

ಮಂಗಳೂರು
MANGALORE



ವಿಶ್ವವಿದ್ಯಾನಿಲಯ
UNIVERSITY

ಕ್ರಮಾಂಕ/ No. : MU/ACC/CR.11/2022-23/A8

ಉಲ್ಲೇಖಿತ ಕಛೇರಿ
ಪಂಚಗಂಗೋತ್ರಿ 574 199
Office of the Registrar
Mangalagangothri - 574 199

ದಿನಾಂಕ/Date: 01/10/2022

NOTIFICATION

Sub: Syllabus of B.Sc Programme in Yogic Science (B.Sc(Yogic Science)) under NEP 2020 reg.

Ref: Decision of the Academic Council meeting dated: 06.09.2022.

Pursuant to the above, the syllabus of B.Sc Programme in yogic Science under NEP 2020 is hereby notified for implementation with effect from the academic year 2022-23.

Copy of the Syllabus shall be downloaded from the Mangalore University website. www.mangaloreuniversity.ac.in


REGISTRAR.

To:

- 1) The Principals of the colleges concerned.
- 2) The Registrar (Evaluation), Mangalore University.
- 3) Prof. K Krishna Sharma, Chairman, Dept. of Human Consciousness & Yogic Science, Mangalore University
- 4) The Assistant Registrar/The Superintendent, Academic Section, O/o the Registrar, Mangalore University.
- 5) The Director, DUIMS, Mangalore University – with a request to publish in the Website.
- 6) Guard File



Accredited by NAAC

NATIONAL EDUCATIONAL POLICY (NEP) - 2020

SYLLABUS FOR CBCS SCHEME

Undergraduate Programme –

BACHELOR OF SCIENCE – B.Sc. (YOGIC SCIENCE)

JULY 2022

**Department of Human Consciousness & Yogic Sciences
Mangalore University
Mangalagangothri – 574 199**

Undergraduate Programme –
BACHELOR OF SCIENCE – B.Sc. (YOGIC SCIENCE)

Preamble:

Yoga is one among the greatest gifts from ancient India to the whole world, as a technique to understand oneself through proper living and is now widely accepted as a holistic approach towards healthy life in all aspects. It is holistic since it is a great blend of philosophical as well as practical aspects of life. Yogic Science teaches to lead a tensionless life with respect to body, mind and soul trinity, taking into cognisance the environment around. The foundation stones to have intellect guarded by wisdom and blissful life are moral values. Yogic science occupies a special significance in the present-day life which is associated with full of stress and strain causing a number of psychosomatic diseases.

NEP 2020, being implemented now has emphasised the study of Indian traditional knowledge systems. It says, the rich heritage of ancient and eternal Indian knowledge and thought has been a guiding light for this Policy. The rich legacies to world heritage must not only be nurtured and preserved for posterity but also researched, enhanced, and put to new uses through our education system. Courses and programmes in subjects, such as Indology, Indian languages, AYUSH systems of medicine, yoga, arts, music, history, culture, and modern India, internationally relevant curricula in the sciences, social sciences, and beyond, meaningful opportunities for social engagement, quality residential facilities and on-campus support, etc. will be fostered to attain this goal of global quality standards, attract greater numbers of international students, and achieve the goal of ‘internationalization at home’. Yoga, greatest gift from ancient India, is becoming popular day by day and has become a wave sweeping across the globe. With this background, it is proposed to introduce the Undergraduate Programme - **“Bachelor of Science (Yogic Science)” / B.Sc. (Yogic Science)** under NEP 2020. In this Programme, Yoga is introduced as a science of Holistic living and not merely as Yoga postures. During the Programme, the student is taught the concepts of Yoga and application of Yoga for the treatment and prevention of various psychosomatic ailments. The Graduates have opportunities worldwide to work as Lab assistant, Demonstrator, Yoga Trainer in Yoga Therapy Centres, Yoga Schools; Resource person for Yoga Training Camps and Wellness Camps; As Assistant Professor, Research Assistant/Fellow in Academics. Opportunities are available in India as well as in abroad.

1. Title of the Programme: The Course shall be called “**Bachelor of Science (Yogic Science)**” / **B.Sc. (Yogic Science)**.

2. Aim of the Programme: The course will aim to impart the fundamental knowledge and Skills about Yoga, its basis and applications.

3. Objectives of the Programme:

- a. Promoting the awareness for positive health and personality development in the student through Yoga.
- b. Instilling and inculcating the general interest and inquisitive knowledge about Yoga for Health, personality development and spiritual evolution.
- c. To produce manpower to give Yoga training / Teaching, Yoga Therapy and Yoga Research at all levels.
- d. To produce manpower to give Yoga Training and Therapy at hospitals.
- e. To prepare the graduates in Yoga Science to study the higher aspects of Yoga Education, Therapy and Research at the post-graduate level.
- f. To generate manpower to assist in Yoga Research Projects.
- g. To encourage the pupil to be a global citizen, serving the human beings at large through the noble profession of Yoga.

4. Scope of the Programme:

- a. The scope of this programme is to make the B.Sc. (Yogic Science) Graduates work as a Yoga Teacher/ Yoga Instructor in Schools, Colleges, Universities and organizations.
- b. They can work as a Yoga Therapists.
- c. They can work as Research Assistants / Fellow in Yoga research projects.
- d. As Assistant Professor in Academics.

5. Curriculum: The syllabus is designed according to NEP 2020 Regulations and Scheme of the Programmes, to fulfil aforesaid objectives containing theory subjects, practical/laboratory work, Dissertation and field training in Yoga education, Yoga therapy and self-development through assignments etc.

6. Scheme of Examination and Evaluation: According to the University guidelines for the similar Programmes.

Programme Outcome

Graduates with strong academic knowledge, discipline-specific and generic skills complemented with sound physical and mental health and social responsibility are the greatest assets of the country. The curriculum framework under NEP for Yogic Science as an optional subject for graduate students is expected to attribute them with;

- Knowledge about the history and development of Yoga as a subject for study.

- The fundamental knowledge about the basic principles of Yoga.
- Knowledge of different schools of Yoga and their practicing methods.
- Basic knowledge about classical yogic texts.
- Basic knowledge about the human physiology and anatomy and common diseases.
- Ability to understand the psycho-physiological effects of various Yoga practices.
- Understanding of the theoretical background for each and every practice.
- Basic knowledge about good life style and food habits.
- Ability to ward of the misconceptions about Yoga and to propagate its real essence to the needy.
- Ability to carefully observe the life situation either success or failure and to manage those without losing the tranquility of the mind.
- Ability to take up the career in multi-modal way like Yoga trainer, Therapist or as an Academician.
- Enhanced concentration and excellency in the core subject will increase the efficiency of a student and helps in multi-facet improvement in the quality of life.
- Graduates with sound mental and physical health, filled with moral values and contribute to nation as a responsible citizen.

Job Opportunities in Yogic Science Core Course

Exit after **One Year: Certificate Course**

Knowledge	Skills Acquired	Employability
<p>Yoga: meaning, objectives and definitions, concepts and mis-concepts, origin and development as a subject.</p> <p>Different schools of yoga and their practicing methods, Fundamentals of Hathayoga, Basics and practicing methods of asanas.</p> <p>Basic principles of Yoga and brief introduction to Kriyas, Asanas, Pranayamas, bandhas and Mudras based on classical Hathayogic texts.</p>	<p>Ability to practice and teach the specified practices of Yoga under the curriculum with basic knowledge about the theoretical background.</p>	<p>Certificate holder can become Yoga Trainer/ Instructor at various firms/institutions like Schools and colleges, Hotels, Resorts, Gyms, Fitness Studios etc. under the expert.</p> <p>Opportunities in India as well as in abroad.</p>

Exit after **Two Years: Diploma Course**

Knowledge	Skills Acquired	Employability
<p><i>-In addition to the previous-</i> Basics of Human Anatomy and Physiology, Various Systems and their functioning. Knowledge of yogic practices in few classical texts.</p>	<p><i>-In addition to the previous-</i> Ability to understand the psycho-physiological functioning and their disturbed state.</p> <p>Ability to understand the effect of various practices on human body.</p> <p>Better understanding of the theory behind the practices and their application in everyday life.</p>	<p>They will be able to give practices especially in firms like Hospitals, Yoga Therapy Centers, Health centers, AYUSH Centers etc. as an independent instructor.</p> <p>Opportunities in India as well as in abroad.</p>

Exit after **Three Years: Bachelor's Degree**

Knowledge	Skills Acquired	Employability
<p><i>-In addition to the previous-</i> Fundamental of Yoga Shastra– Based on Pathanjala Yogasutras</p> <p>Citta and its nature, attainment of concentration. Kriyayoga and its application. Ashtangayoga –practices and benefits, Liberation, Nature of the seer.</p> <p>Special emphasis on modern concept of neurophysiology and nutrition.</p> <p>Basic principles and application of Yoga Therapy. Advanced level of practices.</p>	<p><i>-In addition to the previous-</i> Knowledge of Yoga Shastra and clarity regarding the aim and objectives of its practices and application.</p> <p>Ability to deliver lectures on the subject Yoga.</p> <p>Ability to co-relate the modern psycho-neurological concepts and the ancient Indian perspective of mental health.</p> <p>Knowledge about proper lifestyle and food habits and their application in Yoga Therapy.</p> <p>Ability to design Yoga Module for the individual practice.</p>	<p>Lab assistant, Demonstrator, Yoga Trainer in Yoga Therapy Centers, Yoga Schools.</p> <p>Resource person for Yoga Training Camps and Wellness Camps.</p> <p>Opportunities in India as well as in abroad.</p>

Exit after **Four Years: B. Sc. (Hons.)**

Knowledge	Skills Acquired	Employability
<p><i>-In addition to the previous-</i></p> <p>Deeper insight towards Hathayoga and Rajayoga, Comparative study. Kundalini yoga and shivayoga. Asanas, Pranayamas, Bandhas and Mudras; their classifications, practicing methods and benefits (Advanced Level).</p> <p>Practice of various Kriya techniques with advanced level of other practices like asanas and pranayamas.</p> <p>Detailed knowledge about Dietetics and Nutrition; modern and ancient.</p>	<p><i>-In addition to the previous-</i></p> <p>Ability to blend the theory and practices according to the need during therapy or training.</p> <p>Knowledge of Yoga Philosophy.</p> <p>Ability to compare, analyze and assess the various practicing methods and their results. Conducting proto type research studies like Case Study etc.</p> <p>Developing yogic tools and techniques as solutions for various health problems in the society.</p> <p>Ability to prescribe lifestyle and food suggestions. Counselling and</p>	<p>Assistant Professor, Research Assistant/Fellow, Resource person for Yoga Training Camps and Wellness Camps.</p> <p>All these opportunities are available in India as well as in abroad.</p>

<p>Swarayoga and Yoga Rahasya.</p> <p>Detailed Human Anatomy and Physiology including various systems and Biochemistry.</p> <p>Research methodology.</p> <p>Bhagavadgita, Siddhasiddhanta Paddhati, Evolution theory of yoga, Kundaliniyoga (indetail), Upanishad Yoga.</p> <p>Basics of Psychology and comparison with Indian thought. Indian concept of Health, Basics of Yoga Therapy, Effects of Yoga on Various systems.</p>	<p>Mentoring ability.</p>	
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COURSE PATTERN AND SCHEME OF EXAMINATION
Undergraduate Programme –
BACHELOR OF SCIENCE – B.Sc. (YOGIC SCIENCE)

Paper Code	Title of the Course / Paper	Type	Instruction Hour per Week	Total No. of Hours	Duration of Exam (Hrs.)	IA Marks	Exam Marks	Total Marks	Total Credits
Semester - I									
DSC-1	Foundations of Yoga	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-2	Foundations and Practices of Hath Yoga	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-3	Human Anatomy and Physiology I	Theory	3	42	2	40	60	100	3
OE-1	Introduction to Yogic Science- I	Theory, Practical	4	52	2	40	60	100	3
L 1		Theory	4	52	2	40	60	100	3
L 2		Theory	4	52	2	40	60	100	3
SEC 1	Digital Fluency/Evn.studies					20	30	50	2
	Value based – Yoga					25		25	1
	Value based – Health & Wellness					25		25	1
Total Credits									26
Semester - II									
DSC-4	Yoga in Principal Upanishads	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-5	Yoga in Principal Upanishads	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-6	Human Anatomy, Physiology and Biochemistry	Theory	3	42	2	40	60	100	3
OE-2	Introduction to Yogic Science- II	Theory, Practical	4	52	2	40	60	100	3
L 1		Theory	4	52	2	40	60	100	3
L 2		Theory	4	52	2	40	60	100	3
	Environmental Studies/digital Fluency					20	30	50	2
	Value based – Sports					25		25	1
	Value based – NCC/ NSS/ R&R (S & G)/ Cultural					25		25	1
Total Credits									26
Exit option with Certificate in Yogic Science (with the completion of courses equivalent to a minimum of 48 credits)									

Semester - III									
Paper Code	Title of the Course / Paper	Type	Instruction Hour per Week	Total No. of Hours	Duration of Exam (Hrs.)	IA Marks	Exam Marks	Total Marks	Total Credits
DSC-7	Patanjala Yoga Darshana – I	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-8	Human Anatomy & Physiology-II	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-9	Study of Ghatayoga; Practices in Goraksha Shathaka	Theory	3	42	2	40	60	100	3
OE-3	Basics of Yogic Science	Theory, Practical	4	52	2	40	60	100	3
L 1		Theory	4	52	2	40	60	100	3
L 2		Theory	4	52	2	40	60	100	3
SEC 2						20	30	50	2
	Value based – Sports					25		25	1
	Value based – NCC/ NSS/ R&R (S & G)/ Cultural					25		25	1
Total Credits									26
Semester - IV									
DSC-10	Patanjala Yoga Darshana-II	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-11	Applied Biochemistry	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-12	Study of Hatharatnavali and Goraksha Samhita	Theory	3	42	2	40	60	100	3
OE-4	Yoga for Health	Theory, Practical	4	52	2	40	60	100	3
L 1		Theory	4	52	2	40	60	100	3
L 2		Theory	4	52	2	40	60	100	3
	Constitution of India					20	30	50	2
	Value based – Sports					25		25	1
	Value based – NCC/ NSS/ R&R (S & G)/ Cultural					25		25	1
Total Credits									26
Exit option with Diploma in Yogic Science (with the completion of courses equivalent to a minimum of 96 credits)									
Semester - V									
DSC-13	Yoga system and its Practice in Shiva Samhita	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-14	Fundamentals of Psychology	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-15	Yogopanishads and Siddhasiddhanta	Theory	3	42	2	40	60	100	3

	-paddhati								
DSC E-1	Fundamentals of Naturopathy	Theory	3	42	2	40	60	100	3
	Vocational - 1								3
SEC 3						20	30	50	2
	Value based – Sports					25		25	1
	Value based – NCC/ NSS/ R&R (S & G)/ Cultural					25		25	1
Total Credits									23
Paper Code	Title of the Course / Paper	Type	Instruction Hour per Week	Total No. of Hours	Duration of Exam (Hrs.)	IA Marks	Exam Marks	Total Marks	Total Credits
Semester - VI									
DSC-16	Four Streams of Yoga	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-17	Concept of Food; Svara Yoga and Yoga Rahasya	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-18	Yoga and Health	Theory	3	42	2	40	60	100	3
DSC E-2	Fundamentals of Ayurveda	Theory	3	42	2	40	60	100	3
	Vocational - 2								3
	Internship	3 to 4 weeks		Viva and Presentation		25	25	50	2
SEC 4						20	30	50	2
	Value based – Sports					25		25	1
	Value based – NCC/ NSS/ R&R (S & G)/ Cultural					25		25	1
Total Credits									25
Exit option with Bachelor of Yogic Science Degree (with the completion of courses equivalent to a minimum of 140 credits)									
Semester – VII									
DSC-19	Impact of Yogic Practices on Human Body	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-20	Introduction to Common Ailments	Theory	3	42	2	40	60	100	3
		Practical	4	52	4	25	25	50	2
DSC-21	Yogic Management of common Disorders	Theory	3	42	2	40	60	100	3
DSC E-3	Fundamentals of Counselling	Theory	3	42	2	40	60	100	3
	Vocational – 3								3
RM	Research Methodology	Theory	3	42	2	40	60	100	3
Total Credits									22

Semester – VIII									
DSC-22	Sankhyayoga and Shivayoga	Theory	3	42	2	40	60	100	3
DSC-23	Yoga and Human Consciousness	Theory	3	42	2	40	60	100	3
DSC-24	Upanishats and Consciousness	Theory	3	42	2	40	60	100	3
DSC E-4	Yoga Protocols for Special Targeted Groups	Theory	3	42	2	40	60	100	3
	Vocational – 4								3
RP	Research Project	-	6	78	4	80	120	200	6
Total Credits									21
Grand Total of Credits									195
Award of Bachelor of Yogic Science with Honours, B. Sc. Yogic Science (Hons.) Degree (with completion of courses equivalent to a minimum of 180 credits)									

BSc Yogic Science

I SEMESTER

YSc BSc C 1: Foundations of Yoga;	3 Credits, 42 Hrs
YSc BSc C 1 P: Practicals–I;	2Credits, 52 Hrs.
YSc BSc C 2: Foundations and Practices of Hath Yoga;	3 Credits, 42 Hrs
YSc BSc C 2 P: Practicals –II;	2Credits, 52Hrs.
YSc BSc C 3: Human Anatomy and Physiology I;	3 Credits, 42 Hrs
YSc BSc OE-1: Open Elective Course 1: Introduction to Yogic Science- I;	3 Credits,52 Hrs.

BSc Yogic Science

II SEMESTER

YSc BSc C 4: Yoga in Principal Upanishads;	3 Credits, 42 Hrs
YSc BSc C 4 P: Practicals –III;	2credits, 52Hrs.
YSc BSc C 5: Hatha Yoga of Svathmarama	3 Credits, 42 Hrs
YSc BSc C 5 P: Practicals – IV;	2 Credits; 52Hrs.
YSc BSc C 6: Human Anatomy, Physiology and Biochemistry	3 Credits, 42 Hrs
YSc BSc OE-2: Open Elective Course 2: Introduction to Yogic Science- II;	3Credits, 52hrs.

**BSc Yogic Science
III SEMESTER**

YSc BSc C 7: Patanjala Yoga Darshana – I	3 Credits, 42 Hrs
YSc BSc C 7P: Practicals – V;	2 Credits; 52Hrs.
YSc BSc C 8: Human Anatomy & Physiology-II	3 Credits, 42 Hrs
YSc BSc C 8P: Practicals – VI;	2 Credits; 52Hrs.
YSc BSc C 9: Study of Ghatayoga; Practices in Goraksha Shathaka	3 Credits, 42 Hrs
YSc BSc OE - 3 – Open Elective Course 3: Basics of Yogic Science;	3Credits, 52 Hrs.

**BSc Yogic Science
IV SEMESTER**

YSc BSc C 10: Patanjala Yoga Darshana-II	3 Credits, 42 Hrs
YSc BSc C 10P: Practicals – VII;	2 Credits; 52Hrs.
YSc BSc C 11: Applied Biochemistry	3 Credits, 42 Hrs
YSc BSc C 11P: Practicals – VIII;	2 Credits; 52Hrs.
YSc BSc C 12: Study of Hatharatnavali and Goraksha Samhita	3 Credits, 42 Hrs
YSc BSc OE - 4 – Open Elective Course 4: Yoga for Health;	3Credits, 52 Hrs.

**BSc Yogic Science
V SEMESTER**

YSc BSc C 13: Yoga system and its Practice in Shiva Samhita	3 Credits, 42 Hrs
YSc BSc C 13P: Practicals – IX;	2 Credits; 52Hrs.
YSc BSc C 14: Fundamentals of Psychology	3 Credits, 42 Hrs
YSc BSc C 14P: Practicals – X;	2 Credits; 52Hrs.
YSc BSc C 15: Yogopanishads and Siddhasiddhantapaddhati	3 Credits, 42 Hrs
YSc BSc E – 1: Fundamentals of Naturopathy	3 Credits, 42 Hrs

**BSc Yogic Science
VI SEMESTER**

YSc BSc C 16: Four Streams of Yoga	3 Credits, 42 Hrs
YSc BSc C 16P: Practicals – XI;	2 Credits; 52Hrs.
YSc BSc C 17: Concept of Food; Svara Yoga and Yoga Rahasya	3 Credits, 42 Hrs
YSc BSc C 17P: Practicals – XII;	2 Credits; 52Hrs.
YSc BSc C 18: Yoga and Health	3 Credits, 42 Hrs
YSc BSc E - 2: Fundamentals of Ayurveda	3 Credits, 42 Hrs

**BSc Yogic Science
VII SEMESTER**

YSc BSc C 19: Impact of Yogic Practices on Human Body	3 Credits, 42 Hrs
YSc BSc C 19P: Practicals – XIII;	2 Credits; 52Hrs.
YSc BSc C 20: Introduction to Common Ailments	3 Credits, 42 Hrs
YSc BSc C 20P: Practicals – XIV;	2 Credits; 52Hrs.
YSc BSc C 21: Yogic Management of common Disorders	3 Credits, 42 Hrs
YSc BSc E – 3: Fundamentals of Counselling	3 Credits, 42 Hrs
Research Methodology	3 Credits, 42 Hrs

**BSc Yogic Science
VIII SEMESTER**

YSc BSc C 22: Sankhyayoga and Shivayoga	3 Credits, 42 Hrs
YSc BSc C 23: Yoga and Human Consciousness	3 Credits, 42 Hrs
YSc BSc C 24: Upanishat and Consciousness	3 Credits, 42 Hrs
YSc BSc E – 4: Yoga Protocols for Special Targeted Groups	3 Credits, 42 Hrs
Research Project	6 Credits, 78 Hrs

BSc Yogic Science

I SEMESTER

YSc BSc C 1: Foundations of Yoga;

3 Credits, 42 Hrs

Learning Objectives:

The subject entitled 'Foundation of Yoga' has the following **objectives**

- Students of the UG course will have an understanding about origin, history and development of Yoga.
- They will have an idea about the insights of Indian philosophy and Astika & Nastika darshanas.
- Introduction about Yoga according to various yogic texts.

