

Annexure No.	51 K
SCAA Dated	29.02.2008

BHARATHIAR UNIVERSITY COIMBATORE 641 046

DEPARTMENT OF PHYSICAL EDUCATION

P.G. DIPLOMA IN FITNESS MANAGEMENT

For Regular Candidates with effect from the Academic Year 2007-2008 Onwards

Regular

Need of the course

The fact remains that most programmes are organized and run outside of the schools and the most fitness instructors and leaders in these programmes have little training. People want to exercise in a way that provides no medical risk and also ensures that they reach their fitness goals quickly. This requires some experience, which is what certification is meant to ensure. With the fitness industry growing so rapidly, it becomes increasingly important that persons at all levels in the industry have specific training to do their jobs competently fitness.

Objectives of the course

- To produce well trained fitness instructors at the higher level
- To spread the message of positive health and fitness as taught in fitness exercise programme to people in a systematic and scientific manner
- To provide a proper perspective and insight into various aspects of resistance exercise in the barbells and weight machines and aerobic exercise to the trainees.

Regulations

Eligibility

Candidate for admission to the P.G. Diploma in fitness management (P.G.D.F.M.) should have passed the bachelors degree examination for a recognized university or accepted by the syndicate as equivalent there to subject to such conditions as may be prescribed there-of, the applicant should enjoy average level of health and be free from serious illness or defect. The applicant shall produce a medical fitness certificate from a registered medical practitioner specifying that the said applicant is fit to undergo intense practical training in all types of fitness programmes.

Duration of the course

The course is for a period of one academic year

Course of study

Candidates shall be permitted to do the P.G. Diploma course concurrently with their P.G. Degree. The course of study shall comprise theoretical instructions, supervised practical training in fitness exercises and practice teaching as well as systematic maintenance of lesson plans.

Distribution of Teaching Hours

There shall be ten papers in all. There shall be a total number of 360 actual contact hours in each semester. Each theory paper shall have 75 hours and practical paper 60 hours. There shall be eight theory and two practical papers.

Examinations

The examination shall comprise continuous internal assessment throughout the course period, followed by the university examinations at the end of the course. Candidates shall be required to register for the entire examinations at the first appearance. A candidate who does not pass the examination in any subject (a) shall be permitted to appear in such subject in the subsequent examinations. For theory internal Marks 20 and External Marks 55 shall be fixed and 25 marks internal 75 marks external for practical papers.

Schemes of Examination

The scheme of examination shall be as follows: There shall be eight theory papers of 75 marks each and two practical of 100 marks each . The practical examination shall also consist of Demonstration, Teaching and Viva-voce.

Sl No.	Title of the papers	Exam Hours	Internal Marks	Uni. External Marks	Total Marks
I Semester					
01	Basic Concepts of Fitness	3	20	55	75
02.	Introduction to Human Body Functions	3	20	55	75
03.	Kinesiology and Injury Management	3	20	55	75
04.	Health and Fitness Management	3	20	55	75
II Semester					
05.	Measurement and Evaluation in Fitness	3	20	55	75
06	Methodology of Fitness Training	3	20	55	75
07	Fitness Equipment Management	3	20	55	75
08	Nutrition and Weight Management	3	20	55	75
09	Practical – I, Demonstration of Exercise and Test	3	25	75	100
10	Practical – II, Teaching ability – Lesson plan	3	25	75	100
Total marks					800

Passing Minimum

A candidate shall be declared to have passed in each paper if he/she secures not less than 50% of the prescribed maximum marks for continuous internal assessment and the University Examination. He/She shall be declared to have passed the whole examination and qualified for the P.G. Diploma if he/She passes in all the eight papers.

Classification of successful candidates

Those who secure 60% and above of the maximum marks shall be declared to have passed First class. Those who secure 50% and above but below 60% shall be declared to have passed in Second Class.

Award of PG Diploma

A Candidate shall be eligible for the award of the P.G. Diploma if he/She has passed all the examinations prescribed thereof.

SEMESTER-I - PAPER – I PG DFM -2007-08 ONWARDS

BASIC CONCEPTS OF FITNESS

UNIT –I

Definition and meaning of fitness- Dimensions of fitness–Relationship between fitness / Wellness and Health - Benefits of Fitness – Role of Fitness among various populations and age groups – Misconceptions about fitness- National solutions for fitness problems .

