



SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH

(A Deemed to be University Declared under Section 3 of UGC Act, 1956)

Comprising Sri DevarajUrs Medical College

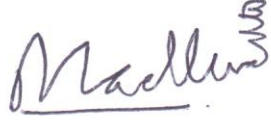
[Constituent Unit of Sri DevarajUrs Educational Trust for Backward Classes (Regd.)]

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(With effect from 2019 - 2020 batch)

Curriculum for Master of Science in Yoga


Dean
Faculty of Allied Health Sciences
Sri Devaraj Urs Academy of
Higher Education & Research
Tamaka, Kolar-563 101

Approved as per BOM-45-2017, (Resolution No-XLV-17/17) Dated-09/11/2017



**SRI DEVARAJ URS ACADEMY OF HIGHER
EDUCATION & RESEARCH**

(Declared as Deemed - to - be University u/s 3 of the UGC Act, 1956)

MASTER OF SCIENCE IN YOGA
Under the Faculty of Allied Health Sciences

Regulations & Syllabus (2018)



Department of Integrative Medicine
Sri Devaraj Urs Academy of Higher Education & Research

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About the Department of Integrative Medicine

Integrative medicine is ingrained in the definition of health. The World Health Organization (WHO) defines health as “a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity”. Integrative medicine is an integration of mainstream (conventional) of medicine with complementary and alternative medicine (CAM), for which there are a high quality scientific evidences of safety and effectiveness.

Department of Integrative Medicine was established in the year 2014 by upgrading the division of Yoga under the department of Allied Health Sciences. Department Integrative Medicine is actively engaged in the research (EMR & IMR projects). Apart from the dedicated M. Sc. Yoga program, the department is providing training in value added course offered to MBBS, BPT, BSc (CND), BSc(Nursing) etc., outreach activities, Clinical services offered to R L Jalappa Hospital and Research Center , the teaching hospital of the academy.

Vision:

- To be a CENTER OF EXCELLENCE in the field of Integrative Medicine through education, clinical services and research.

Mission:

- To explore the concepts of AYUSH (Ayurveda, Yoga, Unani, Siddha & Homeopathy) and other systems of medicine in promoting health, preventing and treating diseases.
- To develop evidence based integrated conventional medicine AYUSH health care modules for prevention & treating diseases to achieve holistic health.
- To inculcate Yoga and other systems of medicine in the curriculum of medical, nursing and allied health science education.

MASTER OF SCIENCE IN YOGA

1. PROGRAMME DESCRIPTION

Yoga is an ancient Indian system rooted in Indian Philosophy. Basically Yoga is a spiritual practice, widely used in promoting mental and physical wellbeing. In last 2 to 3 decades, research in the field of Yoga across the globe provided substantial tag of evidenced based Complementary and Alternative Therapy. Yoga has potential for both prevention of diseases and promotion of health. The holistic approach of Yoga is found beneficial in prevention and management of many lifestyle related disorders including physiological and psychosomatic disorders. As per the National center for Complementary and Integrative health - A unit of NIH, USA, Yoga is one of the top 10 complementary health promotion approaches in United States. The popularity of Yoga across the globe, lead to abundance of opportunity in the field of Yoga education, clinical services and research.

The Master of Science (M. Sc.) in Yoga is designed on the basis of combining best of east (Philosophy) with combining that of west (technology and modern science). M. Sc. in Yoga will provide comprehensive understanding of the basic principles and practices of Yoga by exploring classical yoga texts. In addition to this students will be trained in research methodology, Anatomy, Physiology, Common ailments, Clinical Nutrition and other relevant subjects by providing them a comprehensive knowledge of both eastern philosophy and modern medicine. The trained students to be employable in schools, colleges as academicians, in hospitals as therapist, in the field of research, wellness, and abundance of opportunity across the globe

2. PROGRAMME OBJECTIVES

The purpose of the program is to train students with the concepts of eastern philosophy integrated with modern science (viz. anatomy, physiology, common ailments, AYUSH systems etc.) which empower them to impart services in the

field of integrative health care, Schools/colleges, conduct research in the field of Yoga.

- To impart skills in them to introduce Yoga in public health and Yoga for total personality development of students in Schools, Colleges and Universities.
- To enable them to establish Yoga Therapy centers in the service of mankind.
- To invoke scientific attitude and team spirit to channelize their energies in to creative and constructive endeavors.
- To promote positive health, prevention of stress related health problems and rehabilitation through Yoga.
- To bring all round personality development of the students at all levels of their personality

3. ELIGIBILITY FOR ADMISSION

- Candidates shall have passed any bachelor degree of any discipline of minimum 3 years (10+2+3).
- Preference will be for those who have certification in Yoga / B.P.Ed/ Science graduates/BSc Nursing/ BPT/AYUSH graduates.
- The candidates shall have secured a minimum of 50 % of the aggregate marks in the qualifying examination.

4. METHOD OF SELECTION

- The selection of candidates to the admission to M.Sc. Yoga program shall be based on merit as determined by the marks obtained in the entrance examination.
- The date, venue and time of entrance examination, intake of seats and the fee structure will be notified in the website (www.sduu.ac.in) well in advance. Application forms and other details will be available either online or offline as

per the notification for admission by the office of the Registrar, on payment of the prescribed application fee, as notified and relevant for the academic year.

5. PROGRAMME DURATION

- The duration of programme is a two years and it shall have 4 semesters. There will be a minimum of 90 working days in each semester excluding holidays, vacations and days engaged for examination.

6. ATTENDANCE

- Every candidate should have attendance (semester) not less than 75% of the total classes conducted in each course. Attendance will be calculated from the date of commencement of the term to the last working day as notified by the Academy in each of the subject prescribed to be eligible to appear for the University Examination.
- Attendance shall be calculated from the total number of hours prescribed by SDUAHER. A candidate lacking in the prescribed attendance and progress in any course (s) in the first appearance shall not be permitted to appear for that course (s).
- Such of those detained for attendance shall have to make up the attendance to the extent of 75% to be eligible to appear for the examination for the concerned subjects. The provision for making up of the deficiency in the attendance shall be based on the strategy devised by the appropriate authorities.

7. TEACHING HOURS

Table 7.1. : Distribution of teaching hours in each semester			
Sl. No.	Course	Teaching Hours	
		Theory	Practical/Field
Semester I			
Theory			
1	Foundations of Yoga	60	00
2	Application of Patanjali Yoga Sutra and Hatha Yoga	60	00
3	Section A: Human Anatomy	30	15
	Section B: Human Physiology	30	15
4	Research Methodology and Biostatistics	45	30
Practical			
5	Yoga Practice I	00	120
6	Yoga Practice II	00	120
	Total	225	300
Semester II			
Theory			
1	Yoga Philosophy and Health	60	00
2	Evidence based Yoga therapy -I	60	00
Practical			
3	Scientific Writing	00	120
4	Yoga Practice III	00	120
5	Yoga Practice for common ailments I	00	120
6	Field training - I	00	120
	Total	120	420
Semester III			
Theory			
1	Introduction to Bhagavad Gita	60	00
2	Evidence based Yoga therapy - II	60	00
3	AYUSH systems and Integrative Medicine	60	00
Practical			
4	Yoga Practice for common ailments II	30	15
5	Field Training - II	00	120
6	Dissertation - I	00	120
	Total	180	360
Semester IV			
Theory			
1	Veda, Upanishads and Darshanas	60	00
2	Diet and clinical nutrition	30	15
	Introduction to Psychology and Counselling	30	15
Practical			
3	Advance Yoga Technique	00	120
4	Filed Training -III	00	120
5	Dissertation -II	00	120
	Total	120	390

8. EXAMINATION AND EVALUATION

8.1. Internal Assessment:

- a. **Internal Assessment (IA)** for each course shall be 30% of the marks allotted for each course of study (Periodic test and / or assignments).
- b. **Periodic Tests:** There shall be a minimum of two periodic tests for each course (theory/practical) during each semester of the programme and average of two examination marks shall be taken into consideration while calculating the marks for internal assessment. The maximum weightage given to periodic tests is 20%.
- c. **Assignment:** Each course (theory) will be evaluated through assignments. The maximum weightage given to the assignment is 10%.
- d. **Record book:** Maximum marks for practical record will be 10% of the total marks allocated to that course.
- e. **Field training:** Maximum marks for field training record book will be 30%.
- f. Student must secure not less than 50% of total marks assigned for internal assessment in a particular course (theory/practical/ field training) in order to be eligible to appear in the University examination of that course.

