Syllabus

PAPER 1

EXERCISE PHYSIOLOGY FOR SPORTS AND FITNESS

Unit 1

Physiology of Exercise - Fuels for Exercise - Carbohydrates -Fats - Proteins - High-Energy Phosphates Bioenergetics - Anaerobic ATP Production - Aerobic ATP Production - Aerobic ATP Tally - Physical Fitness - Efficiency of Oxidative Phosphorylation - Control of Bioenergetics - Control of ATP-PC System - Control of Glycolysis - Control of Krebs Cycle and Electron Transport Chain - Interaction Between Aerobic/Anaerobic ATP Production - Exercise Metabolism - Energy Requirements at Rest - Rest-to-Exercise Transitions - Recovery from Exercise: Metabolic Responses - Metabolic Responses to Exercise: Influence of Physiology of Exercise - Professional Societies and Research Journals - Translation of Exercise Physiology to the Consumer

Unit 2

Control of the Internal Environment Homeostasis: Dynamic Constancy Control Systems of the Body - Nature of the Control Systems - Negative Feedback - Positive Feedback - Gain of a Control System - Duration and Intensity - Short-Term, Intense Exercise - Prolonged Exercise - Incremental Exercise - Examples of Homeostatic Control - Regulation of Body Temperature - Regulation of Blood Glucose - Stress Proteins Assist in the Regulation of Cellular Estimation of Fuel Utilization During Exercise - Factors Governing Fuel Selection - Exercise Intensity and Fuel Selection - Exercise Duration and Fuel Selection - Interaction of Fat/Carbohydrate Metabolism - Body Fuel Sources - Hormonal Responses to Exercise Neuroendocrinology - Blood Hormone Concentration - Hormone-Receptor Interaction - Homeostasis - Exercise and Homeostatic Control - Bioenergetics - Cell Structure - Biological Energy Transformation - Cellular Chemical Reactions - Oxidation-Reduction Reactions Enzymes

Unit 3

Skeletal Muscle: Structure and Function - Structure of Skeletal Muscle - Neuromuscular Junction - Muscular Contraction - Overview of the Sliding Filament Model - Energy for Contraction -Regulation of Excitation-Contraction Coupling - Fiber Types - Biochemical and Contractile Characteristics of Skeletal Muscle - Characteristics of Individual Fiber Types - Fiber Types and Performance - Alterations in Skeletal Muscle Due to Exercise, Inactivity, and Aging - Exercise-Induced Changes in Skeletal Muscles - Muscle Atrophy Due to Inactivity - Age-Related Changes in Skeletal Muscle - Muscle Actions - Speed of Muscle Action and Relaxation - Force Regulation in Muscle - Force-Velocity/Power-Velocity Relationships

The Nervous System: Structure and Control of Movement - General Nervous System Functions Organisation of the Nervous System - Structure of the Neuron - Electrical Activity in Neurons - Sensory Information and Reflexes - Joint Proprioceptors - Muscle Proprioceptors - Muscle Chemoreceptors - Reflexes - Somatic Motor Function - Vestibular Apparatus and Equilibrium - Motor Control Functions of the Brain BrainStem - Cerebrum - Cerebellum - Motor Functions of the Spinal Cord - Control of Motor Functions - Autonomic Nervous System - Exercise Enhances Brain Health - intermittent Exercise - Prolonged Exercise - Regulation of Cardiovascular Adjustments to Exercise -

Unit 4

Circulatory Responses to Exercise - Organization of the Circulatory System - Structure of the Heart - Pulmonary and Systemic Circuits - Heart: Myocardium and Cardiac Cycle - Myocardium - Cardiac Cycle - Arterial Blood Pressure - Factors That Influence Arterial Blood Pressure - Electrical Activity of the Heart - Cardiac Output - Regulation of Heart Rate - Regulation of Stroke Volume - Hemodynamics - Physical Characteristics of Blood - Relationships Among Pressure, Resistance, and Flow - Sources of Vascular Resistance - Changes in Oxygen Delivery to Muscle During Exercise - Changes in Cardiac Output During Exercise - Changes in Arterial-Mixed Venous O_2 Content - During Exercise - Redistribution of Blood Flow During Exercise - Regulation of Local Blood Flow During Exercise - Circulatory Responses to Exercise - Emotional influence - Transition from Rest to Exercise - Recovery from Exercise - Incremental Exercise Control of Ventilation - Ventilatory Regulation at Rest - Respiratory Control Center - Ventilatory Control During Submaximal Exercise - Ventilatory Control During Heavy Exercise - Lungs Adaptation to Exercise Training - Pulmonary System Limiting Maximal Exercise Performance - Acid-Base Balance During Exercise - Acids, Bases, and pH - Hydrogen Ion Production During

