

University of Mumbai



No. UG/27 of 2021-22

CIRCULAR :-

Attention of the Principals of the Affiliated Colleges, the Head of the University Department and Directors of the recognized Institutions in Faculty of Interdisciplinary.

They are hereby informed that the recommendations made by the Ad-hoc Board of Studies in Dance at its online meeting held on 15th January, 2021 vide item No.3 and subsequently passed by the Board of Deans at its meeting held on 18th February, 2021 vide item No. 8.3 have been accepted by the Academic Council at its meeting held on 23rd February, 2021 vide item No. 8.10 and subsequently approved by the Management Council at its meeting held on 09th April, 2021 vide item No. 15 and that in accordance therewith, in exercise of the powers conferred upon the Management Council under Section 74 (4) of the Maharashtra Public Universities Act, 2016 (Mah. Act No. VI of 2017) the Ordinance 6623 & 6624 Regulations 9366 & 9367 and the syllabus of Master of Performing Arts (Dance) degree course (Human Movement) has been introduced and the same have been brought into force with effect from the academic year 2021-22, accordingly. (The same is available on the University's website www.mu.ac.in).

MUMBAI - 400 032

1st July, 2021

To,

(Dr. B.N. Gaikwad)
I/c. REGISTRAR

The Principals of the affiliated Colleges, the Head of the University Department and Directors of the recognized Institutions in Faculty of Interdisciplinary. (Circular No. UG/334 of 2017-18 dated 9th January, 2018.)

A.C/8.10/23/02/2021

M.C/15/09/04/2021

No. UG/27 -A of 2021

MUMBAI-400 032

1st July, 2021

Copy forwarded with Compliments for information to:-

- 1) The Chairman, Board of Deans,
- 2) The I/c Dean, Faculty of Interdisciplinary,
- 3) The Chairman, Ad-hoc Board of Studies in Dance,
- 4) The Director, Board of Examinations and Evaluation,
- 5) The Director, Board of Students Development,
- 6) The Co-ordinator, University Computerization Centre,

(Dr. B.N. Gaikwad)
I/c. REGISTRAR

Copy to :-

- 1. The Deputy Registrar, Academic Authorities Meetings and Services (AAMS),**
- 2. The Deputy Registrar, College Affiliations & Development Department (CAD),**
- 3. The Deputy Registrar, (Admissions, Enrolment, Eligibility and Migration Department (AEM),**
- 4. The Deputy Registrar, Research Administration & Promotion Cell (RAPC),**
- 5. The Deputy Registrar, Executive Authorities Section (EA),**
- 6. The Deputy Registrar, PRO, Fort, (Publication Section),**
- 7. The Deputy Registrar, (Special Cell),**
- 8. The Deputy Registrar, Fort/ Vidyanagari Administration Department (FAD) (VAD), Record Section,**
- 9. The Director, Institute of Distance and Open Learning (IDOL Admin), Vidyanagari,**

They are requested to treat this as action taken report on the concerned resolution adopted by the Academic Council referred to in the above circular and that on separate Action Taken Report will be sent in this connection.

- 1. P.A to Hon'ble Vice-Chancellor,**
- 2. P.A Pro-Vice-Chancellor,**
- 3. P.A to Registrar,**
- 4. All Deans of all Faculties,**
- 5. P.A to Finance & Account Officers, (F.& A.O),**
- 6. P.A to Director, Board of Examinations and Evaluation,**
- 7. P.A to Director, Innovation, Incubation and Linkages,**
- 8. P.A to Director, Board of Lifelong Learning and Extension (BLLE),**
- 9. The Director, Dept. of Information and Communication Technology (DICT) (CCF & UCC), Vidyanagari,**
- 10. The Director of Board of Student Development,**
- 11. The Director, Department of Students Welfare (DSD),**
- 12. All Deputy Registrar, Examination House,**
- 13. The Deputy Registrars, Finance & Accounts Section,**
- 14. The Assistant Registrar, Administrative sub-Campus Thane,**
- 15. The Assistant Registrar, School of Engg. & Applied Sciences, Kalyan,**
- 16. The Assistant Registrar, Ratnagiri sub-centre, Ratnagiri,**
- 17. The Assistant Registrar, Constituent Colleges Unit,**
- 18. BUCTU,**
- 19. The Receptionist,**
- 20. The Telephone Operator,**
- 21. The Secretary MUASA**

for information.

(Appendix 'B')

Master of Human Movements

7 point justification

The justification for commencing the Course "Master of Human Movements" under the Program "Master of Performing Arts" from the academic year 2021-2022.

This discipline has been designed by taking human movement or motion as the foundation.

