – yogic & medical perspectives
2.2 Yoga & modern psychology
2.3 Emotional disorders, conflicts & frustration

Unit3:

3.1 Yama, niyama, asana- its significance in yogic practices
3.2 Prayers – its significance in yogic practices
3.3 Role of nostril dominance in brain function & activity

Unit4:

4.1 Meaning & yoga dimensions of health related fitness
4.2 Scientific reasoning behind asana
4.3 Researches done in yoga- an overview

Suggested Reading:

1. Iyangar, B. K. A. (1989). Yoga Deepika. Mumbai; Orient Longman
2. Gore, M. M. Anatomy & physiology of yogic practices. Kanchan prakashan.
3. Kuvalayanand, S. Yogic therapy- its basic principles & methods. New Delhi: CHEB.
4. Ross, K. The manual of yoga. Rupa & co.

Course 8 (A8, B8, C8, & D8)

Course A8: Psychology of Sports

Objectives:

1. To get acquainted with the meaning, nature and scope of sports Psychology.
2. To understand the role of sports psychology in the performance.
3. To introduce to the role of leaders, counselors, and social psyche in the performance enhancement.

Unit1: Introduction

1.1 Meaning, scope & development of sport psychology
1.2 Relationship of sport psychology with other sport sciences
1.3 Need & importance of sport psychology
1.4 Personality issues in sports

Unit2: Sport performance

2.1 Motivation in Sports
2.2 Action Regulation in Sports
2.3 Anxiety, arousal and sport performance
2.4 Aggression in Sport

Unit3: Leadership

3.1 Leadership in sport
3.2 Group Cohesion in sport
3.3 Spectators and sport performance.
3.4 Psychological preparation for competition

Unit4: Morale & Ethical Issues in sports

4.1 Concept of Moral Development & Stages of development.
4.2 Ethics in Sports.
4.3 Growing ethical crisis in sports.
4.4 Sports Burnouts and their causes.

Suggested Reading:

1. B.J. Cratty Psychology of Contemporary sports Champaign: Human Kinetics Publishers,
2. John M. Silva & Roberts, Psychological Foundations, of Sport". Champaign: Human Kinetics Publishers.
3. Diane Gills, Psychological Dynamics of sports. Champaign: Human Kinetics Publishers.
4. Cox, Sports Psychology. Champaign: Human Kinetics Publishers.

5. Richard M. Sumin, "Psychology in Sports, Methods & Application. New Delhi: Surjeet Publication.
6. But, Lusan Dorcas, Psychology lof Sports. Network: Van Nostrand Reinhold Company
7. Cratty, Bryant. J. (1973)., Movement Behavior and Motor Learning. Philadelphia: Lea and Febiger.
8. Kamlesh M.L. Psychology of Physical Education and sports (London, Boston Rutledge and Kegan Paul.
9. Linda K. Binket, Robert J. Ratella and Ann/, S. (1972). Really Sports, Psychology, Psychological Consideration Maximizing Sports Performance. Dubugne Jowa : C. Brown Publishers.
10. Robert S. Weinberg and Daniel Godd. (2003). Foundation of Sports and exercise Psychology. Champaign: Human Kinetics
11. Cronbach J. Lec (1990). Essentials of Psychological Testing. Hurper Colins Publishers.
12. Mohan J., Chadda K.N. and Akhtar Sultan .S. (2005). Psychology of Sports: The Indian Perspective.

Course B8: Fitness Management

Objectives:

1. To provide the foundation knowledge necessary for management of a health club & sports facilities.
2. To understand the functions & role of manager in the sports industry.
3. To acquaint with various aspects of management in health clubs.