Learning Outcome: After learning this paper the candidate is expected to get;

- Comprehensive knowledge about the origin, history and development of Yoga.
- Knowledge about the evolution of Yoga from ancient times to the modern era.
- Exposure to different schools of Yoga.
- Ability to understand about the deep rootedness of Yoga in Indian knowledge tradition.

UNIT – I: Introduction to Yoga and Bharatiya Darshana

[14 Hrs.]

1. Etymology and definitions of Yoga, Aim, objectives and misconceptions about Yoga, True nature of Yoga and Principles of Yoga.
2. Brief introduction to origin of Yoga, Psychological aspects leading to origin of Yoga, Brief history and development of Yoga (Pre-vedic period to contemporary times), Schools of Yoga.
3. Darshana: Its meaning, definitions and objectives, Salient features of Bharatiya Darshana (Indian Philosophy), Philosophy; its meaning, definitions and scope, Main branches of Philosophy, Distinction between Indian Philosophy and Western Philosophy.
4. Branches of Bharatiya Darshana (Astika and Nastika Darshanas), General introduction to Shad-darshana, with special emphasis on Samkhya, Yoga and Vedanta Darshanas, General introduction to Nastika Darshan.
5. General introduction to Vedas, Upanishads, Prasthanatrayee and Purushartha Chatushtaya, Goal of human life.

UNIT – II: Brief Survey of Yogic Traditions

[14 Hrs.]

1. **Elements of Yoga in Vedic Traditions:** Brief introduction to the nature of Yoga in Vedas and Upanishads, Concept of Pancha-kosha, Nature of Yoga in Darshanas, Nature of Yoga in Epics (Ramayana and Mahabharata), Nature of Yoga in Smritis, Puranas, Aagamas, and Tantras, Concepts of Nadi, Prana, and Kundalini in Tantra, Elements of Yoga in Narada Bhakti Sutra, Nature of Yoga in Ayurveda.
2. **Yoga in Jain and Buddhist Traditions:** Syadvada (Theory of Sevenfold Predications (Sapta-bhangi) Concept of Ratnatraya, Concept of Kayotsarga / Preksha-dhyana. Concept of Arya-satyas (Four Noble Truths), Concepts of Arya-ashtangika-marga and Vipassana (Insight Meditation).
3. **Yoga in Middle Ages :** Elements of Tantric Yoga, Roots of Hatha Yoga, Natha Parampara, Bhakti Yoga of Medieval Saints, Elements of Yoga in Sufism, Sufi Meditation Techniques, Elements of Yoga in Sikhism, The path of Sahaja Yoga or Nama Yoga of Guru Nanak.
4. **Yoga in Modern Times:** Yoga Traditions of Sri Ramakrishna and Swami Vivekananda, Yoga of Maharishi Raman, Integral Yoga of Shri Aurobindo.
5. **Yoga in Contemporary Times:** Brief Introduction to some important Yoga Paramparas (lineages) of contemporary times; Yoga Parampara of Yogacharya Sri T. Krishnamacharya, Swami Shivanada Saraswati, Paramahansa Madhavadas, Swami Rama of Himalayas, Maharshi Mahesh Yogi, Swami Dharendra Brahmachari and their contributions for the development and promotion of Yoga.

UNIT-III: Introduction to Schools of Yoga

[14 Hrs.]

1. **General Introduction to Schools of Yoga:** Brief introduction to Schools (Streams) of Yoga; Yoga Schools with Vedanta Tradition (Jnana, Bhakti, Karma and Dhyana), Yoga Schools with Samkhya Yoga Tradition (Ashtanga Yoga of Maharshi Patanjali), Some Yogic Schools of Tantric Tradition (Hatha Yoga, Swara Yoga and Mantra Yoga) and Yoga Schools with Non-Vedic Traditions (Baudha Yoga).
2. **Jnana Yoga:** Meaning of Jñāna and Jñāna-Yoga, Sadhana-chatushtaya, Means of Jñāna-Yoga.
3. **Bhakti Yoga and Karma Yoga:** Meaning of Bhakti and Bhakti Yoga, Stages of Bhakti, Types of Bhakti, Means of Bhakti Yoga; Meaning of Karma and Karma

Yoga, Concept of Nishkama Karma, Means of Nishkama Karma, Inter relationship between Bhakti-Yoga and Karma-Yoga,

4. **Patanjala Yoga and Bouddha Yoga:** Brief introduction to Ashtanga Yoga of Patanjali and Arya-ashtangika-marga (Noble-eight-fold-path of Buddha) (Bauddha Yoga).
5. **Hatha Yoga:** Hatha Yoga Practices (Sadhanas), Relevance of Hatha Yoga sadhana in day-to-day life.

BOOKS FOR REFERENCE

- David Frawley : Vedic Yoga , MLBD, New Delhi, 2015
- Karel Werner : Yoga and Indian Philosophy, MLBD, New Delhi, 1977.
- Radhakrishnana, S : Indian Philosophy, (Vol. I &II) George Allen & Unwin, London, 1971.
- Swami Prabhavananda : Spiritual Heritage of India, Genesis publishing Pvt. Ltd., New Delhi, 2003.
- Swami Vivekananda : The Four Yogas of Swami Vivekananda, Ramakrishna Vedanta Centre Advaita Ashrama, 1996.
- Singh, S.P.& Chattopadhyaya, D.P. : History of Yoga, MLBD, New Delhi, 2010.
- Singh, S.P.& Yogi Mukesh : Foundations of Yoga, Standard Publishers, India, 2010.
- Dasgupta, S.N. : Yoga Philosophy, MLBD, Varanasi, 1974.
- Saraswati, Swami Satyananda : Kundalini Yoga, Yoga Publication Trust, Munger, 2005.
- Kalyan : Upanihads, (23rd year special), Gita Press, Gorakhpur.
- Avalon, Arthur : The Serpent Power, Shivalik Prakashan, Delhi, 2005.
- Gharote, M.M. : Traditional theory of Evolution and its Application in Yoga, Lonavla Yoga Institute Lonavla, 2008.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

YSc BSc C 1 P: Practicals–I;

2credits,52hrs.

Study the meaning, procedure and benefits of following yogic practices with references and practice.

1. Jalaneti
2. Kapalabhati
3. Swastikasana
4. Vajrasana
5. Suptavajrasana
6. UrdhvaVajrasana
7. Tadasana–1
8. Tadasana-2
9. SuryaNamaskara-12 vinyasa
10. Trikonasana
11. Parsvakonasana
12. Virabhadrasana
13. Pascimatanasana- I
14. Purvottanasana
15. Vakrasana
16. Pavanamuktasana
17. Bhujangasana
18. Salabhasana
19. Dhanurasana
20. Ustrasana
21. Upavistakonasana
22. Padottanasana

23. Ujjayipranayama
24. Anuloma-Vilomapranayama
25. Savasana–0

ReferenceBooks:

1. Iyengar, B. K. S. (2003), Light on Yoga, Published by Harper Collins Publishers, India, Block A, 75, Kamal Marg, Block A, Sector 57, Noida, Uttar Pradesh 201307.
2. Satyananda Saraswati Swami (1997), Asana, Pranayama, Mudra, Bandha, Published by Bihar School of Yoga, Ganga Darshan, Fort, Munger, Bihar - 811201.
3. Bhat K. Krishna (2006), the Power of Yoga, Suyoga Publications, Mangalore-574279.
4. Jois Pattabhi (1962), Yoga Mala–PartI, Published by Asthangayoga Nilaya, Mysore, #235,8th Cross Rd, 3rd Stage, Gokulam, Mysuru, Karnataka 570002.

Formative Assessment/IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

I SEMESTER

YSc BSc C 2: Foundations and Practices of Hath Yoga;

3 Credits, 42 Hrs

Learning Objective:

By introducing Hatha Yoga & its texts, students shall be able to

- Have an understanding about pre-requisites, principles about Hatha Yoga.
- Understand the relationship between Hatha and Raja Yoga.
- Have an understanding about the concept of Hatha Yoga in Classical texts.

Learning Outcome: By learning, candidate is expected to get;

- Knowledge of classical text as a reference for the various Yoga practices.
- Ability to give classical reference to the Yoga practices in future.
- Ability to co-relate breathing mechanism and the practices Yoga.

UNIT – I: General Introduction to Hatha Yoga

[14 Hrs.]

1. Hatha Yoga: Origin, Meaning, Definition, Aim, Objectives and Misconceptions
2. Hatha Yoga: Its Philosophy and Foundations, Hatha Yoga Parampara,
3. Brief Introduction to eminent Hatha Yogis of Natha Cult and their contributions for the development of Yoga
4. Asanas: Concept, Etymology, definition and principles of Asanas, Relevance and importance of asanas in Hatha Yoga Sadhana
5. Shatkarma: Introduction to Shatkarma and their relevance in Hatha Yoga Sadhana, Shatkarmas as mentioned in different Hatha Yogic Texts.

UNIT – II: Introduction to Hathayoga Texts, Pranayama, Pre-Requisites

[14 Hrs.]

1. General Introduction to Hatha Yoga Text; Siddhasiddhantpaddhati, Hathapradipika, Gorkshashatkam, Hatharatnavali and Gheranda Samhita with reference to their author, nature and practices.
2. Pranayama: Concept, Etymology and definitions of Prana and Pranayama in Hatha Yogic texts, Relevance and Importance of Pranayama in Hatha Yoga Sadhana.
3. Bandhas: Etymology, relevance and importance of bandhas in Hatha Yoga Sadhana.
4. Mudras: Concept, Etymology, Importance and their relevance in Hatha Yoga Sadhana, Mudras as mentioned in Hatha Yogic texts

- Rules and regulations to be followed by Hatha Yoga practitioners (Do's and Don'ts), Ten, Yama and Niyama and their relevance in Hatha Yoga Sadhana

UNIT – III: Hatha Yoga Principles

[14 Hrs.]

- Introduction to Tantra Yoga and its relationship with Hatha Yoga
- Concept of Swas-prashwas, Vayu, Prana and Upaprana
- Concept of Kand, Nadi, Swar, Chakra and Granthi
- Concept of Kundalini & Kundalini prabodhan, Unmaniavastha, Nadanusandhan
- Swara, Importance of Svarodaya-Jnana in Hatha Yoga Sadhana.

BOOKS FOR REFERENCE

- Sahay G.S.: HathaYogaPradeepika by Svatmarama, MDNIY Publication, 2013
- Sharma BR: Jotsna (Comentory of HathaYogaPradeepika) Kaivalyadhama, Lonavala, 2013
- Gharote ML: Hatharatnavali, The Lonavala Yoha Institute, Lonavala, Pune, IInd Edition, 2009
- Swami Kuvalyananda& Shukla, S. A.: Gorakshasatkam, Kaivalyadhama, Lonavla, 2006
- Gharote M.L. & Pai, G.K. (Edi): Siddhasidhantpaddhati, Kaivalyadhama, Lonavla, 2005.
- PLRD: Vasistha Samhita, Kaivalyadhama Samiti, Lonavla, 2005.
- Korpall, Nitin & Shankar, Ganesh: Hatha Yoga and Human Health, Satyam Publishing House, New Delhi, 2005.
- Swami Digambarji & Gharote M. L.: Gheranda Samhita, Kaivalyadhama, Lonavla,1978.
- Swatmaramaji: Hathapradipika (Jyotsana- tika), Adyar Library, Madras.
- Bharati, Swami Veda Reddy Venkata: Philosophy of Hatha Yoga (English) Himalayan, Pennsylvania.
- Swami Muktibodhananda: Swara Yoga: Yoga Publication Trust, Munger, India

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

Study the meaning, procedure and benefits of following yogic practices with references and practice.

1. Sutraneti
2. Trataka Kriya
3. Swastikasana
4. Siddhasana
5. Padmasana
6. Tadasana–1
7. Tadasana–2
8. Tiryaktadasana
9. Katiparivarta
10. Ardhaaandrasana
11. VaidikaSuryanamaskara –9 Vinyasa.
12. Padangusthasana
13. Parsvottanasana
14. Purvottanasana
15. Janusirsasana
16. Maricasana–I
17. Navasana
18. Kurmasana
19. Jatharaparivarta
20. Bharadvajasana
21. Ardhdmatsyendrasana
22. Uttanapadasana
23. Ujjayipranayama
24. Anuloma-Vilomapranayama
25. Savasana-1

Reference Books:

1. Iyengar B.K.S. (2003), Light on Yoga, Published by Harper Collins Publishers, India, Block A, 75, Kamal Marg, Block A, Sector 57, Noida, Uttar Pradesh 201307.
2. Satyananda Saraswati Swami (1997), Asana, Pranayama, Mudra, Bandha, Published by Bihar School of Yoga, Ganga Darshan, Fort, Munger, Bihar811201.

3. Bhat, K. Krishna (2006), The Power of Yoga, Suyoga Publications, Mangalore-574 279.
4. Jois, Pattabhi (1962), Yoga Mala–Part I, Published by Asthangayoga Nilaya, Mysore, #235,8th Cross Rd, 3rd Stage, Gokulam, Mysuru, Karnataka 570002.

Formative Assessment/ IA	
Assessment Occasion	Weightage (in Marks)
Practical	15
Record	05
Assisting in Practical of Yoga Camps.	05
Total	25

BSc Yogic Science

I SEMESTER

YSc BSc C 3: Human Anatomy and Physiology I;

3 Credits, 42 Hrs

Learning Outcome: Following the completion of the course, students shall be able:

- To know about the structure of the body
- To know about the necessary functions of the body
- To give brief idea about the diseases related to each system

Learning Outcome: At the completion of the paper the students are expected to attain;

- Understanding of human body structure and mechanism.
- Ability to understand the biomechanics of various yoga practices.
- Basic knowledge of various systems needed in future as a Yoga therapist.

Unit-1: General Physiology Skeletal system and Nerve – muscle physiology

14Hrs

1. Electron microscopic structure of organelles of eukaryotic cells. Structure of membrane. Membrane transport. Functions of organelles of eukaryotic cells.
2. . Histological structure, classification, distribution and function of different tissues. Organization of cells into tissue to organs and systems of human body.
3. Definition of Human Anatomy and Human Physiology. Terms frequently used in Anatomy and Physiology. Planes of body. Homeostasis. Mechanisms to maintain milieu environment
4. Skeletal system: structure and functions of bone, Classification of bone. Classification of skeleton. Joints. Types of joints their structure and function.
5. Neurons, Nerve fibre. Synapse. Neurotransmitter, Reflex action, Mechanism of nerve conduction, Synapse and synaptic transmission,
6. Types of Muscle in the body. Structure of skeletal, cardiac and smooth muscle. Properties of muscle. Mechanism of muscle contraction. Types of muscular contraction. Neuro – muscular junction.

Unit-2: Haematology, Lymphoid organ and Immunity

14Hrs

1. Haematology: Blood Volume. Composition and function of blood. Haemoglobin and anaemia. Blood clotting. Blood groups and their importance.
2. Lymphoid organs - Thymus, spleen, Lymph node, Composition and function of lymph.
3. Immunity, Types of immunity, Antigen and antibody, Hypersensitivity reaction, Autoimmunity

Unit-3: Biomolecules, and Digestive system**14Hrs**

1. Biomolecules: Carbohydrates, Fats, Proteins, Minerals, Vitamins, Dietary fibres balanced diet.
2. Structure and anatomical position of primary and secondary digestive organ.
3. Functions of digestive system. Physiology of digestion and absorption. Movements of GI tract. Malnutrition and over nutrition. GI hormones and Endocrine function of Pancreas.

REFERENCE BOOKS:

1. Singh, Inderbir: Anatomy and Physiology for nurses, Jaypee Brothers, New Delhi.
2. Raju SM; Madala, Bindu: Anatomy and Physiology for general nursing.
3. Guyton and Hall: Text book of Medical Physiology
4. Chaurasia, BD: Human Anatomy
5. Jain AK: Text Book of Physiology (Volume I and II), Avichal publishing company
6. Sembulingam K; Sembulingam P: Essentials of Physiology for Dental students.
7. Bijlani R. L.: Understanding of Human Physiology, Jaypee Brothers Medical Publishers Pvt. Ltd, New Delhi, 2011
8. Pal G. K & others: Textbook for practical Physiology, Orient Longman Pvt. Ltd, Hyderabad, 2007
9. Mahapatra A.B.S.: Essential of medical Physiology, Current book Int.
10. Khurana I: Text book of Medical Physiology

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

I SEMESTER

YSc BSc OE-1: Open Elective Course 1: Introduction to Yogic Science- I;

3Credits,52hrs.

Learning objectives:

- Introducing the Yoga and to know the necessity and application in health improvement.
- Knowing different schools of Yoga.
- To introduce concepts in Bhagavadgita.
- To study the concept of Triguna according to Bhagavadgita.
- Practical knowledge of Yogic practices.

Learning outcome:

- Knowledge of Health benefits through yoga.
- Knowledge of different schools of Yoga.
- Basic knowledge of Bhagavadgita.
- Basic of concept of Triguna according to Bhagavadgita
- Practice few Yogic practices.

Part A

Unit I Introduction to Yoga 13Hrs

1. Yoga: meaning, objective and definitions,
2. Importance of Yoga in personal and social life, Concepts and mis-concepts of Yoga.
3. Origin of Yoga and its historical development.
4. Yoga for personal health.

Unit II Schools of Yoga; Introduction to Bhagavadgita 13Hrs

1. Hatha Yoga, Raja Yoga, Karma Yoga.
2. Bhakti Yoga, Jnana Yoga, Kundalini Yoga
3. Introduction to Bhagavadgita
4. Concept of Triguna according to Bhagavadgita.

Part B:

Unit III Practical

26 Hrs

Practise the following Practices

1. Swastikasana
2. Vajrasana
3. Suptavajrasana
4. UrdhvaVajrasana
5. Tadasana-1
6. Tadasana-2
7. SuryaNamaskara-12 vinyasa
8. Trikonasana
9. Parsvakonasana
10. Virabhadrasana
11. Pascimatanasana- I
12. Purvottanasana
13. Vakrasana
14. Pavanamuktasana
15. Bhujangasana
16. Salabhasana
17. Dhanurasana
18. Ustrasana
19. Upavistakonasana
20. Padottanasana
21. Ujjayipranayama
22. Anuloma-Vilomapranayama
23. Savasana-0

Reference Books:

1. Vivekananda, Swami (2009), Rajayoga, Published from, Advaita Ashram, 5 Delhi Entally Road, Kolkata, West Bengal 700014.
2. Taimini, I. K. (1999), The Science of Yoga, Theosophical Publishing House, Adyar, Madras, Tamil Nadu – 600090.
3. Adidevananda, Swami (1970), Patanjala Yogadarsana Vyasabhasyasahita, Ramakrishna Ashrama, Mysore-570020.
4. Dasgupta S.N (1924), Yoga as a Philosophy and Religion, Published from Delhi.

5. Krishnananda Swami (1973), A Short History of Religions and Philosophic Thought in India, Published from The Divine Life Society, Shivanandanagar, Rishikesh.
6. Bhat K. Krishna (2006), The Power of Yoga, Suyoga Publications, Mangalore -574280.
7. Dr. S. Radhakrishnan (1948), Bhagavadgeetha, Harper Collins, New Delhi-201307.
8. Chidbhavananda. Swami (1977), The Bhagavad Gita, Shri Ramakrishna Tapovanam, Tirupparaitturai, Tiruchirapalli Dist., Tamil Nadu-639115.
9. Iyengar B.K.S. (2003), Light on Yoga, Published by Harper Collins Publishers, India, Block A, 75, Kamal Marg, Block A, Sector 57, Noida, Uttar Pradesh201307.
10. Satyananda Saraswati Swami (1997), Asana, Pranayama, Mudra, Bandha, Published by Bihar School of Yoga, Ganga Darshan, Fort, Munger, Bihar811201.
11. Bhat K. Krishna (2006), the Power of Yoga, Suyoga Publications, Mangalore-574279.
12. Jois, Pattabhi. (1962), Yoga Mala – Part I, Published by Asthangayoga Nilaya, Mysore, #235, 8th Cross Rd, 3rd Stage, Gokulam, Mysuru, Karnataka 570002.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (One / Two Class Tests)	10	-	10
Assignment / Seminar/ Class Work	05	-	05
Practical - Viva	05	-	05
Practical	-	20	20
Total	20	20	40

BSc Yogic Science

II SEMESTER

YSc BSc C 4: Yoga in Principal Upanishads

3 Credits, 42 Hrs

Learning Objectives:

Following the completion of this course, student will be able to

- Have an idea about the major principal Upanishads
- Understand the essence of each Upanishad and how to put them into practice.
- Understand each Upanishad and the role of it in our day-to-day life.