Exercise - Importance of Acid-Base Regulation - During Exercise - Acid-Base Buffer Systems - Intracellular Buffers - Extracellular Buffers - Respiratory Influence on Acid-Base Balance - Regulation of Acid-Base Balance via the Kidneys - Regulation of Acid-Base Balance During Exercise

Unit 5

Hormones: Regulation and Action - Hypothalamus and the Pituitary Gland - Thyroid Gland - Parathyroid Gland - Adrenal Gland - Pancreas - Testes and Ovaries -Hormonal Control of Substrate Mobilisation During Exercise - Muscle-Glycogen Utilisation - Blood Glucose Homeostasis During Exercise - Hormone-Substrate Interaction - Temperature Regulation - Overview of Heat Balance During Exercise - Temperature Measurement - During Exercise - Overview of Heat Production/Heat Loss - Heat Production - Heat Loss - Heat Storage in the Body During Exercise - Body's Thermostat-Hypothalamus - Shift in the Hypothalamic Thermostat Set Point - Due to Fever - Thermal Events During Exercise - Heat Index-A Measure of How Hot It Feels - Exercise in the Heat - Sweat Rates During Exercise - Exercise Performance in a Hot Environment - Gender and Age Differences in Thermoregulation - Exercise in a Cold Environment - Cold Acclimatization

Unit 6

The Physiology of Training: Effect on V02 Max. Performance, Homeostasis. and Strength - Principles of Training - Overload - Specificity - Research Designs to Study Training - Endurance Training and V02 Max - Training Programs and Changes In V02 Max - V02 Max: Cardiac Output and the Arteriovenous O2 Difference - Stroke Volume - ArteriovenousO2 Difference - Detraining and V02 Max - Endurance Training: Effects on Performance and Homeostasis - Biochemical Adaptations and the Oxygen Deficit - Biochemical Adaptations and the Plasma Glucose Concentration - Biochemical Adaptations and Blood pH - Biochemical Adaptations and Lactate Removal - Endurance Training: Links Between Muscle and Systemic Physiology - Peripheral Feedback - Central Command - Physiological Effects of Strength Training - Physiological Mechanisms Causing Increased Strength - Neural Factors - Muscular Enlargement - Concurrent Strength and Endurance Training - Respiration During Exercise Function of the Lung Structure of the Respiratory System - ConductingZone - Respiratory Zone - Mechanics of Breathing - Inspiration - Expiration - Airway Resistance - Pulmonary Ventilation - Pulmonary Volumes and Capacities - Diffusion of Gases - Blood Flow to the Lung - Ventilation-Perfusion Relationships - O2 and CO2 Transport in Blood - Hemoglobin and O2 Transport - Oxyhemoglobin Dissociation Curve - O2 Transport in Muscle - CO2 Transport

in Blood - Ventilation and Acid-Base Balance - Ventilatory and Blood-Gas Responses to Exercise - Rest-to-Work Transitions - Prolonged Exercise in a Hot Environment.

