



INDIRA GANDHI UNIVERSITY, MEERPUR, REWARI

(A State University Established under Haryana Ordinance No. 03 of 2013)

Syllabus of M.Sc Yoga

Yoga is a physical, mental, and spiritual practice or discipline which originated in ancient India and is followed in all over the world. Many studies have tried to determine the effectiveness of yoga as a complementary intervention for cancer, schizophrenia, asthma, and heart diseases. The tradition of Yoga has always been passed on individually from Guru to shishya through oral teaching and practical demonstration. The formal techniques that are now known as Yoga are, therefore, based on the collective experiences of many individuals over many thousands of years. The particular manner in which the techniques are taught and practiced today depends on the approach passed down in the line of teachers supporting the individual practitioner. Yoga is essentially a spiritual discipline based on an extremely subtle science, which focuses on establishing harmony between mind, body; thought and action; restraint and fulfilment; harmony between man and nature and a holistic approach to health and well-being. Yoga is not about exercise but to discover the sense of oneness with ourselves, the world and Nature. It is an art and science for healthy living. The word "Yoga" is derived from the Sanskrit root 'yuj' meaning "to join", "to yoke" or "to unite". Therefore the aim of yoga is to unite the individual consciousness with the supreme consciousness. Yoga is a science and art of living; also it is a body of techniques that lead us to consciously connect with ourselves and with life, the experience of yoga. As yoga is an art and science, there is no dogma or belief system attached to it. Yoga tells us to do a certain practice and feel their effect following the practice, e.g. if we breath slowly in a relaxed manner we will slow our heart rate; if we focus the mind we will develop mental peace and deep insight.

In addition to this, Yoga is becoming popular day by day and has become a wave which is sweeping across the globe. In this course we introduce yoga as a science of Holistic living and not merely as yoga postures. During the course the student is taught the concepts of Yoga for the treatment and prevention of various psychosomatic and life style related ailments. This course has the vision of producing yoga professional so that they could teach yoga therapy in a paramedical department of a hospital with the ability to select specific safe practice modules for different diseases and document their effectiveness for healing, health promotion, rejuvenation and age reversal through scientific researches.

I. Title of the Programme

The programme shall be called "**Master in Yoga science**" (MSc Yoga)

II. Aim of the Programme

The aim of the programme is to produce "**Holistic health Inner Peace, harmony, stoic life and yoga professional** "

III. Objectives of the programme

- a. Yoga education helps in self-discipline and self-control, leading to immense amount of awareness, concentration and higher level of consciousness
- b. To introduce yoga therapy, its principles and practices of yoga for prevention of various lifestyles, non-communicable and psychosomatic disorders. Promotion of positive health: To prepare them for giving talks and offer techniques to promote healthy yoga life style.

techniques and can handle lifestyle disease under the guidance of a super specialist doctor to select safe specific practices for different diseases.

c. To create yoga therapy experts with in-depth knowledge based on yogic texts. For example, to train them 'be and make' i. e., ensure they practice what they teach.

d. Social health: To establish holistic health, social harmony and world peace by training them to be great citizens who can offer yogic way of life as examples of right living.

IV. Duration

The minimum duration of the programme will be 2 years (4 semesters) and the maximum duration will be four years.

V. Eligibility

The candidate should have completed Bachelor in science stream (Bsc ,B.Tech., B.A Yoga,P.G. Diploma in yoga, B.P.Ed) from any UGC recognized university.

VI. Scheme of Teaching and Examination?

Note : The question paper will have nine questions in all. Question No I shall be compulsory and will contain eight short answer type questions covering Entire syllabus; In addition, the question paper will have four Units consisting of two questions from each unit of the syllabus, candidates are required to attempt one question from each unit. All question carry equal marks.

FIRST SEMESTER

MSY-101	Foundation of Yoga
MSY-102	Hatha Yoga
MSY-103	Human Anatomy & Physiology -1
MSY-104	Cell biology and Biochemistry
MSY-105	Yoga Practical
MSY-106	Human Anatomy and Physiology Practical-I
MSY-107	Seminars
MSY-108	Self-Study Paper

Discipline Centric Elective Course (Any one)

MSY-109	Sri Madbhagwad Geeta and Yoga Vasistha
MSY-110	Health Education

SECOND SEMESTER

MSY-201	Patanjal Yoga Darshan
MSY-202	Yoga Psychology & Mental Health
MSY-203	Human Anatomy & Physiology -2
MSY-204	Yoga Practical
MSY-205	Human Anatomy & Physiology Practical-2
MSY-206	Seminar
MSY-207	Self-study Paper

Discipline Centric Elective Course (Any one)

MSY-208	Indian Philosophy & Culture
MSY-209	Hatha Ratnavali

Foundation Course

MSY-210	Communication Skills and Personality Development
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THIRD SEMESTER

MSY-301	Teaching methodology of Yoga
MSY-302	Yoga Bio-mechanics and Kinesiology
MSY-303	Research and Statistical methods
MSY-304	Yoga Practical
MSY-305	Practical Bio-mechanics and Kinesiology
MSY-306	Seminar
MSY-307	Self-study Paper

Discipline Centric Elective Course (Any one)

MSY-308	Principles of Upanishad
MSY-309	Health Education
MSY-310	Provided by university

FOURTH SEMESTER

MSY-401	Hygiene Diet and Nutrition
MSY-402	Alternative Therapy
MSY-403	Naturopathy
MSY-404	Yoga Practical
MSY-405	Alternative therapy Practical
MSY-406	Seminar/Yoga camp
MSY-407	Self-study Paper

Discipline Centric Elective Course (Any two)

MSY-408	Introduction to Ayurveda
MSY-409	Basic Computer applications
MSY-410	Sidhha-sidhaanta Paddhati
MSY-411	Human consciousness

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M. Sc Yoga Science- First Semester

MSY-101 CC

Foundation of Yoga

Total Marks (Internal & Final Exam): 100 (80+20)

Objectives: The teaching-learning of this paper will enable learner to-

- i. Give an introduction of yoga and its important streams,
- ii. Give a brief introduction biography of yogi ; and
- iii. Give a brief history and the basis different yoga.

Unit - 1: General Introduction to Yoga

Brief introduction to origin of Yoga, Psychological aspects leading to origin of Yoga, History and Development of Yoga; Etymology and Definitions of Yoga, Aim and Objectives of Yoga, Misconceptions about Yoga, True Nature of Yoga; General Introduction to Schools (Streams) of Yoga, Principles of Yoga and Yogic practices for healthy living success and failure elements of yoga .

Unit - 2: Foundations of Yoga and Yoga Traditions - I

General introduction to Vedas and Upanishads, Yoga in Pre-vedic period, Yoga in Vedic period, Yoga in Ayurveda, Yoga in Principle Upanishads, Yoga in Yogopanishad; General introduction to Shad-darshanas, Yoga in Samkhya and Yoga Darshana, Yoga in Vedanta; , Yoga in Bhagavadgita; Introduction to Smritis and Yoga in Smritis, Introduction to Puranas; ; Yoga in Narada Bhakti Sutra, , Bhakti Yoga of Medieval Saints.

Unit - 3: Foundations of Yoga and Yoga Traditions - II

General Introduction to Non-Vedic Schools of Indian Philosophy: Jainism, Buddhism, etc.; Introduction to Jainism, Anekantavada (Syadvada), Concept of Tri-ratnas, Concept of Kayotsarga (Preksha-dhyana). Yoga in Jaina darshana; Introduction to Buddhism: , Concept of Arya-satya or Four Noble Truths, Arya-astangikamarga or Noble-eight-fold-path (Bouddha-Yoga); Introduction to Sufism: Meaning and Characteristic features of Sufism, Elements of Yoga in Sufism, Sufi Meditation Techniques.

Unit - 4: Concept and Implications of Important Yogic Streams: Jyan Yoga, Bhakti Yoga, Karma Yoa, Ashtang Yoga, Kriya Yoga, Hatha Yoga, Raj Yoga and Mantra yoga.
Biography of Maharishi Patanjali ,Guru Gorakhnath ,Maharishi Mahesh yogi,Maharishi Arvindo,T Krishanamacharya,Swami Shivanand Saraswati,Swami vivekanand and Swami Dayanand

TEXT BOOK

1. Dasgupta S. N: History of Indian Philosophy, Motilal Banarsidas, Delhi, 2012
2. Sharma, Chandradhar: A Critical Survey of Indian Philosophy. Motilal Banarasidas, Delhi, 2013

BOOKS FOR REFERENCE

1. Agarwal M M : Six systems of Indian Philosophy, Chowkhambha Vidya Bhawan, varanai, 2010
2. Swami Bhuteshananda: Nararad Bhakti Sutra, Advaita Ashrama Publication-Dept. Kolkata, II Edition, 2009
3. Hiriyanna M : Outlines of Indian Philosophy, Motilal Banarsidas, Delhi, 2009
4. Bhat, Krishna K.: The Power of Yoga: SuYoga Publications Mangalore, 2006
5. Swami Prabhavananda : Spiritual Heritage of India (English). Sri Ramkrishna Math, Madras, 2004
6. Swami Vivekananda : Jnana Yoga, Bhakti Yoga, Karma Yoga, Raja Yoga. Advaita Ashrama, Calcutta, 2000
7. Pandit, M. P.: Introduction to Upanishads: Theosophical Society of India, Adyar, Madras, 1976
8. Dasgupta, S.N. : Hindu Mysticism, Motilal Banarsidass, Delhi 1927
9. Arthuv Avalan : The Serpent Power, Sivalik Prakashan, New Delhi, 2009
10. Bhat, Krishna K. : The Power of Yoga: SuYoga Publications Mangalore, 2006
11. Sing, Lalan Prasad : Tantra, Its Mystic and Scientific Bases. Concept Publishing Company, Delhi, 1976
12. Dr. Somveer Arya :Yoga Darshan:Chaukhambha Publications; New Delhi' 2019
13. Dharamveer Saloni and Dr. somveer arya : Yogiyo ka jivan parichay, Ramratey Publication 2019
14. योग दर्शन : स्वामी रामदेव
15. योग सूत्र : वाचस्पतिमिश्र
16. योग सूत्र राजमार्तण्ड : भोजराज
17. पातंजल योग प्रदीप : ओमानन्द तीर्थ
18. पातंजल योग विमर्श : विजयपाल शास्त्री
19. ध्यान योग प्रकाश : लक्ष्मणानन्द
20. योगदर्शन : राजाराम शास्त्री (2002)
21. पातंजल योग दर्शन : स्वामी सत्यपति परिव्राजक (2012)

M.Sc Yoga Science- First Semester

MSY-102 CC

Hatha Yoga

Total Marks (Final Exam & internal): 100 (80+20)

Objectives: The teaching-learning of this paper will enable learner to-i.

- To give an introduction of Hatha yoga
- ii. To give an understanding of the prerequisites of Hatha Yoga
- iii. To introduce the principles of Hatha Yoga
- iv. To introduce essential Hatha Yoga text

Unit-1: Hatha Yoga Its Philosophy and Practices

Hatha Yoga, its meaning, definition, aims & objectives, misconceptions, Failure and Success elements in Hatha Yoga as in Hatha Yoga Pradépika; The Origin of Hatha Yoga, Hatha Yogic Literature, Hatha Yogic Practices as explained in Hatha Yoga Pradéepika (HYP); Concept of Matha, Rules & Regulations to be followed by the Hatha Yoga Practitioner, concept of Mitahara, Pathya and Apathya ; Hatha Yogic parampara. Brief introduction to Great Hatha Yogi's of Natha Cult and their contributions to Yoga. Relationship between Hatha Yoga & Raja Yoga.