- i. Life has become more complicated with both mental and Physical stress, which reflects in our professional and personal life. Maintaining mental and physical healthy life has become pertinent in today's times. "Movement" is life. It can be any kind of "Movement" – like dance, fitness regime, yoga, etc. which helps and individual immensely. So the need or urge to study "Movement" as a science and art both. Hence this unique self-financing course is proposed with lot of thought process and expertise from the relevant fields.
- ii. This course follows the UGC Recommendations. It is a skill based course.
- iii. This course will be commencing from the academic year 2021-2022.
- iv. This course is a self-financing course. With the existing infra-structural, academic facilities and visiting faculty from experts of relevant fields this course will be functioning without any financial burden on the government.
- v. The duration of this course is going to be two years and Four Semesters under CBCS.
- vi. Intake capacity – 20 students per year.
- vii. The course aims at creating "Movement Specialists" who will be equipped to work or self-employ in various areas as trainers, coached for physical wellness and fitness.

With these above self-explanatory points, I request you to kindly grant us permission to commence course from the academic year 2021-2022.


Dr. (Smt.) MeenaRshi Gangopadhyay
Chairperson Ad-hoc Board of Studies (Dance)

UNIVERSITY OF MUMBAI



Master of Performing Arts (Dance) - Human Movement

(to be introduced as per the Choice Based Credit System with effect
from the academic year 2020-21)

MASTER OF HUMAN MOVEMENTS

Duration – Two academic years (Four Semesters)

Total Marks for the Degree-2000 (1 credit =30 marks)

Master of Human Movements Part-I Semester -I - 500 Marks

Semester -II - 500 Marks

Total- 1000 Marks

Master of Human Movements Part-II Semester -III - 500 Marks

Semester -IV - 500 Marks

Total- 1000 Marks

ELIGIBILITY FOR ADMISSION

- B.F.A - B.P.A (Dance of M.F.A- M.P.A (Dance)
- B.P.T (Bachelor of Physio Therapy)
- B.O.T (Bachelor of Occupational Therapy)
- Bachelor of Drama/ Theatre Art, Master of Drama/ Theatre Arts.
- M.B.B.S
- B.H.M.S
- B.A.M.S
- B.U.M.S
- B.P.Ed
- Graduate of Physical Education
- Graduate of any faculty and a recognised Diploma/Certificate in Fitness, Nutrition, Exercise Science or Diploma in Yoga from a recognised institution **and** minimum three years experience as a teacher/ trainer in the subject of fitness.

CONDITIONS FOR AFFILIATION

1. The applicant college must be permanently affiliated to the University of Mumbai and recognised under S 2 (b) and 12(f) by the U.G.C.
2. The applicant college must be recognised by the University of Mumbai to teach graduate and post-graduate courses in either Dance or Yoga or both or a co-related discipline.
3. The applicant college must be recognised to register students for the Ph.D. degree of the University of Mumbai.
4. The applicant college must have the following facilities:
 - a) Clear space admeasuring approximately 2000 sq. ft. in its own premises, specially designated for its Dept. / Institute of Human Movement.
 - b) The college must have equipment and apparatuses required for running a fitness and wellness Centre.
 - c) The applicant college must have a suitably equipped library of books as well as audio- video discs.
 - d) The applicant college must have facility for an audio-video recording and editing centre to prepare leaning aids and packages.

SCOPE AND AIMS OF THE COURSE - HUMAN MOVEMENTS

This discipline has been designed by taking human movement or motion as the foundation.

Aims:

- a) Life time fitness and wellness suitable for all age group of the human society.
- b) Performance enhancement of the human body creating heightened level of performance.
- c) Rehabilitation and Prehabilitation leading to prevention of injuries and degeneration.
- d) Facilitation of healthy and meaningful ageing through motor function and cognition.
- e) Nutrition for fitness and optimisation of human activity.
- f) Including balance, stability and harmony in physical and mental activities.
- g) Be a very important and meaningful adjunct to stress Management.
- h) Creating movement specialists who are equipped to work or self-employ in various areas as trainers, coaches for physical wellness and fitness.

Scope:

- a) The scope of this course is cross disciplinary as well as inter-disciplinary. It encompasses the intrinsic elements from various ancient and traditional Indian disciplines like Dance, Yoga other martial arts and the modern scientifically created and nurtured system of Kinesiology and other forms of exercise.
- b) These can be termed as sub-disciplines which nevertheless, have their individual specialised existence and significance and go on to create the holistic discipline of Human Movement –an integrated and meaningful whole that has given rise to purposive human movement as its central focus.
- c) The course explores inter alia the intrinsic relationship of these sub-disciplines with each other.
- d) The course places an emphasis on the nature and meaning of this study as an adjunct to the matrix of education, culture and society.
- e) **Most importantly the course is not designed as an alternative to surgical, medical or therapeutic solution in conditions requiring immediate and urgent treatment.**
- f) The course is designed as a long term follow up to maintain a uniform state of wellness after the medical condition.
- g) The course very forcefully projects the necessity to maintain human wellness and fitness by prescribing practical regime to prevent the wasteful conditions arising out of the modern fast paced life-style – both physically and psychologically.
- h) The course prescribes preventive measures that an ordinary human being should incorporate in daily life to lead a healthy and trouble free existence.
- i) A very special emphasis is the course is on the debilitating consequence of ageing in which physical activities are severely challenged.
The course has a sizeable content devoted, to Ageing, its problem and solutions.
- j) The course has a well-planned foundation of the principles of ‘Exercise Science’ which equips the student with scientific knowledge to assess the various problems delineated above and find solutions through exercise and movement regime.
- k) The course aims at creating scientifically trained efficient trainers whose chief concern would be to improve the life-style of the people at large and contribute significantly to the well-being of the society.