UNIT –II

Categories of fitness :health Related fitness – Components of Health Related Fitness –Muscular strength and Endurance- Flexibility –Cardio-respiratory endurance-Body competitions. Motor Related –Performance related fitness components-Speed, strength –Endurance-Agility – Power –co-ordination – reaction time. Eight Technology of Training :- Weight training –resistance training psychological techniques –therapeutic modalities –medical support – Skill Training- Dietary manipulation Technique – Nutrition supplementation

UNIT –III

Factors influencing fitness –(Age - Sex – Climate – Diet – Exercise and training-Types of exercises used up in fitness -Aerobic -Anaerobic -Isometric – Isotonic- Isokinetic- Stretching - Agility - Balancing - Types of exercise programming for -Aerobic Conditioning - Strength - Resistance Training -Suppleness and Speed Conditioning .

UNIT –IV

Preparing for fitness programme – General Guideline of Fitness programme. Facts to consider before beginning physical activity - During physical activity – Physical activity in the heat , cold and other environments.

UNIT –V

Using self management skills to adhere to Healthy life style behaviors changing - Life style to promote healthy life- Record keeping –planning meals and snacks –Establish support system-Behavior as well as out come oriented goals - Avoiding self –Defecting behaviors –Designing a Record system changing un healthy eating Patten – committing to life large maintenance. – Theories and models Associated with Healthy lifestyle Adaptation.

Reference

1. Havley E. T. and Franks B . D. (1997) Health Fitness instructions handbook . Third edition . Human kinetics Champaign Illinois .
2. Carry Egger , Nigel champion and Allan Bolton compiled buy the fitness header’s handbook A& C black London .
3. Thompson C.W. and R.T. Floyd (1994) manual of structural Kinesiology . Twelfth edition . Human kinetics, Champaign Illinois
4. Uppal . A.K. (2004) Physical Fitness and Wellness Friends publications India.
5. Kumar . R., Meenal Kumar. Dr (2004) Guide to total Fitness or body and mind.
6. Gordon Edlin, Eric Golanty ,. Kelli McCormack Brown(1997) Essentials for Health and Wellness.
7. De Vries Herbert (1962) : “Evaluation of static stretching procedures for improvement of flexibility” : Research Quarterly , May . 1962
8. Fukuchima Sho (1980) : “ Physical Conditioning “, International Gymnast, May.
9. Fox E : Physical Training methods and effects , 1971 , Orthop, Clin. N.Am . 8(3), 545.
10. Chopra , R.L. (1983) : “ Socio – Economic aspects of physical fitness,” Report and papers on orientation course inscientific aspects of physical fitness.
11. Gordon Edlin, Eric Golanty ,. Kelli McCormack Brown(1997) Essentials for Health and Wellness.

SEMESTER-I - PAPER – II PG DFM- 2007-08 ONWARDS

INTRODUCTION TO THE HUMAN BODY FUNCTIONS

UNIT –I

Constructional Units: Structure and properties of cell-Tissues –Organs- Systems. Frame work of human body-classification of bones-Axial skeleton – Appendicular skeleton and their function-Classification of Joints: Ball and socket joint–Hinge joint-Gliding joint –Pivot joint – Saddle joint – Condyloid joint.

UNIT –II

Operational Lines: Circulatory system – Structure and function of the Heart-circulation of Blood-Systemic circulation – Pulmonary circulation- portal circulation –Coronary circulation –Blood pressure –pulse.

Respiratory system: Respiratory Passage-Structure and function of the lungs –Exchange of Gases –Mechanism of respiration.

UNIT –III

Digestion and Excretion: structure and functions of digestive system –Juices secreted in the digestive system - Process of digestion and absorption. Excretory system – Skin - Structure and function of skin - Heat and water formation – Role of skin in water and heat removal .structure and function of kidneys.

UNIT –IV

Endocrine system –Location and function of the endocrine glands-Pituitary – structure and function of pituitary gland – Thyroid and function of Thyroid gland – Para thyroid and Function of parathyroid gland-Adrenal gland-Sex Glands Islands of Langerhons.

UNIT –V

Communication line : Nervous system –Structure and function control nervous system –Brain structure – Functions of the various parts of the brain-cerebrum-cerebellum, medulla oblongata – Autonomic Nerve system –para sympathetic and sympathetic Nerve system –Reflex arc –Reflex action.