Unit-2: Hatha Yoga Practices: Shodhana-Kriyas and Asanas Shodhana-kriyas in Hatha Yoga Pradépika & in Gheranda Samhita and their techniques, benefits and precautions; Role of Shodhana-kriyas in Yoga Sadhana and their importance in Modern day life; Asana: its definition, Salient features and importance in Hatha Yoga Sadhana; Asanas in Hatha Yoga Pradéepika and Gheranda Samhita: their techniques, benefits, precautions and importance.

Unit-3: Hatha Yogic Practices: Pranayama, Bandhas and Mudras & Nadanusandhana

Pranayama – Mechanism of correct breathing, Yogic deep breathing, Concept of Püraka, Kumbhaka and Recaka; The concept of Prana, Kinds of Prana and Upa-pranas, Pranayama and its importance in Hatha Yoga Sadhana, Nadishodhana Pranayama, its technique and importance, Pre-requisites of Pranayama; Pranayama practices in Hatha yoga pradépika and Gheranda Samhita, their techniques, benefits and precautions, Hatha Siddhi Lakshanam; Bandhas and role of Bandhatrayas in Yoga Sadhana; Fundamental Mudras in HYP and G.S, Their techniques, benefits and precautions.

The concept of Nada, Four Avasthas (stages) of Nadanusandhana, and its Siddhis

Unit-4: Introduction to Hathayogic Texts & their Implications

Introduction to Basic Hatha Yoga Texts: Basic Hatha Yogic Texts: their nature and objectives, Siddhasiddhantapaddhati, Goraksha Samhita, and Shiva Samhita, Hatha Pradeepika, Gheranda Samhita, Breif introduction to Hatha Rathnavali & Yogbeej ,Applications of Hatha Yogic Practices

TEXT BOOKS

1. I. K. Taimini : The Science of Yoga, (The Theosophical, Publishing House, Adyar Chennai 2005).
2. Swami Satyananda Saraswati : Hatha Yoga, Pub: BSY Mungher
3. Dr. Somveer Arya: Hatha Yoga Pradeepika: Ramratey publications, 2019

BOOKS FOR REFERENCE:

1. Woods, J.H. : The Yoga System of Patanjali, M.L.B.D., Delhi, 1988
 2. Swami Vivekananda: Rajayoga, Advaita Ashram, Culcutta, 2000
 3. Iyengar B.K.S. : Light on Patanjali Yoga (New York, Schocken Books, 1994)
 4. Swami Sri Omanandathirtha: Patanjali Yoga Pradeepa, Geeta Press, Gorakhpur, 1994
 5. Swami Anant Bharati : Patanjali Yoga Shasta- a study (Hindi), Swami Keshwananda Yoga Sangthan, Delhi, 1982
 6. Burley, Mikel: Hatha Yoga, Its' Context Theory and Practice (M.L.B.D. Delhi, 2000)
 7. Ghosh, Shyam: The Original Yoga, Munshiram Manoharlal, New Delhi, 1999
 8. Burnier, Radha: Hathayoga Pradipika of Svatmarama, The Adyar Library publications, Chennai. 2000
 10. Woodroffe, Sir John: The Serpent power (Ganesh & Company, Madras, 2000)
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|--------------------|---|---|
| 11. हठ प्रदीपिका | : | स्वामी कुवल्यानन्द, कैवल्यधाम, लोनावला |
| 12. घेरण्ड संहिता | : | स्वामी दिगम्बर जी/ एम.एल. धरौटे (1997) कैवल्यधाम, लोनावला |
| 13. गोरक्ष संहिता | : | डॉ. चमनलाल गौतम (1985) |
| 14. भक्ति सागर | : | स्वामी चरणदास |
| 15. उपनिषद संग्रह | : | मोतीलाल बनारसीदास |
| 16. बहिरंग योग | : | स्वामी योगेश्वरानन्द |
| 17. योगासन विज्ञान | : | स्वामी धीरेन्द्र ब्रह्मचा |

M.Sc Yoga Science- First Semester
MSY-103 CC

Human Anatomy & Physiology- I
Total Marks (Internal & Final Exam): 100 (80+20)

Aims of the Paper: The teaching-learning of this paper will enable learner to-

- 1) Discuss introduction to human body with concept of cells, tissues, skeletal system, muscular system, respiratory system, cardiovascular system with their gross anatomy and physiology.
- 2) Discuss anatomical & physiological effects of selected yoga practices on aforesaid contents of human body in evidence base

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- Unit – 1** Concept & Introduction of Anatomy & Physiology and the Role of Anatomy & Physiology in yoga & sports. Muscular System: Concept, Types & Functions; Muscles: Mechanism of muscular contraction and relaxation, law of reciprocal innervations, Muscle fatigue. Effect of yoga on Muscular System.
- Unit – 2** Skeletal System: Concept, Types & Functions; Bone: Concept, Types, Number, Gross anatomy & Physiology, & Functions, Bone Cells: Concept, Types & their Functions; Synovial Joints: Concept, types & their features, Spine: Gross Anatomy & Physiology and Functions; Yogic effect on Bone/Skeletal System.
- Unit – 3** Respiratory System: Concept, Gross Anatomy & Physiology, Types & Functions; Lungs: Gross Anatomy & Physiology and Functions; Respiration: Concept, Types, Gross Anatomy & Physiology, Breathing Mechanics & Gaseous exchange; Respiratory Control Center; Yogic effect on Respiratory System.
- Unit- 4** Cardiovascular System: Concept, Gross Anatomy, Physiology, & Functions; Blood (RBC, WBC & Platelets). Systemic and pulmonary circulation, coronary circulation, Mechanism of circulation. Heart rate, stroke volume, cardiac output, cardiac cycle, Blood pressure. Effect of Yoga on Circulatory system.

REFERENCES

- Balkrishna, A. (2007). *Yoga in synergy with medical science*. Haridwar, India: Divya Prakashan Books™
- Coulter, H. D. (2006). *Anatomy of Hatha Yoga*. Delhi, India: Motilal Banarasidas
- Frawley, D. & Kozak, S. S. (2006). *Yoga for your type*. New Delhi, India: New Age Books.
- Gore, M.M. (2004). *Anatomy and physiology of yogic practices*. Lonavala, India: Kanchan Prakashan.
- Gupta, A.P. (2011). *Human anatomy and physiology*. Agra, India: Sumit Prakashan.
- Guyton, A.C. & Hall, J.E. (2006). *Text book of medical physiology* (11th ed.). Pennsylvania: Elsevier.
- Kaminoff, L. (2007). *Yoga Anatomy*. Champaign: Human Kinetics
- Malshe, P. C. (2012). *A Medical Understanding of Yoga* (2nd ed.). Haridwar, India: Antar Prakash Center for Yoga.
- McCall, T. (2007). *Yoga as Medicine: The Yogic Prescription for Health and Healing*. New York, NY: Bantam Dell.
- Pandya, K.K. (1998). *Human anatomy*. Varanasi, India: Krishnadas Academy.
- Patanjali Research Foundation. (2015). *Research Publications*. Haridwar, India: Divya Prakashan.
- Ramdev, S. (2006). *Yoga Sadhana and Yoga Chikitsa Rahasya*. Haridwar, India: Divya Prakashan.
- Ramdev, S. (2009). *Pranayam Rahasya*. Haridwar, India: Divya Prakashan.
- Robin, Mel. (2002). *A physiological handbook for teachers of yogasana*. Arizona: Fenestra
- Robin, Mel. (2009). *A Handbook for Yogasana Teachers*. Arizona: Wheatmark®
- Selvarasu, K. V. (2003). *Kriya Cleansing in yoga*. Tamil Nadu, India: Yoga Bharati.
- Tortora, G.J. & Derrickson, B.N. (2009). *Principles of anatomy and physiology-I* (14th ed.). Hoboken, NJ: Wiley.
- Tortora, G.J. & Derrickson, B.N. (2009). *Principles of anatomy and physiology-II* (14th ed.). Hoboken, NJ: Wiley.
- Udapa, K. N. (2007). *Stress and its management by yoga*. Delhi, India: Motilal Banarasidas
- Waugh, A. & Grant, A. (2010). *Ross and Wilson: Anatomy and Physiology in Health and Illness* (11th ed.). London: Elsevier.
- Khalsha, S., Cohen, L., Call, T. & Telles, S. (2016). *The principle and practice of yoga in health care.....*

M.Sc Yoga Science- First Semester

MSY-104 CC

Cell Biology and Biochemistry

Total Marks (Internal & Final Exam): 100 (80+20)

Cell Biology and Biochemistry

The main aim of the paper is to apprise students about the basic concepts of cell structure and function of various cell organelles. The introduction to bio-molecules and their role in biological processes. The aim is also to teach the function of nutrients and the disorders caused by their deficiency.

UNIT I

Cell as basic unit of life, broad classification of cell types, Prokaryotic and Eukaryotic cells, similarities and differences. Structure and function of cell wall, plasma membrane, cytoskeleton.

UNIT II

Structure and function of cell organelles (ER, Golgi apparatus, lysosomes, ribosomes, centriole, mitochondria, chloroplasts, nucleus, nucleolus, nuclear membrane, chromosomes. Cell cycle, cell division (mitosis and meiosis).

UNIT III

Bio-molecules, Carbohydrate, Lipids, Proteins, Enzymes, Nucleic acids, Disorders of Carbohydrate Metabolism, Disorders of Lipids, Inborn Errors of Metabolism, Digestive diseases, Disorders of liver and kidney. Microbial Biochemistry, Morphology and structure of bacteria, gram-positive and gram-negative organism, Bacterial toxins, Viruses.

UNIT IV

Function of nutrients, Measurement of the fuel values of foods, Direct and indirect calorimetry, Basal metabolic rate, factors affecting BMR, measurement and calculation of BMR, Measurement of energy requirements, Elements of nutrition, Minerals, Vitamins, Malnutrition, Starvation, Obesity.

PRACTICAL

Chromatography

General principles and application of 1) Paper chromatography. 2) Thin layer chromatography. 3) Adsorption chromatography. 4) Ion-exchange chromatography. 5) Gas-liquid chromatography. 6) High performance liquid chromatography. (HPLC) 7) Molecular sieve chromatography.

References:

Verma P S, and Agarwal V K (2016) Cell biology (Cytology, bio-molecules, Molecular Biology) Paperback, S. Chand and Company Ltd.

Kumar P and Mina U (2018) Life Sciences: Fundamentals and Practice, Part-I 6th Edition, Pathfinder Publication

Albert B, Hopkin K, Johnso A D, Morgan D, Raff M, Roberts K and Walter P (2018) Essential Cell Biology 5th Edn W W Norton & Company

Albert B, Hopkin K, Johnso A D, Morgan D, Raff M, Roberts K and Walter P (2015) Molecular Biology of Cell 6th Edn Garland Science, Taylor and Francis

M.Sc Yoga Science- First Semester
MSY-105 CC
Yoga Practical
Total Marks : 100

Aims of the Paper: The teaching-learning of this paper will enable learner to-

- 1) State techniques, health benefits, applications, precautions and contraindications of undermentioned yogic practices; &
- 2) To demonstrate and instruct undermentioned yogic practices.