Unit1: Introduction

1.1 Management functions- commercial, corporate, clinical, community programs
1.2 Roles of health fitness practitioner
1.3 Consumer – preconditioning, attitudes
1.4 Member adherence & attrition

Unit2: Member management & service desk management

2.1 importance, manual & computer record keeping, establishing database
2.2 member adherence data – survey – annual, interest.
2.3 Importance & methods of Reporting
2.4 service desk functions- strategies, staffing, name recognition, scheduling information

Unit3: Service desk organization

3.1 constructing training sessions, communication, conflict resolution, sales
3.2 service desk – check in, key control, locker rental, in-house rules & regulations, guest control

3.3 telephone etiquette, handling fax management, event promotion
3.4 equipment check out, lost & found, appointment scheduling, dress code & grooming

Unit4: Fitness equipment consideration
4.1 functions, cost, space, durability, safety, versatility
4.2 purchasing equipment- taking inventory, reviewing market, writing specifications, getting bids, purchasing
4.3 maintaining fitness equipments- internal & external maintenance, specialized equipments
4.4 facility management – quality, safety, cleanliness, amenities, determining maintenance needs, assessment needs, repairs, replacements & improvements

Suggested Reading
1. Grantham, W., Patton, R., York, T., Winick. (1998). Health fitness management. IL: Human Kinetics

Course C8: Recreation and Leisure Time Management

Objectives:
1. To understand basic of recreation & theories of play.
2. To provide knowledge of organizing recreational events.
3. To introduce to the trends & research in leisure time management.

Unit1:
1.1 Fundamentals of recreation
1.2 Concept & meaning of recreation
1.3 Need & importance
1.4 Principles & theories of recreation & play

Unit2:
2.1 Therapeutic recreation
2.2 Therapeutic use of activity
2.3 Recreation for the life
2.4 Role of recreation & leisure on human development

Unit3:
3.1 recreational sports programs & administration
3.2 Program for different category
3.3 Program planning & finance
3.4 Recreational facilities & area design

Unit4:
4.1 Current issues in recreation
4.2 Recent research & management developments in recreation
4.3 Latest trends in recreation & leisure time management
4.4 Employment opportunities & procedures for employment

Suggested Reading:

1. Mull, R. & Bayless, K. Recreational sports management. Champaign: Human kinetics.
2. Hoffman, R. & Collingwood, T. Fit for duty. Champaign: Human Kinetics.
3. Leith, L. M. Exercise your way to better mental health. New Delhi: Friends publication.
4. Bucher, & Wuest. Foundations of physical education & sports. B. I. publications.
5. Smith, R. & Austin, D. Inclusive & special recreation: opportunities for persons with disabilities. Champaign: human kinetics.
6. Russell, R. Leadership in recreation. McGraw hill.

Course D8: Yoga & physical education

Objectives:
1. To introduce to the concept of Yoga & its relation to Physical Education.
2. To understand the various trends in yoga.
3. To be able to apply the knowledge of yoga & physical education to gain maximum benefits.

Unit1:
1.1 Concepts of Yoga and Physical Education
1.2 Aims and Objectives of Yoga and Physical Education.
1.3 Education as a common ground of Yoga and Physical Education.
1.4 Means of Yoga and Physical Education.

Unit2:
2.1 Concept of Exercise in Physical Education and its comparison with Yogic Practices.
2.2 Problem of Integration of personality tackled in Yoga.
2.3 Application of Yoga in Physical Education.
2.4 Utility of Yoga Techniques in Physical Education.

Unit3:

3.1 Co-ordination of Yoga and Physical Education for maximum benefit.
3.2 Asana - Definition and Classification, Similarities and dissimilarities between Asana and Exercise.
3.3 Pranayama - Definition and Classification. Difference between pranayama and deep breathing. Importance of Rechaka, Kumbhaka, Puraka.
3.4 Introduction to Kriyas, Mudras and Bandhas in brief.

Unit4:

4.1 Introduction, Definition of Yoga according to Patanjali, Gita, Swatmarama, Gheranda, Charandas etc.

4.2 Vital points of the body according to Vasistha Samhita.

4.3 Panchilarana prakriya (mixing technipue) accroding to Shiva Swarodaya.

4.4 Effects of Mudra and Bandha, Siddhis.

Suggested Reading:

1. Iyengar, B. K. S. (1989). Ligth on yoga, Yoga Dipika. London: UNWIN paperbacks.
2. Kappmeir, K. L. & Ambrosihi, D. M. (2006). Instructing hata yoga. Champaign: Human kinetics.
3. Alice, C. (2000). Yoga for sports. Chicago: CB.
4. Sawmi Kuvalayanand (19930). Asanas. Lonavla: Kaivalayadham.
5. Tiwari, O. P. (2002). Asanas why & how?. Lonavla: Kaivalayadham.
6. Shivananda yoga Vedanta centre (1998). Yoga mind & body. London: D. K. paperbacks.