Learning outcome: The paper is expected to bring about;

- Ability to understand the essence of Yoga in Upanishads.
- Comprehensive knowledge of aupanishadic yoga and co-relate with other schools of Yoga.
- In-depth clarity towards the aim and objectives of Yoga Darshana.

Unit -I: Introduction to Upanishads

[14 Hrs.]

1. Etymology and Meaning of Upanishad, subject matters of Upanishads, Number of Upanishads.
2. Brief Introduction to Principal Upanishads- Isha, Kena, Katha, Prashna, Mundaka, Mandukya.
3. Brief Introduction to Principal Upanishads- Aitreya, Taittiriya, Brihadaranyaka & Chhandogya Upanishad.
4. Brief Introduction to Yogopanishads.
5. An Introduction to Upanishadic Philosophies; Antiquity of Upanishads; Prasthanatraya.

Unit-II: Essence of Principal Upanishads

[14 Hrs.]

1. **Prashnopanishad:** Creation of the universe, Prana and its functions, states of dream and deep sleep, Para and Apra Brahman.
2. **Mundaka:** Para and Apra Vidya, nature of Brahman, Jiva and Moksha.
3. **Mandukyopanishad:** Nature and significance of OM (AUM), The fourth states of being, Jiva and Moksha.
4. **Aitareya:** Creation of Universe, nature of Atman, Brahman as Prajnana.

Unit-III: Yogatattvas in Yogopanishads**[14 Hrs.]**

1. **Chandogya:** Nature of Brahman (Prana as Brahman), Nature of Jivatman, Sat as the cause of Universe, Meditation (Samvarg Vidya, Shodhshkala brahma Vidya, Upakoshala Vidya) Archiradi Marga.
2. **Brihadaranyakam:** Two form of Brahman, Teaching of Yajnavalkya, Brahman and Universe, theory of Atman as Svayamjyoti, nature of Self in different states, The ways and Means of realising Brahman.
3. **Taitriya:** Definition and nature of Brahman, Evolution of Universe, the concept of Panchkosha.

Books for Reference

1. The Principal Upanisads, Radhakrishnan, S Harpercollins India, 2006
2. Ishadi nau Upanishad, Gita press Gorakhpur
3. Nine Principal Upanisads, Saraswti, Swami Satyanand Yoga Publication Trust Bihar, 2004.
4. Upanishads, Swami Ranganathananda Bharatiya Vidya Bhavan, Bombay, 1985
5. 108 Upanishad - (Sadhana Khand, Brahnavidya Khand, Jnana Khand) Sharma, Pt. Sriram Acharya, Shantikunj, Haridwar.
6. The Essence of Principal Upanishads, Sivananda, Swami, Divine Life Society, 1980
7. The Philosophy of the Upanishds, Chari, S.M. Srinivasa Munshiram Manoharlal, Delhi, 2002.
8. Upanishad Sangraha - Jagdish Shashtri, Motilal Banarasidas, Varanasi, Delhi, Chennai.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

YSc BSc C 4 P: Practicals – III;**2 credits; 52Hrs.**

Study the meaning, procedure and benefits of following yogic practices with references and practice.

1. Swastikasana
2. Tadasana–parsva
3. Suryanamaskara-17Vinyasa
4. Utthitapadangustasana
5. Parivrttatrikonasana
6. Prasaritapadottanasana-I
7. Dandasana
8. Bhekasana
9. Pascimottanasana-II
10. Purvottanasana
11. Ardhabaddhapadmapascimottanasana
12. Tiryannmukhaikapadapascimottanasana
13. Suptapadangustasana
14. Urdhvamukhapascimottanasana
15. Baddhakonasana
16. Simhasana
17. Akarnadhanurasana
18. UjjayiPranayama
19. Anuloma-Vilomapranayama
20. Savasana-2

Reference Books:

1. Iyengar B.K.S (2003), Light on Yoga, Published by Harper Collins Publishers, India
2. Satyananda Saraswati Swami (1997), Asana, Pranayama, Mudra, Bandha, Published by Bihar School of Yoga, Munger, Bihar.
3. Bhat, K. Krishna (2006), The Power of Yoga, Suyoga Publications, Mangalore-574279.

4. Jois, Pattabhi (1962), Yogamala – Part I, Published by Asthangayoga Nilaya, Mysore.

Formative Assessment/IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

II SEMESTER

YSc BSc C 5: Hatha Yoga of Svathmarama

3 Credits, 42 Hrs

Learning Objectives:

By introducing Hatha Yoga & its texts, students shall be able to

- Understand about pre-requisites, principles about Hatha Yoga.
- Understand the relationship between Hatha Yoga and Raja Yoga.
- Understand different Hatha Yogic Techniques according to Hathapradipika.

Learning Outcome:

- Clarity regarding the aim of Hathayoga and the proper practicing method.
- Concept of food according to Yoga and its application in Yoga sadhana and daily life.
- Get introduced to various advanced practices of Yoga.

Unit- I Hatha Yoga Parampara, Asanas and Yogic Diet in Hathayogapradipika 14Hrs

1. Hatha Yoga: Goal of Hatha Yoga, Relationship between Hatha Yoga and Raja Yoga, Hathayogis in Hathayogapradipika, Importance of Hatha and its secrecy.
2. Requisites of Hatha Yoga Practices: Time, Place, Concept of Matha.
3. Asanas: The techniques, benefits, precautions and contra-indications of Asanas as mentioned in Hathapradipika.
4. Mitahara, Pathya and Apathya, Rules in food taking,
5. Badhaka Tattva (Obstacles) and Sadhaka Tattva (Facilitatory factors), Hathasiddhilakshana

Unit- II Pranayamas, Kriyas and Kundalini in Hatha Yoga Pradipika 14 Hrs

1. Shatkarma: Techniques, benefits, precautions and contraindications of Shatkarmas – Dhauti, Basti, Neti, Nauli, Tratak and Kapalabhati as mentioned in Hathapradipika.
2. Pranayama: techniques and benefits, Nadishuddhi Pranayama, symptoms of Nadishuddhi, Duration and time for Pranayama practice, Importance of Pranayama practice Levels of Pranayama.
3. Yukta and Ayukta Pranayama, Role of Diet in Pranayama practice. Types of aspirants, Manonmani.
4. Classification of Kumbhaka and its benefits, Hatha Yoga siddhi lakshana.

5. Kundalini's base for all Yoga. Results of Kundalini Prabodha, Synonyms for Sushumna.

**Unit- III Mudras & Bandhas, Nadanusandhana and Samadhi in Hatha Yoga Pradipika
14 Hrs**

1. Mudras and Bandhas-classification, benefits and methods of practice.
2. Different types of Nada, Condition of Yogi in Unmani Avastha, Realisation.
3. Methods of Samadhi Practice, Samadhi in Hathayogapradipika
4. Techniques and benefits of Shambhvimudra, Unmani, Khechari, Nadanusandhana, Kandaswarupa.

Reference Books

1. Swami Digambaraji (1970), Hathapradipika of Swatmarama, Kaivalyadhama, Lonavala, Pune - 410403.
2. Swami Niranjananda Saraswati, Gherandasamhita, Bihar School of Yoga, Munger, Bihar-811201.
4. Swami Niranjanananda, Yoga Darshan, Sri Pachadashanam Paramahansa Alakh Bara, Deoghar- 814113.
5. Swami Digambaraji(1997), Gheranda Samhita, SMYM Samiti, Kaivalyadhama, Lonavala-410403
6. Swami Atmananda (1966), The Four Yogas, Bharatiya Vidya Bhawan, Bombay-400007
7. Korpai, Nitin & Shankar, Ganesh: HathaYoga and Human Health, Satyam Publishing House, New Delhi, 2005.
8. Garote ML (2000), Hata Pradipika Vrutthi, Lonavala Yoga Institute, Lonavala.
9. Athavale Jayantha Balaji ed & Kunda Jayantha Athavalied (2000). Hatha Yoga, Sanathana Samste, Goa.
10. Sahajananda Nath (2006), Hata Yoga Manjari, Kaivalyadhama Srimanmadhav Yoga Mandir Samiti.
11. Sharma B. R: Jotsna (Comentory of HathaYogaPradeepika), Kaivalyadhama, Lonavala, 2013.
12. Mukthi Bodhananda (2012), Hatha Yoga Pradipika – Light on Hatha Yoga, Yoga Publication Trust, Munger.
13. Svathmarama (2000), The Hatayogapradipika, with the commentary Jyotsna of Brahmananda and English translation the Adyar Library and Research Centre, The theosophical society, Adyar Chennai 600020.
14. Sahay G. S: Hatha Yoga Pradeepika, MDNIY, New Delhi, 2013

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

YSc BSc C 5P: Practicals – IV;

2 Credits; 52Hrs.

Study the meaning, procedure and benefits of following yogic Practices with references and practice.

1. Swastikasana
2. Baddhapadmasana
3. Padahasthasana
4. Prasaritapadottanasana–II
5. Virabhadrasana -II
6. Ardhabaddhapadmottanasana
7. Garudasana
8. Utkatasana
9. Maricasana-2
10. Ardhanavasana
11. Pasasana
12. Tiryakbhujangasana
13. Dhanurasana-parsvasahita
14. Paryankasana
15. Vrksasana
16. Viparitarani
17. Halasana
18. Uttanapadasana
19. UjjayiPranayama
20. Anuloma-Vilomapranayama
21. SohamMeditation
22. Savasana-2

Reference Books:

1. Iyengar B. K. S. (2003), Light on Yoga, Published by Harper Collins Publishers, India.
2. Satyananda Saraswati, Swami (1997), Asana, Pranayama, Mudra, Bandha, Published by Bihar School of Yoga, Munger, Bihar.
3. Bhat K. Krishna (2006), the Power of Yoga, Suyoga Publications, Mangalore.
4. Jois Pattabhi (1962), Yogamala–Part I, Published by Asthangayoga Nilaya, Mysore.

Formative Assessment/IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

II SEMESTER

YSc BSc C 6: Human Anatomy, Physiology and Biochemistry

3 Credits, 42 Hrs

Learning Objectives:

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

- To know about the structure of the body
- To know about the necessary functions of the body
- To give brief idea about the diseases related to each system

Learning Outcomes: At the completion of the paper the students are expected to attain;

- Understanding of human body structure and mechanism.
- Ability to understand the biomechanics of various yoga practices.
- Basic knowledge of various systems needed in future as a Yoga therapist.

Unit-1: Respiratory system

[14 Hrs.]

1. Structure of tracheobronchial tree and respiratory unit. Anatomical position of lungs.
2. Mechanism of breathing (Expiration and inspiration); Exchange and transport of respiratory gases (oxygen and carbon dioxide). Lung function test.
3. Exercise adaptation of respiratory system

Unit-2: Cardiovascular system

[14Hrs.]

1. Structure of heart. Anatomical position of heart in thoracic cage.
2. Cardiac output and cardiac cycle. Pumping of heart. Heart rate. Blood pressure and regulation of blood pressure. Electrocardiography.
3. Functional anatomy of blood vessels.
4. Organisation of systemic and pulmonary circulation.
5. Exercise adaptation of cardiovascular system.

Unit - 3: Introduction to Bio-chemistry

[14 Hrs.]

1. Introduction of Biochemistry, Aim and scope, Biochemical composition of living organism, Elemental and chemical composition.
2. Introduction of solvents, water as biological solvent, concentration units, osmolarity
3. pH and buffers, weak acids and bases, Handerson-Hasselbalch equation, physiological buffers, isoelectric pH

4. Biological oxidation-reduction reactions, redox potentials, relation between standard reduction potentials
5. Concept of free energy, High energy phosphate compounds – introduction, phosphate group transfer, and free energy of hydrolysis of ATP and sugar phosphates.

REFERENCE BOOKS:

1. Singh, Inderbir: Anatomy and Physiology for nurses, Jaypee Brothers, New Delhi.
2. Raju SM; Madala, Bindu: Anatomy and Physiology for general nursing.
3. Guyton and Hall: Text book of Medical Physiology
4. Chaurasia, B D: Human Anatomy
5. Jain A K: Text Book of Physiology (Volume I and II), Avichal publishing company
6. Sembulingam K; Sembulingam P: Essentials of Physiology for Dental students.
7. Bijlani R. L.: Understanding of Human Physiology, Jaypee Brothers Medical Publishers Pvt. Ltd, New Delhi, 2011
8. Pal G. K & others: Textbook for practical Physiology, Orient Longman Pvt. Ltd, Hyderabad, 2007
9. Mahapatra A.B.S.: Essential of medical Physiology, Current book Int.
10. Khurana I: Text book of Medical Physiology.
11. Biochemistry By U. S. Satyanarayana
12. T. Palmer, P. Bonner. 2007. Enzymes: Biochemistry, Biotechnology, Clinical Chemistry (2nd Ed.), Woodhead Publishing House, Chichester, England.
13. Harper's review of physiological chemistry by Harper.
14. D.L. Nelson, M.M. Cox. 2008. Lehninger Principles of Biochemistry, W.H. Freeman and Company, New York, USA.
15. J.M. Berg, J.L. Tymoczko, L. Stryer. 2008. Biochemistry, W.H. Freeman and Company, New York.
16. G. Zubey. 1993. Biochemistry, Wm. C. Brown Publishers, Oxford. U.K.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

II SEMESTER

YSc BSc OE-2: Open Elective Course 2: Introduction to Yogic Science- II; 3Credits, 52hrs.

Learning objectives:

- To introduce Yoga concept in Gheranda Samhita
- Introduction to Human Anatomy and Physiology.
- To study basic of different systems in human body.
- Practical knowledge of Yogic practices.

Learning outcome:

The candidates will be able to-

- Describe the Health benefits through yoga.
- Describe different schools of Yoga.
- Basic knowledge of Human Anatomy and Physiology.
- Practice few Yogic practices.

Part A

Unit I Introduction to Ghatayoga 14Hrs

1. Ghatayoga–Introduction, Kriyas-21 varieties of practices & benefits;
2. Asana–practicing methods and benefits,
3. Pranayama, preparation, types of practice, benefits.

Unit II Introduction to Human Anatomy and Physiology-I 14Hrs

1. Introduction to anatomy and physiology of Blood, Immune system and Cardiovascular system - Composition of blood, Blood groups and importance; Blood volume, Blood Pressure and diseases. Lymphatic System;
2. Cardiovascular System - brief anatomy and physiology, Brief introduction to anatomy and physiology of Musculoskeletal system.
3. Digestive system, Respiratory system, Excretory system, Nervous system, Endocrine and Reproductive system.

Part B

Unit III Practical

26Hrs

Practice the following Practices

1. Swastikasana
2. Siddhasana
3. Padmasana
4. Tadasana-1
5. Tadasana-2
6. Katiparivarta
7. Ardhacaandrasana
8. VaidikaSuryanamaskara –9Vinyasa.
9. Padangusthasana
10. Parsvottanasana
11. Purvottanasana
12. Janusirsasana
13. Maricasana-I
14. Navasana
15. Kurmasana
16. Jatharaparivarta
17. Bharadvajasana
18. Ardhdmatsyendrasana
19. Uttanapadasana
20. Ujjayipranayama
21. Anuloma-Vilomapranayama
22. Savasana-1

ReferenceBooks:

1. Digambaraji Swami (1970) , Hathayogapradipika of Swatmarama, Published by Kaivalyadhama, Lonavala (Dist. Pune), Maharashtra-410403.
2. Digambaraji Swami (1978), Gheranda Samhita, Published by Kaivalyadhama, Lonavala (Dist. Pune), Maharashtra-410403.
3. Hathayogapradipika of Swatmarama (1994), Published by The Adyar library and research Centre, Chennai, Tamil Nadu 600090.

4. Swami Niranjanananda, Gheranda Samhita, Bihar School of Yoga, Ganga Darshan, Fort, Munger, Bihar 811201.
5. Swami Digambarji, Gheranda Samhita, Kaivalyadhama, Lonavala (Dist. Pune), Maharashtra-410403.
6. Evelyn C. Pearce (1982), Anatomy and Physiology for Nurses, published by Faber and Faber Ltd., London, 1968.
7. Prof. A. K. Jain (2002), Human Physiology and Biochemistry, Arya Publications, Industrial area, Trilokpur Road, Kala Amb-173030, Sirmour, HP.
8. Ross and Wilson (2006), Anatomy and Physiology in Health and Illness, 10th edition, Elsevier Publication. New York.
9. Iyengar B.K.S. (2003), Light on Yoga, Published by Harper Collins Publishers, India, Block A, 75, Kamal Marg, Block A, Sector 57, Noida, Uttar Pradesh 201307.
10. Satyananda Saraswati Swami (1997), Asana, Pranayama, Mudra, Bandha, Published by Bihar School of Yoga, Ganga Darshan, Fort, Munger, Bihar 811201.
11. Bhat K. Krishna (2006), the Power of Yoga, Suyoga Publications, Mangalore-574279.
12. Jois Pattabhi (1962), Yoga Mala – Part I, Published by Asthangayoga Nilaya, Mysore, #235, 8th Cross Rd, 3rd Stage, Gokulam, Mysuru, Karnataka 570002.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (One / Two Class Tests)	10	-	10
Assignment / Seminar/Class Work	05	-	05
Practical - Viva	05	-	05
Practical	-	20	20
Total	20	20	40

BSc Yogic Science III SEMESTER

YSc BSc C 7: Patanjala Yoga Darshana – I

3 Credits, 42 Hrs

Learning Objectives:

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

- Understand various modification of mind and the means of inhibiting them.
- Have an understanding about the essence of Samadhi.

Learning Outcome:

- Foundation for authentic practicing method of Yoga with aim, objectives and result.
- Understanding of important aspect, the citta and its nature.
- Understanding and orientation towards advanced practices of Yoga.

Unit - 1: Introduction to Yoga darshana of Patanjali

[14 Hrs.]

1. Introduction to Yoga Darshana and its relevance in Yoga Sadhana.
2. Theory of Evolution and Meta-physics of Yoga Darshana.
3. Brief introduction to Maharshi Patanjali and Patanjala Yoga Sutra.
4. Brief Introduction to traditional commentators and commentaries of Patanjala Yoga Sutra: Vyasa Bhasya, Tatvavaisharadi, Bhoja Vritti and Yoga-vartika.
5. Concept of Antahkaran: Mana, Buddhi, Ahankar and Chitta.

Unit - 2: Concept of Chitta: its bhoomis, vrittis and Nirodhopayas

[14 Hrs.]

1. Concept of Chitta and Chitta Bhoomis.
2. Concept of Chitta Vrittis and their classification.
3. Chitta vritti Nirodhopaya: Abhyasa and Vairagya.
4. Concept of Ishwar and Ishwar pranidhana.
5. Concept of Vikshepas: Antarayas, Concept of Chitta prasadanam.

Unit - 3: Varieties of Samadhi

[14 Hrs.]

1. Concept of Yoganushasanam, Yoga Lakshanam and its results.
2. Types of Samadhi: Samprajnata and Asamprajnata Samadhi.
3. Types of Samprajnata Samadhi: Vitarka, Vichara, Anand and Ashmita.

4. Concept of Samapatti, Types of Samapatti: Savitraka and Nirvitraka, Savichara and Nirvichara.
5. Types of Asamprajnata Samadhi: Bhavapratyaya and Upayapratyaya, Adhyatma-Prasadanam and Ritambhara-Prajna.

TEXT BOOKS

1. Swami Digambara Ji and others: Glossary of the Sankhyakarika, Kaivalyadhama, Lonavala, 2012
2. Swami Virupaksananda: Sankhyakarika of Isvarakrisna (with tattva Kamudia of Vachaspati Mishra), Sri Ram Krishna Matha Madras, 1995
3. James R. Ballantyne: The Sankhya Aphorisms of Kapila, Parimal Publications, New Delhi, 2004

BOOKS FOR REFERENCE

1. V.V. Sovani: A critical study of the Sankhya System, Chukhambha Sanskrit Pratisthan, New Delhi, 2005
2. M.R. Yardi: The Yoga of Patanjali, Bhandarkar Oriental Research Institute, Poona, India, 1970
3. K.D. Prithvipaul: The Yogasurta of Patanjali M.L.B.D. New Delhi
4. Gaspar M. Koelmenn, S.J: Patanjali Yoga, Papal Athenaeum, Poona, 1970
5. Swami Ved Bharti: Yogasutra of Patanjali (with the Exposition of Vyasa) M.L.B.D. New Delhi, 2004, Vol I & II

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

YSc BSc C 7 P: Practicals – V;

2 Credits; 52Hrs.

Study the meaning, procedure and benefits of following yogic practices with

references and practice.