Reference:

1. Pearce Ecelyn C. Anatomy and physiology for Nurses, Oxford University press, Kolkatta 1978.
2. Donnelly, Joseph.E. 1990 Living Anatomy, Champaign, Illinois; Kumaran Kinetic books.
3. William Peter. L. Gray's Anatomy. Edinburgh; Churchill livingstone 1980.
4. Charles M. Tipton, ACSM'S Advanced Exercise Physiology, www.acsm.org, Lippincoh williams & Wilkins
5. Lany G. shower(1981) Essentials or Exercise physiology, subject publication
6. Costill, D.L ., Coyle , E.G . Fink , W.F., Lesmese, G.R and Witzmann, F.A(1979) : “ Adaptations in skeletal muscle following strength training ,” J.Appl.Physiol. 46 – 96 .
7. Clarke David, H. (1975) ; Exercise physiology , Prentice Hall inc., Engle wood cliffs , New Jersey.
8. Bass, A.L.: Treatment of muscle , tendon and minor joint injuries in sport, Proc, Roy,Soc .Med., 62,920,1969.
9. Stanley P, Brown, Wayne K. Miller. Jane M. Eason (1978) Exercise physiology basic of Human movement in health and disease.
10. Scott .K. (1976) Powers Edward T. Howley Exercise Physiology theory and Application to Fitness and Performance.

SEMESTER-I - PAPER – III PG DFM- 2007-08 ONWARDS

KINESIOLOGY AND INJURY MANAGEMENT

UNIT –I

Definitions, objectives and need and importance of knowledge of Kinesiology for fitness instructor - major body articulations – structure and functions of articulations- terminology of various types of Fundamental body movement in human- Fundamental position and Kinesiology position – Plains and axis of the body.

UNIT –II

Muscles of the head and neck-Muscles of mastication – Muscles of the shoulder Griddle – Muscles of the Arm : upper arm – Fore arm muscles - Muscles of Hand – Muscles of the thorax - muscles of the abdomen - Muscle of the back-Muscles of the Gluteus region - Muscle of the thigh – Muscles of lower case – muscle of ankle and foot.

UNIT –III

Types of exercise : Calisthenics exercise – Mobility exercise – Stretching exercise – Static –Dynamic –PNF stretching – strengthening Exercise : - Isotonic – isometric - Isokinetic – Aerobics Exercise – Walking – jogging - Running – Skipping- cycling –swimming - Tread Mill running - Agility exercise co-ordination Exercise-Balancing Exercise –Plyometric exercises.

UNIT –IV

Need and importance of the study of injuries in the field of fitness. Prevention of injuries during fitness exercise programme. Common Injuries: Diagnosis and management of skin injuries – Abrasion, laceration, blisters -puncher, Muscle injuries : Strain – contusion - muscle cramp. Joint injuries: Sprain – Dislocation (Sub luxation – Luxaction) Joint contusion. Bones: - Fracture –Type of fracture –single

fracture- compound fracture - complicated fracture – Green stick – Communicated fracture and Impacted fracture. Inflammations and infections.

UNIT –V

Management of injury to the special population - exercise and children – Exercise and older Adults - Exercise and coronary Heart Disease-Exercise and obesity - Exercise and Diabetes - Exercise, Asthma and pulmonary diseases Exercise for pregnancy women – Exercise for back pain.

Reference:

1. Luttgens, Kathryn, Hlega Deutsch and Nncy Hamilton; Kinesiology; Scientific badid of human motion, Dunbuque; IA; W.M.C . Brown communication Inc. 1992.
2. Thimpson, Elern. W. and R.T. Floyd; Manual of structural Kinesiology, St, Louis Morby 1994.
3. Prentice, William E. therapeutic Modalities sports medicine , St. Louis publishing 1990.
4. Dr. R.G. Venkara Reddy (2005) Sports injuries Prevention and control
5. Jeffrey K. Riffer(1985) Sports and Recreational injuries.
6. Vivian Grisogono, John Murray (1984) sports injuries A self –help guide.
7. Corrigan, A.B.: Sports injuries , Hosp. Med., 2,1328, 1968.
8. Crompton B.A and Tubes N. (1977) A survey of sports injuries in Brimingham, Br .J.Sports Med.11, 12.
9. Devas , M.B. (1969) TSress fractures in athletes . Proc. R.Soc .Med .62,933.
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SEMESTER-I - PAPER – IV PG DFM- 2007-08 ONWARDS

HEALTH AND FITNESS MANAGEMENT

UNIT –I

The management process: Definition, need .importance and functions of management - principles of management – sports management – categories of sports management- competencies of fitness management – management of fitness centers.