COURSE 9: Modern trends in physical education & sports

Objectives:

1. To introduce the students to the latest trends in physical education & sports.
2. To understand the basic concepts & terminologies in sports & physical education.
3. To acquaint to the concept of adapted physical education.
4. To understand the movement skills, patterns & its development

Unit1: Foundations of physical education

1.1 Understanding human movement.
- 1.1.1 Planning and conducting movement experiences
- 1.1.2 Body awareness
- 1.1.3 Qualities of movement

1.2 Fundamental movement skills
- 1.2.1 Planning and conducting fundamental movement skills.
- 1.2.2 Loco motor skills
- 1.2.3 Non loco motor movements
- 1.2.4 Manipulative skills

1.3 Fitness and movement efficiency
- 1.3.1 Fitness- implementing health related physical fitness
- 1.3.2 Posture and Body Mechanics

Unit2: Adapted physical education and sports

2.1 An introduction to adapted physical education and sports
- 2.1.1 Meaning.
- 2.1.2 Planning: purpose, aims, goals and objective.

2.2 Measurement, Assessment and Program Evaluation.
- 2.2.1 Measurement and Assessment strategies.
- 2.2.2 Measurement and Assessment in adapted physical education
- 2.2.3 Test and Measurement for use in adapted physical education

Unit3: Individuals with unique needs

3.1 Intellectual disabilities, causes, cognitive development and assessment.

3.2 Behavioral disabilities, causes, general and specific approaches for physical education and sports.

3.3 Specific learning disabilities, meaning, recommendations for teaching physical educations and sports.

Unit4: Activities for individuals with unique needs

4.1 Health related physical fitness and physical activities.

4.2 Rhythmic movements and dance.

4.3 Developmental Consideration: Motor development and perceptual motor development.

Suggested Reading:

1. Beverly Nichols. (1986) Moving and Learning. Times Mirror/Mosby College Publishing.
2. Cratty, B.J. Adapted Physical Education in the Mainstream. (4th Edition) Love Publishing Company.
3. Houner, L.D. Integrated Physical Education- A guide for the elementary classroom teacher.
4. Winnick, J. P. (2005). Adapted Physical Education and Sports. Human Kinetics (4th Edition).
5. Pangrazi, R.P. and Dauer, V. P. Dynamics Physical Education for Elementary School Children. (11th Edition). Allyn and Bacon Publishing.

Course 10: Group practical

Objectives:

1. To be able to apply the knowledge of theory into practice.
2. To understand the practical implications of concepts.

This is a compulsory course of practical in the area of specialization. Each student has to undergo training and practical sessions in his/her choice of area. Each student must complete four practical assignments in the area of specialization. He/she must maintain a record of the practical assignments completed and submit it to the respective college teachers and get the documents certified.
Following is a list of practical assignments to be completed:

Area of Specialization	Practical Assignment 1	Practical Assignment 2	Practical Assignment 3	Practical Assignment 4
A) Sports Coaching	Developing Fitness & conditioning modules for various fitness factors	Advanced Coaching lesson in the sport selected in semester II	Designing a detailed scientific coaching plan for the sport selected in semester II	Teacher's Choice (Any other than the 3 assignments already mentioned)
B) Fitness Science	Assessment of physical activity levels using different techniques	Exercise prescription & schedule for weight loss & weight gain	Fitness assessment & exercise regime for the people with special needs or patients	Teacher's Choice (Any other than the 3 assignments already mentioned)