1. Svastikasana
2. Padmasana
3. Yogamudrasana
4. Dolasana
5. Bhadrasana
6. Kukkutasana
7. Prasaritapadottanasana -III
8. Prasaritapadottanasana– IV
9. Maricasana– 3
10. Maricasana – 4
11. Urdhvaprasrtahastapadasana
12. Ubhayapadangusthasana
13. Ekapadasirsasana
14. Suptapadangusthasana – Parsvasahita
15. Setubandhasana
16. Sarvangasana
17. Suptakonasana
18. Urdhvapadmasana
19. Matsyasana
20. Ujjayi Pranayama
21. Anuloma-Viloma pranayama
22. Pranava Meditation
23. Savasana-2

Reference Books:

1. Iyengar B. K. S. (2003), Light on Yoga, Published by Harper Collins Publishers, India.
2. Satyananda Saraswati Swami (1997), Asana, Pranayama, Mudra, Bandha, Published by Bihar School of Yoga, Munger, Bihar.
3. Bhat K. Krishna (2006), the Power of Yoga, Suyoga Publications, Mangalore.
4. Jois Pattabhi (1962), Yoga mala – Part I, Published by Asthangayoga Nilaya, Mysore.

Formative Assessment /IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

III SEMESTER

YSc BSc C 8: Human Anatomy & Physiology-II

3 Credits, 42 Hrs

Learning Objectives:

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

- To know about the structure of the body
- To know about the necessary functions of the body
- To give brief idea about the diseases related to each system.

Learning Outcomes: At the completion of the paper the students are expected to attain;

- Understanding of human body structure and mechanism.
- Ability to understand the biomechanics of various yoga practices.
- Advanced knowledge of various systems needed in future as a Yoga therapist.
- Ability to co-relate and understand the various bio-physical, bio-chemical psychophysiological changes induced by Yoga practice.

Unit -1: Nervous system and special senses

[14 Hrs.]

1. Structure human brain. Anatomical position of different parts of brain. Structure of spinal cord and tracts.
2. Cognition, memory, executive function. Function of spinal cord, Cranial nerve and spinal nerve.
3. Peripheral nervous system: Autonomic nervous system. Somatosensory nervous system.
4. Special senses. Structure and function of eye, ear, nose, tongue and skin.

Unit -2: Endocrinology and Reproductive system

[14 Hrs.]

1. Overview of endocrine system. Mechanism of hormone action.
2. Structure and location of Major of endocrine glands such as Pituitary, Adrenal, Thyroid, Parathyroid.
3. Secretion and function of Major of endocrine glands such as Pituitary, Adrenal, Thyroid, Parathyroid, and Endocrine function of Pancreas. local hormones. Endocrine function of other organs.
4. Functional anatomy of male and female reproductive system.
5. Menstrual cycle. Gametogenesis. Fertilization. Pregnancy, menopause.

Unit -3: Excretory system**[14 Hrs.]**

1. Functional anatomy of kidney, ureter, urinary bladder, urethra.
2. Excretory system of human. Kidney. Mechanism of urine formation-Ultrafiltration, selective reabsorption. Counter current mechanism. Tubular secretion. Role of kidney in osmoregulation.
3. Role of other organs on excretion in humans.
4. Acid base balance.

References:

1. Jain AK: Text Book of Physiology (Volume I and II), Avichal publishing company
2. Singh, Inderbir: Anatomy and Physiology for nurses, Jaypee Brothers, New Delhi.
3. Raju SM; Madala, Bindu: Anatomy and Physiology for general nursing.
4. Guyton and Hall: Text book of Medical Physiology
5. Chaurasia, BD: Human Anatomy
6. Sembulingam K; Sembulingam P: Essentials of Physiology for Dental students.
7. Bijlani R. L.: Understanding of Human Physiology, Jaypee Brothers Medical Publishers Pvt. Ltd, New Delhi, 2011
8. Pal G. K & others: Textbook for practical Physiology, Orient Longman Pvt. Ltd, Hyderabad, 2007
9. Mahapatra A.B.S.: Essential of medical Physiology, Current book Int.
10. Khurana I : Text book of Medical Physiology

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

YSc BSc C 8: Practicals – VI;**2Credits; 52 Hrs****Objectives:**

The objectives behind teaching Anatomy and Physiology are to

- Understand the principles and procedure of every experiment.
- Demonstrate an experiment with the interpretation of the results.
- Explain the procedure of each step of an experiment skilfully.
- Make students familiar with the systems of the body using models, charts and pictures.

Learning outcome:

- Students shall develop ability to work in Research centers and Hospitals.
- Students will be skilled to take-up interdisciplinary research studies.

Unit-1: Haematology, osteology and myology

1. Haemoglobin estimation. Recording bleeding time, Recording Clotting time, ABO Blood grouping.
2. Total Red Blood Cell Count. Total White Blood Cell Count. Differential WBC Count.
3. Localization of bones and muscles using charts, models.

Unit-2: Human Physiological experiment

1. Measurements of Weight, stature, Body Mass Index, Body Surface Area.
2. Recording of Blood Pressure and pulse rate.
3. Vitalography. Effects of posture on vitalography.

PRACTICAL GUIDE

1. Jain AK: Manual of Practical Physiology for BDS, Arya Publications

Formative Assessment /IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

III SEMESTER

YSc BSc C 9: Study of Ghatayoga; Practices in Goraksha Shathaka **3 Credits; 42 Hrs**

Learning Objectives: By introducing Hatha Yoga & its texts, students shall be able to

- Understand about Ghata, GhatashtaYoga.
- Understand about different types of Mudra
- Understand different Hatha Yogic Techniques according to Gheranda Samhita.

Learning Outcomes: After studying the paper, the candidate shall be;

- Able to know about varieties of Hathayoga traditions.
- Knowing many varieties of different Hathayoga techniques.
- Therapeutical aspect of Hathayoga practices with their practicing method and benefits.

Unit- I Ghata Yoga and its applications in Gheranda Samhita **[14 Hrs.]**

1. GhataYoga – Introduction of Saptanga Yoga.
2. Satkriyas – Classification, Practising methods and benefits.
3. Asana– Classification, Practising methods and benefits.
4. Mudra – Introduction, 25 Mudras – Classification
5. Techniques of Practising Mudra and their benefits.

Unit- II Pratyahara, Pranayama, Dhyana and Samadhi in Gheranda Samhita **[14 Hrs.]**

1. Pratyahara– Classification, Practising methods and benefits.
2. Pranayama– Classification, Practising methods and benefits.
3. Meditation– Classification, Practising methods and benefits.
4. Classification of Samadhi and their practice
5. A comparative study of HathaYoga and Ghata Yoga.

Unit-III Hathayoga Practices in Gorakshasatakam **[14 Hrs]**

1. Concept of Sadanga Yoga. Concept of Life.
2. Diffrent components of Sadanga Yoga-Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi.
3. Nadi, Cakra and Kundalini in Gorakshashatakam, Control of mind.

REFERENCE BOOKS

1. Sadashivabrahmendra Saraswati (1978), Shivayogadipika, Ananda Ashrama Granthavali, Pune- 410403

2. Swami Niranjana Saraswati, Gherandasamhita, Bihar School of Yoga, Munger, Bihar-811201
3. Swami Digambaraji (1997), Gheranda Samhita, SMYM Samiti, Kaivalyadhama, Lonavala-410403
4. Swami Vivekananda (1982), RajaYoga, Ramakrishna Ashrama Publications, Dehi Entally Road kolkata-700014.
5. Swami Digambaraji (1970), HathaYoga Pradipika of Swatmarama, Kaivalyadhama, Lonavala, Pune - 410403.
6. Swami Niranjana, Yoga Darshan, Sri Pachadashanam Paramahansa Alakh Bara, Deoghar-814113
7. Swami, Adidevananda (1998). Patanjala Yoga Darshana – Vyasa Bahshya sahitha, Shri Ramakrishna Ashrama, Mysore – 570020.
8. Swami, Niranjana (1997). Hathayogapradipika, Bihar School of Yoga-811201
9. Swami Kavalayananda (2019). Gorakshashatakam, Kaivalyadhama Samiti Lonavla
ISBN: 9788189485443

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

III SEMESTER

YSc BSc OE – 3 - Open Elective Course 3: Basics of Yogic Science; 3 Credits, 52hrs.

Learning Objectives:

- To introduce the study of Hathayoga text.
- To introduce varieties of hathayogic practices.
- To study the application of various practices under Hathayoga.
- Practical knowledge of Yogic practices.

Learning Outcome:

- Basic knowledge of Hathayoga and its practices.
- Knowledge of Yogic food system.
- Theoretical knowledge of pranayamas.
- Practice few Yogic practices.

Part A

I Introduction to Hathayoga, Asanas, Food System 13Hrs.

- 1) Relationship of Hathayoga and Rajayoga, Greatness of Hathayoga.
- 2) Hathayogiparampara, Importance of Hatha and its secrecy.
- 3) Place of Hathayoga practice, Destructives and constructive of yoga, Yama and Niyama, Asana, Methods of Hathayoga Practice.
- 4) Mitahara, Pathya and Apathya, Rules in food taking.

II Kriyas and Pranayamas 13Hrs

- 1) The six kriyas – practicing method and benefits.
- 2) Benefits of Pranayama, Nadishuddi Pranayama, Duration and time for Pranayama practice, gradation of Pranayama, Sweat and Pranayama, Food during Pranayama practice.
- 3) Importance of Pranayama practice, symptoms of Nadishuddhi, Classification of Kumbhaka and its benefits, Hathayogasiddhilakshanam.

Part B

Practical 26 Hrs.

Practice the following Practices

1. Swastikasana
2. Suryanamaskara - 17 Vinyasa

3. Utthitapadangustasana
4. Parivrttatrikonasana
5. Prasaritapadottanasana
6. Bhekasana
7. Pascimottanasana - II
8. Purvottanasana
9. Ardhabaddhapadmapascimottanasana
10. Tiryanmukhaikapadapascimottanasana
11. Suptapadangustasana
12. Urdhvamukhapascimottanasana
13. Baddhakonasana
14. Simhasana
15. Akarnadhanurasana
16. Ujjayi Pranayama
17. Anuloma-Viloma pranayama
18. Savasana -2

Reference Books:

1. Swami Digambaraji. (1998). *Hathapradipika* (1998 ed.). Lonavala: Kaivalyadhama Lonavla, Maharashtra 410403.
2. Swami Muktibodhananda. (1998). *Hatha Yoga Pradipika* (4 ed.). Munger: Bihar School Of Yoga, Munger, Bihar 811201 India.
3. Swami Satyananda Saraswati. & Swami Muktibodhananda Saraswati. (1985). *Hatha Yoga Pradipika, The Light on Hatha Yoga*. Munger: Bihar School of Yoga Munger, Bihar 811201 India.
4. Iyengar B.K.S (2003), *Light on Yoga*, Published by Harper Collins Publishers, India
5. Satyananda Saraswati Swami (1997), *Asana, Pranayama, Mudra, Bandha*, Published by Bihar School of Yoga, Munger, Bihar.
6. Bhat K. Krishna (2006), *The Power of Yoga*, Suyoga Publications, Mangalore -574279.
7. Jois Pattabhi (1962), *Yoga mala – Part I*, Published by Asthangayoga Nilaya, Mysore.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (One / Two Class Tests)	10	-	10
Assignment / Seminar/Class Work	05	-	05
Practical - Viva	05	-	05
Practical	-	20	20
Total	20	20	40

BSc Yogic Science

IV SEMESTER

YSc BSc C 10: Patanjala Yoga Darshana-II

3 Credits, 42 Hrs

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

- Understand the essence of Vibhutis and Kaivalya pada.
- Understand the practices of Yoga, chaturvyuhavada.
- Know the theory of Karma and principles of Karmaphala.

Outcome: The student shall be able to deal with;

- Understanding of concept of birth and death cycle according to Yoga.
- Knowledge of cause for birth and death cycle and way to liberation.
- Concept of Kaivalya and details of the practices oriented towards it.

Unit - 1: Yoga Sadhanas in Yoga Darshana

[14 Hrs.]

1. Concept of Kriya Yoga: Tapa, Swadhyaya, Ishwara Pranidhana, Theory of Kleshas: Avidya, Ashmita, Raga, Dewesh, Abhinivesh.
2. Concept of Chaturvyuhavada: Heya, Hetu, Hana, Hanopaya, Drishta and
3. Drisha-nirupanam: Prakriti and Purusha.
4. Concept of Viveka-khyati, Brief Introduction to Ashtanga Yoga.
5. Bahiranga Sadhana and their Siddhis.
6. Theory of Karmasya and principles of karmaphala.

Unit - 2: Vibhutis in Yoga Darshana

[14 Hrs.]

1. Introduction of Dharana, Dhyana and Samadhi, Samyama and its Siddhis.
2. Three types of Chitta Parinamah.
3. Brief introduction of Vibhuties and its importance in Yoga Sadhana.
4. Bhoota jaya, Indriya jaya and their Siddhis, Satvapurushanyatakhyati and its Siddhis.
5. Vivek Jnana Nirupanam, Kaivalya Nirvachana.

Unit - 3: Concept of Kaivalya

[14 Hrs.]

1. Five Types of Siddhis and Jatyantar Parinamh.
2. Concept of Nirman Chitta and four types of Karmas.
3. Concept of Vasana and concept of Bahya Prdartha (external element) and its abilities.
4. Non-self-illumination of Buddhi and its function, Dharmamegha Samadhi and infinite knowledge.

5. Mutation of Guna, Karma, Pratiprasavah and Kaivalya.

BOOKS FOR REFERENCE

1. Swami Digambara Ji and others: Glossary of the Sankhyakarika, Kaivalyadhama, Lonavala, 2012.
2. Swami Virupaksananda: Sankhyakarika of I svarakrisna (with tattva Kamudia of Vachapati Mishra), Sri Ram Krishana Matha Madras, 1995.
3. James R. Ballantyne: The Sankhya Aphorisms of Kapila, Parimal Publications, New Delhi, 2004.
4. V.V. Sovani: A critical study of the Sankhya System, Chukhambha Sanskrit Pratisthan, New Delhi, 2005.
5. M.R. Yardi: The Yoga of Patanjali, Bhandarkar Oriental Research Institute, Poona, India, 1970.
6. K.D. Prithvipaul: The Yogasurta of Patanjali M.L.B.D. New Delhi.
7. Gaspar M. Koelmenn, S.J: Patanjali Yoga, Papal Athenaeum, Poona, 1970.
8. Swami Ved Bharti: Yogasutra of Patanjali (with the Exposition of Vyasa) M.L.B.D. New Delhi, 2004, Vol I & II.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

YSc BSc C 10P: Practicals – VII; 2 Credits; 52 Hrs

Study the meaning, procedure and benefits of following yogic practices with references and practice.

1. Svastikasana
2. Jalaneti
3. Kapalabhati
4. Vahnisara
5. Trataka
6. Vatayanasana
7. Virabhadrasana – III

8. Laghuvajrasana
9. Kapotasana
10. Pascimottanasana – III
11. Dvipadasirsasana
12. Karnapidasana
13. Yoganidrasana
14. Niralambasarvangasana
15. Urdhvakonasana
16. Ekapadahalasana
17. Pindasana
18. Sirsasana
19. Ujjayi Pranayama
20. Anuloma-Viloma pranayama
21. Pranava Meditation
22. Savasana 2

Reference Books:

1. Iyengar B. K. S. (2003), Light on Yoga, Published by Harper Collins Publishers, India.
2. Satyananda Saraswati Swami (1997), Asana, Pranayama, Mudra, Bandha, Published by Bihar School of Yoga, Munger, Bihar.
3. Bhat K. Krishna (2006), the Power of Yoga, Suyoga Publications, Mangalore.
4. Jois Pattabhi (1962), Yoga mala – Part I, Published by Asthangayoga Nilaya, Mysore.

Formative Assessment /IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

IV SEMESTER

YSc BSc C 11: Applied Biochemistry

3 Credits, 42 Hrs.

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

- Understand the concept of metabolism
- Have an understanding about the protein, carbohydrate, lipid metabolism.

Outcome: The paper is expected to make the students able to;

- Understand the biochemical reactions of metabolism.
- Understand modern diet & nutrition concept and their usage in daily life.
- Develop the skill of translating the concept of yogic diet into modern terminology.
- Develop the confidence of convincing public about the validity of Yogic diet.
- Advancement in interdisciplinary research studies in Yoga.

Unit-1: Metabolism of carbohydrates and lipids

[14 Hrs.]

1. Introduction to Metabolism: General features of metabolism, anabolism, catabolism, experimental approaches to study metabolism.
2. Carbohydrate Metabolism: Reaction and Energetic of glycolysis, Alcoholic & Lactic acid, Fermentation. Entry of Fructose, Galactose, Mannose etc. Reaction and energetic of TCA cycle. Gluconeogenesis. Glycogenesis and glycogenolysis Reactions and Physiological significance of Pentose phosphate pathway, Regulation of glycolysis, TCA cycle.
3. Electron Transport Chain and Oxidative Phosphorylation: Structure of Mitochondria, Sequence of electron carriers, site of ATP production, Inhibitors of electron transport chain. Hypothesis of mitochondrial oxidative phosphorylation (basic concepts). Inhibition and uncouplers of oxidative phosphorylation.
4. Lipid Metabolism: Introduction hydrolysis of triacylglycerol transport of fatty acids into mitochondria, oxidation of saturated fatty acids. ATP yield from fatty acid oxidation. Biosynthesis of saturated and unsaturated fatty acids.
5. Metabolism of ketone bodies, oxidation of unsaturated and odd chain fatty acids. Biosynthesis of triglycerides and important phospholipids, glycolipids, sphingolipids and cholesterol. Regulation of cholesterol metabolism.

Unit-2: Amino acid & Nucleic acid Metabolism**[14 Hrs.]**

1. Amino Acids – General reactions of amino acid metabolism - Transamination, decarboxylation, oxidative & non-oxidative deamination of amino acids. Special metabolism of methionine, histidine, phenylalanine, tyrosine, tryptophan, lysine, valine, leucine, isoleucine and polyamines.
2. Urea Cycle: individual reactions, importance of urea cycle, hyperammonaemia, regulation of urea cycle, Interrelationship between urea cycle and TCA cycle.
3. Epinephrine and Nor-epinephrine: importance and biosynthesis from tyrosine, Histamine; biological importance and synthesis. PKU and AKU characteristic features, metabolic reasons.
4. Nucleic acid Metabolism: Biosynthesis of purine and pyrimidine nucleotides- sources of nitrogen and carbon atoms of purine and pyrimidine ring. Precursors of purine and pyrimidine biosynthesis. Conversion of nucleotides to deoxynucleotides.

Unit-3: Basic immunology and molecular biology**[14 Hrs.]**

1. Immunology: Types and functions of T-cells and B-cells, mononuclear cells, mast cells, dendritic cells, antigen, antibody, Allergic reaction, Hypersensitivity, Autoimmunity.
2. Antigen-Antibody interactions: Agglutination, precipitation and opsonization, gel diffusion, ELISA, ELISPOT.
3. DNA Replication: Chromosomes, Mechanism of replication, synthesis of leading and lagging strand.
4. Mechanisms of Transcription: Eukaryotic transcription, promoters, enhancers, RNA polymerase I, II and III. Reverse transcription, splicing.
5. Translation: Ribosomes, structure, functional domain, tRNA, formation of initiation complex, chain elongation, translocation and termination. Protein biosynthesis, signals hypothesis.

TEXT BOOKS

1. Lehninger Principles of Biochemistry 5th Ed by David L. Nelson and Michael M. Cox, WH Freeman and Company.
2. Kuby Immunology, 9TH Edition, by Jenni Punt, Sharon Stranford, Patricia Jones, Judith A Owen

REFERENCE BOOKS

1. Textbook of Medical Biochemistry by MN Chatterjea and Rana Shinde, Jaypee Brothers.
2. Davidson's Principles and Practice of Medicine: A Textbook for Students and Doctors (Hardcover) 15th Ed by LSP Davidson, J MacLeod and CRW Edwards. Publisher: Churchill Livingstone.
3. Medical Biochemistry (Paperback) By John W. Baynes and Marek Dominiczak. Publisher: Mosby.
4. Review of Medical Physiology (Lange Basic Science) (Paperback) By William F. Ganong. Publisher: McGraw-Hill Medical

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

YSc BSc C 11P: Practicals – VIII;

2 Credits; 52Hrs

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

- Understand the principles and procedure of every experiment.
- Demonstrate an experiment with the interpretation of the results.
- Explain the procedure of each step of an experiment skilfully.