षट्कर्म: जलनेति, रबरनेति, वमन धौति/कुँजर क्रिया, वातकर्म, कपालभाति।

-15 अंक

आसन

-30 अंक

सुक्ष्म व्यायाम (पवनमुक्त आसन)-1, यौगिक जॉगिंग, 12 आसन (मण्डूकआसन, शशाकासन, गोमुखासन, वक्रासन, मकरासन, भुजंगासन, शलभासन, मर्कटासन, पवनमुक्तासन, अर्द्धहलासन, पादवृत्तासन, द्वि-चक्रिकासन व शवासन) (रामदेव, २००५)

सिद्धासन	कटिचक्रासन	अर्धहलासन
पदमासन	वज्रासन	स्वस्तिकासन
वीरासन	उदराकर्षणसन	भद्रासन
जनुशिरासन	अर्द्धमत्स्येन्द्रासन	गोमुखासन
उष्ट्रासन	उत्तानपादासन	नौकासन
सर्वांगासन	हलासन	मत्स्यासन
सुप्तवज्रासन	चक्रासन	ताडासन
तिर्यक ताडासन	एक पाद प्रणामसन	वृक्षासन
गरूडासन	हस्तोत्तानसन	पादहस्तासन
त्रिकोणासन	अर्धधनुरासन	मार्जारि आसन
अर्द्धशलभासन	भुजंगासन	मकरासन
शवासन	स्मकोणासन	बकासन
सर्पासन	हनुमानासन	सुखासन
अर्द्धपद्मासन	एक पाद हलासन	स्तुबंधासन
मर्कटासन	शशाकासन	विपरीत नौकासन
द्विकोणासन	पार्श्वतानासन	सिंहासन

मण्डूकासन

प्राणायाम

-10 अंक

डायाफ्रामिक ब्रीदिंग; प्राणायाम: कपालभाति, भस्त्रिका, बाह्य, उज्जायी, अनुलोम-विलोम, नाडी शोधन, भ्रामरी एवं उद्गीथ (रामदेव, 2005)

मुद्रा एवं बन्ध: जल मुद्रा, चिन मुद्रा, विपरीत करणी मुद्रा, योग मुद्रा, जालन्धर बन्ध, उड्डीयान बन्ध, मूलबन्ध

-10अंक

सौख्यको:

-10अंक

M.Sc Yoga Science- First Semester
MSY-106 CC
Human Anatomy & Physiology Practical-1
Total Marks : 100

The objectives behind teaching Anatomy and Physiology is to

- Make students familiar with the systems of the body.
- Give a hand on experience
- about the human body using models, charts and pictures.
- Make students understand the organization of the body with respect to structural components.

Unit-1: Demonstration of Osteology & Myology [15 Hrs.]

Unit-2: Demonstration of Organs & Viscera regarding Cardio-pulmonary Systems [15Hrs.]

Unit-3: Demonstration of Bones, and Joints [15 Hrs.]

Unit-4: Demonstration of Human Skeleton [15 Hrs.]

M. Sc Yoga Science- First Semester

MSY-109 DCEC

Shri Madbhagvad Geeta & Yoga Vasishtha

Total Marks (Internal & Final Exam): 100 (80+20)

Aims of the Paper: The teaching-learning of this paper will enable learner to-

1) Understand and discuss Shrimadbhagvad Geeta & Yoga vasishtha as basic philosophical and theoretical foundations of Yoga.

Unit-1

General Introduction to Bhagavad Geeta (B.G.) Definition of Yoga in B.G. and their relevance and scope, Essentials of B.G. the meaning of the terms Atmaswrupa stithaprajna, sankhya Yoga, Karma Yoga, Sanyas Yoga and Kram Swarupa (Sakama and nishkama) etc; samnyasa, dhyana Yogs, type of Bhakta.

Unit-2

Nature of Bhakti, Means Goal Bhakti Yoga, The Triguns and modes of Prakriti, Three kinds of faith, food for yoga sadhaka, classification of food, Daivasura-sampad- vibhaga Yoga, Moksa-upadesa yoga

Unit-3

Salient Features of Yoga vashistha, concept of Adhis and Vyadhys; Psychomatic Ailments The four Gatekeepers (Pillars) to Freedom, How Sukha is attained the Highest state of Bliss

Unit-4

Practices to Overcome the Impediments of Yoga, Development of Satvaguna, Eight Limbs of Meditation, Jnana Saptabhumika .

TEXT BOOKS

- | | | |
|----|-----------------------|------------------------------|
| 1. | Maharishi Vedvyas | : Shri Madbhagwadgeeta |
| 2. | Dr. Somveer Arya | : Shri Madbhagwadgeeta |
| 3. | Lokmanaky Tilak | : Shri Madbhagwadgeeta |
| 4. | Swami Ramdev | : Shri Madbhagwadgeeta |
| 5. | Geeta Press Gorakhpur | : Shri Madbhagwadgeeta |
| 6. | Geeta Press Gorakhpur | : Yogvasishta |
| 7. | Pandit Thakur Prasad | : Yogvasishta Maha Ramayanam |

M. Sc Yoga Science- First Semester

MSY-110 DCEC

Health Education

Total Marks (Internal & Final Exam): 100 (80+20)

Unit – I: Health Education

Definition of Health, Dimensions and Determinants of Health, Concept of Health Education : Meaning, Need & Importance, Health Service and guidance instruction in personal hygiene, Care of skin, Nails, Eye health service, Health Care during Camp & Travelling, Health appraisal, Health record, Healthful school environment, first- aid and emergency care in different conditions.

Unit – II: Health Problems in India

Effect of Alcohol on Health, Effect of Tobacco on Health, Effect of different types of drugs on Health, Meaning of Diabetics, Types of Diabetics, Causes of Diabetics, Management of Diabetics, Meaning of Stress, Causes of stress, management of Stress, Objective of school/college health service, Role of health education in school/college.

Unit – III- Introduction to Sports Nutrition

Meaning and Definition of Sports Nutrition, Role of nutrition in Sports, Basic Nutrition guidelines, Nutrients: Ingestion to energy metabolism (Carbohydrate, Protein and Fat), Role of carbohydrates, Fat and protein during exercise. Calories in different food stuffs. Preparation of diet chart for Sports personal, normal male and female, children and elderly persons

Unit – IV Nutrition and Weight Management

Concept of BMI (Body mass index), Meaning of Obesity, Causes of Obesity, Management of Obesity, Obesity and its hazard, Dieting versus exercise for weight control, maintaining a Healthy Lifestyle, Weight management program for children, adolescence, adulthood and elderly. Role of diet and exercise in weight management, Design diet plan and exercise schedule for weight gain and loss.

Suggested Readings:

Bucher, Charles A. "Administration of Health and Physical Education Programme". Delbert, Oberteuffer, et. al." The School Health Education".

Ghosh, B.N. "Treaties of Hygiene and Public Health".

Hanlon, John J. "Principles of Public Health Administration" 2003. Turner, C.E. "The School Health and Health Education".

Moss and et. At. "Health Education" (National Education Association of U.T.A.) Nemir A. 'The School Health Education" (Harber and Brothers, New York). Nutrition Encyclopedia, edited by Delores C.S. James, The Gale Group, Inc.

Boyd-Eaton S. et al (1989) The Stone Age Health Programme: Diet and Exercise as Nature Intended. Angus and Robertson.

Terras S. (1994) Stress, How Your Diet can Help: The Practical Guide to Positive Health Using Diet, Vitamins, Minerals, Herbs and Amino Acids, Thorons.

M.sc Yoga Science- Second Semester
MSY: 201 CC
Patanjal Yoga Darshan
Total Marks (Internal & Final Exam): 100 (80+20)

Objectives:

- i. To teach an overview of the Patanjali Yoga Sutras
- ii. To teach the essence of the Patanjali Yoga Sutras
- iii. To discuss Patanjali Yoga Sutra in terms of Psychology

Unit-1: Philosophy & Practices of Patanjali Yoga Sutra and Modern Psychology Yoga, its meaning & purpose & a brief introduction to Patanjali's Yoga Sutras and its author; Nature of Yoga according to Patanjali in light of Vyasabhashya and other traditional commentators, Importance of Yoga Sūtra in comparison to other Yogic literature; Concept of Chitta, Chitta-bhumis, Chitta-vrittis, Chitta-vritti nirodhopaya (Abhyasa and Vairagya) Chitta-Vikshepas (Antarayas), Chitta-prasadanam and its' associates; Metaphysics of Saikhya & its relationship with Yoga Darshana of Patanjali, Philosophical Foundations & Practices of Patanjali's Yogas.

Unit-2: Samadhi Pada and Sadhana Pada

Kriya-yoga, Theory of Kleshas, Nature of Drshta & Drshya and means of elimination of Kleshas/ Vivekakhya; Types and nature of Samadhi in Yoga Sūtra, Rtambharaprajna and Adhyatmaprasada; Samprajnata, Asamprajnata, Sabija & Nirbija Samadhi, Difference between Samapattis and Samadhi; Concept of Ishvara and qualities of Ishvara.

Unit-3 : Concept of Vibhuti And Kaivalya

Ashtanga Yoga: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana, and Samadhi; Samyama & three Parinama of Samyama. The concept and description of Ashtha Siddhis; Nature of Kaivalya, Kaivalya in relation to Triguna and Dharmamegha Samadhi; Ashtanga Yoga & Kriya Yoga in Yoga Sutras and their importance & relevance in modern age.

Unit-4: Parinamas and The Personality Transformation

The critical analysis of the three parinamas; The parinamas as the tool for transformation; The parinamas and the higher states of consciousness; The discussion of parinamas in the light of psychology.

A critical discussion on Asta-siddhi

TEXT BOOK:

1. Swami Vivekananda : Rajayoga (Advaita Ashram, Culcutta, 2000).
2. Woods, J.H.: The Yoga System of Patanjali (M.L.B.D., Delhi, 1988)

REFERENCE BOOKS:

1. Iyengar B.K.S.: Light on Patanjali Yoga (New York, Schocken Books, 1994)
2. Rukmini T.S.: Yoga Vartika of Vijnanbhikshu (Tr.) Vol I, II, III & IV, Munshiram Manoharlal Pvt. Ltd. New Delhi
3. Swami Omanandathirtha: Patanjali Yoga Pradeepa, Geeta Press, Gorakhpur, 1994
4. Swami Anant Bharati: Patanjali Yoga Shasta- a study (Hindi), Swami Keshwananda Yoga Sangthan, Delhi
5. K. Taimini : The Science of Yoga (The Theosophical Publishing House, Adyar Chennai 2005).
6. योग दर्शन : स्वामी रामदेव
7. योग सूत्र : वाचस्पतिमिश्र
8. योग सूत्र राजमार्तण्ड : भोजराज
9. पातंजल योग प्रदीप : ओमानन्द तीर्थ
10. पातंजल योग विमर्श : विजयपाल शास्त्री
11. ध्यान योग प्रकाश : लक्ष्मणानन्द
12. योगदर्शन : राजवीर शास्त्री
13. पातंजल योग दर्शन : स्वामी सत्यपति परिव्राजक

M.Sc Yoga Science- Second Semester
MSY-202 CC
Yoga Psychology & Mental Health
Total Marks (Internal & Final Exam): 100 (80+20)

Unit-1: HUMAN PSYCHE

Concept of Psyche as per Samkhya, Vedanta and Tantra; The nature of Psychology and its definition, Scope and utility of Psychology. Psychology as a study of human behavior; Counseling; Personality development; Counseling; Methods of counseling; Skills of counseling; Issues and challenges; Life's skills for happy life; Code of ethics for lay counselors. Yogic etiology for somatic, mental, social and spiritual disharmony. Definition; Physiological and psychological stress; Understanding stress in accordance with scriptures; Stress assessment tools and biomarkers of stress; Stress & disease.