C) Sports Management	SWOT analysis, writing mission & vision statement, goals	Group discussion on any of the topics covered	Planning and conducting a recreational sports activity for corporate group	Teacher's Choice (Any other than the 3 assignments already mentioned)
D) Yoga	Conducting a yoga session for a group of people & individual (Lessons)	Detailed planning & applying various Stress management techniques in yoga	Special Yoga session planning for patients or people with special needs	Teacher's Choice (Any other than the 3 assignments already mentioned)

Course 11 (A11, B11, C11, & D11)

Course A11: Exercise Physiology

Objectives:

1. To enable the student to understand the physiological effect of Exercise on different system or/and on the body as a whole.
2. To enable the students to understand bioenergetics & role of energy systems in sports activities.
3. To enable the students to understand the role of nutrition & its relevance in energy production.

Unit1: Introduction

1.1 Definition, importance & role of exercise physiology
1.2 structure, type & function of muscle
1.3 Theories of muscular contraction
1.4 Work capacity under different environmental conditions

Unit2: Muscle activity

2.1 Bioenergetics & recovery process
2.1 Neuro-muscular junction
2.3 Coordination of muscular activity
2.4 Propioception & kinesthesis

Unit3: Physiological effects

3.1 Physiological changes due to exercise & training
3.2 Oxygen debt, forced expiratory volume, breathing capacity, & recovery rate
3.3 Blood supply & regulation of blood flow during exercise

3.4 Physiological aspects of development of various physical fitness components

Unit4: Sport nutrition
4.1 Balanced diet & appropriate diet before, during & after athletic performance
4.2 Effects of drugs, alcohol, & smoking on athletic performance
4.3 Energy cost of various sport activity & its assessment
4.4 Obesity & weight control

Suggested Reading:

1. Mathew, D. K. & Fox, E. L. (1976**).** Physiological basis of physical education & athletics**.** Philadelphia: UBS company
2. Pearce Evelyn. (1992). Anatomy & Physiology for nurses, Calcutta: Oxford University press.
3. Sedey, Rod R. (1992). Anatomy & Physiology. St.louis: Mosby
4. Tortora G.J.(1996). Introduction to Human Body. (4th Ed.) California: Addison Weslay.
5. Marief Eclaine N. (1984). Human Anatomy and Physiology (3rd Ed.). Cal:The Benjamin Cumming

Course B11: Fitness Nutrition

Objectives:
1. To understand the basic guidelines of nutrition for fitness.
2. To acquaint with the energy systems & their functions.
3. To understand the basic concept of body fuels & suggest basic practices.
4. To understand the techniques in nutrition assessment.

Unit1:
1.1 Introduction & guidelines to fitness nutrition
1.2 Impact of science & technology on the dietary habits
1.3 Digestion process
1.4 Nutritional disorders

Unit2:
2.1 Energy system
2.2 O2 utilization for exercise
2.3 energy transfer in body & in exercise

Unit3:
3.1 Body fuels
3.2 Role of water (Dehydration, Rehydration, & Over hydration)
3.3 Micro nutrients
3.4 Appropriate diet (Before, during, & after competition)

Unit4:
4.1 Body composition & weight management & nutrition
4.2 Energy balance
4.3 understanding food labels, food pyramid- RDA
4.4 Nutritional assessment techniques

Suggested Reading:

1. Manore, M. & Thompson, J. (2000). Sport nutrition for sport & performance. Champaign: Human kinetics.
2. Kern, m. (2005). Sports nutrition. Tayloy.
3. Driskell, J. A. & Wolinsky, I. (2006). Sports nutrition. New Delhi: Friends publications.
4. Groff, J. (2000). Advanced nutrition & human metabolism. Wadsworth.

Course C11: Event Management

Objectives:

1. To understand the event setting & managing sport events.
2. To acquaint with the macro issues such as structure, centralization / decentralization, the environment, technology and alliances and how these issues impact an individual's functioning.