PAPER 2

PSYCHOBIOLOGY FOR EXCELLENCE IN SPORTS

Unit 1

Introduction to sport psychology - history of sports psychology - ethics in sports psychology - personality and the athlete - the structure of personality - theories of personality - psychodynamic theories - social learning theories - humanistic theories - trait theories - the measurement of personality - rating scales - unstructured projective procedures - Structured questionnaires - The credulous vs sceptical argument - personality and sports performance - athletes versus non athletes - developmental effects of athletic participation upon personality - personality sport type - Player position and personality profile - personality profiles of athletes differing in skill level - the female athlete - the interactional model - trait- state approach - psychological profile of the elite athlete - psychological profile of the elite disabled athlete - personality typing techniques and tests

Unit 2

Attention in sport - information processing - memory systems - measuring information - selective attention - Limited information processing capacity - attention narrowing - measuring attentional focus - attention focused training - types of attentional focus - thought stopping and centering - associative vs dissociative attentional strategies Anxiety and arousal in sport - neurophysiology of arousal - autonomic nervous system - Brain mechanisms - preferred state of arousal - defining anxiety and stress - measurement of anxiety - multidimensional nature of anxiety - Time-to-event nature of precompetetive anxiety - differential effect of somatic and cognitive anxiety on performance - intensity and direction issues - the sports grid - relationship between arousal and athletic performance - inverted U theory - drive theory - alternatives to inverted U theory

Unit 3

Arousal adjustment strategies - the Relaxation procedures - autogenic training - Progressive relaxation - meditation - biofeedback - hypnosis - arousal energising strategies - goal setting - pep talk - bulletin boards - publicity and news coverage - fan support - self activation - coach athlete and parent interaction - pre-competition workout Cognitive behavioural intervention in sport - coping strategies in sport - imagery in sport - mental practice as a form of imagery - theories of how imagery works - external and internal imagery - the Effectiveness of imagery in enhancing sports performance - measurement of imagery - developing imagery skills - cognitive behavioural intervention programs using imagery and relaxation - visual-motor behavioural rehearsal - stress inoculation training - stress management training - goalsetting in sport - psychological skills training for sport - psychological skills education

Unit 4

Causal attribution in sport - the attributional model - Fritz Heider's contribution - Dan Russell and Ed McAuley's contribution - Bernard weiner’s contribution - causal attribution

in competitive situations - internal and external attributions - gender differences in sport - egocentrism in attribution - attributional training

Motivation and self-confidence in sport - achievement motivation - models of self-confidence - gender and self-confidence - effects of external rewards on intrinsic motivation - developing self-confidence and intrinsic motivation in youth sport participants - individual athlete - the coach or teacher - the parent

Unit 5

Social psychology of sport - aggression in sport - theories of aggression - measurement of aggression - the catharsis effect - fan violence - effects of aggression on performance - situational factors in a sport setting - reducing aggression in sport - audience effects in sport - social facilitation - effect of interactive audience on performance - audience characteristics - team cohesion - measurement of team cohesion - determinants of team cohesion - consequences of team cohesion - developing team cohesion - leadership in sport - theories of leadership - coach athlete compatibility - geographical location and leadership opportunities - Counselling and Intervention strategies - Fundamentals of counselling

Unit 6

Psychobiology of sport and exercise - exercise psychology - psychological benefits of exercise - benefits of chronic exercise - treating anxiety and depression - theoretical explanations for the relationship between exercise and improve mental health - exercise adherence and determinants - Theories of exercise behaviour - fitness as a moderator of life stress - the immune system and exercise - social physique anxiety exercise addiction and eating disorders - staleness, overtraining and burnout in athletes - process leading to burnout - over training and mood disturbance - models of burnout - symptoms of and interventions for burnout - psychology of athletic injuries - psychologic predictors of athletic injury - interventions - psychological adjustment to injury - psychological factors influencing rehabilitation - drug abuse by athletes - psychophysiological effects of certain banned substances - combating drug abuse.

Sociology - Attention focus - leadership & personality attributes - applied sports psychology - motivational and behavioural aspects - sports tourism - motor qualities and its behaviour - nutrition related physical activities - psychology & scientific methods - research methods of psychology - development of human behaviour.