MAJOR SUBJECTS

1. Human Anatomy and its various system, with a special emphasis on the musculoskeletal system and human physiology.
2. Mechanics of human movements:-
 - a) Physiological basic of human movement
 - b) Analysis of human motion/mobility.
 - c) Bio-mechanics- relationship between skeletal, muscular and neurological structures and functions in the production of movement and optimisation of performance. Neuro-mechanics of human movement.
3. Kinesiology
 - a) Human Kinetics.
 - b) Nervous system as basis of the human movement.
 - c) Trunk
 - 1) Head, neck, shoulder, thorax which includes chest, sides
 - d) Upper extremity
 - 2) Upper arm, elbow, forearm, wrist hand
 - e) Lower extremity
 - hip joint, thigh, knee, shank, ankle, foot
 - f) Spinal column and pelvic girdle.
 - g) Mechanics of respiration
4. Skill Acquisition
 - a) Motor control-learning and development.
 - b) Neuro muscular control of perceptual motor skills.
5. Fitness and Physical Activity
 - a) Concept of Fitness – various components through different forms of exercise/Physical activity.
 - b) Performance enhancement and creating heightened level of fitness.
 - c) Nutrition for fitness and optimisation of human effort.
6. Ageing

Assessment and special considerations for fitness and exercise prescription in maintenance of ADL, balance, prevention of falls and other age related deficits and disorders.
7. Prehabilitation and Rehabilitation
 - a) Guidelines of Physical and psychological impairment.
 - b) Guidelines for functional recovery
 - c) Exercise regime after a clinical or medical episode/ condition
 - d) Children/Youth-special consideration
 - e) Pregnant women- Pre-natal and Post natal
8. Exercise specification for healthy living.
 - a) Physiology of exercise.

- b) Therapeutic exercises
- c) Strength training and conditioning
- d) Stress management Yoga and overall well being
- e) Exercises to build cardiovascular endurance - Dance as a tool.
- f) Exercises to build Speed, Agility and Balance- Dance as a tool.
- g) Exercises to improve flexibility –Yoga

O. _____ Title of Course Master of Human Movements

O. _____ Eligibility for Admission

- B.F.A. – B.P.A. (Dance or M.F.A – M.P.A (Dance)
- B.P.T. (Bachelor of Physio Therapy)
- B.O.T. (Bachelor of Occupational Therapy)
- Bachelor of Drama / Theatre Art, Master of Drama / Theatre Art
- M.B.B.S
- B.H.M.S
- B.A.M.S
- B.U.M.S
- B.P.Ed
- Graduate of Physical Education
- Graduate of any faculty and a recognized Diploma / Certificate in Fitness, Nutrition, Exercise Science or Diploma in Yoga from a recognized institution and minimum three years' experience as a teacher/ trainer in the subject of fitness.

R. _____ Intake Capacity – 20 students per year

R. _____ Fee Structure – for one academic year

Sr No	Particular	Amount
1	Tuition Fees	28000
2	Admission Fees	1045
3	University share	640
4	Registration Fees	1025
5	Library Fees	3000
6	Gym Fees	6000
7	Examination Fees	1260
8	Course Fees	3030
	Total	44000

R. _____ Duration of Course – Two academic years or four semesters

R. _____ Attendance 75 Percent

On each working day –

Practicals 2 hours

Theory 1 hour

R._____ Standard of Passing (Scheme of Examination)

To pass examination for each of the Part I and Part II a candidate must obtain 40 per cent of the full marks in each paper. 40 per cent of the full marks in each practical, dissertation and viva-voce, where prescribed and 40 per cent of the aggregate marks obtainable in each part.

Those of the successful candidates who obtained 50 per cent of the total marks obtainable in Part I and Part II examinations taken together will be placed in the Second Class, those who obtained 60 per cent of the total marks will be placed in the First Class and those who obtained 70 per cent or more marks will be declared to have passed the examination in the First Class with distinction.

A candidate, who has failed at the M.P.A. Part I or Part II examination, but has secured, 40 per cent of the total marks in the theory papers will, at his / her option, be exempted from appearing in the theory papers at subsequent examination, provided he / she has obtained minimum passing in each of the practicals with 40 per cent of the marks will, at his / her option, be exempted from appearing in the practicals at a subsequent examination.

Further, candidates appearing with exemption in theory papers / practicals will not be awarded a class.

Grading System:

The grade card issued at the end of the semester to each student shall contain the following:

- a) The credits earned for each course registered that year
- b) The performance in each course indicated by the letter grade
- c) The Grade Point Average (GPA), of all the courses registered for the semester
- d) The Cumulative Grade Point Average (CGPA)
- e) Overall Weighted Percentage of Marks (OWPM), and cumulative grade point average after completing the programme will appear only on the grade card for the final year.