Unit1:
1.1 creating an event – defining event, understanding mission, acquisition or creation
1.2 sanction, designing an event, checklist
1.3 developing budget – line items, expenses, revenues, cash flow

Unit2:
2.1 perfect market, site, negotiating site deal
2.2 writing the contract, venue checklist
2.3 sponsorship – meaning, sponsorship proposal, sales process, sponsorship contract
2.4 importance of relationship, sponsorship check list

Unit3:
3.1 knowing your customer, tickets, onsite revenue, sources
3.2 advertising event, customer checklist
3.3 player friendly tournaments, athlete contract, check list for creating player friendly event

Unit4:
4.1 broadcasting, getting on air, Television contract, show & checklist
4.2 creating team atmosphere – personnel
4.3 staffing, getting jobs done
4.4 checklists for event week

Suggested Reading:

1. Solomon, J (2002). An insider's guide to managing sporting events. IL: human kinetics.

Course D11: Yogic Therapy

Objectives:

1. To understand the concept of health, yoga, yogic nutrition.
2. To provide with the knowledge of therapeutic aspects of yoga & health and therapeutic aspects.

Unit1:
1.1 Concept of Swasthya (Healthy conditon) and Atur (diseased conditon) according to Ayurveda & yoga
1.2 Important Yoga practices as per one's Prakriti
1.3 Concept of Diet in yogic therapy

Unit2:
2.1 Patanjali Yoga Sutra: Darsanic bases of Yoga Therapy
2.2 Yoga & value education: Significance in Yoga Therapy
2.3 Yoga & Mental health: Psychological bases of Yoga therapy

Unit3:
3.1 Effect of various Yogic Asanas, *Pranayamic* practices & S*huddhi Kriyas* on the human body
3.2 Concept of Chitta and its modifications, descriptions of various types of mental afflictions leading to different diseases,
3.3 Remedial measures, direct and indirect handling of mind.
3.4 Modern Medicine and Yoga therapy for common ailments

Unit4:

4.1 Modern Medical and Yoga therapy principles and practices for diseases related to musculoskeletal system

4.2 Modern Medical and Yoga therapy principles and practices for diseases related to Respiratory system

4.3 Modern Medical and Yoga therapy principles and practices for diseases related to Cardiovascular & Digestive system

4.4 Modern Medical and Yoga therapy principles and practices for diseases related to Nervous systems

Suggested Reading:

1 Back volumes of Yoga-Mimansa journal - Kaivalyadhama.
2 Yoga therapy – Swami Kuvalayananda, kaivalyadhama.
3 Awasthi B.M. 1985 – Yoga Sutra of Dattatreya.
4 Bhatt Ratna Gopal 1910 – Yoga Siddhanta Chandrika.
5 Digambarji swami, Jha Pitamber, Sahai Gyanashankar (1984) Vasishtha Samhita – *Yoga Kanda*, Kaivalyadhama.
6 Digambarji Swami & Gharote M.L. 1997 – Gheranda Samhita
7 Digambarji Swami, Kokaje Raghunath Shastri 1998 Hatha Pradipika . Kaivalyadhama.
8 Divan ji P.C 1954 Yoga Yajnavalkya – B'bay Royal Asiatic society.
9 Harshe R.G. (1970) Shatkarma sangrah – Yoga Mimamsa
10 Kuvalayananda Swami & Shukla J.L (1957-58) Goraksha Shatakam, Yoga Mimamsa
11 Maheshananda Swami et al 1999 – Shiv samhita – Kaivlyadhama.
12 Mallik Kalyani 1984 – Amarauha Prabodha, Poona oriental book
13 Mallik Kalyani 1954 – Siddha Siddhanta Paddhati & others works of Hatha Yogis.
14 Reddy M Venkata (1982) Hatha Ratnavali
15 Shri Krishna Vallabhacharya- (1939) – Bhojraja Raja Martanda – vritti on Yoga Sutra.
16 Yogopanishads with commentary of Shri Brahmayogi. The Adyar library.
17 Shrimad Bhagwadgita – Dr. S. Radhakrishna.
18 Sankhya Karika – Ishwarakrishna.
19 Swadhyaya and Yog Therapy – Dr. D.R. Vaze

Course 12 (A12, B12, C12, & D12)

Course A12: Sports Nutrition

Objectives:

To understand the basic guidelines of nutrition & performance enhancements.
To acquaint with the energy systems & their functions.
To understand the basic concept of body fuels & suggest basic practices.
To understand the techniques in nutrition assessment & give suggestions.