UNIT –II

Management of programme, facilities, equipment and supplies. Programme management – instructional management – selection and purchase of equipments – maintenance of equipments and supplies. Financial management – budget organization. Source and methods of fund raising –budget accounting and audits.

UNIT –III

General guidelines for personal exercise prescription - Personal physical fitness programme – general principle of training – home based fitness programme - Aerobic fitness - Prescription for aerobic exercise – modes of aerobic exercise – Aerobic fitness – Increasing your Aerobic endurance- Anaerobic fitness : meaning – Aerobic exercise – Testing your anaerobic fitness - increasing your Anaerobic fitness – combining aerobic and anaerobic energy system - Intensity – Duration-frequency – increasing intensity, Duration and frequency – exercise prescription endurance exercises and equipment : Aerobics – agility exercise - Arm ergometry –Aqua aerobics – Aqua Jogging – Bicycling - Rope Jumping – Running machine-Stairs - Stepping machine(Stair master) - Treadmill – versa climber.

UNIT –IV

Prescription for flexibility; principles of flexibility exercise – types of flexibility - Mobility exercise. Mobility exercise of Head and neck - Shoulder girdle - shoulder joint - Elbow joint - wrist joint - Hip joint - knee joint - Ankle joint.

Prescription for flexibility: Principles of flexibility exercise Types of flexibility – Flexibility exercise for Head and neck – Shoulder girdle – upper arm muscles – Fore arm muscle – wrist muscle-upper back muscles – lower back muscle – chest muscle - Abdomen - front and Back Thigh muscle –lower leg muscle

Unit –V

Safe physical activity and exercise – Individual prescription – mass prescription – Guidelines for exercising safely – common Hazardous exercises that can be availed –The Swan – back extension – back arching – donkey kick – Double leg lift – Reverse curl – knee – to – nose – windmill – Neck circling – straight – leg and bent knee- Sit – Ups leg Hag .

Reference:

1. Siedentop Daryl, 1994 Introduction to physical education fitness, and sport, Mayfield publishing company; Mountain, view, California.
2. Williams H. Melvin 1995 Life time fitness and wellness . Brown publications Dubugue.
3. Roy.S.S. 1991, 2002,. Sports Management. Friends Publications (India).
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5. Jeanette winter son (1986) fit for the future. British Library cataloguing in publication.
6. Mary Baker Eddy (1994) Science and Health with key to the scriptures.
7. Walker, slotlar (1997) Sports Facility Management Jones and Bahled publishers.
8. Edward T. Howley B. Dov Franks (1986) Health Fitness instructor's Handbook second edition.
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10. Anita Bean (1998) Food for Fitness.

SEMESTER-II - PAPER – V PG DFM- 2007-08 ONWARDS

MEASUREMENT AND EVALUATION IN FITNESS

UNIT –I

Meaning of the terms – tests, measurement and evaluation – need and importance of measurement in the field of fitness – The measurement of fitness – measurement of health fitness (AAHPERD Youth fitness test) Motor – performance fitness (AAHPERD health related physical fitness test - JCR test).

UNIT –II

Measurement of cardio vascular fitness – cardio vascular Cardio vascular Endurance –meaning and definition – Collagher and Browne Harvard step test – Turtle Pulse ratio test – Cooper’s 12 minutes run and walk test- 1.5 mile run test , 3 minutes step test 1 mile run test PACER Test – 3 Mile walk test Interpretation of Cardio vascular Endurance test .

UNIT –III

Measurement of muscular strength and endurance –Strength test – Rogers Strength and physical fitness test – Iso tonic test – pull ups test – Dip strength test – Bench Press test – Sit ups test Bench Squat test – Cross Weber minimum muscular test –Iso Metric Strength test – Tensiometer - Grip dynamometer – Back Leg lift dynamometer. Interpretation of strength test

UNIT –IV

Measurement of flexibility - factors affecting flexibility – the value of muscular flexibility – flexibility assessment techniques – modified Sit and Reach test Trunk extension test – Shoulder flexibility test – Hip extension test – Angle flexibility test – Knee joint flexibility test and Gonio meter – interpretation of the flexibility tests.