8.2. Eligibility to appear for University Examination:

- a. Shall have attended not less than 75% of the total number of classes in theory / practical /field training to become eligible to appear for examination in those course/courses.
- b. Shall secure at least 50% in internal assessments in a particular course in order to be eligible to appear in the University examination of that course.
- c. At the time of practical/field training examination, the candidate shall submit to the examiners his/her record book duly certified by the Head of the Department as a bonafide record of the work done by the candidate for evaluation.

8.3. University Examination

- a. Theory: Each theory paper shall carry a maximum of 70 marks and the duration of the examination shall be 2 hours 30 minutes.
- b. Practical: Practical paper shall have a maximum of 50 marks and duration of each paper shall be 90 minutes. There shall be a viva voce examination conducted along with practical examination for a maximum of 20 marks.
- c. Field training: Field training will be evaluated at the end of the semester. The students shall have to submit the field training record duly certified by the head of the department, which shall be valued by one internal and one external examiner.
- d. Dissertation: Dissertation I & II will be carried out in 3rd and 4th semester respectively.
 - Dissertation I: It shall comprise standardization of methodology and data collection. This shall be evaluated by two examiners (one internal and one external).
 - Dissertation II: It shall comprise data analysis, report writing as well as preparation of manuscript for submitting to the journal. This shall be evaluated by two examiners (one internal and one external).
- e. The question paper pattern for the theory exam is provided in Table 8.3

Table No. 8.3 - Question paper pattern			
Type of question	Number of questions	Marks for Each question	Total
Essay type	2	10	20
Short essay type	6	5	30
Short answer type	10	2	20
Total			70

8.4. Scheme of evaluation for theory and practical examination

Table 8.4.1. Scheme of Evaluation						
Semester I						
Sl. No.	Code	Course Title	IA theory		Theory	Total
Theory						
1	A101	Foundations of Yoga	30		70	100
2	A102	Application of Patanjali Yoga Sutra and Hatha Yoga	30		70	100
3	A103	Human Anatomy	15		35	50
		Human Physiology	15		35	50
4	A104	Research Methodology and Biostatistics	30		70	100
Practical						
			IA	Viva	Practical	Total
5	A105	Yoga Practice I	30	20	50	100
6	A106	Yoga Practice II	30	20	50	100
Total Semester Marks						600
Semester-II						
Sl. No.		Course Title	IA theory		Theory	Total
Theory						
1	B101	Yoga Philosophy and Health	30		70	100
2	B102	Evidence based Yoga therapy -I	30		70	100
Practical						
			IA	Viva	Practical	Total
3	B103	Scientific Writing	30	20	50	100
4	B104	Yoga Practice III	30	20	50	100
5	B105	Yoga Practice for common ailments I	30	20	50	100
6	B106	Field training-I	30	20	50	100
Total Semester Marks						600

Table 8.4.2. Scheme of Evaluation						
Semester III						
Sl. No	Code	Course Title	IA theory		Theory	Total
Theory						
1	C101	Introduction to Bhagavad Gita	30		70	100
2	C102	Evidence based Yoga therapy - II	30		70	100
3	C103	AYUSH systems and Integrative Medicine	30		70	100
Practical						
			IA	Viva	Practical	Total
4	C104	Yoga Practice for common ailments II	30	20	50	100
5	C105	Field Training - II	30	20	50	100
6	C106	Dissertation I	30	20	50	100
		Total Semester Marks				600
Semester-IV						
Sl. No		Course Title	IA theory		Theory	Total
Theory						
1	D101	Veda, Upanishads and Darshanas	30		70	100
2	D102	Diet and clinical nutrition	15		35	50
	D103	Introduction to Psychology and Counseling	15		35	50
Practical						
			IA	Viva	Practical	Total
3	D104	Advance Yoga Technique	30	20	50	100
4	D105	Field Training -III	30	20	50	100
5	D106	Dissertation -II	30	20	50	100
6	D107	Field training -IV	30	20	50	100
		Total Semester Marks				600

8.5. Scheme of evaluation for field training

- Field training will be evaluated at the end of the semester. The students shall have to submit the field training record duly certified by the head of the department, which shall be valued by one internal and one external examiner. The pattern of assessment of field training is detailed in Table 8.5. below

Sl. No.	Section	Marks Assigned
(A)	Field training report / Internal Assessment	30
(B)	Presentation	50
(C)	Viva Voce	20
Total		100

8.6. Dissertation

- a. Faculty member of the department of grade Assistant Professor or above shall be assigned to each candidate to serve as guide during Semester I.
- b. Guide and student shall interact and develop a topic worthy of scientific investigation, prepare the necessary skills, materials and approvals (eg: ethical clearance). Preferably, the outcome of the dissertation work will be publishable in a referred journal.
- c. Dissertation work will be carried out in three phases:

- 2nd Semester: Pre - Synopsis writing and ethical clearance
 - 3rd Semester: Commencement of the project, data collection.
 - 4th Semester: Data analysis, writing the report and preparing the manuscript for publication
- d. Dissertation shall include the following section: Introduction, Review of Literature, Objectives, Materials and Methods, Results, Discussion, Summary, Conclusions and Reference.
 - e. The report shall be in hard bound form, type set with double space and at least 1 inch margins on all four sides.
 - f. Student, Guide and HOD shall certify the genuineness of the work.
 - g. Dissertation should be submitted to the University at least 1 month in advance of the University Examination.
 - h. The University shall arrange for evaluation of the dissertation from one external and one internal examiner.
 - i. Any publication made out of the prepared dissertation of his/her research work done during the tenure of M.Sc. programme should show affiliation to the Academy.
 - j. Change of guide and topic will be permitted if the student/supervisor furnishes valid reason for change. The Dean of faculty in consultation with the authorities of the Academy will constitute the committee to examine the request. Based on the prevailing regulation of the Academy as well as the report of the committee necessary directions shall be notified which shall be binding on the student /Guide.
 - k. When change of supervisor and topic is approved, candidate has to work in the prescribed duration and also he/she should fulfil the attendance requirement. The components of dissertation are provided in the Table no 8.6.

Table 8.6. Scheme for evaluation of Dissertation		
Sl. No.	Section	Marks Assigned
(A)	Project Report	70
I	Introduction	5
II	Review of Literature	10
III	Methodology	15
IV	Results	10
V	Discussion	10
VI	Conclusions	10
VII	Bibliography / Reference	10
(B)	Viva Voce	30
TOTAL		100

9. CRITERIA FOR PASS

- a. For declaration of pass in any subject in the University examination the candidates shall secure a minimum of 50% of the marks in theory and practical components of the examination separately of the total marks allocated for the course/subject.
- b. For pass in Theory paper, student shall have to score 50% of the total marks allocated for the course which shall comprise University Exam Theory + Internal Assessment Theory.
- c. For pass in Practical paper student shall have to score 50% of the total marks allocated for the course which shall comprise University practical Exam practical + Viva voce + Practical Internal Assessment.

- d. A candidate failing to secure 50% marks in theory and practical course separately shall be declared to have failed in that course.

10. GRACE MARKS

- The grace marks up to a maximum of 05 (Five) marks may be awarded at the discretion of the University to a student who has failed only in one subject but has passed all other subjects in the semester. The grace marks can be awarded to the student in any components of the evaluation (Theory/practical/ Viva voce)

11. DECLARATION OF CLASS

- a. A candidate having appeared in all the subjects in the same examination and passes that examination in the first attempt and secures 75% of marks or more of grand total marks prescribed will be declared to have passed in the examination with Distinction.
- b. A candidate having appeared in all the subjects in the same examination and passes that examination in the first attempt and secures 65% of marks or more but less than 75% of grand total marks prescribed will be declared to have passed examination in First class.
- c. A candidate having appeared in all the subjects in the same examination and passes that examination in the first attempt and secures 50% of marks or more but less than 65% of grand total marks prescribed will be declared to have passed the examination in Second class.
- d. A candidate having appeared in all the subjects in the same examination and passes that examination in the first attempt and secures 50% of marks will be declared to have passed the examination.
- e. A candidate passing the university examination in more than one attempt shall

be placed in pass class irrespective of the percentage of marks secured by him/her in the examination.