PAPER 3

PSYCHOBIOLOGY FOR FITNESS AND LIFESTYLE MODIFICATION

Unit 1

Introduction**,**Skill Acquisition levels of Performance Skill: From Beginners to Experts — Motor Development and Skill Acquisition during childhood and Adolescence — Attention — Augmented Feedback in Motor Skill Acquisition — Practice — An Integrative Modeling Approach to the study of Intentional Movement Behavior — Expert Performance in Sport and Dance: Psychological Characteristics of High-Level Performance, Modelling: Considerations for Motor Skill Performance and Psychological Responses

Unit 2

Exercise and Health Psychology — Using Theories of Motivated Behavior to Understand Physical Activity: Perspectives on Their Influence : Exercise Psychology - the Influence of Physical exercise on Psychological processes, Theory Of Planned Behaviour, Self-Efficacy Theory, Social Cognitive Theory, The Transtheoretical Model — Helping People Initiate and Maintain a more active Lifestyle: A Public Health Framework for Physical Activity Promotion Research:- Promoting Physical Activity, Personality typing, Behavioral assessment, therapy & Management

Unit 3

The Impact of Physical Activity Interventions — Physical Activity and Mental Health:- Anxiety Reduction following exercise, Anti-Depressants effects of exercise, The Serotonin Hypothesis, The Norepinephrine Hypothesis, Exercise and Stress Reactivity, Exercise and Positive Mood, the mental health model, exercise and Self-Esteem, Exercise and Cognitive Functioning — Psychology of Injury Risk and Prevention; Model of Stress and Exercise related Injury — Psychology of Injury Rehabilitation — A social-Cognitive Perspective of Perceived Exertion and Exertion Tolerance.
Stress Anxiety — Arousal and Performance — Self-Efficacy Beliefs of Physically Active Individuals— The Psychophysiology of Sport: A Mechanistic Understanding of the Psychology of Superior performance. Motivation:- Intrinsic and Extrinsic Motivation in Exercise: A review using the Hierarchical Model of Intrinsic and Extrinsic motivation — Achievement Goal Theory in Exercise — Attributions: Past, Present, and Future., Emotional intelligence, Pscychodrama, Psychotherapy.

Unit 4

Group Cohesion in Exercise — Psychological Techniques for Individual Performance — Goal Setting — Imagery in Exercise —Understanding and Enhancing Self-Confidence — Self Regulation: Concepts, Methods, Strategies in Exercise, Life Span Development, Moral Development and Behavior — Youth in Sport: Psychological Considerations — Physical Activity and Quality of Life
Understanding and Enhancing Self-Confidence in Fitness — Self Regulation: Concepts, Methods, Strategies in Exercise and Life Span Development, Moral Development and Behaviour in Fitness — Obesity managemnt, weight loss counseling, Rehabilitation counseling - Youth in Fitness: Psychological Considerations — Physical Activity and

Quality of Life — Exercise and Health Psychology Using Theories of Motivated Behaviour to Understand Physical Activity: Perspectives on Their Influence — Helping People Initiate and Maintain a more active Lifestyle: A Public Health Framework for Physical Activity Promotion Research — Physical Activity and Mental Health — Psychology of Injury Risk and Prevention — Psychology of Injury Rehabilitation and returning to fitness — A social-Cognitive Perspective of Perceived Exertion and Exertion Tolerance Current Trends & Future Directions in Fitness Psychology

Unit 5

Psychology and pain management - physical - mental - emotional - Spiritual aspects.
Psychobiology and Endocrinology - Pathology of Diabetes mellitus - Type 1 & type 2 DM - Exercise intervention/rehabilitation in Diabetics - Counselling for diabetics under exercise intervention - Pathology of Cardiovascular diseases - Coronary Heart Disease, Myocardial Infarction - CABG, Re-vascularisation procedures - Stroke - Exercise intervention/rehabilitation in Cardiac patients & cardiovascular patients, Counselling in Cardiac patients in Exercise Rehabilitation - Pathology of Osteoporosis - Exercise intervention/rehabilitation in Osteoporosis, Psychological counselling in Osteoporosis - Other Lifestyle disorders & diseases and role of Psychobiology - Hyperlipidemias - Hypercholesterolemia - Cancer
Fitness Psychology in Rheumatoid arthritis and other inflammatory arthritis
Psychology & Mental Health
Child & Adolescent psychology - factors - adolescent body image and weight control - Psychology in geriatric population