UNIT –V

Body composition assessment – techniques for assessing body composition – Skin fold thickness technique – Body mass index test – Under water weighing machine test – Girth measurement technique – Lean body mass and Ideal body weight determination – New York State posture rating tests, Wood Roof body alignment Test .

Reference:

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2. Barrow Harold Mc Rosemary Megce and Kathleen, A. (1989) Tritschler practical measurements in physical education and sports (4 ed) Philadelphia, Lea Febiger.
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METHODOLOGY OF FITNESS TRAINING

UNIT - I

Training : Meaning of Training – Basic Principles of training – The FITT principles –Frequency –Intensity –time –type. The five Rs. Principles : - Ranges of motion –Resistance –Repetitions –Rest-Recovery. Basic principles in training – Specificity –overload principal (load Precession —Reversibility. Points on Fitness and Training : Medical check up, selection of equipment. Breathing regulation selection of right exercise –over training –muscle bounders diet habits.

UNIT- II

Type of Training Methods : Weight training – Circuit training – General training –specific circuit interval training-Anaerobic and aerobics sped training-intensity –Frequency –Density. Fartlek training-polymeric training- cross training-concurrent training of various combinations- single bout and multiple bout exercise training – Aerobic training – Intensity –Duration-frequency type of exercise

UNIT-III

General Fitness and specific fitness –warming up-conditioning exercise-Health habits-Rest –Recreational Needs - Periodisation in training: - Single Periodisation – Double Periodisation and multiple Periodisation. Pre-season, completion season-off season-Factors Determining season-preparation of schedules –planning : Long Term plan-short term plan- macro cycle-meso cycle and micro cycle.

UNIT - IV

Theory and practice of strength development : - Structure –Maximum strength –Elastic strength –Strength endurance – Absolute strength-relative strength –Isotonic-Isometric-Isokinetic training.

Designing weight training Programme : Development of strength for static muscle activity –Development of strength for Dynamic muscular activity –

Development of strength by eccentric activity –Development of strength by Ballistic activities- Development of maximum strength –Development of Elastic strength – Development of strength endurance-Unit construction for strength – Development – Micro cycle construction.

UNIT- V

Modern Resistance Training systems :- Constant resistance – Variable resistance –Accommodating resistance –Isotonic Training-Isometric training.

Isometric training :- Modern Techniques of over load: Blitzing –forced repetitions – cheating-Negative repetition –pre exhaustion –Pyramid training –Super set-Compound repetition-Triple drop.

Reference:

1. Batman P. and Van Capelle M.(1995) The Exercise Guide to Resistance training . FITAU publications. Australia.
2. Fleck S.J.and Kraemer W.J. (1997) Designing Resistance Training Programs. Second Edition. Human Kinetics,
3. Dick, Frank W. (1980) sports Training Principles. London Lepus Books
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SEMESTER-II - PAPER –VII PG DFM- 2007-08 ONWARDS

FITNESS EQUIPMENTS MANAGEMENT

UNIT :- 1

Intrastructure facilities of the fitness center:- Construction of fitness center-size-measurements - facilities of floor exercise- facilities of aerobics -facilities for free weight exercise - facilities for Cardiac exercise .- facilities for fitness evaluation facilities for Diet therapy - facilities for medical-aid. Audio-visual facilities – Reception room-Dressing room – facilities showers and toilet.

UNIT:- II

Weight Training equipment. Weight plates Barbells – dumbbells –Exercise bikes, treadmills, rowing machines. Skipping ropes, Elastic strap. Weight machines – Advantages of free weights – advantages of machine systems. Weight lifting barbells and weights power lifting equipments. abdominal board. Push-up plus – steppers – wall – pulley – floor mats, weighted belts.

UNIT ;:- III

Weight Machines, Bench press, shoulder press, seated bench press. lat pulldown, leg press, leg extension Heel raise, low pulley - peck duck- Lateral raise- Leg extension- Leg curl- hip adductor- hip abductor- roman bench- preacher curl- Half squat – smith machine – wrist curl -abdominal conditioner – Multi- gym: equipments: Two station Multi gym (with single weight) lat – pull down and low pulley – leg extension and leg curl.