- f. Note: Fraction of marks should not be rounded off for clauses (a), (b) and (c)

12. CARRYOVER POLICY

- a. A Candidate who has admitted to postgraduate programs under the faculty of Allied health and basic sciences shall be permitted to carry over the backlog subject till the completion of duration of the programme.
- b. However she/ he shall be declared passed in the programme only after successfully passing in all the subject/ courses of all semesters of the post graduate programme

13. MAXIMUM DURATION OF THE PROGRAMME

- a. The maximum duration of the programme shall be four years from the date of admission
- b. The candidate failing to complete the course within four years from the date of admission will be declared unfit to continue and will be discharged from the programme.

SYLLABUS FOR MASTER OF SCIENCE IN YOGA

1.1. FOUNDATIONS OF YOGA

Unit 1: History, Evolution of Yoga (10 hrs)

- History, Evolution of Yoga and Schools of Yoga: Origin of Yoga, History and Development of Yoga; Etymology and Definitions, Misconceptions, Aim and Objectives of Yoga. Introduction to Vedas, Upanishads, Prasthanatrayee and Purushartha Chatushtaya

Unit 2: Introduction to Darshana (20 hrs)

- General introduction to Shad-darshanas with special emphasis on Samkhya and Yoga Darshana, Yoga in Vedanta.
- Astika Darshanas : Sankhya, Yoga, Nyaya, Vaisesika, Mimamsa, Vedanta.
- Nastika Darshana: Jain, Buddha, Charavaka

Unit 3: Paths of Yoga, Panchakosa, Chakras, Astanga (20 hrs)

- Four paths of Yoga- Jnana Yoga, Karma Yoga, Bhakti Yoga, Raja Yoga
- Concept of Panchkosha: Annamaya, Pranamaya, Manomaya, Vijnanamaya & Anandmaya kosa.
- Chakras- Shat Chakras- Location, colour, petals, signs of malfunctioning.
- Astanga yoga: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi.

Unit 4: Yoga in Modern Times (10 hrs)

- Yoga in Modern Times: Yogic Traditions of Ramakrishna and Swami Vivekananda, Shri Aurobindo; Yoga traditions of Maharshi Ramana and Swami Dayanand Saraswati.

- Elements of Yoga and Yogic practices in Jainism, Buddhism.

Reference books

1. The Vedas - by Chandrasekharendra Saraswati (2014), Bhavan's Publication.
2. Shatdarshana - Swami Sukhabodhananda - RK mat publications.
3. Four Chapters on Freedom (Commentary on the Yoga Sutras of Patanjali) by Swami Satyananda(1983), Bihar School of Yoga, Munger-811201 3.
4. Rajayoga Conquering the Internal nature by Swami Vivekananda (1982), Advaita Ashrama Calcutta-700014.
5. Integrated Approach of Yoga Therapy for Positive Health - Dr. R Nagaratna and Dr. H R Nagendra - SVYP, Bengaluru.
6. Yoga its basis and applications - by H.R. Nagendra - SVYP, Bengaluru.
7. Let Go - Discover lasting happiness by Prof A. Satyanarayana Sastry - SVYP, Bengaluru.
8. Rajayoga, Swami Vivekananda, Ramakrishna Ashrama Publications, Dehi Entally Road, Kolkata-700014.
9. Philosophy of Yoga by Swami Jnanananda(1938), Sri Ramakrishnashrama Publications, Calcutta-711202.
10. A critical survey of Indian Philosophy by Chandradhara Sharma(2000), Motilal Banarsidass Publishers Private Limited, Delhi-110007.
11. Yoga as a Philosophy and Religion by S.N.Dasgupta(2002), Calcutta -711202.
12. Sankhyakarika by Ishwarakrishna (2000), Parimala publication, Delhi-110007.

1.2. APPLICATION OF PATANJALI YOGA SUTRA AND HATHA YOGA

Unit 1: Application Patanjali Yoga Sutra (25 hrs)

- Orientation to Patanjala Yoga sutra: Introduction to Yoga sutra - Nature of Yoga science, Definition of yoga, the nature of seer in pure and modified state, Vrittis - Nature, classification, definition, method to control of chittavrittis. Samprajnata Samadhi and its classification, Asamprajnata and its classification, variation in the attainment of Asamprajnata Samadhi; Iswarapranidhana - a means to attain Samadhi, definition and quality of Iswara. Chittavikshepa, Chittaprasadana and its associates, control of chitta-vikshepa, different methods of manasthiti and its benefits, Samapatti. Sukshnavishayatwa, Sabijasamadhi, Speciality of Nirvichara, Ritambharaprajna, Nirbijasamadhi, Kriya-yoga and its benefits; Classification, methods to control the Kleshas, Karmashaya, Vipaka of kleshamula, Heyaswarupa, Heyahetu, Drshya and Drasta, Samyoga - Nature & Cause, Hanopaya, Hanaswarupa, Vivekakhyathi, Astanga yoga-Yama, Niyama, Asana, Pranayama, Pratyahara-Bahiranga Yoga, Dharana, Dhyana, Samadhi-Antaranga Yoga, Powers Introduction.

Unit 2: Application Hatha Yoga (25 hrs)

- Hatha yoga - Introduction, relationship of Hatha yoga and Raja yoga, greatness of Hatha yoga, Hatha yoga parampara, importance of Hatha and its secrecy, place of Hatha yoga Practice, Destructive and constructive of yoga, Yama and Niyama, Asana, methods of Hatha yoga Practice, Mitahara, Pathya and Apathya. Rules in food taking, Hatha yoga achievements. Paranayama - Benefits of Pranayama, Nadishuddi and Pranayama. Duration and time for pranayama

practice, Gradation of Pranayama, Sweat and Pranayama, Food during pranayama practice, Yukta and Ayukta pranayama, Nadishuddi, Satkriya- Neti, Dhouti, Basti, Nauli, Trataka, Kapalbhathi, Gajakarani, Importance of Pranayama practice. Symptoms of Nadishuddhi, Manonmani, Varieties of Kumbhaka- Methods of practice, Classification of their benefits, Hatha yoga siddhilakshanam. Kundalini as base for all yoga, Results of Kundalini prabyodha, Synonyms for Susumna, Mudras Bandhas-classification, benefits and methods of practice, Nadanusandhana.

Unit 3: Ghata yoga (10 hrs)

- Ghata yoga - Introduction, Saptanga yoga, Benefits, Satkriyas - Classification Practicing methods and benefits. Mudra - Introduction, 25 mudras - Classification, Practicing methods and benefits. A comparative study of Hatha yoga and Ghata yoga.

Reference Books

1. Four Chapters on Freedom (Commentary on the Yoga Sutras of Patanjali) by Swami Satyananda(1983), Bihar School of Yoga, Munger-811201.
2. The Science of Yoga, by Taimini.I.K.(1961), Theosophical Publishing House, Adyar, Madras.- 600020.
3. Patanjala yoga vam Hatha yoga by Goswami surajith (2005), Sathyam publishing House New Delhi.
4. Patanjala Yoga Darshna-by Swami Adidevananda(1998) Vyasa Bhashya Sahitha, Sri Rama Krishna Ashrama Mysore-570020.
5. Yogasutras of Patanjali by Hariharananda Aranya(1984), University of Calcutta Press, Calcutta - 700014.
6. Hathayogapradipika by Swami Niranjanananda (1997), Bihar School of Yoga- 811201.

7. Hatha Yoga Pradipika, Mukthi Bodhananda (2012), - Light on Hatha Yoga, Yoga Publication Trust, Munger.
8. The Hatayogapradipika, with the commentary Jyotsna of Brahmananda and English translation the Adyar library and Research center by Svathmarama(2000),, The theosophical society, Adyar hennai 600020.