10 Point Grading System

Marks	Grade Points	Grade	Performance
80 & above	10	O	Outstanding
70-79.99	9	A+	Excellent
60-60.99	8	A	Very Good
55-59.99	7	B+	Good
50-54.99	6	B	Above Average
45-49.99	5	C	Average
40-44.99	4	D	Pass
Less than 40	0	F	Fail
Note : The subject Weight will remain as earlier			

R._____ Qualifications of the Teachers

M.P.A – P.A (Dance) from a recognized university, M.P.T. from a recognized university, M.O.T. from a recognized university, M.D. (Medicine). M.D. in any alternative discipline e.g

Homeopathy, Ayurveda, Unani Diploma/ Certificate in Yoga from a recognized university,
Diploma / Certificate in Fitness Sciences from a recognised institution.

M.P.A. Part-I
Human Movements

Theory and Practicals

Semester-I

Theory

Paper-I - Introduction to Human Anatomy and Human Movements -150 Marks

External Assessment 90 Marks Internal Assessment 60 Marks

Practical-I

Dance Movements and Exercises for Endurance, Agility and Mobility-I -175 Marks

- | | |
|---|------------|
| a) Rasas including emotional Stability | - 45 Marks |
| b) Exercises for speed and Agility | -35 Marks |
| c) Exercises for cardiovascular endurance | -25 Marks |

(Functional Training and HIIT – High Intensity Internal Training based exercises.	----- 105 Marks
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External Assessment will be 105 marks and Internal Assessment will be 70 marks.

Practical-II

Yoga Asanas and Exercises of Stability/ Flexibility –I -175 Marks

- | | |
|---|-----------|
| a) Yoga Asanas including meditation and breathing | -45 Marks |
| b) Exercise for Balance & Stability | -35 Marks |
| c) Exercise for Enhancing Flexibility | -25 Marks |

105 Marks

External Assessment will be 105 marks and Internal Assessment will be 70 marks.

M.P.A. Part-I

Human Movements

Theory
Semester-I

Paper-I

Introduction to Human Movement and Human Anatomy.

-150 Marks

It's meaning and relevance in the contemporary society.

- Impact of Ecological changes and space curtailment- changed way of life in the modern society.
- Movement as a process of Integration from childhood to youth to adulthood.
- The Concept of Effort Movement and its four components Direction, Strength (thrust), speed, progression
- The Energy component in Movement.
- Breath and Movement/Effort.
- The psychomotor domain including Skill and Fitness.
- Psychological basis of human movement.

Meaning of skill, specific skill and value of skill.

History of physical, emotional and spiritual fitness in India from the ancient times.

Physiology of human movement

HUMAN ANATOMY

This subject provides knowledge of the structure of the human body which is an essential foundation for understand the movement science. The topographical and functional anatomy of the limbs and thorax is discussed with particular attention paid to the muscles, bones and joints of the regions.

9. Human Anatomy and physiology of various systems
 - Regional Anatomy-
 - a) Trunk
 - 3) Head and neck, abdomen and thorax.
 - b) Upper extremity
 - 4) Shoulder Girdle, upper arm, elbow, forearm, wrist, hand.
 - c) Lower extremity
 - 3) Hip joint, thigh, knee, shank, ankle, foot.

External Assessment will be 90 marks and Internal Assessment will be 50 marks.

Bibliography –

1. Fitness First Through Movement and Diet by Dr.B.H.Barrada, A Wheaton & Co. Ltd, London:1988.
2. Drama and Movement in Therapy by Audrey G.Wethered; Macdonald & Evans Ltd,London;1973
3. Dance Movement Therapy by Bonnie Meekums. London; Sage publications, London;2002
4. Athletic Ability and The Anatomy of Motion by Rolf Wirhed ;Wolfe Medical Publication. England ; 1988
5. A Handbook For Dance Education-2e by Valerie Preston-Dunlop, Longman, London; 1988

6. Notes From A Course in Correctives by Irmgard Bartenleff : DBBF, Newyork;1977
7. Choreutics by Rudolf Laban; Macdonald & Evans, London ;1966
8. Relaxation in Movement by Dora Bullivant; Continua Production,London
9. Observation, Analysis and Recording of Movement by Irene K.Glaister, London
10. Man & Movement ; Principles of Physical Education
11. Perpetual Motion by Otis Stuart
12. Mime: The Theory and Practice of Expressive Gesture by Joan Lawson, A Dance Horizons Republications,1957
13. Study Guide For Elementary Labanotation by Peggy Hackney,Sarah Manno and Muriel Topaz; DNB, New York, 1977
14. Textbook of Human Neuroanatomy by Inderbir Singh, Jaypee Brothers, Newdelhi; 2006.
15. B.D Chaurasia's Human Anatomy. Vol. I,II,III by Krishna Garg; CBS Publishers, New Delhi; 2014
16. The Complete Human Body : The Definitive Visual Guide BY Dr.Alice Roberts, D.K London;
17. Dance Anatomy : Your Illustrated Guide To Improving Flexibility, Muscular Strength, and Tone by Jacqui Greene Haas, Human Kinetics, United States, 2010.