Outcome: The students are expected to develop;

- Skill to work in organizations like research centers and hospitals.
- Increased skill to carryout interdisciplinary research studies.
- To establish own Yoga Therapy centers with clinical setup.

Unit-1: Clinical / applied physiology

[26 Hrs.]

- 1.1 Introduction to Clinical examination.
- 1.2 Demonstration of electrocardiography, Electroencephalography.
- 1.3 Effects of exercise and posture on BP, HR.

Unit-2: Clinical / Applied physiology**[26 Hrs.]**

2.2 Examination of higher function, Examination of cranial nerves.

2.3 Examination of motor system. Reflexes.

2.4 Examination of sensory system.

PRACTICAL GUIDE

1. Jain AK: Manual of Practical Physiology for BDS, Arya Publications.

Formative Assessment /IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

IV SEMESTER

YSc BSc C 12: Study of Hatharatnavali and Gorakshasamhita

3 Credits, 42 Hrs

Objectives:

- To introduce different Hathayoga traditions to the students.
- To enrich the varieties of hathayogic techniques.
- To increase the skill of the candidate to train wide variety of people from different strata of socio-economic and physiological state.

Outcomes: By introducing Hatha Yoga & its texts, students shall be able to

- Understand about pre-requisites, principles about Hatha Yoga.
- Understand different Hatha Yoga Techniques of Classical texts.
- Understand the therapeutic application of Yogic Techniques.

Unit- I Four Kinds of Yoga and Astakarmas in Hatharatnavali

[14 Hrs.]

1. Relationship between Hath Yoga and RajaYoga, Description of MahaYoga
2. Characteristics of Mantra Yoga, Laya Yoga, Raja Yoa and Hath Yoga.
3. Purificatory Techniques: Cakri, Nauli, Dhauti, Neti, Basti, Gajakarni, Trataka and Mastakabharanti, Purpose of Cleansing Techniques
4. Salient Features of Hathasiddhi, Conducive and Non-conducive Diet for Hatha Yoga.
5. Rules and Regulations to be followed in Hath Yoga, Components of Success and Failures in Hatha Yoga.

Unit-II Asanas, Pranayamas, Mudras and Samadhi in Hatharatnavali

[14 Hrs.]

1. Description of Eighty-Four Asanas: Techniques and their Benefits, Classification of Niyama for the body and mind.
2. Pranayamas: Techniques, Benefits of Nine Pranayama- Bhastrika, Bhramari, Suryabhedana, Ujjai, Sheetali, Murchha, Seetkari, Kevala and Bhujangakarni, Levels of Pranayama Practitioners, Nadi Shodhana, Symptoms of Nadi Purification.
3. Relationship between mind and breath, Descriptions of Eight Types of Nadas (Sounds), Synonyms of Pingala and Ida.
4. Mudras: classification, benefits and methods of practice- Mahmudra, Mahabandha, Mahavedha, Uddiyan, Mulabandha, Jalandharbandha, Viparaitakarni, Vajroli, Shaktichalana and Khechari.

5. Description of Samadhi, Nadanusandhana, Four States of Yoga, Macrocosm and Microcosm, Manonmani avastha, Cakra and Nadis, Panchikarana.

Unit-III Hatha Yoga Practices in Goraksha Samhita (Goraksha Paddhati) [14 Hrs.]

1. Concept and Result of Yoga, Description of Asanas: Techniques and their Benefits- Siddhasana and Kamalāsana.
2. Cakaras and their Petals, Kanda, Nadis, Panchaprana and Upaprana: their Locations and Locations, Kundalini, Concept of Japa- ajapa, The Concept of Bindu (Shiva) and Rajas (Shakti).
3. Bandhas and Mudras: Techniques of Practice, their relevance in Hatha Yoga sadhana, Nature of Shakti.
4. Pranayama: Techniques and benefits, Nadishuddhi and Its Importance, Duration of Kumbhaka.
5. Pratyahara, Panchadharana, Meditation- Sakala and Nishkala, Samadhi and its Result.

REFERENCE BOOKS

1. Sawmi Vishnuswaroop: Goraksha Paddhati. Divine Yoga Institute, Kathmandu, Nepal
2. Gharote ML: Hatharatnavali, The Lonavala Yoga Institute, Lonavala, Pune, IInd Edition, 2009
3. Sadashivabrahmendra Saraswati(1978), ShivaYogadipika, Ananda Ashramagranthavali, Pune- 410403
4. Swami Niranjananda Saraswati, Gherandasamhita, Bihar School of Yoga, Munger, Bihar-811201
5. Swami Digambaraji(1997), Gheranda Samhita, SMYM Samiti, Kaivalyadhama, Lonavala-410403
6. Swami Vivekananda(1982), RajaYoga, Ramakrishna Ashrama Publications, Dehi Entally Road kolkata-700014.
7. Swami Digambaraji (1970), HathaYoga Pradipika of Swatmarama, Kaivalyadhama, Lonavala, Pune - 410403.
8. Swami Niranjanananda, Yoga Darshan, Sri Pachadashanam Paramahamsa Alakh Bara, Deoghar-814113
9. Swami Adidevananda(1998), Patanjala Yoga Darshana – Vyasa Bahshya sahitha, Shri Ramakrishna Ashrama, Mysore – 570020.
10. Swami Niranjanananda(1997), HathaYogapradipika, Bihar School of Yoga-811201
11. Gharote M.L. & Pai, G.K. (Edi) Siddhasidhantpaddhati , Kaivalyadhama, Lonavla, 2005.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

IV SEMESTER

YSc BSc OE – 4 - Open Elective Course 4: Yoga for Health; 3 Credits, 52hrs.

Learning Objectives:

- To know the use of Yoga for health.
- Knowledge of principles of yoga for health.
- Concept of food and health.
- Practical knowledge of Yogic practices.

Learning Outcome:

The student will be able to

- Understand daily routine and good conduct.
- Explain application of yoga for personal health.
- Understanding and application of food for health.
- Practice few Yogic practices.

Part A

- | | | |
|------------|--|---------------|
| I. | Concept of Food and Health | 13 Hrs |
| 1. | Nutrition –Macro nutrients in diet – Carbohydrate, Protein, Fat | |
| 2. | Nutrition –Micro nutrients in diet - Vitamins, Minerals | |
| 3. | Concept of Mitahara and Pathyapathya, Concept of Food and Triguna | |
| 4. | Health – Definitions according Indian System and Modern System. | |
| II. | Yoga for Health | 13Hrs |
| 1. | Sadvimsatitvatva theory, Tridosha theory, Pancakosa theory | |
| 2. | Dinacarya, Abhyanga, Vyayama, Sadvrta, Rtucarya | |
| 3. | A general survey of use of Lifestyle, Asana, Pranayama, Mudra, Kriya etc. forhealth. | |

Part B

- | | | |
|------------|------------------|---------------|
| III | Practical | 26 Hrs |
|------------|------------------|---------------|

Practise the following Practices

1. Swastikasana
2. Baddhapadmasana

3. Padahastasana
4. Virabhadrasana - II
5. Ardhabaddhapadmottanasana
6. Garudasana
7. Utkatasana
8. Maricasana - 3
9. Pasasana
10. Dhanurasana - parsvasahita
11. Paryankasana
12. Vrksahasana
13. Viparitakarani
14. Halasana
15. Uttanapadasana
16. Ujjayi Pranayama
17. Anuloma-Viloma pranayama
18. Soham Meditation
19. Savasana -2

Reference Books:

1. A.K. Jain. (2017). *Human Physiology and Biochemistry for Physical Therapy and Occupational Therapy* (3 ed.). Delhi: Arya Publications, 1002, Faiz Rd, Block T, Nai Walan, Karol Bagh, New Delhi, Delhi 110005.
2. Swami Digambaraji. (1998). *Hathapradipika* (1998 ed.). Lonavala: Kaivalyadhama Lonavla, Maharashtra 410403.
3. Swami Vivekananda. (1982). *Raja Yoga*. Culcutta: Advaita Ashrama Delhi Entally Road Culcatta 700014.
4. Kanjiv Lochan. (2017). *Astanga Hridaya of Vagbhata Vol. I - III*. New Delhi: Chaukhambha Publications, New Delhi, Delhi 110002.
5. M. M. Gore. (2017). *Anatomy and Physiology of Yogic Practices: Understanding of the Yogic concepts and physiological mechanism of the yogic practices* (6 ed.). New Delhi: New Age Books, Delhi, 110002 India.

6. Kuvalayananda Swami and Vinekar, Yogic Therapy, Kaivalyadhama, Lonavala, Pune, Maharashtra 410 403.
7. Iyengar B. K. S. (2003), Light on Yoga, Published by Harper Collins Publishers, India.
8. Satyananda Saraswati Swami (1997), Asana, Pranayama, Mudra, Bandha, Published by Bihar School of Yoga, Munger, Bihar.
9. Bhat K. Krishna (2006), the Power of Yoga, Suyoga Publications, Mangalore.
10. Jois Pattabhi (1962), Yoga mala – Part I, Published by Asthangayoga Nilaya, Mysore.
11. Swami Shankaradevananda Saraswati, Yogic Management of common diseases, Bihar School of Yoga, Munger.
12. Krishna Bhat, K. (2006). *The Power of Yoga* (1 Ed.). Mangalore: Suyoga Publication, 574279 Mangalore.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (One / Two Class Tests)	10	-	10
Assignment / Seminar/Class Work	05	-	05
Practical - Viva	05	-	05
Practical	-	20	20
Total	20	20	40

BSc Yogic Science

V SEMESTER

YSc BSc C 13: Yoga System and its practice in Shiva Samhita 3 Credits, 42hrs.

Unit I Introduction to Siva Samhita 14 Hrs

1. Introduction, The Layayoga, Karma kanda, Jnana Kanda
2. Yoga and Maya, Paramahansa, Evolution, Involution, Karma.
3. Knowledge of the Tattvas, Microcosm, Nerves, nerve centers.
4. Jivatma

Unit II Yoga System and its Practise 14 Hrs

1. The vayus, The Guru, The Adhikari, Place etc
2. The pranayama, the means, the first, second and third stages,
3. Vayusiddhi, siddhis, ghata, paricaya and nispatti avastha. The asanas
4. Mudras: yoni mudra, awakening of kundalini, the nine mudras.

Unit III The Rajayoga 14 Hrs

1. Bhoga, dharma, jnana, four kinds of yogas.
2. Sadakas – classification, pratikopasana.
3. Rajayoga, various kinds of dharana.
4. The six cakras, sahasrara, the Rajadhiraja Yoga.

Reference Books:

1. The Siva Samhita, Translated by Rai Bahadur Srisa Chandra Vasu, Chaukhamba Sanskrit Pratishtan, 38 U A Bungalow Road, Jawahar Nagar, PB No 2113, Delhi – 110007.
2. Siva Samhita (A Critical Edition – English Version), Swami Maheshananda and Others, Kaivalyadhama SMYM Samiti, Swami Kuvalayananda Marg, Lonavala – 410403. Maharashtra, India.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

Study the meaning, procedure and benefits of following yogic practices with references and practice.

1. Padmasana
2. Bhujapidasana
3. Gomukhasana
4. Parvatasana
5. ArdhaChakrasana
6. Parighasana
7. Garbhapindasana
8. Kraunchasana
9. Mayurasana
10. Nakrasana
11. Matsyendrasana
12. Marjalarasana 1
13. Marjalarasana 2
14. UrdhvaBaddhakonasana
15. UrdhvaParsvakonasana
16. Parsvahalasana
17. Setubandhasarvangasana
18. Ujjayi Pranayama
19. Anuloma-Viloma pranayama
20. Pranava Meditation
21. Savasana II

Reference Books:

1. Iyengar B. K. S. (2003), Light on Yoga, Published by Harper Collins Publishers, India.
2. Satyananda Saraswati Swami (1997), Asana, Pranayama, Mudra, Bandha, Published by Bihar School of Yoga, Munger, Bihar.
3. Bhat K. Krishna (2006), the Power of Yoga, Suyoga Publications, Mangalore.
4. Jois Pattabhi (1962), Yoga mala – Part I, Published by Asthangayoga Nilaya, Mysore.

Formative Assessment /IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

V SEMESTER

YSc BSc C 14: Fundamentals of Psychology;

3 Credits, 42hrs.

Objectives:

- To introduce modern psychology to Yoga students.
- Make the students able to understand psychological aspects.
- To bring about a comparative mode of study between ancient and modern psychology.

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

- Understand the necessity and significance of psychology.
- Have an understanding about utility of psychology in the society.
- Understand human behavior with regard to therapy.

UNIT- I: Human Psyche, Psychology – A Science of Behaviour

[10 Hrs.]

1. Psychology: Definition of Psychology; Psychology as a Science of Behaviour; Scope and Utility of Psychology
2. Concept of Human Psyche; Sigmund Freud's Model of Human Psyche; Human Psyche and Behaviour
3. Definition of Behaviour and its Cognitive, Conative and Affective Aspects; Behaviour and Consciousness; States of Consciousness
4. Methods of Psychology: Introspection, Observation, Experimental Method, Interview, Psychological Testing
5. Physiological Basis of Behaviour: Central Nervous System and Autonomic Nervous System.

UNIT- II: Domains and Dynamic of Behaviour

[12 Hrs.]

1. Attention: Nature, Determinants of Attention; Perception: Nature; Gestalt theory of Perception.
2. Learning: Nature; Theories: Learning by Trial and Error, Learning by Insight, Classical and Instrumental Conditioning.
3. Intelligence: Nature; Emotional Intelligence (EI): Nature, Goleman's Model of EI; Spiritual Intelligence: Nature.
4. Emotion: Nature; Physiological Basis of Emotion; Theories: James-Lange Theory, Cannon-Bard Theory.

5. Motivation: Nature; Types of Motives: Biological Motives, Social and Psychological Motives; Maslow's Theory of Motivation.

UNIT- III: Personality and Its Development

[10 Hrs.]

1. Personality: Nature and Types of Personality; Yogic View of Personality.
2. Personality Development: Various Facets (Domains) and Stages of Personality Development; Determinants of Personality: Heredity and Environment.
3. Theories of Personality of Sigmund Freud, Alfred Adler and C.G. Jung, Carl Rogers.
4. Assessment of Personality: Personality Inventories, Projective Techniques, Case History Method.
5. Yoga and Personality Development: Yogic Attitudes; Personality Development with special emphasis on *Panchakosha* and *Ashtanga Yoga*.

UNIT-IV: Stress & Its Management, Mental Health and Yoga

[10 Hrs.]

1. Mental Health: Meaning and Importance; Indicators of Mental Health; Criteria of Normal and Abnormal Behaviour
2. Stress: Nature; Symptoms, Causes and Consequences of Stress; Stress and Mental Health; Yogic Perspective of Stress
3. Adjustment: Nature; Adjustment and Stress; Conflict and Frustration; Ways of Adjustment: Direct Ways and Indirect Ways (Defence-mechanisms)
4. Yogic Perspective of Mental Health; Promoting Mental Health, Impact of Yogic Life-style on Mental Health

REFERENCE BOOKS:

1. Basavaraddi, I.V. (Managing Editor) (2010). *Yoga: Teacher's Manual for School Teachers*. New Delhi: Morarji Desai National Institute of Yoga.
2. Bhatia, Hans Raj (2005). *General Psychology*. New Delhi: Oxford and IBH Publishing Co. Pvt. Ltd.
3. Herrman, H., Saxena, S, & Moodie, R. (ed.) (2005). *Promoting Mental Health*. Switzerland: WHO Press, World Health Organization.
4. Hilgard, Ernest R., Atkinson, Richard C. & Atkinson, R.L. (1976). *Introduction to Psychology*. New Delhi: Oxford and IBH Publishing Co. Pvt. Ltd.
5. Morgan, C. T., King, R.A., Weisz J. R. & Schopler J. (2006). *Introduction to Psychology*. New Delhi: Tata McGraw Hill Publishing Co. Ltd.
6. Nagendra, H. R. (1988). *New Perspectives in Stress Management*. Bangalore: Vivekananda Kendra.
7. Singh, A. K. (2007). *Saral Samanya Manovijnana*. Delhi: Motilal Banarasidas Publications.

8. Srivastava, D.N. (2007). General Psychology. Agra: Vinod Pustak Mandir.
9. Taylor, S. E. (2006). Health Psychology (6th ed.). New Delhi: Tata McGraw Hill.
10. Udupa, K.N. (2007). Stress and Its Management by Yoga. Delhi: Motilal Banarasidas.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

YSc BSc C 14: Practicals - X;

2 Credits, 52hrs.

Objectives:

Objectives of this course is to make the students familiar about the tests and the scales and the procedure of administering them.

Division/Distracton of Attention

1. Emotional Intelligence/ Emotional Maturity
2. Spiritual Intelligence/ Study of Values/ Spiritual Belief
3. Self-concept
4. *Asakti/ Anasakti* Scale
5. Anxiety Scale
6. Aggression Scale
7. Fear of Death
8. Depression
9. Frustration
10. Personality Inventory
11. Adjustment/ Mental Health
12. General Well-being
13. Case study



Note: Students are to conduct and report at least eight (8) practicals. The examiner will allot one practical at the time of examination.

Formative Assessment /IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

V SEMESTER

YSc BSc C 15: Yogopanishads and Siddhasiddhantapaddhati

3 Credits, 42hrs.

Learning Objectives:

Following the completion of this course, student will be able to

- Have an idea about the major Yogopanishads.
- Understand the essence of each Upanishad and how to put them into practice.
- Understand each Upanishad and the role of it in our day-to-day life.
- To introduce Gorakshanatha tradition of Hathayoga.

Learning outcome: The paper is expected to bring about;

- Ability to understand the essence of Yoga in Upanishads.
- Comprehensive knowledge of aupanishadic yoga and co-relate with other schools of Yoga.
- In-depth clarity towards the aim and objectives of Yoga Darshana.
- Knowledge of many Hathayoga traditions.

Unit - 1: Shandilya Upanishad and Jabaladarshanopanishad

14Hrs

1. Brief Introduction of Shandilya Upanishad, Ashtanga Yoga: Types of Yama, Niyama, Asana, Concept of Nadi & Prana, Stages of Pranayama, Concept & Types of Pratyahara, Dharana, Dhyana. And Samadhi.
2. Brief Introduction to Jabaladarshanopanishad, Ashtanga Yoga: Yama (10 Types), Niyama (10 Types), Asana (9 Types), Types of Prana & Nadi, Types of Pranayama, Pratyahara, Dharana, Dhyana (Its Types) & Samadhi.

Unit - 2: Trishikhibrahmanopanishad and Yogchudamanyupanishad

14 Hrs

1. Brief Introduction to Trishikhibrahmanopanishad, Concept & Types of *Yamas* and *Niyamas*, Concept & Types of *Asanas*, Types of *Nadi*, Types of *Prana* & *Pranayama*, Concept of *Pratyahara*, *Dharana*, *Dhyana*, *Samadhi*.
2. Brief Introduction of Yogchudamanyupanishad, *Shadanga Yoga- Asana*, *Chakra*, *Nadi*, *Prana*, *Pranayama*, Concept of *Kundalini*, *Mitahara*, *Mudra* & *Bandhas*, Concept of *Pratyayahara*, *Dharana*, *Dhyana*, and *Samadhi*.

Unit - 3: Hathayoga Practices in Siddhasiddhantapaddhati

14Hrs

1. Concept of anama and pinda, formation of garbhapinda.
2. Navachakra and Shadadhara

3. Concept of Pindadhara
4. Concept of Avadhuta, Nature of Avadhuta, Avadhutayogilakshana

REFERENCE BOOKS

1. The Principal Upanisads, Radhakrishnan, S Harpercollins India, 2006
2. Ishadi nau Upanishad, Gita press Gorakhpur
3. Nine Principal Upanisads, Saraswti, Swami Satyanand Yoga Publication Trust Bihar, 2004.
4. Upanishads, Swami Ranganathananda Bharatiya Vidya Bhavan, Bombay, 1985
5. 108 Upanishad - (Sadhana Khand, Brahmavidya Khand, Jnana Khand) Sharma, Pt. Sriram Acharya, Shantikunj, Haridwar.
6. The Essence of Principal Upanishads, Sivananda, Swami, Divine Life Society, 1980
7. The Philosophy of the Upanishds, Chari, S.M. Srinivasa Munshiram Manoharlal, Delhi, 2002.
8. Upanishad Sangraha - Jagdish Shashtri, Motilal Banarasidas, Varanasi, Delhi, Chennai.
9. Gharote M. L. & Pai, G.K. (Edi) Siddhasidhantpaddhati, Kaivalyadhama, Lonavla, 2005.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

V SEMESTER

YSc BSc E – 1: Fundamentals of Naturopathy;

3 Credits, 42hrs.

Learning Objectives:

- To introduce the basic principles of Naturopathy and its concepts.
- To understand Basic modalities of treatment in Naturopathy.
- To have an understanding about Benefits of Naturopathy and life style modification.
- To understand the role of Yoga in Naturopathy treatment.