Unit 6

Yoga for Psychologists :-

Yoga - Introduction, Definition of Yoga, Origin of the word Yoga -Yuj', Meaning of the word Hatha, Stages of Yoga, Types of Yoga, Karma yoga, Gnana Yoga, Bhakti Yoga, Kriya Yoga, Buddhism and Yoga, Yoga as a Universally accepted term, Tibetian forms of Yoga, Schools of Yoga, KYM, Iyengar, Ashtanga Yoga, Thitumoolar Yoga, Shivananda Yoga, Kaivalyadham Yoga, Bihar School, Bikram Yoga, - Ashtanga yoga as 8 stages of Yoga, Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana, Samadhi, Ancient Texts and Yoga Scriptures, Thirumantiram, Patanjali Yoga Sutra, Hatha Yoga Pradhipika, Surya Namaskara Kriya, Bhandas, Jalandhara Bhanda, Uddhiyana Bhanda, Muladhara Bhanda, and Kriyas, Hatha Yoga, Movement & PostureThe Neuro-Musculo Skeletal System — The Nervous system— Reflexes — The Vestibular System, Sight and Touch — Connective Tissue Restraints — Stretching — Three Postures, Breathing, The design of the Respiratory System — the muscles of Respiration — How Breathing affects Posture — the Somatic and Autonomic Nervous system — the Physiology of Respiration — Thoracic Breathing — Paradoxical Breathing —Supine Abdominal Breathing — Abdominal Breathing in Sitting Postures — Diaphragmatic Breathing, Postures targeting Abdominopelvic Region Foundation of the body — Sitting Boat Postures — The Peacock — The Pelvis and The Anatomical Perineum — Ashwini Mudra —Mula Bandha — Agni Sara — Uddiyana Bandha — Nauli — Contraindications & Benefits, Uddhiyana Bandha in Pilates as TA activation, difference between yoga and Tantra, Chakras and their anatomical sites and counterparts, Pineal gland, Pituitary, Thyroid, Heart and thymus, Cardiac plexus, Coeliac Ganglion and Coeliac Plexus, or Solar plexus, Superior mesenteric plexus, Inferior mesenteric plexus, Perineal body and Pubocoxccegues, Postures, Sugam-comfort and Sthiram, StandingThe Skeletal system and movement — Anatomy of the Spine — Symmetry and Asymmetry — Standing Postures — Backward Bending — forward bending — Side bending — the triangle postures — balancing Postures —Benefits, Postures :- Back bending The Anatomy of Flexion and Extension — Breathing and Back bending — The Cobra Postures — The Locust Postures — the Prone Boat

Postures — the Bow Postures — the knee joint — Supine Back Bending Postures —Kneeling Backbend- the camel — Contradictions — benefits, Vinyasas, Forward Bending , Head, Neck and Chest — Lumbar and Lumbosacral Forward bending — Sacroiliac Nutation and Counter Nutation — Forward bending at the Hip Joints — Forward bending at the Ankle and in the Feet — Clinical matters and caution — The posterior stretch — The Down- Facing Dog — The Child's Pose —Breathing and Forward bending — SacroIliac Flexibility — Hip Flexibility — Benefits, Twisting Postures, The Fundamentals of Twisting — The skull, the Atlas, and The Axis — Movements of the Head & Neck — Thoracic Twisting — Lumbar Twisting — The lower extremities — Supine Twists — Standing twists — Inverted twists — Sitting Spinal Twists — Benefits, - Headstand and its implication, Variaations in Head stand, Shoulder stand Postures, Relaxation and Dhyana-meditataion, Pranayama, Introduction & Theory- Prana and Pranayama — Pranayama and the Respiratory system — Nadis and Chakras — Guru and Sisya — Food — Obstacles and Aids — The effect of Pranayama, the art of sitting in Pranayama — The Art of Preparing the mind for Pranayama — Mudras and Bandhas — The art of Inhalation (Puraka) and Exhalation (Rechaka) — the art of Retention (Kumbhaka) - Grades of Sadhaka in Pranayama — Bija Pranayama — Vritti Pranayama, Ujjayi Pranayama — Viloma Pranayama — Bhramari, Murchha and Plavini Pranayama — Digital Pranayama and the art of placing the fingers on the nose — Bhastrika and Kapalabhati Pranayama— Sitali and Sitakari Pranayama — Anuloma Pranayama — Pratiloma Pranayama — Surya Bhedana and Chandra Bedhana Pranayama — Nadi Sodhana Pranayama, Contribution by Patanjali, Thirumularand18 Siddhars.