1.3. HUMAN ANATOMY AND PHYSIOLOGY

PART A: HUMAN ANATOMY (30 hours Theory + 15 hours Practical)

Unit 1: Introduction to Human Anatomy (20 hours)

- Cell
- Tissues of Body: Types, structures of Epithelial, Connective, Muscular and Nervous tissue
- Skeletal system: Bones & its types, Joints & its types
- Digestive system: Anatomy of Digestive system, Emphasize on Pharynx
- Respiratory system: Anatomy of Respiratory tract, Pulmonary ventilation
- Excretory system: Anatomy of Urinary system
- Cardio-vascular system: Anatomy of Heart, Properties of cardiac muscle
- Lymphatic system: Lymphoid organs, Composition and functions of Lymph
- Endocrine system: Structure and location of glands and their secretions, Classification of hormones
- Nervous system: Introduction to Nervous system, Classification of nerve fibers, Special senses: Overview, Emphasize on Eyes, Nose.
- Immune system: Immunity, Innate immunity, Acquired immunity
- Reproductive system: Anatomy of male reproductive system

Unit 2: Applied Anatomy with respect to Yoga (10 Hours)

- Musculoskeletal System, Neuro anatomy
- Nervous system/ Limbic System, Endocrine system

- Eye in relevance *Trataka*, Upper respiratory tract in relevance to *Neti* (Jala and Sutra), Upper GI Tract / Pharynx in relevance to *Dhanda Dhouti*

Unit 3: Anatomy - Practical (15 Hours)

- **Practical:** Application of anatomical basis of Yoga practices - Asana, Pranayama, Kriyas, and Bandhas. Involvement of bone, muscles, tendons.

PART B: HUMAN PHYSIOLOGY (30 hours Theory + 15 hours Practical)

Unit 1: Introduction Human Physiology (20 Hours)

Musculoskeletal system: Neuron- Structure of Neuron, Classification of Neurons, Nerve Impulse, Transmission of Nerve Impulse, Properties of a Nerve Fiber, Physiology of Muscle- Skeletal Muscles- Functions of Skeletal Muscles, Structure of Skeletal Muscles with reference to Yogic practices (Yogasana, Pranayama etc)

Digestive system: Functions of the Gastrointestinal Tract- stomach, small intestine, large intestine, Functions of Colon, Salivary Secretion- Salivary Glands, Saliva, Composition of Saliva, Functions of Saliva, Liver- Functions of Liver, Bile, Functions of Bile,

Respiratory system: Functions of Respiratory System- Respiratory Functions, Non respiratory Functions, Mechanism of Breathing- Muscles of Respiration, Inspiration, Expiration, Types of Breathing, Artificial Respiration and Respiration in Unusual Conditions- Artificial Respiration, Methods of Artificial Respiration, Cardiopulmonary Respiration, Indications of Cardiopulmonary Resuscitation, Regulation of respiration,

Cardio-vascular system: Structure of the Heart and Blood Vessels- Structure and functions of the Heart, Pulse- Blood Pressure- Systolic Blood Pressure, Diastolic Blood Pressure, Units of Measurement of Blood Pressure, Methods of Recording Blood Pressure, Heart Sounds- Normal Heart Sounds, define cardiac output

Endocrine system: Hormones- types of hormones, Hypothalamus and Pituitary gland- anterior pituitary- growth hormone function, , posterior pituitary- ADH, Oxytocin.-functions, Thyroid gland- thyroid hormones function, parathyroid glands- function of calcium ion, parathormone, Endocrine pancreas- functions of insulin. Functions of adrenal cortex & medulla, Functions Pineal gland

Nervous system: Classify nervous system, List the steps involved in mechanism of formation, circulation and absorption of CSF. List the composition and functions of CSF. List the clinical importance of CSF. Give normal volume of cerebro spinal fluid Define lumbar puncture; Draw a neat labelled diagram of reflex arc, Define a reflex Give a function of a) cerebrum b) cerebellum c) hypothalamus d) basal ganglia List the components of autonomic nervous system, List the effects of stimulation of sympathetic nervous system on the heart. List the effects of stimulation of para sympathetic nervous system on the heart

Special senses: Refractive Index-, Errors of Refraction, Visual Acuity, Color vision, Color Blindness, Hearing- Function Middle Ear, Functions, Tests For Hearing, Taste and smell- Taste sensations, Smell,

Immune system: Leukocytes (White Blood Cells)- Classification of Leukocytes , Functions of Leukocytes Morphology of Leukocytes, Functions of Neutrophils, Eosinophils, Basophils, Monocytes, Lymphocytes & Leukocyte Count

Excretory system: Kidneys and Nephron- Functional Anatomy of the kidneys, Nephron, Parts of Nephron, functions of Juxtaglomerular Apparatus, Formation of Urine- Glomerular Filtration, Glomerular Filtration Rate, Physiology of Micturition

Reproductive system: Sex differentiation and puberty- Puberty. Female reproductive system-, menstruation, menopause. Physiology of pregnancy- maternal changes during pregnancy, pregnancy tests, Male reproductive system- spermatogenesis, structure of sperm, semen. **Contraceptives-** temporary methods in female, permanent methods in females, temporary methods in male permanent method in males.

Unit 2: HRV and PFT (10 Hours)

- Pulmonary function tests,
- Heart Rate variability

Unit 3: Physiology Practical (15 hours)

- Pulse
- Blood Pressure
- Respiratory rate
- ECG
- Refractive errors
- Spirometry
- PEFr
- Basic life support

1.4. RESEARCH METHODOLOGY AND BIOSTATISTICS

Unit 1: Research Methodology concept I (12 hours)

- Introduction to research methodology – definition of research, types of research, need for Yoga research
- The research process
- Literature review – Purpose, Process, digital source: PubMed, etc., presentation of literature review
- Ethics of research– Laboratory ethics, Publication ethics, Ethical bodies – IEC & IRB, Guidelines for good clinical practice
- Scales of measurement – nominal, ordinal, interval, ratio

Unit 2: Research Methodology concept II (12 hours)

- Data collection methods: Observation, Interview, psychological tests, questionnaire, physiological tests, and archive
- Sampling methods - Population and Sample; Simple Random Sampling, Systematic
- Sampling, Stratified Sampling, Cluster Sampling
- Methods of controlling biases – Randomization
- Types of variables – Independent, dependent, confounding variable

Unit 3: Research Methodology concept III (12 hours)

- Types of research design – Experimental designs, cross sectional design, Case study, Survey
- Reliability: Test-Retest Reliability, Internal Consistency, Inter rater Reliability
- Validity: Construct Validity, Face Validity, Content Validity, Criterion Validity, Convergent and Discriminant Validity
- Issues of bias and confounding
- Selection bias, Recall bias, Observer or measurement bias, Publication bias

- Randomization, Matching, Crossover design, Restriction (or blocking), Stratification, Blinding.

Unit 4: Biostatistics (24 hours)

- Descriptive statistics ,Inferential statistics
- Null Hypothesis Significance Testing: hypothesis and null hypothesis
- Statistics and Parameters, Sample and Population
- Generalization
- One tailed, two tailed hypothesis, Types of Errors and its control
- Central Limit Theorem
- Point estimate and interval estimate
- Power analysis: Effect size, sample size, p-value
- Confidence interval
- Statistical tests and design
- Assumptions of tests
- Statistical tests for various designs: Correlation, proportions, paired-sample and independent sample t-tests, Chi-Square tests, ANOVA, Repeated Measures ANOVA parametric and non-parametric tests.

Reference Books

1. C R Kothari. (2009). Research Methodology: Methods and Techniques. New Age International (P) Ltd. New delhi.
2. R. L. Bijlani. (2008). Medical Research: All You Wanted to Know But Did Not Know Who to Ask. Jaypee Brothers Medical Publishers Pvt. Ltd. New Delhi.
3. Zar, J. H., & Zar. (1999). Biostatistical Analysis. Pearson Education. New Delhi.

1.5. YOGA PRACTICAL - I

Unit 1: Loosening exercise (30 hrs)

- Jogging: Slow jogging, backward jogging, Forward jogging, Side jogging, Mukhadhauti
- Rocking, rolling, Forward and backward bending ,Side bending ,Twisting
- Pavanamuktasana Kriya

Unit 2: Yogasana - Eight step method teaching (90 hrs)

- Standing Asanas: (30 hrs)
Ardhakatichakrasana; Ardha cakrasana; Padahastasana;
Trikonasana; Parivritta Trikonasana; Parsva konasana.
- Sitting Asanas: (30 hrs)
Vajrasana; Sasankasana; Suptavajrasana; Pascimottasana;
Ustrasana; Vakrasana; Ardhamatsyendrasana
- Prone Asanas: (10 hrs)
Bujangasana; Salabasana; Dhanurasana; Naukasana
- Supine Asanas: (10 hrs)
Sarvangasana; Matyasana; Halasana; Cakrasana;
Pavanamuktasana; Navasana

Reference Books

1. Integrated Approach of Yoga Therapy for Positive Health – Dr. Dr. R Nagaratna and Dr. H R Nagendra – SVYP, Bengaluru.
2. Asana, Pranayama, Mudras, Bandha – by Swami Satyananda Saraswati (2013), Yoga Publication Trust, Munger Bihar.
3. Certification of Yoga Professionals official guide book – Published by Excel publication under the QCI, Ministry of AYUSH, New Delhi (2016).