Unit-2: YOGA INSIGHTS ON PSYCHOLOGY

States of consciousness according to yogic scriptures (Jagrata, Svapna, Susupti and Turiyā) and their applicability; Learning and Remembering in the context of Jnana Yoga (Shravana, Manana and Nididhyasana); Types of personality in the context of different yogic scriptures (Mudha, Kshipta, Vikshipta, Chanchala etc.); Yogic concept of emotions; Cause of emotions in the mind according to YogaTexts, Physiology of emotions; Mobilizing, transforming and celebrating the emotions.

Unit-3 : PSYCHIC FORCES, CONFLICTS AND FRUSTRATIONS

Psychic forces and human behavior, behavior and Consciousness, States of Consciousness, Psychological basis of behavior; Causes and Consequences of Conflicts and Frustrations; Disorders; Common mental disorders; Depressive disorders; Anxiety disorders; Serious mental disorders; Mental retardation; Alcohol and drug abuse; Suicide, attempted suicide and suicide prevention.

Unit- 4: MENTAL PROCESSES, MOTIVATION, EMOTIONS AND INTELLIGENCE

Concept (Meaning, definition, types, and process) of Sensation, Perception, Attention, Memory, Learning, Feeling etc and their neurobiology and quantifications; Concept of Human Intelligences – mental Intelligenece, emotional intelligence, social intelligence and spiritual intelligence and their neurobiological connection and quantifications; yogic practices for improving/enhancing the intelligences.

TEXT BOOKS

1. Abhedananda : The Yoga Psychology, Ramakrishna Vedanta Math, Calcutta, 1973.
2. Sachdev, I.P. : Yoga and Depth Psychology (Motilal Banarsidass, Delhi, 1978)

REFERENCE BOOKS

1. Taimini, I.K : Glimpses into the Psychology of Yoga (Adyar: Theosophical Publishing House, 1973)
3. Aatreya, Shanti Parkash : Yoga Manovijnana (Indian Psychology) (International Standard Publication, Varanasi; 1965)
- Hecker, J.E. & Thorpe, G.L. : Introduction to clinical psychology: Science, Practice ðics. New Delhi: Pearson, 2010
4. Hilgard, Ernest R., Atkinson, Richard C. & Atkinson, R.L: Introduction to Psychology. New Delhi: Oxford and IBH Publishing Co. Pvt. Ltd.
5. Nagendra, H. R.: New Perspectives in Stress Management. Bangalore: Vivekananda Kendra.
6. Herrman, H., Saxena, S, & Moodie, R: Promoting Mental Health. Switzerland: WHO Press, World Health Organization, 2005
7. Singh, A. K.: Saral Samanya Manovijnana. Delhi: Motilal Banarasidas Publications, 2007
8. Taylor, S. E.: Health Psychology (6th ed.). New Delhi: Tata McGraw Hill, 2006
9. Tilak, B. G.: Srimad Bhagwadgita Rahasya. Poona: Tilak Mandir.
10. Udupa, K.N. : Stress and Its Management by Yoga. Delhi: Motilal Banarasidas, 2007
11. Vivekananda, Swami: Raja Yoga. Nagpur: Ramakrishna Math.
12. Daniel Goleman & Joel Gurin : Mind body medicine
13. Deepak Chopra: Healing the heart
14. Dharam Singh Khalsa: Meditation as medicine
15. Deepak Chopra : Quantum healing
16. Estelle Frankel : Sacred therapy
17. Aggie Casey & Herbert Benson: Mind your heart
18. Barbara B. Brown: New body, new mind
19. Sri Ramakrishna Math: Healthy mind, healthy body
20. Antonio Damasio: The feeling of what happens
21. Daniel Goleman: Social intelligence Emotional intelligence
22. The American holistic health association complete guide to alternative medicine; by William Collinge – Paperback
23. David Frawley : Ayurveda and the mind
24. John E. Sarno The divided mind: the epidemic of mind body disorders

M.Sc Yoga Science- 2nd Semester
MSY-203 CC
Human Anatomy & Physiology-II
Total Marks (Internal Test & Final Exam): 100 (80+20)

Aims of the Paper: The teaching-learning of this paper will enable learner to-

- 1) Discuss gross anatomy and physiology of human- digestive, urinary, nervous, & glandular systems; and selected cognitive senses (eye, nose and ear).
 - 2) Discuss anatomical and physiological effects of selected yoga practices (postures, breath regulations, neuro-muscular locks, gestures, concentrations, guided meditations etc.) on aforesaid contents of human body in evidence based way.
-

Unit I Digestive System

Anatomy-Gross and Histological, Anatomy and Function of - Stomach, Liver, and pancreas; Mechanism of secretion of saliva, Gastric Juice, Pancreatic Juice, Bile, Intestinal secretion- Role of these secretions in digestion of food (Protein, Carbohydrate and Fat); Effect of Yoga on digestive system.

Unit II Urinary System

Anatomy (Gross and Histological) of excretory system, Histology and function of Kidney, Glomerules , Nephron and Renal tubules; Composition and formation process of urine, Urination and its control; Effect of Yoga on urinary system.

Unit III Nervous System

Gross anatomy of NS; Structure, types and properties of neurons and nerves; Action potential-generation, propagation and influencing factors; Types of NS (CNS and PNS); CNS- Brain (Cerebrum, Cerebellum and Spinal Cord) – Gross anatomy and functions; Functions and important connections of Pons, Medulla, Thalamus, and Hypothalamus; PNS (Cranial and Spinal Nerves)- Gross anatomy and Functions; Autonomic NS- Sympathetic and Parasympathetic (Anatomy and functions); Effect of Yoga on NS.

UNIT IV

Glandular System: Endocrine and Exocrine Gland, Structure and Function of Pituitary Gland Pineal Gland, Thyroid and Parathyroid Gland, Thymus Gland, Adrenal Gland, Ovary, and Testes; Yogic effect on Endocrine System.

REFERENCES

- Balkrishna, A. (2007). *Yoga in synergy with medical science*. Haridwar, India: Divya Prakashan Books™
- Coulter, H. D. (2006). *Anatomy of Hatha Yoga*. Delhi, India: Motilal Banarasidas
- Frawley, D. & Kozak, S. S. (2006). *Yoga for your type*. New Delhi, India: New Age Books.
- Gore, M.M. (2004). *Anatomy and physiology of yogic practices*. Lonavala, India: Kanchan Prakashan.
- Gupta, A.P. (2011). *Human anatomy and pshysiology*. Agra, India: Sumit Prakashan.
- Guyton, A.C. & Hall, J.E. (2006). *Text book of medical physiology* (11th ed.). Pennsylvania: Elseveir.
- Kaminoff, L. (2007). *Yoga Anatomy*. Champaign: Human Kinetics
- Kumar, V. (2004). *Manav Sarir Samrachna aur sarir kriya vijyan*. New Delhi, India: Japee Brothers Medical Publishers (P) Ltd.
- Malshe, P. C. (2012). *A Medical Understanding of Yoga* (2nd ed.). Haridwar, India: Antar Prakash Center for Yoga.
- McCall, T. (2007). *Yoga as Medicine: The Yogic Prescription for Health and Healing*. New York, NY: Bantam Dell..
- Pandya, K.K. (1998). *Human anatomy*. Varanasi, India: Krishnadas Academy.
- Patanjali Research Foundation. (2015). *Research Publications*. Haridwar, India: Divya Prakashan.
- Ramdev, S. (2006). *Yoga Sadhana and Yoga Chikitsa Rahasya*. Haridwar, India: Divya Prakashan.
- Ramdev, S. (2009). *Pranayam Rahasya*. Haridwar, India: Divya Prakashan.
- Robin, Mel. (2002). *A physiological handbook for teachers of yogasana*. Arizona: Fenestra
- Robin, Mel. (2009). *A Handbook for Yogasana Teachers*. Arizona: Wheatmark®
- Selvarasu, K. V. (2003). *Kriya Cleansing in yoga*. Tamil Nadu, India: Yoga Bharati.
- Tortora, G.J. & Derrickson, B.N. (2009). *Principles of anatomy and physiology-I* (14th ed.). Hoboken, NJ: Wiley.
- Tortora, G.J. & Derrickson, B.N. (2009). *Principles of anatomy and physiology-II* (14th ed.). Hoboken, NJ: Wiley.
- Udapa, K. N. (2007). *Stress and its management by yoga*. Delhi, India: Motilal Banarasidas
- Waugh, A. & Grant, A. (2010). *Ross and Wilson: Anatomy and Physiology in Health and Illness* (11th ed.). London: Elsevier.

M.Sc. Yoga Science- 2nd Semester
MSY-204 CC
Yoga Practical
Total Marks : 100

Aims of the Paper: The teaching-learning of this paper will enable learner to-
1) State techniques, health benefits, applications, precautions and contraindications of undermentioned yogic practices; &
2) To demonstrate and instruct undermentioned yogic practices.

षट्कर्म

सूत्रनेति, अग्निसार, शीतक्रम व व्युत्क्रम कपालभाति तथा **MY-105** में वर्णित सभी क्रियाएं 20 अंक

आसन 30 अंक

उत्कटासन	पश्चिमोत्तान	चक्रासन
वृषभासन	नटराजासन	कुक्कुटासन
कुर्मासन	वक्रासन	हस्तपादांगुष्ठ
उत्थित पद्मासन	पादांगुष्ठ	पर्वत
आकर्णधनुरासन	भूमनासन	बद्धपद्मासन
कोणासन	अष्टावक्र	वातायनासन
तुलासन	व्याघ्रासन	गुप्तदम्
गर्भासन	तिर्यक भुजंगासन	सर्पासन
अर्द्धचन्द्रासन	परिवृत्त जानुशीर्षासन	संकट आसन

प्राणायाम: सूर्यभेदी, चन्द्रभेदी, उज्जायी, बाह्यवृत्ति, आभ्यन्तर वृत्ति तथा **MY-105** के सभी अभ्यास। -15अंक

मुद्रा व बन्ध -10अंक

शाम्भवी, तड़ागी, काको मुद्रा एवं महाबन्ध

हस्तमुद्रा, प्राण व अपान मुद्रा तथा में वर्णित सभी मुद्रा व बन्ध।

मंत्र एवं ध्यान: -10अंक

मौखिकी -5 अंक

M.Sc. Yoga Science- 2nd Semester
MSY-205 CC
Human Anatomy & Physiology-II
Total Marks : 100

The objectives behind teaching Anatomy and Physiology is to

- Make students familiar with the systems of the body.
- Give a hand on experience about the human body using models, charts and pictures.
- Make students understand the organization of the body with respect to structural components.

Unit-1: Demonstration of organs and viscera digestive and urinary system [15 Hrs.]

Unit-2: Demonstration of nerve cell, nerve/tract, brain and spinal cord [15Hrs.]

Unit-3: Demonstration of gross sites, structures of endocrine glands [15 Hrs.]

Unit-4: Demonstration of gross structures of human ear, eye and nose [15 Hrs.]