Practicals of Semester -I and Semester-II

-175 Marks (each)

DANCE

Viva-Voce

What is Dance - Its ancient shastric base in India, Division of the human body into major, minor and ancillary limbs according to dance technique - The nritya and nritya components of dance - The four abhinayas - aangika, saattvika, vaachika and aahaarya with a special emphasis on aangika as per the naatyashastric tradition - Dance as movement and act of communication - Dance as a psychological phenomenon to express human emotions and reactions to internal and external stimulation - Body language of Indian dance - Dance as a major basis for balance, equilibrium and harmony in human movement - Good posture - Aesthetic approach to human movement through dance - Relevance of 'taala' (rhythm) in Indian Cosmology and its relevance to human life and movement - Dance as a vehicle to express joy of living.

Bibliography –

1. Natyasastra : A scribed To Bharata-Muni .Vol- I (Chapters 1-Xxvii)-Text (Edited With A n Introduction and Various Readings) by Manomohan Ghosh; Chowkhamba Sanskrit Series office ,Varanasi ,2009.
2. Natyasastra : Ascribed To Bharata-Muni ,Vol-I i (Chapters Xxviii-Xxxvi)-Text (The Original Sanskrit Text Edited With Introduction and Various Readings From Mss and Printed Texts) by Manomohan Ghosh; Chowkhamba Sanskrit Series office ,Varanasi,2009.
3. Natyasastra : A Treatise On Ancient Indian Dramaturgy and Histrionics ,Vol -I (Chapters 1-Xxvii)-Translation (Completely Translated For The First Time From The Original Sanskrit With An Introduction Various Notes and Index) by Manomohan Ghosh; Chowkhamba Sanskrit Series office ,Varanasi,2007 .

4. Natyasastra: A Treatise On Ancient Indian Dramaturgy and Histrionics, Vol-I (Chapters Xxviii-Xxxvi)-Translation (Completely Translated For The First Time From The Original Sanskrit With An Introduction and Various Notes) by Manmohan Ghosh; Chowkhamba Sanskrit Series office, Varanasi ,2007.
5. Nandikesvara 'S Abhinayadarpanam :A Manual of Gesture and Posture Used In Ancient Indian Dance and Drama by Manomohan Ghosh ; Manisha Granthalaya Pvt. Ltd , Calcutta,1997.
6. Abhinayadarpanam of Nandikesvara : English Translation With Word To Word Meanings, Tika and Comments For Each Sloka Or A Group of Slokas by P.S.R . Appa Rao; A Natyamala Publication , Hyderabad, 1997.
7. Dance Gestures (Mirror of Expressions) Sanskrit Text With English Translation of Nandikesvara'S Abhinayadarpanam by P.Ramachandrasekhar; Giri Trading Agency Pvt. Ltd., Mumbai, 2007.
8. Handbook of Indian Classical Dance Terminology by Dr.Kanak Rele; Nalanda Dance Research Centre, Mumbai,1992.
9. Bhaava Niroopanna by Dr.Kanak Rele; Nalanda Dance Research Centre, Mumbai, 2009.

Practicals-II Semester-I and Semester-II

-175 Marks (each)

YOGA

Viva-Voce

- 1) Introduction and philosophical understanding of Yoga.
- 2) Review of important Classical Literature.
- 3) Fundamental principles and concepts of Yogic Science.
- 4) The scientific understanding of Yoga.
- 5) Principles of Yoga Therapy.

Practicals

1. Shavasana
2. Ardha halasana (one leg / both leg)
3. Uttana padasana
4. Pawan muktasana (ardha / purna)
5. Naukasana (supine/prone)
6. Viparita karani
7. Sarvangasana
8. Matsyasana
9. Halasana
10. Bhujangasana
11. Ardha salabhasana
12. Shalabhasana
13. Dhanurasana
14. Makarasana
15. Vakrasana
16. Janushirasana
17. Vajrasana
18. Ustrasana
19. Yoga mudra
20. Parvatasana
21. Akarna dhanurasana