Expected Outcomes:

- The student shall have the skill to use the principle of naturopathy treatment.
- The basics of naturopathy can be used by the student as a therapist.
- The student can involve in interdisciplinary studies.

UNIT-1: INTRODUCTION TO NATUROPATHY

[14 Hrs.]

1. Definition of Naturopathy and its basic principles, History of Naturopathy.
2. Definition of health and natural way of healthy living.
3. Comparative study of the Naturopathy with other systems of Medicine; Catechism of Nature cure.
4. Inflammation and its different stages; Natural rejuvenation and vitality.
5. Immunity: How to acquire natural immunity in diseases & its importance.

UNIT-2: PRINCIPLES AND CONCEPTS OF NATUROPATHY

[14 Hrs.]

1. Laws of Nature: Concept of Pancha Mahabhutas, Shareera Dharmas – Ahara, Nidra, Bhaya and Maithuna.
2. Importance of five elements (Pancha mahabhutas) - Ether, Air, Fire, Water and Earth of Nature with its origin, properties, and importance in Naturopathy.
3. Detailed study of vital force, natural immunity, healing crisis, foreign matter, importance of physical exercise and rest.
4. Importance of Physical and Mental Hygiene in Personal life and prevention of diseases. Concept of Detoxification in Naturopathy.
5. Arogya Rakshaka Panchatantras and their importance in maintaining good health and prevention of diseases.
6. The diagnostic procedures of Naturopathy – Spinal analysis, Facial Diagnosis, Iris diagnosis, Chromo Diagnosis and their diagnostic values.

UNIT-3: NATUROPATHY THERAPEUTICS

[14 Hrs.]

1. Fasting-Physiological effects of fasting, indications and contraindications of fasting and methods of fasting, management of healing crisis during fasting. Dietetics and Nutrition- Balanced diet according to nature cure, nutritious and eliminative diet, Importance of acidic and alkaline diet and its physiological effects on body.
2. Mud therapy-History of mud therapy, properties of mud, techniques of using mud in nature cure, types of mud, and its therapeutic properties, contraindications and other uses of earth power.
3. Hydrotherapy-Physical and remedial properties of water, physiological effects of water at different temperature in human body, with their therapeutics effect, methods of treatment, indications, contraindications, precautions, management of crisis during treatment and after treatment.
4. Massage- Physiological effect of massage on body part, indications and contraindications. Marmas (Vital points), acupressure points with their importance in massage.
5. Chromo therapy- Method of using chromo therapy in nature cure, importance, physiological effects of 7 colors on glands, chakras and other body organ system- its indications and contradictions.

REFERENCE BOOKS:

- | | |
|------------------------------------|---|
| Arya, Jitendra | Health Naturally: Nature Cure for Common Diseases, Arya Publication, Pune, 2011. |
| Bernard Jensen | Foods That Heal: A Guide to Understanding and Using the Healing Powers of Natural Foods, Penguin, 1993. |
| Gala, Dhiren | Nature Cure for Common Diseases, Navneet Publications, Mumbai |
| Ghosh, A.K | Diet and Nutrition (English) |
| Henry Lindlahr | Philosophy and Practices of Nature Cure, Sat Sahitya Sahayogi Sangha, Hyderabad. |
| K. Laksmana Sarma, S. Swaminathan: | Speaking of Nature Cure, Sterling Publishers Pvt. Ltd, 2013. |
| Mahatma Gandhi | Key to Health, Create Space Independent Publishing Platform, 2017. |
| M.K.Gandhi | My Nature Cure |
| Parvesh Handa | Naturopathy and Yoga, Gyan Publishing House, 2006 |
| S.R. Jindal | Nature Cure: A Way of LifeB. Jain Publishers, 1996 |

Singh, S.J. History and Philosophy of Nature Cure
 Dr. J. H. Kellogg, USA Rational Hydrotherapy, National Institute of naturopathy, Pune.
 John Harvey Kellogg The Art of Massage, TEACH Services, Inc., 2010.
 Pauline Wills Colour Healing Manual: The Complete Colour Therapy Programme

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

V SEMESTER

Vocational – 1: 3 Credits

Practical Teaching in Yoga Camp/ Yoga Training – Two of 10-15 days/ One of 20-30 days and reporting.

BSc Yogic Science

VI SEMESTER

YSc BSc C 16: Four Streams of Yoga;

3 Credits, 42hrs.

Learning objective:

- To introduce prominent and one of the fundamental yoga texts.
- To impart in-depth knowledge of four schools of yoga.
- To introduce the essence of Yogic concept in Indian philosophy.

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

- Understand the four paths/streams of Yoga with in depth understanding.
- Have an in depth understanding about their similarities and dissimilarities.
- Understand the principle and conceptualize each stream.

Unit-I: Karma Yoga

[10 Hrs.]

1. The concept and meaning of karma Yoga according to Bhagavadgita
2. Types of Karma according to Bhagavadgita.
3. Concept of Sthita Prajna according to Bhagavadgita.
4. Characteristics and Stages of Sthita Prajna according to Bhagavadgita.

Unit-II: Jnana Yoga

[12 Hrs.]

1. The concept and meaning of Jnana Yoga according to Bhagavadgita (Shankara Bhashya).
2. Concept of Samkhya (Atma, Purusha and Jivatma) according to Bhagavadgita.
3. Sadhana Chatustaya, Stages of Jnana Yoga practice (Shravana, Manana, Nidhidhyasana)
4. Qualities of Jnani.

Unit-III: Bhakti Yoga

[10 Hrs.]

1. The concept and meaning of Bhakti Yoga according to Bhagavadgita (Shree Bhashya).
2. Concept of Bhakti, Shraddha, according to Bhagavadgita and Narada Bhakti Sura.
3. Concept of Paramatma (Parmeshwar or Purushottam) according to Bhagavadgita.
4. Navavidha Bhakti, Qualities of Bhakta according to Bhagavadgita.

Unit-IV: Dhyana Yoga

[10 Hrs.]

1. Definitions of Yoga and the concept of Yoga Sadhana (Dhyana Yoga (Asana, Pranayama, Pratyahara, Dhyana) according to Bhagavadgita
2. Concept of Triguna and its role in Yoga Sadhana according to Bhagavadgita

3. Concept of Ahara and its role in Yoga Sadhana according to Bhagavadgita
4. Qualities of Yogi according to Bhagavadgita

BOOKS FOR REFERENCE

1. Swami Gambhiranand; Bhagavadgita (with Gudharth Dipika) Sri Ramkrishna Matha Madras
2. Swami Gambhiranand; Bhagvatgita with the commentary of Sankaracharya, Advita Ashrama, Kolkata, 2003
3. Shri Bhashya (Shri Ramanujacharya), Shrimadbhagavadgita, Gita press gorakhpur.
4. Swami Adidevananda: Sri Ramanuja Gita Bhashya, Sri Ramakrishna Math Madras-04
5. Radhakrishnan, S.: The Bhagavad-Gita, Harpercollins India, 2011.
6. Swami Rama- Perennial Psychology Bhagvat gita (HI, USA, 1996)
7. Swami Shrikantananda; Gita Darshana, Indian Institute of Human Excellence Hyderabad
8. Swami Bhuteshananda: Nararad Bhakti Sutra, Advaita Ashrama Publication-Dept. Kolkata, II Edition, 2009
9. Swami Vivekananda: Jnana Yoga, Bhakti Yoga, Karma Yoga, Raja Yoga. Advaita Ashrama, Calcutta, 2000
10. Swami Abhidananda Bhagvatgita, the divine message, Ramakrishna Vedanta Matha, Kolkata, 1990
11. Swami Raghvendrananda; Universal message of the Bhagvatgita, Advita Ashrama, Kolkata, 2000
12. The Bhagavad-Gita (for daily living), Easwaran, Eknath, JAICO publishing Mumbai, 2003
13. The Philosophy of the Bhagavadgita, Chari, S.M. Srinivasa Munshiram Manoharlal, Delhi, 2005.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

YSc BSc C 16P: Practicals – XI;**2 Credits, 52 hrs.**

Study the meaning, procedure and benefits of following yogic practices with references and practice.

1. Padmasana
2. Vasisthasana
3. Visvamisrasana
4. Kasyapasana
5. Vrscikasana
6. Bakasana
7. Ekapadarajakapotasana
8. Buddhasana
9. Kapilasana
10. Bhairavasana
11. Cakorasana
12. Skandasana
13. Durvasasana
14. Rcikasana
15. Trivikramasana
16. Ekapadabakasana 1
17. Ekapadabakasana 2
18. Ujjayi Pranayama
19. Anuloma-viloma pranayama
20. Pranava Meditation
21. Savasana II

References:

1. Iyengar B. K. S. (2003), Light on Yoga, Published by Harper Collins Publishers, India.
2. Satyananda Saraswati Swami (1997), Asana, Pranayama, Mudra, Bandha, Published by Bihar School of Yoga, Munger, Bihar.
3. Bhat K. Krishna (2006), the Power of Yoga, Suyoga Publications, Mangalore.
4. Jois Pattabhi (1962), Yoga mala – Part I, Published by Asthangayoga Nilaya, Mysore.

Formative Assessment /IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

VI SEMESTER

YSc BSc C 17: Concept of food, Svava Yoga and Yoga Rahasya; 3 Credits, 42hrs.

Learning Objectives:

To acquaint the student in fundamentals of

- Dietetics and nutrition.
- Svava yoga and Yoga Rahasya.
- Concept of health of yogic science.

Learning Outcome:

- Application of diet in yogic lifestyle.
- Health concept in the selected traditional texts.
- Application of yoga in improving health.

I Fundamentals of Dietetics and Nutrition – Modern Concept 14Hrs

- 1) Nutrition, Nutrients – Macro and Micro nutrients Carbohydrates – Monosaccharides, Disaccharides, Polysaccharides
- 2) Proteins – Importance of proteins in diet, Essential and non-essential amino Acids
Lipids – essential fatty acids, Lipid profile.
- 3) Vitamins – Fat soluble and Water-soluble vitamins – Physiological role, deficiency signs, sources, requirement.
- 4) Minerals – Calcium, Iron and other trace elements in nutrition. Balanced diet, Energy requirement.

II Ancient Concept of Food 14Hrs.

- 1) Food and Triguna
- 2) Food and Tridosha
- 3) Yogic Diet – Pathya and Apathya
- 4) Sadrasa, Pancamahabhuta and Food.

III Svava Yoga and Yoga Rahasya 14Hrs

- 1) Svava yoga in brief, Sound and Form of Svava
- 2) Tattva Vichara, Svava Yoga Practice
- 3) Yoga Rahasya-practicing method of asana, Pranayama, meditation etc.
- 4) Special indications of yoga practice to cure the diseases.

Reference Books:

1. Satyanarayana U. (2008). Essentials of Biochemistry (2 ed.). Delhi: Books & Allied Ltd. New Delhi - 110 002.
2. H.R. Nagendra. (2004). Yoga Its Basis and Applications. Bangalore: Swami Vivekananda Yoga Prakashana19, Bagappa Rd, Gavipuram Extention, Kempegowda Nagar, Bengaluru, Karnataka 560019.
3. Krishna Bhat, K. (2006). The Power of Yoga (1 ed.). Mangalore: Suyoga Publication Mangalore-574279.
4. Muktibodhananda Swami. (1999). *Swara Yoga*. Munger: Bihar School of Yoga Bihar, Bihar 811201 India.
5. Radhakrishnan, P. (1995). *The Bhagavadgita*. New York: Aquarian, NY 10022, United States.
6. Swami Digambaraji. (1998). *Hathapradipika* (1998 ed.). Lonavala: Kaivalyadhama Lonavla, Maharashtra 410403.
7. Swami Digambarji, & M L Gharote. (1997). *Gheranda Samhita*. Lonavla: Kaivalyadhama Lonavla, Maharashtra 410403.
8. TKV. Desikacharya. (1998). *Nathamuni's Yoga Rahasya*. Chennai: Krishnamacharya Yoga Mandiram, Chennai, Tamil Nadu 600028.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

YSc BSc C 17 P: Practical – XII;

2 Credits, 52hrs.

Study the meaning, procedure and benefits of following yogic practices with references and practice.

- 1) Jalaneti
- 2) Sutraneti
- 3) Nauli

- 4) Gajakarani
- 5) Kapalabhati – variations
- 6) Urdhvakukkutasana
- 7) Padangustadhanurasana
- 8) Cakrasana
- 9) Setubandhasarvangasana
- 10) Mulabandhasana
- 11) Astavakrasana
- 12) Tittibhasana
- 13) Hanumanasana
- 14) Natarajasana
- 15) Samakonasana
- 16) Hamsasana
- 17) Pinchamayurasana
- 18) Ujjayi Pranayama
- 19) Anuloma - viloma Pranayama
- 20) Savasana - II

Reference Books:

1. Ann Swanson. (2019). Science of Yoga: Understand the Anatomy and Physiology to Perfect your Practice. Noida: DK England, UP 201 301, India.
2. B.K.S. Iyengar. (2005). Light on Pranayama. New York: Element, New York, NY10018, United States.
3. B.K.S. Iyengar. (2006). Light on Yoga: The Classic Guide to Yoga by the World's Foremost Authority (6 ed.). Thorsons, London SE1 9GF, United Kingdom.
4. Dharendra Brahmachari. (1970). Yogasana Vijnana. Delhi: Asia Publishing House, E-113, Lajpat Nagar, Delhi - 110024.
5. Krishna Bhat, K. (2006). The Power of Yoga (1 ed.). Mangalore: Suyoga Publication, Mangalore-574279.
6. Leslie Kaminoff, & Amy Matthews. (2011). Yoga Anatomy (2 ed.). Canada: Human Kinetics Publishers, 475 Devonshire Rd, Windsor, ON N8Y 2L5, Canada.
7. Omanand Maharaj. (2013). Patanjali Yog Pradeep (2013 ed.). Gorakhpur: Geeta Press Gorakhpur, Uttar Pradesh 273001.
8. Pattabhi Jois. (2010). Yoga Mala (2 ed.). Delhi: Picador New Delhi, 110001 India.
9. Shri O P Tiwari. (2005). *Asana Why and How*, Lonavala: Kaivalyadhama, Lonavla,

Maharashtra 410403.

10. Srivatsa Ramaswami. (2005). *The Complete Book of Vinyasa Yoga*. Massachusetts: Da Capo Press, Massachusetts, 53 State St, Boston, MA 02109, United States.
11. Swami Digambaraji. (1998). *Hathapradipika* (1998 ed.). Lonavala: Kaivalyadhama, Lonavla, Maharashtra 410403.
12. Swami Digambarji, & Dr M L Gharote. (1997). *Gheranda Samhita*. Lonavala: Kaivalyadhama, Lonavla, Maharashtra 410403.
13. Swami Gitananda Giri. (2007). *Mudras*. (Dr Ananda Balayogi Bhavanani, Ed.) Pondichery: Meenakshi Devi Bhavanani, Satya Press, 605013Pondichery.
14. Swami Kunalayananda, & Dr S L Vinekar. (1963). *Yogic Therapy Its Basic Principles and Methods*. Delhi: Central Health Govt of India, Nirman Bhavan, New Delhi-110011.
15. Swami Satyananda Saraswati. (2004). *A Systematic Course in the Ancient Tantric Techniques of Yoga and Kriya* (3 ed.). Munger: Yoga Publications Trust, Munger, Bihar, 811201India.
16. Swami Satyananda Saraswati. (2013). *Asana Pranayama Mudra Bandha*. Munger: Yoga Publications Trust, Munger, Bihar,811201 India.
17. Swami Satyananda Saraswati. (2002). *Surya Namaskara: A Technique of Solar Vitalization* (2 ed.). Munger: Yoga Publications Trust, Munger, Bihar, 811201 India.
18. Tirumalai Krishnamacharya. (1972). *Yogasanagalu* (3 ed.). Mysore: Prasaranga, Mysore University, Karnataka 570009.

Formative Assessment /IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

VI SEMESTER

YSc BSc C 18: Yoga and Health;

3 Credits, 42hrs.

Objectives:

- To understand the concept of body and health from the perspective of Yoga.
- To have an understanding of the Yogic concept of Disease and the remedial measures therein.

Outcomes:

- Ability to understand the cause, symptoms, nature and healing methods of diseases according to Yoga.
- Knowledge of disease diagnosis process as a therapist.
- Information of proper lifestyle and habits for healthy living and ability to apply those as a therapist.

Unit-1: Yogic concepts of health and disease

[14 Hrs.]

1. Health and Disease: Meaning and definitions, Concept of Adhi and Vyadhi, Yogic concept of Health and Disease, Yoga as a preventive Health care – Heyamdukhkhamanagatam.
2. Potential causes of ill-health: Tapatrayas and Kleshas, Physical and Physiological manifestation of Disease: Vyadhi, Alasya, Duhkha, Angamejayatva and Svasa-prashvasa. Mental and Emotional ill Health: Styana, Samshaya, Pramada, Avirati, Duhkha, Daurmanasya, Bhranti-darsana, Alabdha-bhumikatva and Anavastitatva.
3. Shuddhi Parikriyas in Yoga and their role in preventive and curative Health, Karma Shuddhi, (Yama, Niyama), Ghata Shuddhi (Shat-karma), Snayu Shuddhi (Asana), Prana Shuddhi (Pranayama), Indriya and Mano Shuddhi (Pratyahara), Chitta (Mano, Buddhi & Ahamkar) Shuddhi (Dharana, Dhyana and Samadhi).
4. Concepts of Trigunas, Pancha-koshas, Pancha-mahabhutas, Pancha-prana and Shat-chakra and their role in Health and Healing.
5. Concept of Swara Yoga and its efficacy in Health and Healing.

Unit-2: Yogic principles and practices of healthy living

[14 Hrs.]

1. Yogic Principles of Healthy Living: Aahara, Vihara, Aachara and Vichara;
2. Role of Yogic Positive Attitudes (Maitri, Karuna, Mudita and Upeksha) for Healthy Living, Concept of Bhavas and Bhavanas with its relevance in Health and well-being;

3. Yogic principles of Lifestyle management and its role in prevention of disease and health promotion;
4. Yogic Principles of Diet and its role in Healthy living;
5. Yogic Practices of Healthy living: i.e., Yama, Niyama, Shat-karma, Asana, Mudra & Bandha Pranayama, Pratyahara, Dharna and Dhyana, and their role in Healthy living.

Unit-3: Health benefits of Yogic practices

[14 Hrs.]

1. Health benefits of asana.
2. Health benefits of Pranayama.
3. Health benefits of Shatkarma.
4. Health benefits of Bandha and Mudra.
5. Health benefits of Meditation.

BOOKS FOR REFERENCE

1. Preeti Goel and Rita Jain: Spectrum of Health (Sports Publications, New Delhi, 2003)
2. M. M. Gore: Anatomy and Physiology of Yogic Practices (New Age Books, New Delhi, 2008)
3. Dr. K. Krishna Bhat: The power of Yoga
4. Dr. R. S. Bhogal : Yoga Psychology, Kaivalyadhama Publication
5. Dr. Manmath M Gharote, Dr. Vijay Kant: Therapeutic reference in Traditional Yoga texts
6. T.S. Rukmani: Patanjala Yoga Sutra
7. Sahay, G. S.: Hatha Yoga Pradeepika, MDNIY Publication, 2013
8. Kdham: Gheranda Samhita, Kaivalyadhama, Lonavla,

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

VI SEMESTER

YSc BSc E – 2: Fundamentals of Ayurveda;

3 Credits, 42hrs.

Objectives

- To understand the basic principles and concepts of Ayurveda.
- To understand the role of Ayurveda in healthy lifestyle.
- To understand the role of Ayurveda in prevention and management of disease.
- To understand Relation between Yoga and Ayurveda.

Outcome:

- Ability to understand the psycho-physiological action and benefits of Yoga according to Indian medicinal system.
- Enhanced skill in Yoga Therapy in-terms of diagnosis and treatment.
- Better idea about proper lifestyle and food habits.

UNIT I: General Introduction to Ayurveda

[10 Hrs.]

1. General introduction to Ayurveda
2. Definition, aim of Ayurveda, its origin, history and propagation.
3. Basic introduction to main Ayurvedic texts like Charaka Samhita, Sushruta Samhita and Ashtanga Samghra.
4. Ashtanga Ayurveda and its significance.
5. Concept of Health and Disease according to Ayurveda and its utility in health promotion and disease management.

UNIT II: Swasthavritta, Dinacharya, Ritucharya, Ratricharya, Sadvritta and Achararasayana

[10 Hrs.]

1. Basic principles of Ayurveda – Tridosha, Saptadhatu, Trimala, Pancha Mahabhuta, Prakruti & Manas.
2. Concept and importance of Swasthavrita, Dincharya, Ritucharya
3. Concept of Sadvrita and Achara rasayana.
4. Concept of Agni, Srotas and Ama, Concept of Dharniya and Adharniya vega in Ayurveda.
5. Introduction to Dravya, Guna, Karma, Virya, Vipaka and Prabhava.

UNIT III: Upasthambas with Special Emphasis on Ahara

[10 Hrs.]