M.Sc. Yoga Science- 2nd Semester
MSY-208 DCEC
Indian Philosophy & Culture
Total Marks (Internal & Final Exam): 100 (80+20)

Aims of the Paper: The teaching-learning of this paper will enable learner to-

- Appreciate the insight in the six systems of Indian philosophy.
- Explain the understanding of Yoga as a philosophy and inculcate the essence.
- Describe the various schools of philosophy like Buddhism, Samkhya, Mimamsa etc. which are relevant to yoga practice.
- Discuss concept, objectives, and applications of Indian Culture for living & learning.

Unit-1: Nyaya and Vaisesika

Nature of physical world, Individual soul, liberation and concept of supreme soul in Indian philosophy, Theory of body, mind and soul and philosophical background, The sixteen Padarthas according to Nyaya, Concept of Nyaya philosophy, means of salvation according to Nyaya and Vaisesika, Means and objects of knowledge according to Nyaya and Vaisesika Category of substance-Nava dravyas, Category of quality-24 gunas, Relation between Nyaya and Vaisesika philosophy.

Unit-2: Samkhya and Yoga

Theory of cause and effect; Prakriti and Purusha; Process of evolution of universe and concept of liberation; Concept of Atman, Brahma, Maya, Universe, God; the self and human life; Three fold afflictions and means to overcome afflictions; Twenty five entities according to Samkhya and means of knowledge; Saakarya Vada; Similarities and dissimilarities between Vyakta and Avyakta, Triguna; Existence of Purusa, plurality of Purusa, proximity of Purusa and Prakrti; Karana, Antah Karana and Bahya Karana according to Sankhya Karika; Liberation and means of attaining it; Organization of the Yoga sutras, stages of Chittas, forms of Chitta, modification of Chittas, Kind of Kleshas, the eight fold of Yoga and God & liberation.

Unit-3: Mimamsa (Purva and Uttara)

Concept of Badarayana in Uttaramimamsa; Anumana, Sabda; Difference between vidya & avidya, subject & object, creation & causation, cause & effect; Pratyaksa, Anumana, Upamana, Arthapati, Anupalabdi and Sabda according to Uttaramimamsa; Atheism, Dharma in the context of Purvamimamsa, Summary of ten Upanisads, Atman, Brahma, Maya, Universe, God; The self and human life; Major teachings of Mimamsa system; Selfless action, nonattachment, self-control, self-discipline; Daily schedule for psychophysical wellbeing, social awareness, sense of equality, unity with diversity, selectiveness

Unit- 4

Culture: Origin, Meaning, Definition and Types; General Introduction to Indian Religious Scriptures- Veda, Upanishad, Manusmriti, Mahabharat, Ramayan, Bhagvat Gita; Salient Features of Indian Culture: Vedic Ashram Vyavastha, Varna Vyavastha, Law of action, Sixteen Rituals and Pancha Mahayajna.

TEXT BOOKS

1. C.D. Sharma: Critical Survey of Indian Philosophy, Motilal Banarsidass Publications 2003.
2. N. V. Banerjee: The Spirit of Indian Philosophy, Arnold-Heinemann Publishers, 1974.

REFERENCE BOOKS

- P.T. Raju : Structural Depths of Indian Thought, SUNY Press, 1985
- S. N. Dasgupta: A History of Indian Philosophy Vol.1, Motilal Banarsidass Publications, 1992
- J.N. Mohanty: Classical Indian Philosophy, Published by Rowman & Littlefield, 2000
- T.M.P. Mahadevan: Invitation to Indian Philosophy, Arnold-Heinemann Publishers, 1974

- वैदिक साहित्य एवं संस्कृति : डॉ. कपिल देव द्विवेदी
- भारतीय दर्शन : आचार्य बलदेव उपाध्याय
- सत्यार्थ प्रकाश : स्वामी दयानन्द सरस्वती
- ऋग्वेदादिभाष्यभूमिका : स्वामी दयानन्द सरस्वती
- धर्म का आदि स्रोत : गंगा प्रसाद उपाध्याय
- औपनिषदिक अध्यात्म विज्ञान : डॉ. ईश्वर भारद्वाज।

M.Sc. Yoga Science- 2nd Semester
MSY-209 DCEC
Hatha Ratnavali

सिद्ध सिद्धांत पद्धति

Unit-I

परब्रह्म, परब्रह्मा की आदिम पञ्च शक्तियाँ एवं उनके गुण, अनादि पिंड के पांच अधिष्ठात देव उनके कार्य,
महासाकार पिंड की आठ मूर्ति, प्रकृति पिण्ड(नर- नारी) की उत्पत्ति, अंतःकरण पंचक, कुलपंचक, व्यक्ति-
शक्ति पंचक, दस वायु, स्थूल शरीर का उत्पत्ति कर्म।

Unit-II

नवचक्र, सोढश आधार, लक्ष्यत्रय, व्योम पंचक, अष्टाङ्ग योग

Unit-III

सप्त पाताल, इक्कीस ब्रह्माण्ड, चौसठ वर्ण सप्तद्वीप, सप्त समुन्द्र, नव खण्ड, अष्टकुल पर्वत, नौ नदी एवं
अन्य उपनदियां, स्वर्ग -नरक मुक्ति।

Unit-Iv

कुलशक्ति, आकाशादि की कुण्डलिनी से उत्पत्ति, मध्यशक्ति प्रबोधन, स्थूल-सूक्ष्म कुण्डलिनी, गुरु द्वारा
सन्मार्ग दर्शन, गुरु और सामरस्य।

सन्दर्भ ग्रन्थ: -

- सिद्ध सिद्धांत पद्धति -चौखम्बा पब्लिकेशन ।

M.Sc. Yoga Science- 2nd Semester
MSY-210 Foundation Course
Communication Skills and Personality Development

End Semester Exam: 40 marks

Internal Assessment: 10 marks

Total: 50 marks

Time: 2 hrs.

Communication Skills: The paper aims at developing communication skills among students using verbal and non-verbal techniques. Training students to use of mass media, developing effective speaking and writing skills.

Unit-I

Human Communication (Theoretical perspective): Its uniqueness, its nature, models of communication. Types of Human communication, Language, non-verbal communication, logic and reasoning, lateral thinking. The concept of facilitating: factors, barriers and filters in communication; the seven C's of effective communication, Preparing for interviews, CV/Biodata.

Unit -II

Self-communication, interpersonal communication, dyadic communication, small group communication. Public communication. Mass Communication, Reliability of communication. Input and Evaluation Processes (Practice): Listening (process, comprehension, evaluation). Reading (process, comprehension, evaluation). Watching (process, comprehension, evaluation). Email Do's and Don'ts.

Unit -III

Output and Interaction Processes (Practice): Speech (conversation, interview, group discussion, public speech). Writing (spontaneous writing, guided writing, creative writing). Organizing ideas (noting, summary, flow charts, concept maps). Correspondence (personal, business).

Unit-IV

Science / Scientific Writing (Theory and practice): Goals and Objectives. Ethics in writing. Structure of documents. Language and grammar. Illustrations and aids. Writing proposals and instructions. Making presentations. Formatting documents. Drafts and revisions. Editing. Writing popular science / journal article. Session:

Note: There shall be nine questions in all. Question no. 1 shall be compulsory, consisting of eight short answer type questions covering the entire syllabus. Two questions will be asked from each unit. Student will have to attempt one question from each unit. Each question shall carry equal marks.

Suggested Readings:

1. Communicating a social and career focus, K. M. Berko, Andrew D. Wolvyn and Darlyn R. Wolvyn, Houghton Mifflin Co., Boston (1977)
2. The Craft of Scientific Writing (3rd Edition), Michael Alley, Springer, New York (1996)
3. Science and Technical Writing – A Manual of Style (2nd Edition), Philip Reubens (General editor), Routledge, New York (2001)
4. Writing Remedies – Practical Exercises for Technical Writing Edmond H. Weiss, Universities Press (India) Ltd., Hyderabad (2000)
5. Effective Technical Communication, M. Ashraf Rizvi, Tata Mc Graw – Hill Publishing Co. Ltd., New Delhi (2005)

M.Sc Yoga Science- 3rd Semester
MSY-301 CC
Total Marks (Internal & Final Exam): 100 (80+20)
Teaching Methodology of Yoga

Objectives:

- i. To teach teaching techniques to the students
- ii. To teach class management and lesson planning
- iii. To introduce educational tools of yoga teaching
- iv. To teach the concept of yoga education and values

Unit 1: PRINCIPLES AND METHODS OF TEACHING YOGA

Teaching and Learning: Concepts and Relationship between the two; Principles of Teaching: Levels and Phases of Teaching, Quality of perfect Yoga Guru; Yogic levels of learning, Vidyarthi, Shishya, Mumuksha; Meaning and scope of Teaching methods, and factors influencing them; Sources of Teaching methods; Role of Yoga Teachers and Teacher training.

Unit 2: BASICS OF YOGA CLASS MANAGEMENT

Practice of Yoga at different levels (Beginners, Advanced, School Children, Youth, Women and Special attention group); Techniques of Individualized; Teaching Techniques of group teaching; Techniques of mass instructions; Organization of teaching (Time Management, Discipline etc.)

Unit 3: LESSON PLANNING IN YOGA

Essentials of Good Lesson Plan: concepts, needs, planning of teaching Yoga (Shatkriya, Asana, Mudra, Pranayama & Meditation); Models of Lesson Plan; Action Research of Yoga: Meaning, Roles, Steps in action research in Yoga Teaching; Effective use of Library and other resources; Lesson Plan and its Practical applications.

Unit 4: EDUCATIONAL TOOLS OF YOGA TEACHING

Yoga classroom: Essential features, Area, Sitting arrangement in Yoga class etc; Class room problems: Types and Solutions, Characteristics and essentials of good Yoga teaching; Time table: Need, Types, Principles of Time table construction; Time Table for Yoga teaching; Meaning, Importance and Types of Educational technology; Role of Educational Technology in Yoga.

TEXT BOOKS

1. Swami Satyananda Saraswati: Yoga Education for Children, Bihar Schools of Yoga, Munger, 1990.
2. Swami Satyananda Saraswati: A Systematic Course in the Ancient Tantric Techniques of Yoga and Kriya, Bihar Schools of Yoga, Munger, 2004.

BOOKS FOR REFERENCE

1. Dr. Gharote M L: Teaching methods for Yogic practices, Kaivalyadhama, Lonavala, 2007
2. Dr. Shri Krishna: Notes on basic principles & methods of teaching as applied to yogic practices and a ready reckoner of yogic practices, Kaivalyadhama, Lonavala, 2009
3. Dr. Raj Kumar : Principles & methods of Teaching, Printo graphics, Delhi
4. Duggal, Satyapad : Teaching Yoga, The Yoga Institute, Santacruz, Bombay, 1985
5. Nagendra, H.R. and Nagaratna R : New Perspectives in Stress Management, V.K.Yogas, 1988.
6. Swami Satyananda Saraswati: Yoga Education for Children, Bihar Schools of Yoga, Munger, 1990
7. Gawande, E.N.: Value Oriented Education, Sarup & Sons, New Delhi – 110002
8. Gharote, M.L.: Yoga Applied to Physical Education Lonavala; Kaivalyadhama.
9. Dr R Nagarathna & Dr H R Nagendra :Integrated Approach of Yoga Therapy for Positive Health, Swami Vivekananda Yoga Prakashana, Bangalore, 2003.

M.Sc Yoga Science- 3rd Semester
MSY-302 CC
Biomechanics and Kinesiology
Total Marks (Internal & Final Exam): 100 (80+20)

Course objectives:

The biomechanics course objectives are

- Helping learners to realize biomechanics importance to yoga practice;
- To learn general biomechanics concepts and principles that influence human movement;
- Illustrate the use of these general biomechanical concepts in the professional skill for the diagnosis of the movement during yoga practices.