22. Chakrasana (lateral)
23. Vrikshasana
24. Tadasana

Meditative pose

1. Ardha padmasana
2. Padmasana
3. Swastikasana

Other practices

1. Simha asana
2. Brahma Mudra
3. Uddiyana Bandha

Pranayams

1. Anuloma Viloma
2. Ujjayi

Shloka

1. Pranava japa
2. Swasti mantra
3. Om stavan

Bibliography -

1. Swara Yoga: The Trantric Science of Brain Breathing by Swami Muktibodhananda ,Yoga Publications, Bihar; 2006.
2. Asanas by Swam i Kuvalayananda ,Kaivalyad hama ,Lonavala , 1993.
3. The Complete Book of Yoga: Harmony of Body and Mind by Sri Ananda, Orient Paperbacks Delhi;1993.
4. Yoga For Every Athlete:Secrets of An Olympic Coach by A ladar Kogler,Jaico Publication House,Mumbai;1999
5. The Book of Yoga :Bringing The Body ,Mind and Spirit Into Balance and Harmony by Christina Brown,Parragon Publishing,Uk,2002.
6. Stretch Your Limbs For Balance:Yoga For Long and Healthy Living by Elise Browning Miller and Carol Blackman, New Age Books ;New Delhi,2005.
7. Essence of Pranayama by Shri Kri shna ;fshwardas Chuni lal Yogic Health Centre ,Mumbai; 1966
8. Pranayama by Swami Kuvalayananda ;Kaivalyadhama ,Lonavala , 1966.
9. Yogic Pranayama: Breathing For Long Life and Good Health by Dr.K.S.Joshi,Orient Paperbacks ,Delhi; 2006
10. The Yoga Bible:Definitive Guide To Yoga Postures by Christina Brown; Octopus Publishing Group Ltd.London,2002
11. Healing Yoga :A Practical Approach To Healing Common Ailments With Yoga by Stella Weller,Readers Digest, Mumbai.
12. Notes On Structure and Functions of Human Body and Effects of Yogic Practices On It by I.C.Yogic Health Centre,1988.
13. Ayurvediya Manas Vijnana: A Treatise On Indian Psychology, Psychiatry and Psychosomatics (In Hindi) by R.H.Singh, Chaukhamba Amarabharati Prakashan, Varanasi;1986.

14. Tridosh Tatva Vimarsh (In Hindi) by R.Pathak,Sri Bhagnath Ayurveda Bhavan Ltd,Kolkatta; 1981.
15. Artistic Form and Yoga I n The Sacred Images of India by Heinrich Zimmer, Oxford University Press, Bombay; 1984.
16. Surya Namaskar: A Technique of Solar Vitalization by Swami Satyananda Saraswati,Yogi Trust Press Publications, Bihar;2004.
17. Asana - Why and How by Shri. O.P. Tiwari.
18. Scientific Survey of the Yogic poses by Swami Kuvalayananda,Kaivalyadhama.
19. Patanjala Yoga Sutra by Dr. P. V. Karambelkar.
20. Ashtanga Yoga of Saint Charandas by Shri. O.P. Tiwari.
21. Hatha Pradeepika of Swatmarama by Swami Digambarji and Raghunathshastri Kokaje.
22. Yogic Therapy by Swami Kuvalayananda and Dr. Vinekar.
23. Yoga and Mental Health by Prof. R. S. Bhogal.
24. Notes On Structure and Functions of Human Body and Effects by Dr. Shrikrishna.

Human Movements - Part-I

Theory and Practicals

Semester-II

Theory

Paper-I - Human Anatomy and Science of Body Movements

-150 Marks

External Assessment 90 Marks Internal Assessment 60 Marks

Practical-I

Dance Movements and Exercises for Endurance, Agility and Mobility-II -175 Marks

a) Rasas including emotional Stability - 45 Marks

b) Exercises for speed and Agility -35 Marks

c) Exercises for cardiovascular endurance -25 Marks

(Functional Training and HIIT – High Intensity
Internal Training based exercises. -----
105 Marks

External Assessment will be 105 marks and Internal Assessment will be 70 marks.

Practical-II

Yoga Asanas and Exercises of Stability/ Flexibility –II

-175 Marks

a) Yoga Asanas including meditation and breathing -45 Marks

b) Exercise for Balance & Stability -35 Marks

c) Exercise for Enhancing Flexibility -25 Marks

105 Marks

External Assessment will be 105 marks and Internal Assessment will be 70 marks.

M.P.A. Part-I

Human Movements

Theory

Semester-II

Paper-I Semester-II

HUMAN ANATOMY AND SCIENCE OF HUMAN MOVEMENTS -150Marks

This subject provides knowledge of the structure of the human body which is an essential foundation for understanding the movement science. The topographical and functional anatomy of the limbs and thorax is discussed with particular attention paid to the muscles, bones and joints of the regions.

- a) Spinal Column and pelvic girdle.
 - Physiology of following systems
- a) Cardiovascular System
- b) Respiratory System
- c) Musculoskeletal System.
- d) Nerve Muscle Physiology.

Bibliography-

1. Anatomy: A Regional Atlas of The Human Body-3E by Carmine D. Clementee, Urban & Schwarzenberg, Usa; 1975
2. Musculoskeletal Assessment: Joint Range of Motion and Manual Muscle Strength by Hazel M. Clarkson and Gail B. Gilewich; Williams and Wilkins, USA; 1989
3. Gray ;S Anatomy ,Descriptive and Surgical by Henry Gray, Courage Books, Philadelphia; 1974.
4. Brain's Clinical Neurology by Sir Roger Bannister. Elbs; Britian, 1984

SCIENCE OF HUMAN MOVEMENTS

Biomechanics involves the study of basic concepts of human movement, and application of various bio mechanical principles in the evaluation and treatment of disorders of Musculo skeletal system.

The subject explains the various quantitative methods of movement. Mechanical principles of various treatment methods are studied. Study of posture and gait are also included.

In addition, the subject also contains the principles and effects of exercise as a therapeutic modality and techniques for restoring physical functions.