4. Hatha Yoga Pradipika, Mukthi Bodhananda (2012) – Light on Hatha Yoga, Yoga Publication Trust, Munger.
5. Gheranda Samhita by Swami Digambaraji (1997), SMYM Samiti, Kaivalyadhama, Lonavala-410403.
6. Gheranda samhita by Swami Niranjananda Saraswati, Bihar School of Yoga, Munger, Bihar-811201.

1.6. YOGA PRACTICAL-II

Unit 1: Breathing practices (60 hrs)

- Standing practices: Hands in and out breathing; Hands stretch breathing; Ankle stretch breathing
- Sitting practices: Dog breathing; Rabbit breathing; Tiger breathing; Sasankasana breathing
- Supine practices: Straight leg raise breathing

Unit 2: Suryanamaskara (40 hrs)

- Prayer and its meaning, Beeja mantra, counting(10 & 12), name of each asana- Hastauttnasana; Padahastasana; Aswasanchalāsana; Astanga Namaskara; Shashankasana; Bhujansana; Parvatasana; Sasankasana; Aswasanchalāsana; Padahastasana; Hastauttnasana.

Unit 3: Pranayama: (20hrs)

- Sectional breathing; Nadisuddhi; Cooling pranayama; Bramari Pranayama.

Reference Books

1. Integrated Approach of Yoga Therapy for Positive Health – Dr. Dr. R Nagaratna and Dr. H R Nagendra – SVYP, Bengaluru.
2. Asana, Pranayama, Mudras, Bandha – by Swami Satyananda Saraswati (2013), Yoga Publication Trust, Munger Bihar.
3. Certification of Yoga Professionals official guide book – Published by Excel publication under the QCI, Ministry of AYUSH, New Delhi (2016).
4. Hatha Yoga Pradipika, Mukthi Bodhananda (2012) – Light on Hatha Yoga, Yoga Publication Trust, Munger.
5. Gheranda Samhita by Swami Digambaraji(1997), SMYM Samiti, Kaivalyadhama, Lonavala-410403.

2.1. YOGA PHILOSOPHY AND HEALTH

Unit 1: Unity in Diversity, Panchakosa (15hrs)

- Concept of yoga, unity in diversity- personality development at physical, mental, emotional, intellectual level and spiritual basis, concept of health, body and disease, integrated approach of yoga therapy- Practices for Annamaya kosa, Pranamaya kosa, Manomaya kosa, Vignanamaya kosa, Anandmaya kosa.

Unit 2: Gheranda Samhita (20hrs)

- Health and Gheranda Samhita- Kriyas- Dhauti, Basti, Neti, Trataka, Nauli, Kapalabhati. Asanas- Siddhasana, Padmasana, Bhadrasana, Muktasana, Vajrasana, Swastikasana, Simhasana, Gomukhasana, Virasana, Dhanurasana, Mrityasana, Matsyasana, Matsendrasana, Pascchimottanasana, etc. with its benefits, limitations and precautions.
- Mudras- Mahamudra, Mahabandha, Vipritkarni, Vajroli, Khechari, Saktichalini etc. Mula Bandha, Jalandhara Bandha, Uddiyan Bandha.
- Pranayama- Sahita : Sagarbha, Nirgarbha. Surya Bheda, Ujjayi, Shitali, Bhastrika, Bhramari, Murccha, Kevali etc.
- Dhyana- Sthula Dhyana, Jyoti Dhyana, Suksma Dhyana, Benefits
- Samadhi- Six folds of sadhana.

Unit 3: Introduction to Yoga Vasistha (15 hrs)

- Introduction to Yoga Vasistha, Glimpses on 6 prakarnas, dispassion of indifference, Concept of mind, Citta, its qualities, Cittavikaras, Citta chikitsa, concept of Adhi and Vyadhi, psychosomatic illness, Remedies, association with the wise or satsanga , self-enquiry, development of satwaguna.

Unit 4: Introduction to Hatharatnavali (10hrs)

- Health and Hatha Ratnavali: Mantra Yoga, Raja Yoga, Laya Yoga, Hatha yoga
- Eight karmas: Mode of cleansing, reason of cleansing and its therapeutic benefits.

- Eight types of kumbhaka and its therapeutic benefits: Suryabhedana, Ujjayi, Sitakari, Shitali, Bhastrika, Bhramari, Murcha, Kevala Kumbhaka.
- Pranayama and its therapeutic benefits

Reference books

1. Gheranda Samhita by Swami Digambaraji(1997), SMYM Samiti, Kaivalyadhama, Lonavala-410403
2. Hathayoga pradipika by Swami Niranjanaanda (1997), Bihar School of Yoga-811201
3. Hata Yoga Manjari by Sahajananda Nath (2006), Kaivalyadhama Srimanmadhav Yoga Mandir Samiti, Pune.
4. Integrated Approach of Yoga Therapy for Positive Health – Dr. Dr. R Nagaratna and Dr. H R Nagendra – SVYP.
5. Gheranda samhita by Swami Niranjanaanda Saraswati, Bihar School of Yoga, Munger, Bihar-811201.
6. Philosophy of Yoga by Swami Jnanananda (1938), Sri Ramakrishnashrama Publications, Calcutta-711202.
7. Basis and Applications of Yoga by H.R. Nagendra (2011), Published by SVYASA, Bengaluru-560019.
8. Asana, Pranayama, Bandha & Mudra by Swami Satyananda Saraswati (2002), Bihar School of Yoga, Munger-811201.
9. Vasistha's Yoga, Swami Venkatesananda, State University of New York Press, Albany, 1993.

2.2. EVIDENCE BASED YOGA THERAPY -I

Unit 1: Introduction to Yoga Therapy (5 hrs)

- Introduction to stress, physiology of stress, psychosomatic ailments,
- Introduction to Yoga therapy – Adhija Vyadhi concept, IAYT.

Unit 2: Yoga therapy for Respiratory disorders (20 hrs)

- Introduction to Respiratory disorders -Brief classification - Obstructive, Restrictive, infectious and inflammatory, Introduction to Pulmonary function tests and their principles.
- Bronchial Asthma - Definition, Pathophysiology, Classification, Clinical Features, Medical Management, Yogic Management.
- Allergic Rhinitis & Sinusitis - Definition, Pathophysiology, Classification, Clinical Features, Medical Management, Yogic Management.
- COPD- Chronic Bronchitis - Definition, Pathophysiology, Classification, Clinical Features, Medical Management, Yogic Management.
- Emphysema - Definition, Pathophysiology, Classification, Clinical Features, Medical Management, Yogic Management.
- Tuberculosis -Definition, Pathophysiology, Classification, Clinical Features, Medical Management, Yogic Management.
- Pneumonia- Definition, Pathophysiology, Classification, Clinical Features, Medical Management, Yogic Management.

Unit 3: Yoga therapy for Cardiovascular disorders (20 hrs)

- Introduction to Cardiovascular disorders - Hypertension - Definition, Pathophysiology, Classification, Clinical Feature, Medical Management, and Yogic Management.
- Atherosclerosis / Coronary artery disease - Definition, Pathophysiology, Classification, Clinical Features, Medical Management ,Yogic Management.

- Ischemic Heart disease – Angina pectoris / Myocardial Infarction- Definition, Pathophysiology, Classification, Clinical Features ,Medical Management, Yogic Management.
- Congestive Cardiac Failure / Cardiomyopathy- Definition, Pathophysiology, Classification, Clinical Features, Medical Management, Yogic Management.
- Evidence based Yoga therapy for problems of cardiovascular system.

Unit 4: Yoga therapy for Endocrine, Metabolic and Excretory Disorder (15hrs)

- Endocrine and Metabolic Disorder- Diabetes Mellitus (I&II) - Definition, Pathophysiology, Classification, Clinical Features, Medical Management ,Yogic Management.
- Hypo and Hyper-thyroid- Definition, Pathophysiology, Classification, Clinical Features ,Medical Management, Yogic Management.
- Obesity - Definition, Pathophysiology, Classification, Clinical Features, Medical Management, Yogic Management.
- Excretory System- Chronic renal failure, causes, clinical features, Medical management, Yogic Management.
- Irritable bladder -Medical management, Yogic Management.
- Stress incontinence -Medical management, Yogic Management.