Unit 1: Introduction to Kinesiology and the principles of Biomechanics in Yoga [15 Hrs.]

Meaning and Definition of Kinesiology ; Basic Biomechanical terms – velocity; acceleration; angular velocity; angular acceleration; Mass; Pressure; Gravity; Friction; work; Power; Energy; Torque; Bio mechanics: Description of movement of the human body; Kinematics, Kinetics; Kinetics – the forces producing motion e.g. muscles, gravity; Kinematics – the description of motion e.g. type, location, direction, planes of movement; Type of displacement (movement); Location in space; Direction of movement; Magnitude of movement; Rate of movement; Importance of Kinesiology and Biomechanics for Yoga.

Unit 2: Fundamental Concept [15 hrs.]

Fundamental concepts of following terms – Axes and Planes, Centre of Gravity, Equilibrium, Line of Gravity; Fundamental movements at various joints; Fundamental concepts of the following terms – Angle of Pull, All or None Law, Reciprocal Innervations and inhibition; Stretch and postural reflex during the practice of Yoga postures; Force – Meaning, definition, types and its application to various Yoga postures; Lever – Meaning, definition, types and its application to human body; Newton's Laws of Motion – Meaning, definition and its application to Yoga activities.

Unit-3 : Biomechanics of Hip and spine [15 Hrs.]

Biomechanics of Hip Structure & function of the bones & non contractile element of the Hip, mechanics & patho-mechanics of muscle activity at the hip & analysis of the forces on the Hip during various Yoga postures; Biomechanics of Spine: Structure & function of the bones

& joints of the cervical spine, mechanics & patho-mechanics of the cervical musculature, analysis of the forces on the cervical spine during activity, structure & function of the bones & joints of the thoracic spine, mechanics of the thoracic musculature, analysis of the forces on the thoracic spine during Yoga Postures & structure & function of the bones & joints of the lumbar spine. c. Mechanics of the lumbar musculature, analysis of the forces on the lumbar spine during Yoga postures, structure & function of the bones & joints of the pelvis, mechanics of the muscle activity in the pelvis & analysis of the forces on the pelvis during activity.

Unit-4: Biomechanics of Shoulder, elbow and wrist [15 Hrs.]

Biomechanics of Shoulder: Structure & function of the bones & joints of the Shoulder complex, mechanics & patho-mechanics of the muscle activity in the Shoulder complex & analysis of the forces on the Shoulder complex during Yoga postures; Biomechanics of Elbow: Structure & function of the bones & no contractile element of the elbow, mechanics of muscle activity at the elbow & analysis of the forces on the elbow during Yoga postures; Biomechanics of Wrist & Hand Structure & function of the bones & joints of the wrist & hand, mechanics of the muscle activity in the wrist & hand, analysis of the forces on the wrist during activity, mechanics of the Special connective tissue in the hand.

TEXT BOOKS

1. Hay, J.G. and Reid, J.G.: Anatomy, mechanics and human motion. Englewood Cliffs, N.J.: prentice Hall Inc. 1988.
2. Knudson, D.: Fundamentals of biomechanics. New York, NY: Springer, 2007

REFERENCE BOOKS

1. McGinnis, P.: Biomechanics of sport and exercise. Champaign, IL: Human Kinetics, 2013
2. Franc Bell: Principles of Mechanics and Biomechanics, Stanley Thornes Publications, 1998
3. Iwan W. Griffiths, Principles of Biomechanics & Motion Analysis, Published by Lippincott Williams & Wilkins, 2006.

M.Sc Yoga Science- 3rd Semester
MSY-303 CC
Research & Statistical Methods
Total Marks (Internal & Final Exam): 100 (80+20)

Aims of the Paper: The teaching-learning of this paper will enable learner to-

- 1) State concept and make statistical computations (measure of central tendency & dispersion, simple correlation & regression, NPC Applications, t-test, ANOVA, & Chi-square) regarding Research and Statistical Methods.
 - 2) Apply knowledge of Research & Statistical Methods to draft mini research synopsis & undertake the same in Master Program as Dissertation to create rigid base for advanced research career in future.
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UNIT 1

Scientific Research

Concept, Characteristics, Types and Process; Scope and purpose of scientific research in yoga

Research Problem

Concept, Sources of Research Problems in Yoga, Characteristics of good research problem, Considerations in selecting a research problem, Steps in the formulation of a research problem and Practice of formulating a research problem

Hypothesis

Concept, Functions, Characteristics and Types (Research Hypothesis and Null hypothesis); Practice of hypotheses writing

Sampling

Concept, Types (Probability and Non-probability Samplings with their types), and Practice of using different sampling procedures for sample selection

UNIT 2

Variable

Concept, Types (Independent, Dependent, Extraneous, Intervening and Moderating) and Practice for identification of variables in different research problems

Research Design

Concept, Characteristics of Good research Design, Types: Non-experimental (Retrospective, Cross-sectional and Causal comparative), Quasi-experimental and

True Experimental Design

Concept, Types (Randomized control group design, and Factorial Design), Merits and Demerits

Methods of Controlling Extraneous Variance

Concept and Control Methods (Randomization, Elimination, Introducing new Independent Variables, other techniques)

UNIT 3

Statistics

Concept and Significance; Types of research data, Frequency distributions (Individual, Discrete and Continuous), Graphical Representation of the data (Histogram, pie chart and bar graph).

Measures of Central Tendency

(Arithmetic Mean, Median and Mode): Concept and Computation in case of grouped and ungrouped data.

Measure of Dispersion

Concept and computation of Range, Quartiles and Standard Deviation.

UNIT 4

Normal Distribution

Concept, Proportions, and Applications of Normal Distribution

Simple Correlation

Concept and computation of correlation coefficient by product moment method, coefficient of Determination.

Simple Regression

Concept, Regression Equations (In Score forms), Solving Regression Equations, Interpretation of Regression coefficients, Standard Error of Estimate.

REFERENCES

- Bryman, A. (2008). *Social Research Method (3rd ed.)*. Oxford: Oxford University Press.
- Singh, A. K. (1986). *Test, Measurement and Research Methods in Behavioural Sciences*. New Delhi, India: Mc Graw Hill.
- Kerlinger, F.N. (1978). *Foundation of Behaviour Research*. Delhi, India: Surjeet Publications.
- Singh, A. K. (2001). *Research Methods in Psychology, Sociology and Education (4th ed.)*. Delhi, India: Motilal Banarasidas.

- Maylor, H. & Blackmon, K. (2005). *Researching Business and Management*. New York, NY: Palgrave Macmillan.
- Garrett, H.E. (1988). *Statistics in Psychology and Education*. Bombay, India: Vikils, Feiffer & Semen's Ltd..
- Suleman, M. (2005). *Methods in Psychology, Sociology and Education (3rd ed.)*. Patna, India: General Book Agency.
- Kothari, C. R. (2011). *Research Methodology: Methods and Techniques (2nd ed.)*. New Delhi, India: New Age International Private Limited Publishers.
- Ruxton, G. D. and Colegrave, N. (2003). *Experimental Design for Life Science*. Oxford: Oxford University Press.
- Mohsin, S.M. (1981). *Research Methods in Behavioral Sciences*. Calcutta, India: Orient Longman.
- Kumar, R. (2011). *Research Methodology (2nd ed.)*. Noida, India: Dorling Kindersley Pvt. Ltd, licnsces of Pearson Education in South Asia.
- Breakwell, G. M., Hammon, S., Fife-Shaw, C., & Smith, J. (2006). *Research methods in psychology (3rd ed.)*. London: Sage.
- Haslam, S. A., & McGarty, C. (2003). *Research methods and statistics in psychology*. London: Sage.
- Kapil, H. K. (1980). *Sankhyiki ke mool tatwa*. Agra, India: Vinod Pustak Mandir. Minium, E. W., King, B. M., & Bear, G. (1993). *Statistical reasoning in psychology and education (3rd ed.)*. New York: John Willey.
- Singh, A. K. (2006). *Tests, measurements and research methods in behavioural sciences*. Patna, India: Bharti Bhavan.
- Singh, A. K. (2004) *Monovigyan, samajshastra tatha shiksha mein shodh vidhiyan*. Varanasi, India: Motilal Banarasi Das.
- Suleman, M. (1997). *Sankhyiki ke mool tatwa*. Patna: Shukla Book Depot.
- Garrett, H.E. (1993). *Shiksha evam manovigyan mein sankhyiki*. New Delhi, India: Kalyani Publishers.
- Guilford, J. P., & Fruchter, B. (1973). *Fundamentals of statistics in psychology and education*. Tokyo, Japan: Kogakusha.
- Gupta, S. P. (2004). *Statistical Methods (33rd ed.)*. New Delhi, India: Sultan Chand & Sons.
- Zar, Z. H. (2011). *Biostatistical Analysis (4th ed.)*. Noida, India: Dorling Kindersley Pvt. Ltd, licnsces of Pearson Education in South Asia.
- Wayne, W. D. (2006). *Biostatistics: A Foundation for Analysis in the Health Sciences (7th ed.)*. New York, NY: John Wiley & sons.Inc
- Lloyd, D. F. & Gerald, V. B. (1993) : *Biostatistics: A Methodology for the Health Science*. John Wiley &sons. Inc.
- Guilford, J. P. & Fruchter, B. (1988). *Fundamental Statistics in Psychology and Education*. New Delhi, India: McGraw Hill. Unit-I

M.Sc. Yoga Science- 3rd Semester
MSY-304 CC
Yoga Practical
Total Marks : 100

षट्कर्म: दण्ड, धाति, नौलि, त्राटक, वस्त्र धौति तथा प्रथम, द्वितीय सेमेस्टर के सभी अभ्यास।	-15 अंक
आसन	-30अंक
पद्म सर्वांगासन	मयूरासन
शीर्षासन	एक पाद स्कन्ध आसन
तोलांगुलासन	वातायनासन
टिट्टिभासन	गर्भासन
शीर्ष पादांगुष्ठासन	गतासन
विभक्त पश्चिमोत्तानासन	पद्मबकासन
एक पाद राजकपोतासन	पूर्ण उष्ट्रासन
तथा प्रथम, द्वितीय सेमेस्टर के आसनों सहित	
प्राणायाम: भ्रामरी, भस्त्रिका, स्तम्भवृत्ति तथा पूर्व सेमेस्टरों के सभी अभ्यास।	-10अंक
मुद्राएं एवं बन्ध: खेचरी मुद्रा, महावेध मुद्रा, महा मुद्रा, महा बन्ध तथा पूर्व सेमेस्टरों के सभी अभ्यास।	-10अंक
मौखिकी	-10अंक

M.Sc Yoga Science- 3rd Semester
MSY-305 CC
Practical Biomechanics and Kinesiology
Total Marks : 100

Course objectives:

Following the completion of the course, students shall be able to:

- Understand the principle of biomechanics and its importance during the practice of Yoga.
- Guide the practitioners based on the alignment principles.
- Demonstrate yogic practice having biomechanics principles in mind.

Unit-1:

Locating of muscles with the help of model/chart and calculation of displacement, speed and velocity, acceleration.

Unit-2:

Locating of center of gravity of rigid bodies and assessment of angular kinematics of one plane movements.

Unit-3:

Conversion of angular kinematics and Draw stick figures from the photograph of yoga Movements.