- i) Introduction
- ii) Motor control
- iii) Normal and altered mechanics of the human movement - Biomechanics of vertebral function
 - Biomechanics of peripheral joints
 - Analysis of posture and gait
 - Functional Analysis of body movements.

Functional Kinesiology

iv) Introduction to exercise therapy –

- a. Definition of strength, power & work, endurance, muscle actions.
- b. Physiological adaptation to training: Strength & Power, Endurance.
- c. Types of exercises.
 - Free exercise
 - Active Assisted Exercise
 - Assisted-Resisted Exercise
 - Resisted Exercise
 - Types of resisted exercises: Manual and Mechanical resistance exercise, Isometric exercise,
 - Dynamic exercise: Concentric and Eccentric, Dynamic exercise, isokinetic exercise, Open-Chain and Closed-Chain exercise.
- d. Functional Re-education - Lying to sitting: Activities on the Mat/Bed , Movement and stability at floor level; Sitting activities and gait;
- e. Lower limb and Upper limb activities.
- f. Stretching
- g. Strength training and conditioning.
- h. Stress management - Relaxation techniques.

Bibliography –

1. Physiology of the joints - 6 e Vol I, II, III by Kappandji Al.; Churchill Livingstone , 2010.
2. Joint structure and function: A comprehensive analysis -5e by Norkin C, Levangie P F A. Davis Company , 2011.
3. Clinical Kinesiology for Physical Therapist Assistants by LS.Lippert; Jaypee Brothers Medical Publishers ,New Delhi;2002.
4. Kinesiology :Scientific Basis of Human Motion by Katherine F.Wells; W.B. Saunders, Philadelphia ;1966
5. Dance Anatomy and Kinesiology :Principles and Exercises For Improving Technique and Avoiding Common Injuries by Karen Clippinger; Human Kinetics ,United States,2007.

M.P.A. Part-II

Human Movements

Theory and Practicals

Semester-III

Theory

Paper-I – Bio –Mechanics of Human Movements

-150 Marks

External Assessment 90 Marks Internal Assessment 60 Marks

Practical-I

-350 Marks

Strength and Conditioning

- | | |
|------------------------|------------|
| a) Back Muscle Group | - 35 Marks |
| b) Pectorals | -35 Marks |
| c) Shoulders Girdle | -35 Marks |
| d) Arms | -35 Marks |
| e) Lower body | -35 Marks |
| f) Abdominals and Core | -35 Marks |

210 Marks

External Assessment will be 210 marks and Internal Assessment will be 140 marks.

M.P.A. Part-II

Human Movements

Theory

Semester-III

Paper 1 Semester-III

BIO - MECHANICS OF HUMAN MOVEMENT

-150Marks

- Classification of Movements - support, equilibrium, centre of gravity and its effect on movements.
- Nutrition for healthy life
- Exercise and its benefits to the various parts and systems of the body.

Exercise Prescription: -

- Step 1 Medical Clearance
- Step 2 Goal Identification
- Step 3 Cardio-respiratory fitness evaluation
- Step 4 Selection of training style and exercise type (dance/yoga)
- Step 5 Selecting training frequency
- Step 6 Selecting training intensity
- Step 7 Selecting duration for training
- Step 8 Periodic evaluation

Bibliography –

1. Healing Back: A Practical Approach To Healing Common Back Ailments by Readers Digest, Stella Weller, Mumbai; 2008.
2. A Complete Guide To Massage by Susan Mamford; Hamlyn, London, 1995
3. Tidy Massage and Remedial Exercises in Medical and Surgical Conditions by J.O. Wale, John Wright & Sons, Newyork; 1968
4. Backache, Arthritis, Spondylitis, Osteoarthritis and Other Pains: Treatment, Precautions and Exercise Regimen To Keep The Related Pains Away by Rajeev Sharma, Manoj Publications Delhi, 2006.

M.P.A. Part-II

Human Movements

Theory and Practicals

Semester-IV

Theory

Paper-I – Health, Fitness, Growth and Human Performance

-100 Marks

External Assessment 60 Marks Internal Assessment 40 Marks

Practical-I

-200 Marks

Exercise Programming, Scheduling and special cases

- | | |
|--|------------|
| a) Exercise Programming | - 10 Marks |
| b) Exercise Scheduling | -10 Marks |
| c) Exercise considerations for seniors and youth | -20 Marks |
| d) Exercise considerations for Pre & Post Natal | -20 Marks |
| e) Exercise considerations post an injury or medical episode | -20 Marks |
| f) Exercise considerations for medical conditions | -20 Marks |
| g) Fitness Assessment | -20 Marks |

-120 Marks

External Assessment will be 120 marks and Internal Assessment will be 80 marks.