Reference books:

1. Yoga for Bronchial Asthma – Dr. H R Nagendra, Dr. R Nagaratna, SVYP, Bengaluru.
2. Yoga for Hypertension and Heart Diseases – Dr. H R Nagendra, Dr. R Nagaratna, SVYP, Bengaluru.
3. Yoga for Diabetes – Dr. H R Nagendra, Dr. R Nagaratna, SVYP, Bengaluru.
4. Yoga for common disorders- Swami Koormananda Saraswati.
5. Yoga for Obesity – Dr. H R Nagendra, Dr. R Nagaratna, SVYP, Bengaluru.

6. Stress and its Management by Yoga, K.N.Udupa (2007), Mothilal Banarsidas, Delhi 110007.
7. Hutchison's Clinical Methods, Hutchison (2012), Elsevier Ltd.
8. Principles & practice of Medicine, Davidson (1999), Churchill Livingstone, Harcourt Brace and Company.
9. Yogic Therapy, Swami Kuvalayananda & Dr. S.L. Vinekear (1963), Published by Kaivalyadhama, Lonavala, Pune-4104036.

2.3. SCIENTIFIC WRITING

Unit 1: Writing for Synopsis (60 hours)

- Research Process – An Overview.
- Introduction – Title, Abstract.
- Literature review – Types: Review of scriptures and Modern scientific literature, why literature review, how to conduct literature review.
- Use of PubMed, and other online sources, presentation of literature review.
- Aims and Objectives – Statements of aims and objectives, research questions, hypothesis, null hypothesis, rationale of study, operational definition.
- Methods – Participants, Inclusion & Exclusion criteria, Design, Intervention, Assessment tools, independent & dependent variables.
- Ethics of research – Laboratory ethics, Publication ethics, Ethical bodies – IEC & IRB.
- Plan of data extraction and tabulation (Demo Table).
- Plan for Statistical analysis.
- Use of reference manager, Use of G*Power, Use of ITRANS 99.

Unit 2: Writing for Dissertation (20 hours)

- Dissertation preparation Format, Introduction, Literature Review (Scriptural and Scientific), Aims & Objectives, Methods, Results and Discussion, Conclusion, Appraisal, References, Appendix, Text/legend, Tables and picture formatting.

Unit 3: Writing for Journal (20 hours)

- Manuscript preparation, Structure of article, style of referencing (Eg: APA), Plagiarism, Journal selection, Article submission, Article review.

Unit -4: Presentation Skills (20 hours)

- MS Word, Excel, Power point.
- Presentation of synopsis research article.

- Oral and poster presentations.
- Journal club.

Recommended texts:

1. American Psychological Association. Publication Manual of the American Psychological Association (6th edition), Washington.
2. C R Kothari. (2009). Research Methodology: Methods and Techniques. New Age International (P) Ltd. New Delhi.
3. International (P) Ltd. New Delhi.
4. R. L. Bijlani. (2008). Medical Research: All You Wanted to Know But Did Not Know Who to Ask. Jaypee Brothers Medical Publishers Pvt. Ltd. New Delhi.
5. Zar, J. H., & Zar. (1999). Biostatistical Analysis.

2.4. YOGA PRACTICE III

Kriyas, Bandhas, Mudras

Unit 1: Kriyas (40 hrs)

- Shat Kriyas – Preparatory practices.
- Vamanadhouti, Laghu shankhaprakshalan.
- Jalaneti, Sutra Neti.
- Kapalbhathi, Nauli, Basti.

Unit 2: Mudras (15 hrs)

- Chin Mudra, Chinmaya Mudra, Adi Mudra, Brahma Mudra, Shambhvai, Viparitakarani, Shanmukhimudra.

Unit 3: Bandhas (15 hrs)

- Mula Bandha, Uddiyana Bandha, Jalandhara Bandha.

Unit 4: Meditation techniques (20hrs)

- Yoga Nidra,
- Relaxation Techniques – IRT, QRT, DRT

2.5. YOGA PRACTICE FOR COMMON AILMENTS I

Unit 1: Integrated Yoga module / practices for respiratory disorders (30hrs)

- Bronchial Asthma
- Allergic Rhinitis & Sinusitis
- COPD – Chronic Obstructive Pulmonary Disease
- Pulmonary Tuberculosis
- Pneumonia etc.

Unit 2: Integrated Yoga module / practices for cardio vascular disorders (30hrs)

- Hypertension
- Atherosclerosis / Coronary artery disease
- Ischemic Heart disease – Angina pectoris / Myocardial Infarction
- Congestive Cardiac Failure / Cardiomyopathy etc.

Unit 3: Integrated Yoga module for Endocrinal and metabolic disorders (30hrs)

- Hypo and Hyper- thyroid
- Obesity
- Diabetes Mellitus

Unit 4: Integrated Yoga module / practices for Excretory System (30hrs)

- Chronic renal failure
- Irritable bladder
- Stress incontinence

2.6. FIELD TRAINING-I

- Students will undergo field training in 2nd, 3rd and 4th semester. This will be an orientation to application of yoga/ yoga therapy for different fields. This training can be within the department/ institute / outside the institute
- Student must write the report on their field training. This will be considered for Internal Assessment.
- Following is an example

Unit 1: Arogyadhama, SVYASA Yoga University Bengaluru

- 8 days - Residential training (60 hours)
- Brief outline of yoga therapy clinical training, introduction to each section such as neurology, oncology, pulmonology, cardiology, rheumatology, spinal disorders, metabolic disorders etc.
- Introduction to ailments of each section, Yogic Management through IAYT, Customized and Specific Yoga Module protocol for above mentioned ailments, Yogic Counseling.

Unit 2: Posting for Physiotherapy (60 hours)

- Orienting for different physiotherapy modalities - IFT, wax therapy, TENS, Ultrasound etc.
- Exercise therapy for common ailments.

Reference books

1. Integrated Approach of Yoga Therapy for Positive Health - Dr. R Nagaratna and Dr. H R Nagendra - SVYP, Bengaluru.
2. Yoga its basis and applications - by H.R. Nagendra - SVYP, Bengaluru.
3. Let Go - Discover lasting happiness - Prof A. SatyanarayanaSastry - SVYP, Bengaluru.

4. A short history of religions and philosophic thought in India, Swami Krishnananda (1973), published by the divine life society Shivanandanagar, Rishikesh-249192.
5. Gita for Modern man, Krishna Chaitanya (1986), Clarion Books, New Delhi-110003.
6. Yoga Self Taught, Thomas Von Elbe (1999).
7. Yogic Therapy, Swami kuvalayananda, Dr. S.L. Vinekear (1963), Published by Kaivalyadhama, Lonavala, Pune-410403.
8. Yoga mala - Part I, Prof. Pattabhi Jois(2010), North Point Press, A Division of Farrar, Straus and Giroux, 18 west 18th street, New York 10011.

3.1. INTRODUCTION TO BHAGAVAD GITA

Unit 1: Yoga and Bhagavad- Gitā (10hrs)

- Bhagavad Gita - Eighteen chapters of Yoga, Introduction, objectives, Synopsis of Gita, Definitions of Yoga in Gita, Summary

Unit 2: Important concepts in Bhagavad Gita (15 hrs)

- Atmaswarupa, Stithaprajna- who is Stithaprajna, preparations of dhayana and dhyana yoga, process of dhyana yoga, how to control unsteady mind, Sanyasa yoga- what is tyaga, who is sanyasi, karma yoga, niskam karma yoga, yajnas, Sankhya Yoga.

Unit 3: Bhakti Yoga (15 hrs)

- Kama to prema, prema to bhakti, panchamaha bhavas of bhakti, para bhakti, characteristics of bhakta (devotee), practices the nine kinds of bhagavata dharma, all the verses of chapter 12 devoted to bhakti yoga.

Unit 4: Applications of Bhagavad Gita (15 hrs)

- Bhagavad gita & psychoanalysis, trigunas, three kinds of faith, food for yoga sadhaka, classification of food, harmonious blend of raja yoga, bhakti, karma& jnana yoga, the glory of bhagavad gitā, lord krishnas advice for arjunas despondency.