UNIT:-V

Criteria to be followed in the selection of equipment: - facts about quacks – facts about passive exercise and passive devices – weight belts – **nonporous garments** – body wraps – Elastic tights – vibrating tables and pillows.

Reference:

1. Howley .E.T and Franks B.D. (1997) Health Fitness Instructor's handbook. Third Edition. Human Kinetics, Champaign Illinois.
2. Lindle J. (1995) Aquatic Fitness Professional Manual. Aquatic Exercise Association, Florida.,
3. Pyke F.S. (1991) Better Coaching – Advanced Coach's Manual. Australian Coaching Council.
4. Thomas D. Fathey Gayle Hutchinson, (1992) weight training for women. Mayfield publishing company mountain view, California London.
5. Steven Roy and Richard Irvin, Sports medicine prevention, evaluation management and rehabilitation; New Jersey. Prentice Hall inc. 1983.
6. Edward T. Howley B. Dov Franks(1986) Health Fitness instructor's Handbook second edition.

SEMESTER-II - PAPER – VIII PG DFM- 2007-08 ONWARDS

NUTRITION AND WEIGHT MANAGEMENT

UNIT-I

Food guide pyramid : Functions of food – composition of food : Carbohydrate, proteins - fats - Vitamins- Minerals-Water-Fast food-Vegetarian Diet-Balance diet - Nutritive values of food stuffs. Nutrition During Training-Recommended: Dietary allowance and daily values. Nutrient analysis.

UNIT-II

Diet supplementation, diet modification. Eating disorders – diet and metabolism – High fat Diet – Carbohydrate or Glycogen loading – Weight control for weight matched competitions – abuses of starvation, growth arrest and dehydration.

UNIT-III

Body Composition and Weight Control : Over weight – Over fat - Obese- Physiological effects of being over weight - methods of determining estimated percent body fat: Skin fold test - Body mass index - waist to Hip ratio –Hydrostatic weighting – Grith measurement technique - Electrical Impedance method - Weight control fads and fallacies - body warps - Diet pills and Aids –Diet programming-Fasting.

UNIT-IV

Methods of weight management : Principles of weight management and fat control: Diet and fat control – physical activities - Combination of physical activity and diet control. Keeping records of caloric expenditure of various physical activities.

UNIT-V

Stress and Tension : Meaning - sources and appraisal of Stress and Tension –
Stress management Techniques –Exercise and stress -Physical activity for stress
reduction-relationship between stress and Health –Aging stress and health -
Maintaining Health stress levels –Teaching people to Relax.

Use and abuse of drugs : Effectiveness of drugs –over use of drugs –
consequences of drug abuse- stimulants – Amphetamines – Depressions – Cocaine -
Caffeine-Tobacco and Alcohol.

Reference:

1. Clark N (1997) Nancy Clark's Sports Nutrition Guidebook. Second Edition.
Human Kinetics, Champaign Illinois.
2. Havley E. T. and Franks B . D. (1997) Health Fitness instructions handbook .
Third edition . Human kinetics Champaign Illinois .
3. Heyward V.H. Advanced Fitness Assessment Exercise Prescription. Second
Edition . Human Kinetics, Champaign Illinois 1997 .
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Education, recreation and health, Englewood cliffs, N.J.: Prentice Hall, Inc.
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SEMESTER-II – FITNESS PRACTICAL – I PG DFM- 2007-08 ONWARDS

UNIT: - I

CALISTHENICS / FREE EXERCISES

01. Arm swinging – forward – downward – side wards and circling backward
02. Trunk bending forward & backward
03. Leg-(Hands on hips) Hopping with leg swinging sideways
04. Arm circles with hops
05. Alternate toe touch
06. Jumping jack
07. Prone alternating arm and leg raises
08. Prone alternating arm raises
09. Pelvic raises
10. Squat thrusts
11. Running in place
12. Push—up- or dip
13. Knee push – ups
14. Dips form bench
15. Pull – ups
16. Sit – ups
17. Leg rises
18. Trunk curl-ups
19. Trunk twister
20. Trunk side bends
21. Trunk raises
22. Half squats
23. Squat jumps
24. Inner thigh lift
20. Knee hug

UNIT – II

STRETCHING EXERCISES.