Unit-4:

Demonstration of yogic practices under the supervision of the teaching faculty.

TEXT BOOK

1. Bruce Bowaditch: The Yoga Technique Guide - Principles of Alignment and Sequencing, Third Eye Press, 2015

REFERENCE BOOKS

1. J E Herzenberg. Principles of deformity correction, Springer publication

M.Sc Yoga Science- 3rd Semester
MSY-308 DCEC
Principles of Upanishads
Total Marks : 100

Unit -1 :

Brief Introduction of Ten principal Upanishads as the basis of Yogic context;

Ishavasyopanishad: Concept of Karmanishta; Concept of Vidya and Avidya; Knowledge of Brahman; Atma Bhava.

Kena Upanishad: Indwelling Power; Indriya and Antahkarana; Self and the Mind; Intuitive realization of the truth; Truth transcendental; Moral of Yaksha Upakhyaana;

Katha Upanishad : Definition of Yoga; Nature of Soul; Importance of Self Realization.

Prashna Upanishad: Concept of Prana and rayi (creation); Pancha pranas; The five main questions.

Mundaka Upanishad: Two approaches to Brahma Vidya-the Para and Aparā; The greatness of Brahmadevidya, The worthlessness of Selfish-karma; Tapas and Gurubhakti, The origin of creation, Brahman the target of Meditation .

Unit -2:

Mandukya Upanishad: Four States of Consciousness and its relation to syllables in Omkara.

Aitareya Upanishad: Concept of Atma, Universe and Brahman.

Taittiriya Upanishad : Concept of Pancha Kosha; Summary of Shiksha Valli; Ananda Valli; Bhrguvalli.

Chandogya Upanishad: Om (udgitha) Meditation; Sandilyavidya.

Brihadaryanaka Upanishad : Concept of Atman and Jnana Yoga. Union of Atman and Paramatman.

Unit -3

Swetaswataropanishad : Techniques and importance of dhyān yoga,, suitable place for meditation,, pranayam, and its importance, symptoms of yoga siddhi, tattvajāna (chapter - 6) nature of board , techniques for realization , attainment of liberations

Yoga kundali Upanishad : methods if pranayana ,types of pranayana , means of self realization .

Yoga chudamani Upanishad : six limbs of yaga , their results \$ sequence

Trishaikhibrahman Upanishad : ashtangayoga ,karma yoga and Janna yoga .

Unit -4

Yoga tattva Upanishad :Mantrayoga , layayoga , hathyoga, Rajayoga, diet and dincharyaa ,primarysymptoms of Yoga siddhis and precautions .

Dhyān Bindoo Upanishad : Nature of pranav, techniques of pranav mediation, shadāngyoga , atmadarsham through nada nusandhan

Nadabindoo Upanishad : hansavidya, limbs of omkar, 12 mantar of omkar & its results, types of nadas ,nature of nadanusandhan shadna , satage of manolaya

Yogaraj Upanishad : mantra yoga ,laya yoga ,hath yoga ,raj yoga nine chakras, procedures of dhyān and its results,

M.Sc Yoga Science- 3rd Semester
MSY-309 DCEC
Health Education

Total Marks : 100

Total Marks (Internal & Final Exam): 100 (80+20)

Unit – I: Health Education

Definition of Health, Dimensions and Determinants of Health, Concept of Health Education : Meaning, Need & Importance, yoga Health Service and guidance instruction in personal hygiene, Care of skin, Nails, Eye health service, Health Care during Camp & Travelling, Health appraisal, Health record, Healthful school environment, first- aid and emergency care in different conditions.

Unit – II: Health Problems in India

Effect of Alcohol on Health, Effect of Tobacco on Health, Effect of different types of drugs on Health, , Meaning of Stress, Causes of stress, management of Stress, Objective of school/college health service, Role of yoga education in schools,college,university and institutions

Unit – III- Introduction to yoga Nutrition

Meaning and Definition of Nutrition, Role of nutrition in yoga, Basic Nutrition guidelines, Nutrients: Ingestion to energy metabolism (Carbohydrate, Protein and Fat), Role of carbohydrates, Fat and protein during exercise. Calories in different food stuffs. Preparation of yogic diet chart for all age groups.

Unit – IV Nutrition and Weight Management

Concept of BMI (Body mass index), Meaning of Obesity, Causes of Obesity, Management of Obesity, Obesity and its hazard, Dieting versus exercise for weight control, maintaining a Healthy Lifestyle, Weight management program for children, adolescence, adulthood and elderly. Role of diet and exercise in weight management, Design diet plan and exercise schedule for weight gain and loss.

Suggested Readings:

Bucher, Charles A. "Administration of Health and Physical Education Programme". Delbert, Oberteuffer, et. al." The School Health Education".

Ghosh, B.N. "Treaties of Hygiene and Public Health".

Hanlon, John J. "Principles of Public Health Administration" 2003. Turner, C.E. "The School Health and Health Education".

Moss and et. At. "Health Education" (National Education Association of U.T.A.) Nemir A. 'The School Health Education" (Harber and Brothers, New York). Nutrition Encyclopedia, edited by Delores C.S. James, The Gale Group, Inc.

Boyd-Eaton S. et al (1989) The Stone Age Health Programme: Diet and Exercise as Nature Intended. Angus and Robertson.

Terras S. (1994) Stress, How Your Diet can Help: The Practical Guide to Positive Health Using Diet, Vitamins, Minerals, Herbs and Amino Acids, Thorons.

M.Sc Yoga Science- 3rd Semester
MSY-310 DCEC
Provided by the University
Total Marks : 100

M.Sc Yoga Science- 4th Semester
MSY-401 CC
Hygiene, Diet & Nutrition
Total Marks (Internal & Final Exam): 100 (80+20)

Objectives: Following the completion of this course, students shall be able to

- Understand the concept of diet and the medical value of nutrition
- Advise appropriate diet to different age groups
- Benefits and caloric value of various food groups
- Understand and practice dialy regimen, night regimen and seasonal regimen for health promotion, disease prevention and age reversal.

Unit – 1: Basic concepts and components of food and nutrition

Understanding Nutrition, Basic Terminology in Relation to Nutrition Requirement, Human Nutritional Requirements; Concept of food, Acceptance of Food, Functions of Food; Components of Food & their Classification; Macro Nutrients –Sources, Functions and Effects on the Body; Micro Nutrients - Sources, Functions and Effects on the Body; Fat Soluble Nutrients - Sources, Functions and Effects on the Body; Water soluble Nutrients - Sources, Functions and Effects on the Body.

Unit-11: Food and metabolism

Energy- Basic Concepts, Definition and Components of Energy Requirement, Energy Imbalance Concept of Metabolism, Anabolism, Catabolism, Calorie Requirement-BMR, SDA, Physical Activity; Metabolism of Carbohydrates, Lipids and Protein; Factors Affecting Energy; Requirement and Expenditure, Factors affecting BMR, Factors affecting thermal effect of Food, Factors affecting energy expenditure in physical activity; Methods of Estimation of Energy Expenditure and Requirements; Direct Calorimetry, Indirect Calorimetry, Double Labelled Water Technique, Heart Rate Monitoring Method, Factorial Estimation of Total Energy Expenditure.

Unit – III: Yogic concept of diet & nutrition

General Introduction of Ahara (Diet), concept of Mitahara; Definition and Classification in Yogic diet according to traditional Yoga texts; Concepts of Diet according to Gheranda

Samhita, Hatha Pradeepika and Bhagavadgeeta-Rajasic, Tamasic and Sattvic food; Pathya and Apathya in diet according to Yogic texts; Guna and Ahara ; Importance of Yogic Diet in Yog Sadhana; Yogic Diet and its role in healthy living; Diet according to the body constitution (Prakriti) – Vata, Pitta and Kapha.

Unit-IV

Swasthavritta: Meaning, Definition, Aims and Aspects; Wellness: Meaning, Definition, Indicators and dimensions; Dincharya (Daily regimen) & Ratricharya (Night Regimen): Meaning, Definition and sequential elements with their practical applications; Ritucharya (Seasonal Regimen): Meaning, Definition, Types with their salient features, Seasonwise Accumulation, Aggravation and Pacification of three Humors (vata, pitta, kapha); Seasonwise Does and Don'ts ; Application of Dincharya, Ratricharya and Ritucharya for health promotion, rejuvenation, disease prevention and age reversal.

TEXT BOOK

- Ramesh Bijlani : Eating Wisely and Well, Rupa Publication India Pvt. Ltd, 2012

BOOKS FOR REFERENCE

- Stanley Davidson & others: Human Nutrition & Dietetics, The English Language Book Society & Churchill Livingstone, Revised Edition
- Dennis Thompson : The Ayurvedic Diet, New age books, New Delhi, 2001
- Randolph Stone : A Purifying Diet, Lilawati Bhargav Charitable Trust, Delhi, Revised Edition

M. Sc Yoga Science- 4th Semester
MSY-402 CC

Alternative Therapy

Total Marks (Internal & Final Exam): 100 (80+20)

Aims of the Paper: The teaching-learning of this paper will enable learner to-

- 1) State concept, prevalence, objectives, types, applications and limitations of CAT &
 - 2) Have knowledge & skills of therapeutics related to acupressure, pranic healing, and dietary supplements for managing some of the common health problems and rejuvenation.
-

UNIT 1

ALTERNATIVE THERAPY: Concept, History, Meaning, Definition, Objectives, Types, Prevalence, Contemporary Need, Applications and Limitations. Alternative Therapy, Yagy Therapy-Meaning definition, Principles , Area and Limitations. Introduction of Reiki Therapy

UNIT 2

Magnet therapy: Meaning, Definition, Aims, Principles, Types, Impacts, Prevalence., **Acupressure:** Origin, Meaning, Definition, Principles, Five Elements Theory, Chi Clock Cycle, Meridian Systems and Locating Acupoints on 12 Major Meridians and Reflexology.

UNIT 3

Swar therapy: origion,Meaning, Definition, Types, Principles, Applications and Limitations. **Pranic Healing:** Origin, History, Meaning and Sources of Prana; Principles, Law of Action, & Types (Basic, Advanced, and Psychotherapy); **Bio-plasmic body/Aura:** structure, types and size; **Energy Centers (EC):** Meaning, Types (Major, Minor and Mini), Sizes, Colors, Functions and Consequences of their Dysfunctions; Ahartic , Scanning Auras or Chakras, Sweeping and Energizing Procedures.

UNIT 4

Marma Therapy :Origion,meaning, definitions,marma points in human body; Marma Therapy of Low Back Pain, Arthritis,Obesity, Diabetes, Hypertension/Hypotension, Hyper/Hypo Thyroidisim, Liver Problem, Allergy, CAD, Anemia, Hyperacidity, Irritable Bowel Syndrome, Colitis, Piles, Migraine, Insomnia, Depression, Chronic Fatigue Syndrome, Epilepsy, Anxiety, Obsessive Compulsive Disorder, Leucorrhoea,

Menstrual Disorders, Impotency, Infertility, CSF, Asthma, Pneumonia, Renal Problem, Varicose Veins, Distress, and Myopias.