References

1. The Holy Gita - the Science of Life, Swami Tapasyananda, Pub: Ramakrishna Mission, Chennai.
2. Essence of the Bhagavad Gita: A Contemporary Guide to Yoga, Meditation & Indian Philosophy, Easwaran. E (2011), Tomales, CA: Nilgri Press.
3. Srimadbhagavad Gita, Ramdev, S. (2012). Haridwar, India: Divya Prakashan.
4. The Bhagavad Gita, Davis, R. H. (2015). New Jersey: Princeton University Press.
5. Bhagavad Gita, Sivananda, S. (2000). Rishikesh, India: The Divine Life Society.

3.2. EVIDENCE BASED YOGA THERAPY - II

Unit 1: Obstetrics and Gynecological Disorders (15hrs)

- **Menstrual disorders:** Dysmenorrhea, Oligomenorrhea, Menorrhagia Definitions, Pathophysiology, Classification, Clinical Features, Medical Management ,Yogic Management
- **Premenstrual Syndrome:** Definition, Pathophysiology, Classification, Clinical Features, Medical Management, Yogic Management.
- **Yoga for Pregnancy and Childbirth,** Introduction to pregnancy, complicated pregnancies: PIH, Gestational DM, Ante-natal care, Post-natal care
- **Infertility-** male and female PCOS- Definition, Pathophysiology, Classification, Clinical Features, Medical Management, Yogic Management.

Unit 2: Gastro Intestinal Disorders (10 hrs)

- APD- Introduction to APD: Gastritis -Acute & Chronic, Dyspepsia, Peptic Ulcers, Clinical Features, Medical Management, Yogic Management.
- Constipation and Diarrhea - Definition, Pathophysiology, Clinical Features, Medical Management &Yogic Management.
- Irritable Bowel Syndrome -Definition, Pathophysiology, Classification, Clinical Features, Medical Management, Yogic Management.
- Ulcerative colitis - Definition, Pathophysiology, Classification, Clinical Features, Medical Management & Yogic Management
- Crohn's diseases - Definition, Pathophysiology, Classification, Clinical Features, Medical Management & yogic management.

Unit 3: Musculo - Skeletal & Neurological Disorders (25hrs)

- Back Pain - Classification of back pain: organic and functional, Lumbar Spondylosis, Intervertebral disc prolapse (IVDP), Spondylolisthesis, Spondylitis Psychogenic- Lumbago, Medical Management, Yogic Management.

- Neck pain - Classification, Cervical Spondylosis, radulopathy, Functional neck pain, Medical Management, Yogic Management.
- All forms of Arthritis - Rheumatoid Arthritis, Osteoarthritis, Psoriatic Arthritis Gout, Medical Management, Yogic Management, Muscular dystrophy, Medical Management, Yogic Management.
- Neurological Disorders- Headaches –Migraine, Causes, Classification, clinical features, Medical management, Yogic Management. Tension headache, Medical management, Yogic Management.
- Cerebro vascular accidents- Causes, clinical features, Medical management, Yogic Management.
- Epilepsy; pain; Autonomic dysfunctions - Causes, clinical features, Medical management, yogic management.
- Parkinson’s disease- Causes, clinical features, Medical management, Yogic Management.
- Multiple sclerosis -Causes, clinical features, Medical management, Yogic Management.

Unit 4: Psychiatric disorders (10hrs)

- Anxiety disorders: a) Generalized anxiety disorder b) Panic Anxiety c) Obsessive Compulsive Disorder d) Post-traumatic stress disorder e) Phobias, Medical Management, Yogic Management.
- Depression: Dysthymia, Major depression, Medical Management, Yogic Management.
- Psychosis- a. Schizophrenia b. bipolar affective disorder, Medical Management Yogic Management.
- HIV - AIDS- Cause, Pathophysiology, Clinical Features, Medical management, Yogic Management.

- Autoimmune disorders- Causes, clinical features, various autoimmune disorders
Medical management, Yogic Management.
- Cancer - Causes, clinical features, side effects of chemotherapy, radiotherapy,
medical management, Yogic Management.

Reference books-

1. Yoga for Pregnancy - Dr. H R Nagendra, Dr. R Nagaratna, Dr. Shamanthakamani, SVYP, Bengaluru.
2. Yoga for Arthritis - Dr. H R Nagendra, Dr. R Nagaratna, SVYP, Bengaluru.
3. Yoga for common disorders- Swami Koormananda Saraswati.
4. Integrated approach of yoga therapy for positive health-Dr. R Nagaratha, Dr. H R Nagendra - SVYP, Bengaluru.
5. Yoga for Digestive Disorders - Dr. H R Nagendra, Dr. R Nagaratna, SVYP, Bengaluru.
6. Hutchison's Clinical Methods, Hutchison (2012), Elsevier Ltd.
7. Principles & practice of Medicine, Davidson (1999), Churchill Livingstone, Harcourt Brace and Company.
8. Yogic Therapy, Swami Kuvalayananda & Dr. S.L. Vinekear (1963), Published by Kaivalyadhama, Lonavala, Pune-4104036.
9. Yoga for Cancer - Dr. H R Nagendra, Dr. R Nagaratna, SVYP, Bengaluru.
10. Yoga for Back Pain - Dr H R Nagendra, Dr. R Nagaratna, SVYP, Bengaluru.
11. Yoga practices for Anxiety and Depression - Dr H R Nagendra, Dr. R Nagaratna, SVYP, Bengaluru.
12. Yoga for Cancer - Dr H R Nagendra, Dr. R Nagaratna, SVYP, Bengaluru.

3.3. DIET AND CLINICAL NUTRITION PSYCHOLOGY AND COUNSELLING

PART A - DIET AND CLINICAL NUTRITION

Unit 1: Basic Concepts and Components of Food and Nutrition (10 hours)

- 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 2: Food and metabolism (10 Hours)

- 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 3- Yogic Concept of Diet (10 hours)

- 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. Ahar Yogi Drvaya, Swabhatha Hitkar and Ahitkar Dravya.

Reference books:

1. Bhojan Katuhlam, Balkrishna, A. (2013). Haridwar, India: Divya Prakashan.
2. Eating Wisely and Well, Ramesh Bijlani, Rupa Publication India Pvt. Ltd, 2012.
3. Ajirnaamrit Manjari, Balkrishna, A. (2013), Haridwar, India: Divya Prakashan.
4. Srimadbhagvad Gita, Ramdev, S. (2012). Haridwar, India: Divya Prakashan.

PART B: INTRODUCTION TO PSYCHOLOGY AND COUNSELLING

Unit 1: Introduction to psychology (10 hrs)

- Introduction to psychology- Short History of Psychology, Research Methods in Psychology, Key data collection in Psychology, Psychoanalytic, behavioral, cognitive and biological models; Ethics in psychological research, Sociobiology of health and disease; Diagnostic classification of mental and behavioral disorders.

Unit 2: Introduction to psychological disorder (10hrs)

- Introduction to psychological disorder- Disorders of attention, perception, thought movement, Psycho diagnosis of major Mental Disorders of the Adults and their treatment, Depression, Anxiety, eating disorders, Alcohol dependence, Mental retardation, schizophrenia.

Unit 3: Introduction to counseling (10hrs)

- Introduction to Health psychology and psychotherapy- Introduction to counseling, nature approaches and challenges, Method of counseling, Skill for counseling, Psychoanalytic Therapy, Humanistic Therapy, Behavior Therapy, Psychological, philosophical and yogic counseling; the remedial measures;

Action in relaxation-the secret of Karma Yoga; Psycho-physiological effects and health benefits of Pranayama, Shatkarma; Bandha and Mudra ; Psycho-physiological effects and health benefits of Meditation .

Reference books:

1. Abnormal Psychology (8th Edition) Davison, GC, Neale, JM. (2001), New York: Wiley.
2. Abnormal Psychology: Understanding Human Problems, Kendall, PC Hammen C. (1998). Boston: Houghton Mifflin.
3. Counseling Psychology, Gelso, Charles. J: Fretz, Bruce R., Prism Books private limited Harcourt Brace College Publishers.
4. Manovigyan and Shiva Samklapa, Saraswati, S. A. (1983). Rohatak, India: Haryana Aryasamj Sahitya Prakshan.
5. The Clinical Psychology Handbook\ Pergamon. Hersen, M., Kazdin, A. E., & Bellack, A. S. (1991) New York.
6. Integral psychology : yoga, growth, and opening the heart, Cortright, B. (2007), SUNY series in transpersonal and humanistic psychology.
7. Foundations of yoga psychology, Rao, K. R. (2017), Singapore: Springer.
8. The Psychology of Kundalini Yoga: Notes of the Seminar, Jung, C. G. (1999), Princeton University Press.