01. Heel cord stretch
02. Adductor stretch
03. Hamstring stretch
04. Quadriceps stretch
05. Chest stretch
06. Trunk rotations and lower back stretch
07. Upper and lower back stretch
08. Triceps stretch
09. Deltoid stretch
10. Internal rotation stretch (shoulder)
11. External rotations stretch (shoulder)
12. Piriformis stretch
13. Iliopsovas stretch
14. Upper calf stretch
15. Lower calf stretch
16. Upper back stretch
17. Lower back stretch
18. For arm and wrist stretch
19. Groin stretch
20. Legs apart seated hamstring stretches.

UNIT: - III

A) BARBELL EXERCISES

01. Shoulder press
02. Bench press
03. Arm curl

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04. Reverse curl
05. Wrist curl
06. Wrist roll
07. Upright rowing
08. Bent over rowing
09. Bent arm pullover
10. Straight arm pullover
11. Triceps extension
12. Good morning
13. Trunk twist
14. Half squat
15. Heel raise
16. Dead lift
17. Hack squat
18. Side bends.

B) DUMBBELL EXERCISES

01. Shoulder press
02. One arm rows
03. Dumbbell flys
04. Lunges with dumbbells
05. Squats
06. Dumbbell curl
07. Triceps extension
08. Standing calf raise with dumbbell
09. Dumbbell laterals
10. Wrist curl
11. Supination
12. Pronation
13. Inward rotation of the shoulder
14. Outward rotation of the shoulder
15. Shoulder shrug

UNIT : IV

WEIGHT MACHINES

01. Lat pull down
02. Low pulley
03. Peck deck
- 04 Lateral raise
05. Bench press
06. Shoulder press
07. Leg curl
08. Leg extension
09. Leg press
10. Abdominal crunch
11. Hyper extension
12. Hip adductor
13. Hip abductor
14. Hack squat
15. Half squat
16. Roman bench
17. Abdominal conditioner
18. Dipping
19. Chinning
20. Leg raise

UNIT :- V

A) AEROBIC TRAINING EQUIPMENTS

01. Treadmill (Motorised)
02. Stationary Bicycle
03. Stepper

04. Rowing machine
05. Exercycle
06. Double burner
07. manual treadmill

B) AEROBIC EXERCISES

01. Walking
02. Jogging
03. Running
04. Swimming
05. Stepping on the bench
06. Skipping
07. Spot running
08. Side stepping

Reference:

- 1) Batman P. and Van Capelle M.(1995) The Exercise Guide to Resistance training . FITAU publications. Australia.
- 2) Fleck S.J.and Kraemer W.J. (1997) Designing Eesistsnce Training Programs. Second Edition. Human Kinetics,
- 3) Dick, Frank W. (1980) sports Training Principles. London Lepus Books

SEMESTER-II – FITNESS PRACTICAL – II PG DFM- 2007-08 ONWARDS

UNIT:- I

Fitness Evaluation: physical activity attitude assessment – assessing Health – disease Risk factors – calories expended in life style physical activities – nutritional analysis of various diet.

UNIT :- II

Calculating Target Heart rates for moderate Physical activities using percentage of Heart Rate Reserve Method – Evaluating Cardiovascular fitness.

UNIT :-III

Evaluating Flexibility – planning and logging stretching exercises. Evaluating muscle strength – Evaluating muscular endurance – planning and logging muscle fitness exercises free weights or resistance machines and calisthenics care of the back and neck Evaluating body fatness – skin fold measurements – Height / weight and circumference measures.

UNIT :-IV

Basic principles and methods relevant to practice teaching of fitness activities.

UNIT :-V

Preparation by the students systematic lesson plans for the physical activities/exercises taught during the course and daily maintenance of a journal with plans for lesson. Actual conduct of five fitness lessons in the class and another five lessons in fitness centers under proper supervision and competent evaluation.

Reference:

1. Batman P. and Van Capelle M.(1995) The Exercise Guide to Resistance training . FITAU publications. Australia.
2. Fleck S.J.and Kraemer W.J. (1997) Designing Resistance Training Programs. Second Edition. Human Kinetics,
3. Dick, Frank W. (1980) sports Training Principles. London Lepus Books