Internal Theory Paper 1

Biostatistics and Research

Epidemiology, Biostatistics and Medical Ethics

UNIT I:

Epidemiology Introduction: Historical aspects and evolution of epidemiology, definitions and concepts in Epidemiology. Approaches in epidemiology: Descriptive and analytical epidemiology, disease burden, natural history of diseases and measures of risk and death. Study design and sampling: Sample size estimation and introduction to study design in epidemiological investigations.

UNIT II:

Biostatistics Fundamentals of biostatistics: Introduction, types of data, tabular and graphical presentation of data. Measures of location, dispersion and correlation: Measures of central tendency. Mean, mode, median, GM, HM, quartiles Measures of dispersion—ra nge, standard deviation, variance, coefficient of variation. Probability and statistical inference: Concept and probability distribution. Normal distribution— density curves, applications and statistical tables. Concept of significance tests, parametric and nonparametric tests, standard error and confidence intervals. Inferential statistics: Probability and distributions – Poisson, Binomial a nd Normal distribution – Chi-square test – Hypothesis test - Student's t-tes t – Correlation and Regression – ANOVA.

UNIT III:

Medical Ethics Bioethics and Medical ethics: Historical perspectives & Introduction to Bioethics, Nuremberg Code, Declaration of Helsinki, Principle of essentiality, informed consent, confidentiality, minimisation of risk, accountability and responsibility. Ethics of clinical trials: Drug trials, vaccine trials, Clinical trials with medical devices/surgical procedures/radioactive materials, Research in transplantation and stem cell therapy. Regulatory framework and guidelines for conduction of human research: Review processes, Institutional ethical committees, composition of committees, review procedures, WHO, UNESCO and ICMR guidelines.

References : 1) Epidemiology: An Introduction. Kenneth J. J. Rothman. Latest edition / Pub. Date: May 2002. Publisher: Oxford University Press. 2) Epidemiology. Leon Gordis. Latest edition / Pub. Date: November 2004. Publisher: Elsevier Health Sciences. 3) Diseases and Human Evolution. Ethne Barnes. Latest edition / Latest edition / Pub. Date: March 2005. Publisher: University of New Mexico Press. 4) Epidemiology: Beyond the Basics. F. Javier Nieto, Moyses Szklo. Latest edition / Pub. Date: November 2003. Publisher: Jones & Bartlett Publishers, Inc. 5) Basic and Clinical Biostatistics. Beth Dawson, Robert G. Trapp, Robert Trapp. Latest edition / Pub. Date: March 2004. 6) Discovering Statistics Using SPSS. Andy Field. Latest edition / Pub. Date: April 2005. Publisher: SAGE Publications. 7) Arora PN & Malhon PK (1996). Biostatistics Imalaya Publishing House, Mumbai. 8) Sokal & Rohif (1973). Introduction to Biostatistics, Toppan Co. Japan. 9) Stanton A & Clantz, Primer of Biostatistics — T he McGraw Hill Inc., New York. 10) Government of India. Good Clinical Practices for Clinical Research in India. New Delhi: 2001 11) Indian Council of Medical Research. Ethical Guidelines for Biomedical Research on Human Subjects. New Delhi: 2000 12. United Nations Educational, Scientific and Cultural Organisation (UNESCO). Universal Declaration on Bioethics and Human Rights. Paris; 2005

PRACTICAL 1

PSYCHOBIOLOGY FOR EXCELLENCE IN SPORTS

Psychological Assessment, Management & Counselling of Athletes & Sportspeople :-

1. Track & field events
2. Team sports
3. Individual sports
4. Differently abled
5. Martial Artists
6. Strength and Power sports
7. Water Sports
8. Winter Sports
9. Swimmers
10. Other athletic pursuits.

- Thinking and problem solving
- sensation, attention & perception
- learning skills and drills
- psychic skills for individual injury management.