3.4. YOGA PRACTICE FOR COMMON AILMENTS II

Unit 1: Integrated Yoga module / practices for OBG disorders (15 hrs)

- Menstrual disorders, Premenstrual Syndrome.
- Yoga for Pregnancy and Childbirth.
- Infertility etc.

Unit 2: Integrated Yoga module / practices for gastro intestinal disorders (15hrs)

- Acid Peptic Disorder, Gastritis, Dyspepsia, Peptic Ulcers
- Constipation and Diarrhea, Irritable Bowel Syndrome, Ulcerative colitis etc.

Unit 3: Integrated Yoga module / practices for Musculo-skeletal disorders (25 hrs)

- Back Pain, Lumbar Spondylosis, Intervertebral disc prolapse (IVDP) , Spondylolisthesis, Spondylitis Psychogenic- Lumbago
- Neck pain, Cervical Spondylosis
- Arthritis - Rheumatoid Arthritis, Osteoarthritis, Psoriatic Arthritis Gout, Muscular dystrophy

Unit 4: Integrated Yoga module / practices for neurological disorders (20 hrs)

- Neurological Disorders- Headaches –Migraine, Tension headache, Medical
- Cerebro vascular accidents, Epilepsy, Autonomic dysfunctions
- Parkinson’s disease, Multiple sclerosis

Unit 5: Integrated Yoga module / practices for psychiatric disorders (25 hrs)

- Anxiety disorders. Depression, Schizophrenia, Bipolar affective disorder

Unit 6: Integrated Yoga module / practices for cancer and common ailments (10 hrs)

- HIV – AIDS- Autoimmune disorders, Cancer

3.6. DISSERTATION - I

- Commencement of dissertation
- Intervention , Data collection, Data analysis
- Please note that, at the end of the semester each student is expected to prepare post synopsis under the supervision of a qualified guide. Which will be evaluated by the two internal examiners
- Post synopsis Format: Introduction, Literature Review, Aims & Objectives, Methods, Results and Discussion, Conclusion, References etc.

4.1. VEDAS, UPANISHADS, AND DARSHANAS

Unit 1: Veda, Upanishads (30 hrs)

- Historical facts about Vedas, Dating and Authoring of Vedas, Content of Vedas, Jnana Kanda – Prasthanas Traya – Upanishads and Vedanta Texts (Taittiriya, Katha, Mandukya, Yoga Vasistha)
- Introduction & Meaning of Upanishad, Number of Upanishads & Brief Introduction to Principal Upanishads- Isha, Kena, Katha, Prashna, Mundaka, Mandukya, Aitreya, Taittiriya, Brihadaranyak & Chhandogya Upanishad, Prasthanatraya, Essence of Upanishads, Style of Upanishads, two main quests- Happiness Analysis and Quest for reality, concept of dharma, *Pranic* Energy Model, Concept of Panchkosha, Layers of bliss.

Unit 2: Darshanas (30 hrs)

- Concept of Nyaya philosophy means of salvation according to Nyaya and Vaisesika. The sixteen Padarthas according to Nyaya. Perception (Pratyaksha), inference (Anumana), comparison (Upamana) according to Nyaya and Vaisesika.
- Samkhya And Yoga-Introduction, Three fold afflictions and means to overcome afflictions, 25 entities according to Sankhya and means of knowledge, satakarya Vada, similarities and dissimilarities between Vyakta and Avyakta, Triguna; Existence of Pursha, plurality of Purusha, proximity of Purusha and Prakruti.
- Uttara Mimamsa: Concept of Badarayana in Uttara mimamsa, Prameya, Pratyaksha, Anumana, Shabda according to Uttara Mimamsa. Difference between Vidya& Avidya, subject & object, creation & causation, cause & effect.
- Purva Mimamsa: Purva Mimamsa in Nyaya Darshana; Prameyas of Jaimini.

Reference books

1. Spiritual Heritage of India (English), Swami Prabhavananda.
2. The Principal Upanishads, Swami Nikhilananda, Courier Corporation, 2003.

3. The Essence of Principal Upanishads, Swami Sivananda, Divine Life Society, 1980.
4. Upanishad Sangraha- Jagdish Shashtri, Motilal Banarasidas, Varanasi, Delhi, Chennai.
5. 108 Upanishad- Sadhana Khand- Pt. Sriram Sharma Acharya, Shantikunj, Haridwar.
6. 108 Upanishad- Brahma Vidya Khand-Pt. Sriram Sharma Acharya, Shantikunj, Haridwar.
7. 108 Upanishad- Jnana Khand- Pt. Sriram Sharma Acharya, Shantikunj, Haridwar.
8. Vaalmeeki: Essence of Yoga Vasishta, Lotus Press, 1998.
9. The Vedas - by Chandrasekharendra Saraswati (2014), Bhavan's Publication.
10. Shatdarshana - Swami Sukhabodhananda - RK mat publications
11. Philosophy of Yoga by Swami Jnanananda (1938), Sri Ramakrishnashrama Publications, Calcutta-711202.
12. A critical survey of Indian Philosophy by Chandradhara Sharma (2000), Motilal Banarsidass Publishers Private Limited, Delhi-110007.
13. Yoga as a Philosophy and Religion by S.N.Dasgupta (2002), Calcutta -711202.
14. Sankhyakarika by Ishwarakrishna (2000), Parimala publication, Delhi-110007.

4.2. AYUSH SYSTEMS AND INTEGRATIVE MEDICINE

Unit 1: Introduction to AYUSH, CAM and Integrative medicine (5 hours)

- Overview of AYUSH systems in India
- Definition of complementary Medicine, alternative medicine, Integrative Medicine, other healing system of medicine.
- National Center for Complementary and Integrative Health

Unit 2: Basic principles of Ayurveda I (20 hrs)

- Definition of Ayurveda – Different types of Ayu and chronology of Ayurveda. Concept of Doshas, Dhatus, Malas and types of Agni, concept of ama. Traya Upasthamba.

Unit 3: Basic principles of Ayurveda II (20 hrs)

- Concept of Dincharaya & Rutucharaya, concept of Prakruti, Concept of Chikitsa, Concept of Chikitsachatuspada, Concept of health and disease, Concept of health according to sushruta , Concept of disease and its classification, Panchakarma and its procedures.

Unit 4: Introduction to Naturopathy (10 hrs)

- Definition of Nature Cure, History of Naturopathy, Principles of Naturopathy, Diet and Fasting, Fasting Therapy, Importance of Fasting, Indications, Contraindications, Hydrotherapy and Mud Therapy.

Unit 5: Introduction to Siddha, Unani and Homeopathy (5 hrs)

- Introduction to Siddha Medicine - origin of siddha, concept of siddha, diagnosis and treatment, chemistry in siddha, strength in siddha.
- Introduction to Siddha Medicine, Unani and Homeopathy.

Reference Books

1. Introduction to Ayurveda and Yoga by David Frawley.
2. Ashtanga Sangraha by Vagbhata.
3. Principles of Naturopathy- Dr. Bhakru.
4. Essentials of basic Ayurveda concepts- V.V.S.Sastry.

4.3. ADVANCE YOGA TECHNIQUE

Unit 1: Advanced Asana (30 hrs):

- Natarajasana, Vrikshasana, Garudasana, , Veerasana,
- Badrasana, Tolasana, Kukuttasana, Gomuksana, Malasana
- Sirasana, Chakrasana, Vrishchikasan
- Hamsasana, Mayurasana

Unit 2: Advanced Pranayama (30 hrs) :

- Ujjayi, Bastrika,

Unit 3: Cyclic meditation (CM) (30 hrs)

Unit 4: Mind sound resonance technique (MSRT) (15 hrs)

Unit 5: Pranic Energization Technique (PET) (15 hrs)

4.4. FIELD TRAINING -III

- Clinical postings at various departments in RL Jalappa hospital, Kolar

4.5. DISSERTATION -II

- Structure of Dissertation
 1. Introduction
 2. Review of Literature
 3. Methodology
 4. Results
 5. Discussion
 6. Summary
 7. Conclusions
 8. Bibliography / Reference
- Each student will present their dissertation work, which will be evaluated by one internal and one external examiner.