Unit1:

1.1 Introduction & guidelines to sports nutrition
1.2 Impact of science & technology on sports nutrition
1.3 Digestion process
1.4 Nutritional disorders

Unit2:

2.1 Energy systems
2.1 Cardio-vascular integration & O2 utilization for exercise
2.3 energy transfer in anaerobic to aerobic exercise

Unit3:

3.1 Body fuels
3.2 Role of water (Dehydration, Rehydration, & Over hydration)
3.3 Micro nutrients
3.4 Appropriate diet (Before, during, & after competition)

Unit4:

4.1 Body composition & weight management
4.2 Energy balance
4.3 RDA, understanding food labels & specifications
4.4 Nutritional assessment techniques

Suggested Reading:

1. Manore, M. & Thompson, J. (2000). Sport nutrition for sport & performance. Champaign: Human kinetics.
2. Kern , m. (2005). Sports nutrition. Tayloy.
3. Driskell, J. A. & Wolinsky, I. (2006). Sports nutrition. New Delhi: Friends publications.
4. Groff, J. (2000). Advanced nutrition & human metabolism. Wadsworth.

Course B12: Personal training & sports conditioning

Objectives:

1. To introduce to the leaderships in fitness industry.
2. To understand the attributes of fitness leaders.
3. To understand the functions of personal trainer.
4. To understand the principles of sport training & prescribe guidelines for fitness development.

Unit1:

1.1 Effective leadership for health & fitness, role model
1.2 types of fitness leaders
1.3 attributes & roles of personal trainer
1.4 Certifications on personal training

Unit2:

2.1 factors influencing exercise adoption, marketing & motivational strategies for personal trainer
2.2 methods of behavior change – relapse prevention, fostering coping strategies
2.3 health fitness strategies

Unit3:

3.1 preventing injuries & controlling injury risk, factors contributing to injury risk
3.2 treating soft tissue injuries, fractures, wounds
3.3 CPR & emergency procedures
3.4 exercise implications in diabetics, heart patients, hypertensive, low back pain & epilepsy

Unit4:

4.1 fitness conditioning in athletes – identifying needs & understanding nature of sport,
4.2 principles of sports training
4.3 training – speed, agility, power, coordination
4.4 modern trends in sports conditioning

Suggested Reading:

1. Howley & Franks (1997). Health fitness instructor's handbook (3rd Ed.) IL: Human kinetics
2. ACSM (1998) ACSM's resource manual for guidelines for exercise testing & prescription (3rd Ed.) Lippincott, Williams & Wilkins
3. Durstine & Moore (2003) ACSM's exercise management for person's with chronic diseases & disabilities (2nd Ed.) IL: Human Kinetics

Course C12: Finance & Sports Marketing

Objectives:

1. To introduce the basic marketing concepts & financial implications in management.
2. To understand the role of advertising, and consumer behavior, strategic planning and the marketing of sport.
3. To gain knowledge about sports, fitness and health as a consumer service.

Unit1:

1.1 Understanding markets, sports marketing, applying marketing concept
1.2 Sports marketing exchange process
1.3 Marketing challenges & opportunities
1.4 Structure of sport industry

Unit2:

2.1 Sports publics- external, intermedians, & internal
2.2 Sports product, sports market types
2.3 Sports participant- image formation
2.4 Fan identification- levels, managerial factors, strategies, challenges to development of fan identification.

Unit3:

3.1 Motivations of sport consumer- motivation construct measurement development process.
3.2 Motivational typologies of sport consumptions
3.3 Brand management- impact of winning, merchandise revenue, attendance, media revenue & exposure, franchise value.
3.4 Measuring service quality in sport- GAP model of service quality, extended GAP model.