1. Concept of diet and Upasthambha.

2. Concept of ahara, ahara pachana, Pathya & Apathya in Ayurveda
3. Introduction to Sharira poshana (nourishment)
4. Concept of Oja in Ayurveda
5. Role of Ayurvedic diet in health and disease

UNIT IV: Introduction to Panchakarma and other Methods of Ayurvedic Treatment
[12 Hrs.]

1. Introduction of Panchakarma and other modes of treatment in Ayurveda.
2. Role of Poorva and Paschat karma in Panchakarma
3. Significance of Panchakarma in Ayurveda and Shatkarma in Yoga.
4. Approach of Ayurveda and Yoga as whole.
5. Relationship of Ayurveda and Yoga.

Books for References

- Frawley, David : Yoga and Ayurveda: Self-Healing, MLBD, New Delhi, 2000.
- Sharma, R. & Dash, B. : Charak Samhita, Chowkhamba Sanskrit Series Office, Varanasi, 1988.
- Dr. Rakhee Mehra : Ayurveda Eka Parichaya, MDNIY, New Delhi.
- Frawley, David : Ayurvedic treatment for common diseases, Delhi Diary, Delhi, 1974.
- Singh, Ramharsh : Swasthvritta Vijyana, Chowkhamba Sanskrit Prakashan, 2001.
- Frawley, David : Ayurveda and the Mind, MLBD, New Delhi, 2004.
- Mishra, S.P. : Yoga and Ayurveda, Chaukhamba Prakashan, Varanasi, 1989.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

VI SEMESTER

Vocational-2: 3 Credits

Practical Teaching in Yoga Camp/ Yoga Training – Two of 10-15 days/ One of 20-30 days and reporting.

BSc Yogic Science

VI SEMESTER

INTERNSHIP: 2 Credits

Organizing Yoga Camp / Yoga Training – two of 10 to 15 days each / one of 20 to 30 days and submission of the **Report**.

Formative Assessment /IA	
Assessment Occasion	Weightage (in Marks)
Organizing the Camp / Training	15
Report	10
Total	25

BSc Yogic Science

VII SEMESTER

YSc BSc C 19: Impact of Yogic Practices on Human Body

3 Credits, 42hrs.

Objectives:

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

- To throw light on anatomy so that student can experience the involvement of their body parts while practicing various postures of Yoga

Outcome:

- Ability to compare and study the effect of Yoga on psycho-physiological status.
-

Unit - 1: Impacts of Yogic practices on the maintenance of milieu environment

1. Physiology of exercise. Types of exercise and its relation with Yoga.
2. Impacts of Yoga on control system regulation.
3. Neuro - endocrine mechanism of impacts of yogic practice on human body.
4. Role of yogic practice on the maintenance of homeostasis and internal environment
5. Psycho-physiological and environmental factors of Yama and Niyama to get optimum health impacts.

Unit - 2: ASANA, PRANAYAMA AND MEDITATION

1. Mechanism of influence of six types of asanas: stretching; pivoting; strengthening; inverted; pressing; equilibration, Reciprocal inhibition and innervation.
2. Effects of different types of asana on musculo skeletal system, cardio cardiovascular system, respiratory system and major organs of the body.
3. Psycho-physiological effects of pranayama; physiological mechanisms involved in higher levels of adaptation through pranayama.
4. Different types of meditation its impacts on central nervous system and peripheral nervous system. Different types of meditation its impacts on cardiovascular system, respiratory system, and nerve – muscle physiology.
5. Meditation its impacts on relaxation of each and every system its correlation with HPA Axis.

Unit - 3: WARM UP EXERCISE, KRIYAS, MUDRA AND BANDHAS

1. Warm up exercise and its importance to preparedness of yogic practice. Different warm-up exercise and its physiological importance.

2. Significance of salt during the practice of Kriya; Tonicity of a solution.
3. Effect of kriyas on major organs of Human body.
4. Principles behind practice of Mudras. Effects of Mudra on parts of Human body.
5. Principles behind practice of bandhas. Effects of bandhas on parts of human body

TEXT BOOKS

- Gore MM: Anatomy and Physiology of Yogic Practice, New Age Books, New Delhi.
- Sri Krishna: Notes on Structure and Functions of Human Body and Effects of Yogic Practice on it. I.C.H.Y.C., Kaivalyadhama.
- H. David Coulter: Anatomy of Hatha Yoga, A manual for students, teachers and practioners., Motilal Banarsidass Publishers Private limited, Delhi.
- A Handbook for Yogasana Teachers: The Incorporation of Neuroscience, Physiology, and Anatomy by Mel Robin, Publisher: Wheatmark; 1 edition (15 May 2009)

REFERENCE BOOKS

- Guyton and Hall: Text book of Medical Physiology
- Chaurasia, BD: Human Anatomy
- Jain AK: Text Book of Physiology (Volume I and II), Avichal publishing company
- Sembulingam K; Sembulingam P: Essentials of Physiology for Dental students.
- Bijlani R. L.:Understanding of Human Physiology, Jaypee Brothers Medical Publishers Pvt. Ltd, New Delhi, 2011
- Pal G. K & others: Textbook for practical Physiology, Orient Longman Pvt. Ltd, Hyderabad, 2007
- Jayaprakash, C.S: Sports Medicine, Jaypee brothers, New Delhi.
- Balkrishna Acharya: Yoga – Vijnanam, Divya Publication, Haridwar.
- McArdle William D, Katch I Frank, Katch Victor L. Essentials of exercise physiology. Lippincott Williams & Wilkins.
- Brown Stanley P, Miller Wayne C, Eason Jane M: Exercise Physiology Basis of Human movement in health and disease. Lippincott Williams & Wilkins.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

YSc BSc C 19P: Practical – XIII;

2Credits, 52hrs.

Study the meaning, procedure and benefits of following yogic practices with references and practice.

- 1) Vastradhauti
- 2) Shankhaprakshalana.
- 3) Mula Bandha
- 4) Uddiyana Bandha
- 5) Jalandhara Bandha
- 6) Jihva Bandha
- 7) Mahamudra
- 8) Viparitakaranimudra
- 9) Shanmukhimudra
- 10) Tadagi mudra
- 11) Kaki mudra
- 12) Mahabandha
- 13) Mahavedha
- 14) Bhunjangini
- 15) Ashwini
- 16) Yonimudra
- 17) Mandukimudra
- 18) Ujjayi Pranayama
- 19) Nadisuddhi Pranayama
- 20) Savasana - II

Reference Books:

1. Ann Swanson. (2019). *Science of Yoga: Understand the Anatomy and Physiology to Perfect your Practice*. Noida: DK England, UP 201 301, India .
2. B.K.S. Iyengar. (2005). *Light on Pranayama*. New York: Element, New York, NY 10018, United States.
3. B.K.S. Iyengar. (2006). *Light on Yoga: The Classic Guide to Yoga by the World's Foremost Authority* (6 ed.). Thorsons, London SE1 9GF, United Kingdom.
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8. Pattabhi Jois. (2010). *Yoga Mala* (2 ed.). Delhi: Picador New Delhi, Delhi 110001 India.
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10. Srivatsa Ramaswami. (2005). *The Complete Book of Vinyasa Yoga*. Massachusetts: Da Capo Press, Massachusetts, 53 State St, Boston, MA 02109, United States.
11. Swami Digambaraji. (1998). *Hathapradipika* (1998 ed.). Lonavala: Kaivalyadhama, Lonavla, Maharashtra 410403.
12. Swami Digambaraji, & Dr M L Gharote. (1997). *Gheranda Samhita*. Lonavala: Kaivalyadhama, Lonavla, Maharashtra 410403.
13. Swami Gitananda Giri. (2007). *Mudras*. (Dr Ananda Balayogi Bhavanani, Ed.) Pondichery: Meenakshi Devi Bhavanani, Satya Press, 605013 Pondichery.
14. Swami Satyananda Saraswati. (2004). *A Systematic Course in the Ancient Tantric Techniques of Yoga and Kriya* (3 ed.). Munger: Yoga Publications Trust, Munger, Bihar, 811201 India.
15. Swami Satyananda Saraswati. (2013). *Asana Pranayama Mudra Bandha*. Munger: Yoga Publications Trust, Munger, Bihar, 811201 India.
16. Swami Satyananda Saraswati. (2002). *Surya Namaskara: A Technique of Solar Vitalization* (2 ed.). Munger: Yoga Publications Trust, Munger, Bihar, 811201 India.
17. Tirumalai Krishnamacharya. (1972). *Yogasanagalu* (3 ed.). Mysore: Prasaranga, Mysore University, Karnataka 570009.

Formative Assessment /IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

VII SEMESTER

YSc BSc C 20: Introduction to Common Ailments;

3 Credits, 42hrs.

Objectives:

- To be able to understand the common ailments and its causes, pathophysiology, clinical features, diagnosis and managements.
- To give advanced information

Unit-1: Musculo-Skeletal Disorders

[08Hrs]

Introduction to Musculo-Skeletal Disorders: Meaning, Definition, Causes, Pathophysiology, Classification, Clinical Features, Diagnosis and Management of following conditions:

1. Back Pain: Lumbar Spondylosis, Intervertebral disc prolapse (IVDP) with Sciatica, Spondylitis.
2. Neck pain: Cervical Spondylosis.
3. Arthritis: Osteoarthritis, Rheumatoid Arthritis, Gout.
4. Fibromyalgia and Postural deformities such as Kyphosis, Scoliosis & Lordosis.

Unit-2: Cardio-Respiratory disorders

[09 Hrs.]

Introduction to Cardio-Respiratory Disorders: Meaning, Definition, Causes, Pathophysiology, Classification, Clinical Features, Diagnosis and Management of following conditions:

1. Bronchial Asthma & Chronic Bronchitis.
2. Sinusitis, Common cold, Allergic Rhinitis & Sleep apnoea.
3. Hypertension, Atherosclerosis / Coronary artery disease.
4. Ischemic heart disease –Myocardial Infarction.

Unit-3: Gastrointestinal-Metabolic and Excretory Disorders

[09 Hrs.]

Introduction to Gastrointestinal-Metabolic and Excretory disorder: Meaning, Definition, Causes, Pathophysiology, Classification, Clinical Features, Diagnosis and Management of following conditions:

1. Dyspepsia, Hyperacidity and Peptic Ulcers.
2. Constipation and Irritable Bowel Syndrome.
3. Thyroid Disorders and Obesity.
4. Diabetes Mellitus

Unit-4: Obstetric & Gynaecological Disorders

[08 Hrs]

Introduction to Obstetric & Gynaecological Disorders: Meaning, Definition, Causes, Pathophysiology, Classification, Clinical Features, Diagnosis and Management of following conditions:

- 4.1. Menstrual Disorder (dysmenorrhea, pre-menstrual syndrome): Menstrual pain, cramp etc.
- 4.2. Polycystic Ovarian Syndrome (PCOS/ *PCOD*)
- 4.3. Menopausal discomfort (anxiety, irritability, insomnia, hot flashes)

Unit-5: Neurological and Psychological Disorders

[08 Hrs.]

Introduction to Neurological and Psychological Disorders: Meaning, Definition, Causes, Pathophysiology, Classification, Clinical Features, Diagnosis and Management of following conditions:

1. Migraine & Headache
2. Depression & Stress.
3. Insomnia, Dementia & Attention Deficit Hyperactivity Disorders (ADHD).

TEXT BOOKS

1. Dr Robin Monro, Dr R Nagarathna and Dr H R Nagendra, Yoga for common ailments, Gaia Publishers.
2. Nagarathna R and Nagendra HR, Yoga therapy for common ailments series, SVYP publications, 2010
3. Swami Karmananda, Yoga therapy for common diseases, Yoga publication trust, Munger, 2001

REFERENCE BOOKS

1. A.K. Das (Ed.): Medicine Update. Bombay: Association of Physicians of India, 1998.
2. Aatreya, Shanti Parkash: Yoga Manovigyan, Indian Psychology, International Standard Publication, Varanasi; 1965
3. Bhavanani, A. B. (2006). Correction of Breathing Disorders through Rishiculture Ashtanga Yoga. Pondicherry, India: Dhivyananda Creations.
4. Bhavanani, A. B. (2008). Yoga for Health and Healing. Pondicherry, India: Dhivyananda Creations.
5. Bhavanani, A. B. (2008). Yoga for Health and Healing. Pondicherry, India: Dhivyananda Creations.
6. Dr Robin Monro, Dr R Nagarathna and Dr H R Nagendra, Yoga for common ailments, Gaia Publishers
7. Harrison: Principles of Internal Medicine, International Edition, 14th Edition, New York: McGraw Hill Co. Inc., 1998.

8. Khalsa, S.B., Cohen, L., McCall, T., & Telles, S (Ed.), The Principles and Practice of Yoga in Health Care (pp.17-29). East Lothian, UK: Handspring.
9. MDNIY publications:10 Booklets, Yoga Therapy Series, MDNIY Publications, New Delhi, 2009
10. Nagarathna R and Nagendra H R: Yoga for Arthritis, Back pain, Diabetes, Pregnancy Breathing Practices, Swami Vivekananda Yoga Prakasana, Bangalore, 2000
11. Nagarathna, R and Nagendra, H.R.: Integrated Approach of Yoga Therapy for Positive Health, Swami Vivekananda Yoga Prakashana, Bangalore, 2001
12. Shivananda Saraswati: Yoga Therapy (Hindi & English)
13. Swami Kunalayananda and S.L. Vanikar: Yoga Therapy: Kaivalyadhama, Lonavala, Revised Edition
14. Swami Satyananda Saraswati: Yoga and Cardio Vascular Management, Yoga Publication Trust, Munger, 2005

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

YSc BSc C 20: Practicals – XIV

2 Credits, 52hrs.

Objectives:

- Know and understand about loosening and breathing practice.
- Understand the principles and practices of teaching methods of Yoga.
- Have an in-depth understanding about session and lesson planning and class room arrangements.
- Have an idea about the different tools used in Yoga teaching.
- Understand the principles of teaching Yoga
- Understand class and lesson management
- Explain the procedure, precaution, benefits and limitations of each practice.

Hasta Mudra

Chin, Jnana, Hridaya, Bhairav, Yoni

Breathing Practices

1. Breath Awareness: Shwas-prashwas samyama
2. Sectional Breathing (Abdominal, thoracic and clavicular)
3. Yogic Deep Breathing

A. Yogic Sukshma and Sthula Vyayama

I. Yogic Sukshma Vyayama

1. Uccharana-sthala tatha Vishudha-chakra-shuddhi (for throat and voice)
2. Prarthana (Prayer)
3. Buddhi-tatha-Dhriti shakti-vikasaka (for developing will power)
4. Smarana shakti-vikasaka (for improving the memory)
5. Medha shakti-vikasaka (for improving the intellect)
6. Netra shakti-vikasaka (for the eyes)
7. Kapola shakti-varadhaka (for the cheeks)
8. Karna shakti-varadhaka (for the ears)
9. Griva shakti-vikasaka (for the Neck) (1) (A & B)
10. Griva shakti-vikasaka (for the Neck) (2) (A & B)
11. Griva shakti-vikasaka (for the Neck) (3)
12. Skandha-tatha-bahu-mula shakti-vikasaka (for the shoulders)
13. Bhuja-bandha shakti-vikasaka
 - i) Bhuja-bandha shakti-vikasaka (for the upper arms)
 - ii) Bhuja-bandha shakti-vikasaka (for the upper arms)
14. Kohani shakti-vikasaka
 - i) Kohani shakti-vikasaka (for the elbows) - (A & B)
 - ii) Kohani shakti-vikasaka (for the elbows) - (A & B)
15. Bhuja-balli shakti-vikasaka
 - i) Bhuja-balli shakti-vikasaka (for the fore-arms) - (A & B)
 - ii) Bhuja-balli shakti-vikasaka (for the fore-arms)
16. Purna-bhuja shakti-vikasaka (for the arms)
 - i) Purna-bhuja shakti-vikasaka (for the hole arm) - (First) (A to D)
 - ii) Purna-bhuja shakti-vikasaka (for the hole arm)-(Second) (E & F)
17. Mani-bandha shakti-vikasaka
 - i) Mani-bandha shakti-vikasaka (for the wrists) - (First) (A & B)

- ii) Mani-bandha shakti-vikasaka (for the wrists) - (Second) (A & B)
- 18. Kara-prstha shakti-vikasaka
 - i) Kara-prstha shakti-vikasaka (for the back of hands) - (First) (A&B)
 - ii) Kara-prstha shakti-vikasaka (for the back of hands) - (Second) (A&B)
- 19. Kara-tala shakti-vikasaka
 - i) Kara tala shakti-vikasaka (for the palms) -(First) (A&B)
 - ii) Kara-tala shakti-vikasaka (for the palms) - (Second) (A&B)
- 20. Anguli-mula shakti-vikasaka (for the root of the fingers) (A & B)
- 21. Anguli- shakti-vikasaka (for the fingers) (A & B)
- 22. Vaksha-sthala shakti-vikasaka (for the chest) (1)
- 23. Vaksha-sthala shakti-vikasaka (for the chest) (2)
- 24. Udara shakti-vikasaka (for the abdomen) (1)
- 25. Udara shakti-vikasaka (for the abdomen) (2)
- 26. Udara sakti-vikasaka (for the abdomen) (3)
- 27. Udara shakti-vikasaka (for the abdomen) (4)
- 28. Udara shakti-vikasaka (for the abdomen) (5)
- 29. Udara shakti-vikasaka (for the abdomen) (6)
- 30. Udara shakti-vikasaka (for the abdomen) (7)
- 31. Udara shakti-vikasaka (for the abdomen) (8)
- 32. Udara shakti-vikasaka (for the abdomen) (9)
- 33. Udara shakti-vikasaka (for the abdomen) (10) (A, B & C)
- 34. Kati shakti-vikasaka (for the waist) (1)
- 35. Kati shakti-vikasaka (for the waist) (2)
- 36. Kati shakti-vikasaka (for the waist) (3)
- 37. Kati shakti-vikasaka (for the waist) (4)
- 38. Kati shakti-vikasaka (for the waist) (5)
- 39. Muladhara-chakra-suddhi (for the rectum)
- 40. Upastha tatha-svadhithana-chakra-suddhi (for the genital organs)
- 41. Kundalini shakti-vikasaka (for the kundalini)
- 42. Jangha shakti-vikasaka (for the thighs) (1) (A & B)
- 43. Jangha shakti-vikasaka (for the thighs) (2) (A & B)
- 44. Janu shakti-vikasaka (for the knees)

45. Pindali shakti-vikasaka (for the calves)
46. Pada-mula shakti-vikasaka (A & B)
47. Gulpha-pada-pristha-pada-tala-shakti-vikasaka (for the ankles and the feet)
48. Padanguli shakti-vikasaka (for the toes)

II. YOGIC STHULA VYAYAMA

1. Rekha-gati (Walking in a Straight line)
2. Hrid-gati (Injanadaur – the Locomotive Exercise)
3. Utkurdana (Jumping Exercise)
4. Urdhva-gati (Upward Movement)
5. Sarvanga-pusti (Developing the Entire body)

B. Practice of Teaching Yoga

- **Principles and Methods of Teaching Yoga**

1. Teaching and Learning: Concepts and Relationship between the two;
2. Meaning and scope of Teaching methods, and factors influencing them
3. Teaching aids its meaning and need, the role of Language, Voice, Fluency, Clarity and Body Language in an ideal presentation.
4. Essentials of Good Lesson Plan: concepts, needs, planning of teaching Yoga (Shatkriya, Asana, Mudra, Pranayama & Meditation);
5. Practice of Yoga at different levels (Beginners, Advanced, School Children, Youth, Women and Special attention group)

- **Lesson Planning in Yoga and Class Management**

1. Techniques of mass instructions; Individualized teaching and group teaching.
2. Class management in Yoga: its meaning and need
3. Lecture cum demonstration in Yoga: Its meaning, importance and method of its presentation
4. Critical observation of a Yoga class/Yoga camp/Workshop
5. Models of Lesson Plan;

- **Practice of Teaching in Yoga**

Each student will have to prepare and give at least

1. Two Lecture cum Demonstration on any one topic of Yoga.
2. Two Yoga lesson for an Individual

1. Each student will have to prepare and give at least

- (i) One Yoga lesson for small Group in the class
- (ii) Two Yoga lesson for a Class on any one of the Yoga practices (Asana/Pranayama / Bandha /Mudra)
- (iii) One Yoga lesson on Yogic management of any of the life style disorder.
- (iv) One Yoga lesson for Mass

Under the supervision of their Yoga Practical Teacher. These marks shall be considered as the internal assessment marks of this practical paper.

2. Each Student shall have to prepare and to give One Yoga lesson for a small group on different Yoga practices (e.g.: Asana/Pranayama/Bandha/Mudra/Life Style Disorder) in final examination. The one practice teaching lesson will be observed / examined by the External examiner and internal examiner. These marks shall be considered as the final assessment marks of this practical paper. The duration of the class will be decided by the examiners; however, it shall be maximum 30 minutes.