REFERENCES

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- Acharya, B. (2005). *Ayurveda Jadi-buti Rahasya*. Haridwar, India: Divya Prakashan.
- Brahmabarchas. (2003). *Nidan Chikitsa*. Haridwar, India: Ved Mata Gayatri Trust.
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- Joshi, S. A. (2011). *Nutrition and dietetics with Indian case studies*. New Delhi, India: Tata McGraw-Hill.
- Lian, Yu-Lin; Chen, Chun-Yan; Hammes, M. & Kolster, B. C. (2005). *Pictorial atlas of acupuncture: An illustrated manual of acupuncture points*. Solvenia: h. f. ullmann.
- Micozzi, M. S. (2015). *Fundamentals of complementary and alterntive medicine (5th ed.)*. China. ELSEVIER SAUNDERS.
- Patanjali Research Foundation. (2015). *Research Publications*. Haridwar, India: Divya Prakashan.
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- Sharma, S. (1998). *Jivem Saradm Satam*. Mathura, India: Akhand Jyoti Samsthan.

- Sharma, S. (2010). *Gayatri Mahavijyan (Combined and revised ed.)*. Mathura, India: Yug Nirman Yojana Bistar Trust.
- Sui, M. C. K. (2002). *Miracle through pranic healing (3rd ed.)*. New Delhi, India: All India Pranic Healing Foundation.
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- Sui, M. C. K. (2005). *Pranic Psychotherapy (2nd ed.)*. Banglore, India: World India Pranic Healing Foundation-India.
- Yogananda, P. (2011). *Journey to self-realization*. Kolkata, India: Yogoda Satsang Society of India.
- Mohan, H. (2010). *Textbook of pathology (6th ed.)*. New Delhi, India: JAYPEE BROTHERS MEDICAL PUBLISHERS (P) LTD.
- Sharma, S. (2013). *Chikitsa Upchar Ke Vividh Ayam (2nd ed.)*. Mathura, India: Akhand Jyoti Samsthan.
- Sharma, S. (2013). *Nirog Jeevan Ke Mahatopurna Sutra (2nd ed.)*. Mathura, India: Akhand Jyoti Samsthan.
- Sharma, S. (2013). *Pran Chikitsa (2nd ed.)*. Mathura, India: Akhand Jyoti Samsthan.
- Sharma, S. (2006). *Diagnose, cure and empower yourself by the currents of breath*. Haridwar, India: Shri Vedmata Gayatri Trust.
- Yuan, Chun-Su., & Bieber, E. J. (2003). *Textbook of complementary and alternative medicine*. New York, NY: The Parthenon Publishing Group.

M.sc Yoga Science- 4th Semester
MSY-403 CC
NATUROPATHY

Total Marks: 100 (Internal & Final Exam): 100 (80+20)

Unit-I

History and development of Naturopathy, Definition, Principles, Philosophy of Naturopathy, panch mahabhoot, Ancient and modern view of Naturopathy, Objective of Naturopathy, Acute and chronic Diseases, natural immunity and its development

Unit-II

HYDROTHERAPY: History of hydrotherapy Physical property of water, Regulation of body temperature, classification, Physiological effects of hot and cold water, Application of water on different temperature, various type of baths benefits and precautions.

Unit-III

MUD THERAPY: Concept of mud therapy, types of mud, various effect of mud, natural mud baths, mud packs, dry baths, sand baths etc.

Unit-IV SUN BATH, FAST AND MASSAGE THERAPY :- Helio therapy, Colour therapy in various diseases, fast concept, type of fast, various effect of fast. massage type principal and effect of massage, massage in various ailments, ayurvedic concept of massage with various oil

1. Gandhi, M.K. - Key to Health
2. Bengamin, H. - Everybody's Guide to Nature Cure
3. Kunhe, Louis - The New science of Healing
4. Jindal Rakesh- Prakritik Ayurvedigyan

5. Chopra, Deepak- Perfect Health
6. Singh,. Surendra & P.D. Misra- Health & Disease: Dynamics of and Dimensions
7. Lindlhr, Henery – Natural Therapeutics
8. Jussawala, J.M. - Nature's Metaria Medica

M.Sc Yoga Science- 4th Semester
MSY-405 CC
Yoga Practical
Total Marks : 100

षट्कर्म: दण्ड, धौति, नौलि, त्राटक, वस्त्र धौति।	-10अंक
आसन:	-35अंक
द्विपाद स्कन्धासन	पूर्ण भुजंगासन
पूर्ण मत्स्येन्द्रासन	पक्षी आसन
वृश्चिक आसन	पद्म मयूरासन
पूर्ण वृश्चिकासन	तकिया आसन
पद्म शीर्षासन	कर्णपीडासन
पूर्णधनुरासन	गोरक्षासन
पूर्ण चक्रासन	पूर्ण शलभासन
एक पाद बकासन	ओमकार आसन
पूर्ण नटराजासन	
पूर्व सेमेस्टरों के सभी अभ्यासों सहित।	
प्राणायाम: उद्गीथ एवं मूर्च्छा।	-10 अंक
मुद्राएं एवं बन्ध: (MA/MS-I,II, III Sem) के सभी अभ्यास।	-5 अंक
ध्यान एवं मौखिकी: विज्ञानमय एवं आनन्दमय कोश।	-15 अंक

M.Sc Yoga Science- 4th Semester
MSY-406 CC
Alternative Therapy Practical
Total Marks : 100

Aims of the Paper: The teaching-learning of this paper will enable learner to-
1) Practice skills of therapeutics related to acupressure, pranic healing, and dietary supplements for managing some of the common health problems and rejuvenation.

वैकल्पिक एवं पूरक चिकित्सा क्रियात्मक (Alternative Therapy)

वैकल्पिक एवं पूरक चिकित्सा		
एक्यूप्रेशर	-	15
प्राणिक हीलिंग	-	15
MY में वर्णित स्वास्थ्य	-	30
समस्याओं का एक्यूप्रेशर एवं प्राणिक		
उपचार विधियाँ।		
Dietary Supplements & Herbal Remedies	-	15

Note: Micro contents & format of Practical on aforesaid contents will be worked out in consultation with concerned Professor.

M.Sc Yoga Science- 4th Semester
MSY-409 DCEC
Introduction to Ayurveda
Total Marks : 100

Unit-1

आयुर्वेदः उद्गम, अर्थ, परिभाषा, प्रयोजन, इतिहास एवं रोग निदान एवं परीक्षण के प्रमुख सिद्धान्त ।

Unit-2

दोषः अर्थ, परिभाषा, प्रकार, कार्य एवं विकृति के परिणाम धातुः अर्थ, परिभाषा, प्रकार, कार्य एवं विकृति के परिणाम उपधातुः अर्थ, परिभाषा, प्रकार, कार्य एवं विकृति के परिणाम मलः अर्थ, परिभाषा, प्रकार, कार्य एवं विकृति के परिणाम स्रोतसः अर्थ, परिभाषा, प्रकार एवं कार्य इन्द्रियः अर्थ, परिभाषा, प्रकार एवं कार्य अग्निः अर्थ, परिभाषा, प्रकार एवं कार्य प्राणः अर्थ, परिभाषा, प्रकार, स्थान एवं कार्य प्राणायामः अर्थ, परिभाषा, प्रकार एवं कार्य प्रकृतिः अर्थ, परिभाषा, विशेषताएं एवं इसके विकार देह-प्रकृतिः अर्थ, परिभाषा, प्रकार एवं पहचान मनस प्रकृतिः अर्थ, परिभाषा, प्रकार एवं पहचान ।

Unit -3

प्रमुख जड़ी-बूटियों का सामान्य परिचय, गुणधर्म, स्वास्थ्य संवर्द्धनात्मक एवं चिकित्सकीय प्रयोग-आक, अजवाइन, आंवला, अपमार्ग, अश्वगंधा, तुलसी, गिलोय, ब्राह्मी, धनिया, अदरक, इलायची, हरड, नीम, हल्दी व गवारपाठा ।

Unit -4

सावधनियाँ एवं स्वास्थ्य संवर्द्धनात्मक एवं चिकित्सकीय प्रयोग ।
पंचकर्मः पूवकर्म, प्रधानकर्म और पश्चात् कर्मद्ध अर्थ, परिभाषा, प्रकार, प्रयोजन, लाभ, हानि,

सन्दर्भ ग्रन्थः

आयुर्वेद सिद्धान्त रहस्य- आचार्य बालकृष्ण

आयुर्वेद जड़ी-बूटी रहस्य- आचार्य बालकृष्ण

आयुर्वेदीय शरीर क्रिया विज्ञान- शिव कुमार गौड़

स्वस्थवृत्त - डॉ० रामहर्ष सिंह

Basic Principles of Ayurveda - K. Lakshmi pati

Basic Principles of Ayurveda - K. Lakshmi pati

M.Sc Yoga Science- 4th Semester
MSY-411 DCEC
Human Consciousness
Total Marks : 100

Unit-1

चेतना का अर्थ, परिभाषा व क्षेत्र, मानव चेतना का स्वरूप, मानव चेतना के अध्ययन की आवश्यकता, मानव चेतना का वर्तमान संकट तथा सार्थक समाधान के उपाय।

Unit -2

वेद, उपनिषदों में मानव चेतन, बौद्ध एवं जैन दर्शन में मानव चेतना, न्याय, वैशेषिक, सांख्य, योग, मीमांसा व वेदान्त में मानव चेतना।

Unit -3

प्राचीन भारतीय विज्ञान की विविध धाराओं— तंत्र, ज्योतिष एवं आयुर्वेद में मानव चेतना। पश्चिमी विज्ञान की दृष्टि में चेतना एवं चेतना का क्वाण्टम सिद्धान्त, मानव चेतना के सन्दर्भ में शरीर रचना एवं क्रिया विज्ञान के अनुसंधान, मानव चेतना की खोज में मनोविज्ञान का जन्म एवं इसकी विविध धाराएँ।

Unit -4

मानव चेतना के विविध रहस्य एवं तथ्य— जन्म और जीवन, भाग्य और पुरुषार्थ, कर्मफल सिद्धान्त, संस्कार और पुनर्जन्म। मानव चेतना के विकास की अनिवार्यता, मानवीय चेतना के विकास की विविध मनोवैज्ञानिक विधियां, विविध धर्मों में मानव चेतना के विकास की प्रणालियां— इस्लाम, ईसाई, भारतीय ऋषियों द्वारा विकसित मानव चेतना के विकास की विधियां।

संदर्भ ग्रन्थ –

भारतीय दर्शनों में चेतना का स्वरूप— डॉ. श्री कृष्ण सक्सेना

भारतीय दर्शनों – आचार्य बलदेव उपाध्याय

औपनिषदिक अध्यात्म विज्ञान— डॉ. ईश्वर भारद्वाज

मानव चेतना— डॉ. ईश्वर भारद्वाज

M.Sc Yoga Science- 4th Semester
MSY-410 DCEC
Siddha Siddhanta Paddhati
Total Marks : 100

Unit-I

Introduction of Hatharatnawali, various Definitions of yoga and explains mahayogi under describe mantra yoga, Laya Yoga, raja yoga and hatha yoga, Satkarm, How different karmas purify specific chakradhar, hut for yoga practice, Mitahara, helpful and harmful things in attaining the success in yoga.

Unit-II

Nine kumbhaka and Ten Mudras methods, Benefits, precautions , ida pingala and sushumna synonyms and importance in yoga Sadhana and daily life

Unit-III

Ashtanga yoga as 15 manasa niyama and 15 kayika niyama , 36 asana techniques , Types , benefits and importance of Asana in life

Unit-iv

Samadhi and technique like nadanusandhan , Four states of progress in yoga, such as aarambh , ghata , parichay and the nishpatti and the experiences during each of these states , about pinda and brahmand, in which elaborate description of 14 nadis.