PRACTICAL 2

PSYCHOBIOLOGY FOR FITNESS AND LIFESTYLE MODIFICATION

Psychological Assessment, Management & Counselling of people under the following categories:-

1 General Fitness

11. Paediatric fitness
12. Geriatric fitness
13. Martial artists
14. Yoga
15. Dance
16. Vocal athletes
17. Fitness medicine - where Exercise intervention/rehabilitation programs have been prescribed:- viz.
    1. Pregnancy - Prenatal/Antenatal, Postnatal
    2. Obesity
    3. Diabetes Mellitus

4. Cardiovascular diseases :- CHD, Hypertension, post CABG, post Re-canalisation etc.
5. Cancer
6. Osteoporosis
7. Hyperlipidemias
8. other Lifestyle diseases
9. Mental health - Depression, Anxiety etc.

THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY, CHENNAI -600 032

REGULATIONS OF THE M.Sc. SPORTS & FITNESS PSYCHOLOGY

(Post-graduate Degree course under Allied Health Science)

In exercise of the powers conferred by Section 44 of the Tamil Nadu Dr. M.G.R. Medical University, Chennai Act 1987(Tamil Nadu Act 37 of 1987) the Standing Academic Board of the Tamil Nadu Dr. M.G.R. Medical University, Chennai hereby makes the following regulations:-

1. SHORT TITLE AND COMMENCEMENT:-

These regulations shall be called as **"M.Sc SPORTS & FITNESS PSYCHOLOGY"** of the Tamil Nadu Dr. MGR Medical University, Chennai.

They shall come into force from the academic year 2018-2019.

The regulations and the Syllabus framed are subject to modification by the Standing Academic board from time to time.

2. OVERALL OBJECTIVES:

- To provide the course that enables, Graduate with updated exposure in terms of Knowledge and practice in the fields of **"M.Sc SPORTS & FITNESS PSYCHOLOGY"** especially having relevance on medical importance.

- To enable graduates to learn in a highly productive environment that gives then the core and comprehensive skills to deal with diagnostics applied and basic research in the fields of **"M.Sc SPORTS & FITNESS PSYCHOLOGY**" .

3. ELIGIBILITY FOR ADMISSION:

The candidates who possess Degree of B.Sc. Psychology / MBBS to get admitted into the course of **"M.Sc. SPORTS & FITNESS PSYCHOLOGY**"

4. AGE LIMIT:

No upper age limit for Admission

5. ELIGIBILITY CERTIFICATE:

Candidates who have passed any qualifying examination as stated in (3) other than the Tamil Nadu Dr. M.G.R. Medical University shall obtain an "Eligibility Certificate" from this University by remitting the prescribed fees along with the application form and required documents before seeking admission to any one of the affiliated institutions. The application form is available in the University website: web.tnmgrmu.ac.in.

6. REGISTRATION:

A Candidate admitted to **"M.Sc SPORTS & FITNESS PSYCHOLOGY**" in any one of the affiliated institutions of this University shall register his / her name with this university by submitting the prescribed application form for registration duly filled in along with the prescribed fee and a declaration in the format to the Controller of Examinations of this University through the affiliated institution within 3 Months from the cut off date prescribed for the course for admission. The applications should bear the date of admission to the said course.

7. MIGRATION/TRANSFER OF CANDIDATE:

(a) A student studying in **"M.Sc SPORTS & FITNESS PSYCHOLOGY**" can be allowed to migrate / transfer to another institution of Allied Health Science under the same University.

(b) Migration / Transfer can be allowed to another affiliated institutions under extraordinary circumstances. The Vice - Chancellor has the power to issue Migration / Transfer order.

8. COMMENCEMENT OF THE COURSE:

The course shall commence from **1st September** of the academic year. Cut off date for Admission is **30th September** every year.

9. MEDIUM OF INSTRUCTION:

English shall be the Medium of Instruction for all the Subjects of study and for examinations of the **"M.Sc SPORTS & FITNESS PSYCHOLOGY**".

10. CURRICULUM:

The Curriculum and the syllabus for the course shall be as prescribed in these regulations and are subject to modifications by the Standing Academic Board from time to time.