Unit4:

4.1 Sponsorship- Advertising, sponsorship categories
4.2 Design sponsorship packages.
4.3 Financial controls- master budget, applying concept- control method
4.4 Types of operating budget, capital budgets.

Suggested Reading:

1. Brooks, C.M. (1994). Sports marketing – competitive business strategies for sports. NJ: Prentice hall
2. Milne G.R & McDonald, MA (2004). Sports marketing- managing the exchange process. MS: Jones & Bartlett publishing

Course D12: Yoga & wellness

Objectives:

1. To gain understanding in concept of health, yoga & wellness.
2. To understand the dimensions of wellness.
3. To understand the techniques of healing & recovery processes.
4. To gain knowledge of stress management techniques.

Unit 1:

1.1 Achieving personal health – defining health & wellness
1.2 models of health
1.3 Dimensions of health & wellness, health as positive wellness
1.4 Yoga & wellness achievement

Unit 2:

2.1 promoting wellness through mind body communication- homeostasis & health
2.2 Autonomic nervous system
2.3 Role of hormones, its role in wellness, control through yoga
2.4 Mind created illness, health & yoga

Unit 3:

3.1 Faith & healing, hypnosis & healing

3.2 Meditation for relaxation

3.3 image visualization

3.4 Stress- definition, stress activators

Unit 4:

4.1 reactions to stress activators, consequences of the reactions

4.2 understanding thoughts & emotions,

4.3 Developing coping strategies- defense mechanisms, coping with fears & phobias

4.4 Depression

Suggested Reading:

1. Edlin & Golanty Health & wellness (5th Ed.). MS: Jones & Bartlett Publishers
2. Iyengar, B. K. S. (1989). Ligth on yoga, Yoga Dipika. London: UNWIN paperbacks.
3. Kappmeir, K. L. & Ambrosihi, D. M. (2006). Instructing hata yoga. Champaign: Human kinetics.
4. Alice, C. (2000). Yoga for sports. Chicago: CB.
5. Sawmi Kuvalayanand (19930). Asanas. Lonavla: Kaivalayadham.
6. Tiwari, O. P. (2002). Asanas why & how?. Lonavla: Kaivalayadham.
7. Shivananda yoga Vedanta centre (1998). Yoga mind & body. London: D. K. paperbacks.

COURSE 13: Professional preparation & curriculum design

Objectives:

1. To provide foundation of profession, its criteria.
2. To understand the various perspectives of profession.
3. To understand the principles & process of professional development.

Unit 1: The profession

1.1 Meaning, criteria & evaluation of profession

1.2 A professional & professionalism in physical education & sports

1.3 Physical education as a profession

1.4 Legal regulation of profession

Unit 2: Professional preparation

2.1 Historical perspectives

2.2 Policy perspectives

2.3 Theoretical perspectives

2.4 Nature & content of professional preparation programmes

Unit 3: Professional development

3.1 Meaning & process

3.2 Growth on the job- in service concept

3.3 Self appraisal & parameter influencing self appraisal

3.4 Guiding principles & professional relations

Unit 4: Curriculum

4.1 Meaning, importance & fundamental principles of curriculum planning

4.2 Writing the curriculum guide

4.3 Physical education curriculum models

4.4 Implementing the physical education curriculum

Suggested Reading:

1. Kiran Sandhu (2004**).** Professional preparation and career development in physical education and sports**.** New Delhi: Friends publication.
2. Kiran Sandhu (2004). Trends and developments in Professional preparation in physical education and sports**.** New Delhi: Friends publication.
3. Barrow, H. M. (1983). Man & movement (3rd Ed.). Philadelphia: Lea & Febiger.
4. Buchor, C. A. & Wuest, D. A. (1987). Foundations of physical education and sports**.** St. Louis: Times mirror / Mosby college publication.
5. Kelly, L. E. & Melograno, V. J. (2004). Developing the physical education curriculum**.** Champaign: Human Kinetics.
6. Pangrazi, R.P. & Dauer, V. P. (1995). Dynamic physical education for elementary school children (11th Ed.). Boston: Allyn and Bacon.
7. Pangrazi, R.P. & Dauer, V. P. (1985**).** Dynamic physical education curriculum & instruction for secondary school student**.** Minnesoty: Burgess publishing company.