M.P.A. Part-II

Human Movements

Theory and Practicals

Semester-IV

Stream ‘A’

Project

Creating Exercise Programmes leading to Human Wellness and Fitness -200Marks

Written Project	-150 Marks
Demonstration and Viva Voce	-50 Marks

Theory

Paper-I – Health, Fitness, Growth and Human Performance -100 Marks

External Assessment 60 Marks Internal Assessment 40 Marks

Practical-I -200 Marks

Exercise Programming, Scheduling and special cases

- | | |
|--|------------|
| a) Exercise Programming | - 10 Marks |
| b) Exercise Scheduling | -10 Marks |
| c) Exercise considerations for seniors and youth | -20 Marks |
| d) Exercise considerations for Pre & Post Natal | -20 Marks |
| e) Exercise considerations post an injury or medical episode | -20 Marks |
| f) Exercise considerations for medical conditions | -20 Marks |
| g) Fitness Assessment | -20 Marks |

-120 Marks

External Assessment will be 120 marks and Internal Assessment will be 80 marks.

OR

M.P.A. Part-II

Human Movements

Theory and Practicals

Semester-IV

Stream ‘B’

**Research Project/ Dissertation
(Minimum 150 Pages.)**

-200 Marks

Written

- 150 Marks

Viva Voce

- 50 Marks

Theory

Paper-I – Health, Fitness, Growth and Human Performance

-100 Marks

External Assessment 60 Marks Internal Assessment 40 Marks

Practical-I

-200 Marks

Exercise Programming, Scheduling and special cases

- a) Exercise Programming - 10 Marks
- b) Exercise Scheduling -10 Marks
- c) Exercise considerations for seniors and youth -20 Marks
- d) Exercise considerations for Pre & Post Natal -20 Marks
- e) Exercise considerations post an injury or medical episode -20 Marks
- f) Exercise considerations for medical conditions -20 Marks
- g) Fitness Assessment -20 Marks

-120 Marks

External Assessment will be 120 marks and Internal Assessment will be 80 marks.

M.P.A. Part-II

Human Movements

Theory

Semester-IV

HEALTH, FITNESS, GROWTH AND HUMAN PERFORMANCE

- **Health:** Disintegrating Factors:
 - i) Modern emphasis on intellectual achievement as against physical achievements.
 - ii) Ill effects of technological advances resulting in automation and mechanisation high standard of living, sedentary life style etc.
 - iii) Stress and its Effects
- **Hypo Kinetic Disorders:**
- **Fitness:** i) Cardio-respiratory fitness
 - ii) Muscular strength and endurance
 - iii) Flexibility
 - iv) Body composition and their relevance to healthy life. and their effect on various system in the human body e.g. Cardio-respiratory system, Circulatory system, Respiratory system.
 - v) Performance Nutrition
- **Ageing:**
 - i) Its impact on the human body and psychology.
 - ii) Facilitation of healthy and meaningful ageing through motor functions and cognition.
- Youth Fitness
- Pre and Post Natal Fitness
- Special Exercise Consideration post injury and medical conditions.

Bibliography -

1. You and Your Health .Vol. I , II , III by Harold Shyock, Pacific Press Publication, Usa ;1979
2. The Thinking Body:A Study of The Balancing Forces of Dynamic Man by Mabel Elsworth Todd, Newyork 2;1937.
3. The Truth About Chronic Pain: Patience and Professional On How To Face It, Understand It, Overcome It by Arthue Rosenfield, Basic Books, Newyork;2003
4. Knee Pain: The Self Help Guide by John Garrett & Bob Reznik; Health Harmony ,B.Jai n Publishers, New 4 Delhi ;2005.
5. Why We Hurt: A Complete Physical and Spiritual Guide To Healing Your Chronic Pain by Dr .Greg Fors, Llewellyn Publications, Minnesota ;2007.
6. The Immune Power Personality: 7 Traits You Can Develop To Stay Healthy by Henry Dreher; A Duton Book, New York; 1995.
7. Nutrition: Proceedings of The Seminar Held Under The Auspices of Sir Hurkisondas Nurrotumdas Hospital Mrs & T mrs, Bombay ;1976

CREATING EXERCISE PROGRAMMES LEADING TO HUMAN WELLNESS AND FITNESS: (written project)

Viva-Voce

Utilising the Movement from

- i) Strength & conditioning,
- ii) Dance,
- iii) Yoga
- iv) Cardiovascular exercises,
and
- v) Nutrition.

Students will be provided with a hypothetical case with medical clearance depicting any of the impairments or problems that they have learnt during the course. The students will be given one hour for preparation and designing rehabilitation programme in terms of exercises selected from physio-therapy, dance, yoga, or combination from all or selected disciplines and nutrition.

1. Written submission
 - i. Problem identification in terms of human anatomy.
 - ii. System evaluation.
 - iii. Selection of style and exercise type giving reasons.
 - iv. Selecting training frequency and intensity suitable for the affected part / parts of the body giving reason for the same.
 - v. Selecting duration for the training.
 - vi. Prescribing nutrition and diet programme giving reasons.
2. Demonstration of the selected exercises by the candidate for certain aspects of the rehabilitation process, the candidate can make use of tools and other aids during demonstration. The candidate can also use another student volunteer only as a model for identification of area and progression of exercise programme.

OR

Stream-B

RESEARCH PROJECT/DISSERTATION

: 200 marks

Division of marks

- **Dissertation - 150 marks**
- **Viva voce on the dissertation - 50 marks**