11. DURATION OF THE COURSE:

The duration of certified study for the **"M.Sc SPORTS & FITNESS PSYCHOLOGY"** shall be **TWO** years. The admitted candidates should complete this course within 6 years (double the duration) from the date of joining the course.

12. RE-ADMISSION AFTER BREAK OF STUDY:

The regulations for re-admission are as per the University Common Regulation for Re-admission after break of study for all courses.

13. . WORKING DAYS IN THE ACADEMIC YEAR:

Each academic year shall consist of not less than 270 working days Total No. of working days including (Term day 270 days 85% Attendance) Examination period

14. ATTENDANCE REQUIRED FOR ADMISSION / EXAMINATION:

(a) No candidate shall be permitted to appear in any one of the parts of **"M.Sc SPORTS & FITNESS PSYCHOLOGY"** Examinations unless he/she has attended the course in the subject for the prescribed period in an affiliated institution recognized by this University and produce the necessary certificate of study, attendance and satisfactory conduct from the Head of the institution.

(b) A candidate is required to put in a minimum of 85% of attendance in both theory and practical separately in each subject before admission to the examinations.

15. CONDONATION OF LACK OF ATTENDANCE:
There shall be no condonation of lack of attendance.

16. INTERNAL ASSESSMENT MARKS:

The Internal Assessment should consist of the following points for evaluation:-
i) Theory
ii)Practical

(a) A minimum of three written examinations shall be conducted in each subject during a year and the average marks of the three performances shall be taken into consideration for the award of Internal Assessment marks.

17. CUT-OFF DATES FOR ADMISSION TO EXAMINATIONS:

1. **30th September** of the academic year concerned for Admission.
- The candidates admitted up to **30th September** of the academic year shall be registered to take up the **1st year examination during October of the next year**.

18. COMMENCEMENT OF THE EXAMINAITONS:

15th October / 15 April
If the date of commencement of examination falls on Saturdays / Sundays or declared Public Holidays, the examination shall begin on the next working day.

19. MARKS QUALIFYING FOR PASS:
50% of marks in the University Theory Examinations
50% of marks in the Practical with Viva
50% of marks in aggregate in Theory, I.A & oral taken together.

20. REVALUATION / RETOTALLING OF ANSWER PAPERS:
Re - totalling / Revaluation of answer papers is not permitted.

21. VACATION:
There is no vacation

22. SCHEME OF EXAMINATIONS:

Examination Pattern – First Year

Paper	Subjects	Internal Assessment (IA)		Theory		Practical		Viva Voice	
		Max	Min	Max	Min	Max	Min	Max	Min
I.	Biostatistics and Research : Epidemiology, Biostatistics and Medical Ethics	50	25	100	50	100	50	50	25
II	Exercise Physiology for Sports & Fitness	50	25	100	50				

Examination Pattern – Second Year

Paper	Subjects	Internal	Theory	Practical	Viva Voice

		Assessment (IA)							
		Max	Min	Max	Min	Max	Min	Max	Min
I.	Psychobiology for Excellence in Sports	50	25	100	50	100	50	50	25
II	Psychobiology for Fitness and Life-Style modifications	50	25	100	50	100	50	50	25

Theory Examination Pattern

Duration: 3 hrs Max. Marks: 100
Part – A (2 x 20 = 40) Marks
Part – B (10 X 6 = 60) Marks

	Max.	Min.
Project*	100	50
Viva / Practical	100	50
I. A	50	25

Practical's should include the following:

Case Discussion / Flash Card / Spotters / Instruments / Specimens (Where ever it is applicable)

Practicals

- There are 2 practical papers (corresponding to theory paper 2 & 3) with each paper having an exam with a total of 100 marks with a minimum pass of 50.

Internal Assessment

- The **Logbook**, **Records** and other **Assignments**, would have a total of 100 marks would be evaluated throughout the Course. A minimum of 50 % in each is required to pass.
- The students have to take up a research project that would be submitted at the end of the program
- The students have an internal theory paper on Biostatistics & Research
- There is a internal practical paper on Sports Kinantropometry & fitness Assessment.

24. Log Book:

Based on the curriculum Log Book to be maintained and the same are periodically, assessed by the HOD and presented at the time of discussion of project in Practical Examination.