8. Lombardo, B. & Wuest, D. (1994). Curriculum & instruction the secondary school physical education experience**.** St. Louis: Mosby
9. Kasat, G. & Karmarkar, A. K. (1996). Professional preparation in physical education and sports**.** Amravati: Kasat

Course 14: Research Dissertation

Objectives:

1. To enable to devise research projects.
2. To understand the research process & implement the theoretical aspects into practice.
3. To understand the process of analyzing research & using software.

This course consists of a research dissertation of 100 marks.

1. The candidate should conduct research on a topic in the chosen area of specialization only. The student has the liberty to start choosing and defining the research problem in the preceding semesters.
2. He/she can select and finalize the research problem after consulting with the advisor/ professor and after reviewing the literature.
3. Every candidate must prepare & submit a research proposal to the research advisory committee in the college.
4. Candidate will also present the research proposal to the research advisory committee, which will then suggest modifications or changes if needed.
5. On the approval of the research advisory committee the student will be allowed to submit the final research proposal and continue the research work in the selected research problem.
6. Every student must continue the guidance and consulting with the research supervisor allotted to them by the college & must submit the detailed progress reports from time to time.
7. A pre submission presentation & viva voce examination will be conducted before the final examination of this course.

8. The candidate must submit the final dissertation on or before the date stipulated by the college. Failing to this, the candidate will not be allowed to appear for the examination of this course.

Evaluation: The internal evaluation of this course will be done by the respective research supervisors allotted by the college. The internal evaluation will be done on the basis of the preparation & presentation of the proposal, the practical on using statistical software, developing research tools etc.

External evaluation will be done on the basis of the final presentation of the research project and the viva voce examination conducted at the end of the semester.

Course 15 Open course (OA15, OB15, OC15, & OD15)

Course no. 15 (OA15, OB15, OC15, OD15) will consist of an open course. The syllabus of the open course will comprise latest trends & latest research in area of specialization (OA15, OB15, OC15, and OD15). The syllabus & evaluation scheme of this course will be prepared by the teachers & approved by the college committee & 2 experts from outside.

Objectives:

1. To introduce to the latest trends & research in areas of specialization.

Course 16: Practical

Special course- Spoken English, Soft Skill, Computer Practical

This course will be taught through out the entire program. Internal evaluation of this course will be done through practical examination in all the four semesters. External evaluation of this course will be done through a practical examination in semester IV only.

Objectives:

1. To develop the communication skills & soft skills.
2. To understand the time, stress management techniques.
3. To enable to use the computers and internet.

Unit1:

1.1 Personality concept & importance of personality development program- presenting oneself- body language & dress code
1.2 Time management, self management, stress management, personal hygiene, grooming, & nutritional concept
1.3 Development of positive attitude, & boosting self confidence
1.4 Awareness of personal, community safety issues, community service providers & basic home sanitation & maintenance

Unit2: Soft skills

2.1 General English (spoken)
2.2 Writing (letters, applications, notice, minutes, poster, resume)
2.3 Voice culture, telephone manners
2.4 Handling group discussions, mock interviews, participation in debate & extempore.

Unit3: Life skills

3.1 Introduction, need, & importance
3.2 Self awareness & appropriate social interactions
3.3 Decision making & problem solving
3.4 Functional reading & research

Unit4: Computer practical

4.1 MS office
4.2 Working with internet – comminuting with e-mail, searching the web, & searching data online

4.3 Building web page with front page
4.4 Computer technology & securities, & application software

Suggested Reading:

1. UNESCO, Life skills in non-formal education. UNESCO & INC New Delhi.
2. www. Hs. Sportsylvania.k12.va.us
3. Shaffer, D. Social & personality development. Belmont, CA Wadsworth / Thomas learning.
4. Cartledge, G. teaching social skills to children & youth- innovative approach. Boston MA: Allyn & Bacon.