BOOKS FOR REFERENCE

1. Dr. Gharote M L: Teaching methods for Yogic practices, Kaivalyadhama, Lonavala, 2007.
2. Dr. Raj Kumar: Principles & methods of Teaching, Printo graphics, Delhi
3. Saket Raman Tiwari& others: Teaching of Yoga, DPH Publishing Corporation, Delhi, 2007.
4. 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.
5. Iyengar, B.K.S.: Yoga Shastra (Vol-I & II) Ramamani Iyenger Memorial Yoga Institute, Pune YOG, Mumbai
6. Basavaraddi, I.V. & others: Yoga Teacher’s Manual for School Teachers MDNIY New Delhi.

Formative Assessment /IA	
Assessment Occasion	Weightage (in Marks)
Practical	20
Record	05
Total	25

BSc Yogic Science

VII SEMESTER

YSc BSc C 21: Yogic Management of Common Disorders

3 Credits, 42hrs.

Objectives:

- To introduce the Yogic Management of Musculo-Skeletal Disorders.
- To introduce the Yogic Management of Cardio-Respiratory disorders.
- To study Yogic Management of Gastrointestinal – Metabolic and Excretory Disorders.
- To learn about Yogic Management of Obstetric & Gynaecological Disorders.
- To know about Yogic Management of Neurological & Psychological Disorders.

Outcomes: Students are expected;

- To be able to understand the measurements- investigations to assess the effect of Yogic Management -rationale for the disease specific Yoga protocol, scientific evidence if available, practices of choice and contra-indications. Probable healing mechanisms.
- To be able to prescribe suitable diet regime.

Unit-1: Yogic Management of Musculo-Skeletal Disorders

[08Hrs]

Shat Kriya, Yogic Sukshma and Sthula Vyayama, Asana, Pranayama, Mudra, Bandha, Yoga nidra and Meditation as a form of therapy in various Musculo-Skeletal disorders like Back Pain, Neck pain, Arthritis, Fibromyalgia and Postural deformity etc and relevance of Yogic diet.

Unit-2: Yogic Management of Cardio-Respiratory disorders

[09Hrs]

Shat Kriya, Yogic Sukshma and Sthula Vyayama, Asana, Sectional Breathing Practices, Pranayama, Mudra, Yoga Nidra and Meditation as a form of therapy in various Cardio-Respiratory disorders like Hypertension, Ischemic Heart disease, Common cold, Allergic Rhinitis, Sinusitis & Sleep apnoea and relevance of Yogic diet.

Unit-3: Yogic Management of Gastrointestinal – Metabolic and Excretory Disorders

[09Hrs]

Shat Kriya, Yogic Sukshma and Sthula Vyayama, Asana, Sectional Breathing Practices, Pranayama, Mudra, Yoga nidra and Meditation as a form of therapy in various Gastrointestinal-Metabolic and Excretory Disorders like Dyspepsia (Indigestion), Hyperacidity, Peptic Ulcers, Thyroid Disorder, obesity, Constipation and Irritable Bowel Syndrome and relevance of Yogic diet.

Unit-4: Yogic Management of Obstetric & Gynaecological Disorders [08Hrs.]

Yogic Sukshma and Sthula Vyayama, Surya namaskar, Asana, Sectional Breathing Practices, Pranayama, Bandha, Mudra, Yoga nidra and Meditation as a form of therapy in

various Obstetric & Gynaecological Disorders like Menstrual Disorder (dysmenorrhea, pre-menstrual syndrome)- Menstrual pain, cramp, polycystic ovarian syndrome (PCOS/ *PCOD*), Menopausal discomfort (anxiety, irritability, insomnia, hot flashes) and relevance of Yogic diet.

Unit-5: Yogic Management of Neurological & Psychological Disorders [08Hrs.]

Yogic Sukshma and Sthula Vyayama, Surya namaskar, Asana, Sectional Breathing Practices, Pranayama, Mudra, Yoga nidra and Meditation as a form of therapy in various Neurological & Psychological Disorders like Headaches, Migraine, Dementia, Insomnia, Depression and Stress and relevance of Yogic diet.

TEXT BOOKS

1. Bhavanani, A.B. (2013). *Yoga Chikitsa: Application of Yoga as a therapy*. Pondicherry, India: Dhivyananda Creations.
2. Dr Robin Monro, Dr R Nagarathna and Dr H R Nagendra, *Yoga for common ailments*, Gaia Publishers
3. Nagarathna R and Nagendra HR, *Yoga therapy for common ailments series*, SVYP publications, 2010
4. Swami Karmananda, *Yoga therapy for common diseases*, Yoga publication trust, Munger, 2001

REFERENCE BOOKS

1. A.K. Das (Ed.): *Medicine Update*. Bombay: Association of Physicians of India, 1998.
2. Aatreya, Shanti Parkash: *Yoga Manovigyan, Indian Psychology*, International Standard Publication, Varanasi; 1965
3. Abhedananda: *The Yoga Psychology Ramakrishna Vedanta*, Math, Calcutta, 1973.
4. Charu, Supriya: *Sarir Rachanaevam Kriya Vigyan*
5. Bhavanani, A. B. (2008). *Yoga for Health and Healing*. Pondicherry, India: Dhivyananda Creations.
6. Dr Robin Monro, Dr R Nagarathna and Dr H. R. Nagendra, *Yoga for common ailments*, Gaia Publishers
7. Harrison: *Principles of Internal Medicine, International Edition, 14th Edition*, New York: McGraw Hill Co. Inc., 1998.
8. MDNIY publications: 10 Booklets, *Yoga Therapy Series*, MDNIY Publications, New Delhi, 2009
9. Nagarathna R and Nagendra H R: *Yoga for Arthritis, Back pain, Diabetes, Pregnancy Breathing Practices*, Swami Vivekananda Yoga Prakasana, Bangalore, 2000

10. Rai, Lajpat: Discovering Human Potential energy: A Physiological Approach to Yoga (Anubhava Rai Publications, 1998)
11. Ramesh Bijlani: Back to Health through Yoga, Rupa Publications India Pvt. Ltd, 2011
12. Swami Kuvalayananda and S. L. Vanikar: Yoga Therapy: Kaivalyadhama, Lonavala, Revised Edition
13. [Swami SaraswatiShankardevananda](#): Yoga on Hypertension, Yoga publication trust, Munger.
14. [Swami SaraswatiShankardevananda](#): Yogic Management of Asthma and Diabetes, Yoga publication trust, Munger.
15. Swami Satyananda Saraswati: Yoga and Cardio Vascular Management, Yoga Publication Trust, Munger, 2005
16. [Swami Shankardevananda](#): Practices of Yoga for the Digestive System, Yoga publication trust, Munger.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

VII SEMESTER

YSc BSc E - 3: Fundamentals of Counselling;

3 Credits, 42hrs.

Objectives and outcome:

- To develop a general understanding towards abnormal behaviour and disease process through various models of health psychology
- To understand causes of pathological behaviour and psych-diagnostic assessment.
- To develop skill for diagnosis and classification of mental disorders.

Unit-1: Counselling Skills

[22 Hrs.]

1. Rapport Establishing Skills
2. Relationship Skills
3. Conversational Skills
4. Mind Skills – Perception, Self-talk, Visual Images, Explanation, Decision Making
5. Managing Resistance Skills
6. Skills for understanding body movements (Body Language)
7. Listening Skills
8. Feedback Skills
9. Empathy Skills
10. Conflict Resolving Skills
11. Problem Solving Skills
12. Oral Persuasion Skills
13. Skills for understanding and managing feelings of the client

Unit-2: Counselling Techniques

[20 Hrs.]

1. Behaviour Modification Techniques - Skinner
2. Conditioned Reflex Therapy – Pavlov
3. Gestalt Therapy
4. Family Therapy
5. Couple Therapy
6. Rational Emotive Behaviour Therapy
7. Transactional Analysis
8. Assertive Training
9. Dream Interpretation
10. Anger Management
11. Neuro-linguistic Programme

12. Art of Positive Thinking

TEXT BOOKS

1. Hersen, M., Kazdin, A. E., & Bellack, A. S. (1991) The Clinical Psychology Handbook Pergamon. New York

REFERENCE BOOKS:

1. Sweet, J. J., Rozensky, A. & Tavian, S. M. (1991) Handbook of Clinical Psychology in Clinical Practice. New York: Plenum.
2. Walker, C. E. (2001) Handbook of Child Clinical Psychology. New York: John Wiley & Sons.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

VII SEMESTER

Vocational-3: 3 Credits

Practical Teaching in Yoga Camp/ Yoga Training – Two of 10-15 days/ One of 20-30 days and reporting.

BSc Yogic Science

VII SEMESTER

YSc BSc RM: Research Methodology

3 Credits, 42hrs.

Learning Objectives:

To make the students to understand:

- Research process.
- Different research designs.
- Research studies in Yoga.
- Use of statistics in research.

Learning Outcome:

The student will be able to:

- Describe the research process to conduct studies in Yogic sciences.
- Describe the processing operations.
- Describe and use the selected statistical tests for research in Yogic science. Describe and use appropriately the procedure for publications.

I Introduction

14hrs

- 1) Meaning, types of research - Descriptive, Applied, Quantitative, Conceptual and Psychological research; Scientific research.
- 2) Research process – Steps involved, Criteria of good research.
- 3) Methods of data collection.
- 4) Meaning and Necessity of a research problem; Techniques of defining a research problem.

II Research Design and Sampling

14hrs

- 1) Meaning and purpose of research design, Features of a good design.
- 2) Research design in exploratory, descriptive & diagnostic research studies, Basic principles of experimental designs
- 3) Sampling – Steps in sampling, Characteristics of a good sample design;
- 4) Different types of Non probability and Probability sample designs

III Hypothesis, Variables and Research Analysis

14hrs

- 1) Hypothesis-Meaning, Null and alternative hypothesis, Characteristics of a good hypothesis; Procedure for Hypothesis Testing.
- 2) Meaning and concept of variables, Types of variables; Importance of Experimental and control group.

- 3) Processing operations, Types of analysis.
- 4) Statistics in Research; t-test, Chi – Square test, F – test, ANOVA.

Reference Books:

- 1.Kothari, C.R. (2019) Research Methodology -Methods & Techniques, New Age International Publishers; Fourth edition. New Delhi 110002, (INDIA).
- 2.Goode, W.I. (1952). Method in Social Research, New York: McGraw-Hill
- 3.Kerlinger, F.N. (1986). Foundation of Behavioural research, Prism Books, Bangalore 560070.
- 4.Mohisin. Research Methods in Behavioural Sciences, S.M. Orient Longman Limited, New Delhi.
- 5.Nachmias D (1981). Research Method in Social Sciences, Nachmias St. Martins Press, New York.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

VIII SEMESTER

YSc BSc C 22: Sankhyayoga and Shivayoga

3 Credits, 42hrs.

Objectives:

- To introduce the fundamental principle behind Yoga Shastra and its evolutionary entities.
- To introduce important classical text of Hathayoga.
- To study different traditions of the School of Hathayoga.

Outcome:

- Understanding of 25 tattva theory of evolution of this universe.
- Ability to compare and study the two Darshanas; Sankhya and Yoga.
- Knowledge of antarangayoga in Shivayogadeepika.

I Sankhyayoga 14 Hrs

- 1) Sankhyayoga – Introduction, 3-fold afflictions, means to overcome afflictions.
- 2) 25 entities according to Sankhya, means of knowledge, Satkaryavada, similarities and dissimilarities of vyakta and avyakta, Triguna, Subtle body.
- 3) Evolution theory of Yoga.
- 4) Isvara, Citta, Buddhi & Manas in Yoga.

II Methods of Samadhi Practice in Siva yoga -I 14 Hrs

1. Shivayogadipika – Introduction, Classification of yoga, Classification of Rajayoga.
- 2) Comparison between Rajayoga and Shivayoga.
- 3) Evolution theory, two types of Shivajnana, Qualities of a teacher, Shivaswarupa.
- 4) Importance of physical health, Hatha yoga a means to attain physical health, Bahya yoga, Antaranga yoga, Yama, Niyama, Asana.

III Methods of Samadhi Practice in Siva yoga -II 14 Hrs

- 1) Place of practice of Hathayoga, Pranayama, Prakrtayoga, Vaikrtayoga, Kevalakumbhaka, Amana yoga, Ajapagayathri.
- 2) Nadi, Pranava, Bandha, Duration of Pranayama, and Meditation. Antarangayoga – Pratyahara, object for Meditation, Posture, Chakra, Adhara, means to control Citta.
- 3) Dharana, Duration and Objects of Dharana, Samadhi and definition, Conducive for Samadhi.
- 4) Benefits of Astangayoga – Hathayoga – Layayoga – Mantrayoga.

Reference Books

1. Chandradhar Sharma. (2016). A Critical Survey of Indian Philosophy (14 ed.). Delhi:

Motilal Banarsidass110007 Jawahar Nagar, Delhi.

2. Isvara Krishna. (1995). Samkhya Karika. (Swami Virupakshananda, Ed.) Kolkatta: Advaita Ashrama Kolkata, West Bengal 700014.
3. Isvara Krishna. (2007). Sankhya Karika and The Bhashya; Or Commentary of Gaudapada. Montana: Kessinger Pub CoMontana, 59937, United States.
4. Swami Vivekananda. (1982). Raja Yoga. Culcutta: Advaita Ashrama Delhi Entally Road Culcatta 700014.
5. Sadasiva Brahmendra Saraswathi. (1978). Shiva Yoga Deepika. Pondichery:Anand Ashram Series, 605104,, Chinna Mudaliyar ChavadyPondichery.
6. Swami Adidevananda. (2014). ಪಾತಂಜಲಯೋಗದರ್ಶನ: Patanjali Yoga Darshan (Kannada).Mysore:Shri Ramkrishna Ashram Mysore, Karnataka 570002.
7. Swami Digambaraji. (1998). Hathapradipika (1998 ed.). Lonavala: Kaivalyadhama Lonavla, Maharashtra 410403.
8. Swami Digambarji, & Dr M L Gharote. (1997). Gheranda Samhita.Lonavala: Kaivalyadhama Lonavla, Maharashtra 410403.
9. Swami Muktibodhananda. (1998). Hathayogapradipika (4 ed.). Munger: Bihar School Of Yoga,Bihar 811201 India.
10. Swami Niranjanananda Saraswati. (2012). Gheranda Samhita (1 ed.). Munger: Bihar School of Yoga, Bihar 811201 India.
11. Swami Niranjanananda Saraswati. (2002). Yoga Darshan.Munger: Yoga Pubns Trust Bihar 811201 India.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

VIII SEMESTER

YSc BSc C 23: Yoga and Human Consciousness

3 Credits, 42hrs.

Objectives

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

- Understand the nature of Consciousness and Spirituality and its role in Yoga Practice.

Outcomes:

- Knowledge of relation of consciousness with Yoga.
- Ability to compare and study Human Consciousness in Indian and Western Perspective.
- Orientation towards advancement in Yoga sadhana or spirituality.

UNIT - I: Introduction To Consciousness

[10 Hrs.]

- 1) Meaning & Definition of Consciousness.
- 2) Mind, body & Consciousness
- 3) Nature and scope of Human Consciousness
- 4) Crisis of Human Consciousness
- 5) Need of evolution of Human Consciousness.

UNIT - II: Human Consciousness in Indian and Western Perspective

[12 Hrs.]

- 1) Human Consciousness in *Vedic literature (Isha, Kena & Mandukya Upanishad)*
- 2) Human Consciousness in *Upanishads, Sankhya* and Yoga
- 3) Human Consciousness in *Advaita Vedanta and Tantra*
- 4) Consciousness and Human Consciousness in Biology, Psychology
- 5) Western Psychological views of Human Consciousness, States of consciousness: conscious, subconscious and unconscious

UNIT – III: Yoga and Spirituality

[10 Hrs.]

- 1) Spirituality & its meaning and its relevance in day-to-day life
- 2) Relationship between Yoga and Spirituality
- 3) Role of Moral values in the development of Spirituality
- 4) Yoga spirituality and Yoga Sadhana
- 5) Spirituality and Health

UNIT – IV: Yoga and Human Consciousness

[10 Hrs.]

- 4.1 Factors affecting the Human Consciousness.

4.2 Seven states of Human Consciousness.

4.3 The Yogic way of evolution of Human Consciousness.

4.4 Role of Spirituality in Human Consciousness.

4.5 Methods of evolution of Human Consciousness according to *Maharshi Aurobindo*.

BOOKS FOR REFERENCE

1. Basavaraddi, I.V.: Yoga Teacher's Manual for School Teachers. New Delhi: Morarji Desai National Institute of Yoga, 2010
2. Morgan, C. T., King, R.A., Weisz J. R. & Schopler J.: Introduction to Psychology. New Delhi: Tata McGraw Hill Publishing Co. Ltd, 2006
3. Passer, M.W. & Smith, R.E.: Psychology: The Science of Mind and Behaviour. New Delhi: Tata McGraw-Hill, 2010
4. Singh, A. K.: Saral Samanya Manovijnana. Delhi: Motilal Banarasidas Publications, 2007
5. Srivastava, D.N.: General Psychology. Agra: Vinod Pustak Mandir, 2007
6. A Study in Consciousness - Annie Besant
7. Ayurveda and Mind - Dr. David Frawley
8. Seven States of Consciousness - Anthony Campbell

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

VIII SEMESTER

YSc BSc C 24: Upanishad and Human Consciousness; 3 Credits, 42hrs

Learning Objectives:

- To know the basics of Aupanishadic Yoga.
- To know the yogic methods in Upanishads.
- Understanding Karma theory in Upanishads.

Learning Outcome:

After the completion of course the student will be able to understand-

- Aupanishadic Yoga and its application in Yoga practice.
- Yogic concepts in the selected Upanishads and their practical usage.
- Describe and to apply the discriminative knowledge in the Upanishads.

Unit I Introduction to Upanishads

14hrs

1. Definition of Upanishad, Introduction of Aupanishadic literature.
2. Importance of Upanishad
3. Aupanishadic theory of Advaita, dvaita and Trait.

Unit II Karma

14hrs

1. Karma types of Karma, Karmaliptata, Karmatyaga –Karmavipaka, Purushartha chatushtya.
2. Vidya – Avidya and Shambhuti – Vinasha; Indriya (sense organs), Five Jnanedriya and five Karmendriya, Concept of manas.
3. Relation between senses and Consciousness, Vishayas – Shabda, Sparsha, Roopa, Rasa and Gandha.

Unit III Nachiketopakhyana

14hrs

1. Nachiketopakhyana, Definition of Mrityu (death), Death and Consciousness, Death and human body.
2. Temptating power of Vishayas, Immortality of the soul, Shreyas – Preyas and Swarga – Naraka.
3. Nature of Consciousness, what is knowledge of soul, means of knowledge of soul, knowledge and logic, liberation: as the result of Jnana, definition of libration, Rta and Satya.

Reference Books:

1. Radhakrishnan S., The Principal Upanishads, Motilal Banarsidas, New Delhi.

2. Ranganathananda Swami, Message of Upanishads, Published by Bharatiya Vidhya Bhavan, Bombay.
3. Pathak N Bhawesh, Dashopanishad, Chowkamba Varanasi.
4. RadhakrishnanS., Dashopanishads with English translations, Motilal Banarsidas, New Delhi.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

VIII SEMESTER

YSc BSc E - 4: Yoga Protocols for Special Targeted group

3 Credits, 42hrs

Objectives:

- To develop the skill to prepare Yoga protocol for different age groups.
- To develop the skill to prepare Yoga protocol for Women's health.
- To develop the skill to prepare Yoga protocol for geriatric health.

Outcomes:

After the completion of the program, the students should be able to

- Understand the physiological changes and abnormalities in different age groups.
- Provide Yoga therapy modules for different age groups according to their need.
- Upskilled to become a Yoga therapist.

Unit-1: Yoga protocol for different age groups

[14 Hrs.]

- 1) Analysis the physical, physiological and psychological changes in different age groups (children, adolescent, youth).
- 2) Impact of Yoga practices on different age groups.
- 3) To prepare the Yoga practice modules/ schedules for different age groups (children, adolescent, youth).

Unit-2: Yoga protocol for Women's health

[14 Hrs.]

- 1) Stages of women's life: Menarche (puberty), Pregnancy and Menopause
- 2) Impact of Yoga practices on Menarche (puberty), Pregnancy and Menopause
- 3) To prepare the Yoga practice modules/ schedules for women's health: Menarche (adolescent girl), Pregnant (1, 2& 3 trimesters) and Menopause.

Unit-3: Yoga protocol for geriatric health

[14 Hrs.]

- 1) Brief introduction to old age
- 2) Common facing problems in old age– physical, physiological and psychological problems.
- 3) To prepare the Yoga practice modules/ schedules for geriatric health.

TEXT BOOKS:

1. [Anand Gupta](#): Yoga for Anti-aging: Secret to a Younger and Healthier Looking You: Volume 4 (Yoga for Everybody) Paperback – Import, 5 Jul 2016

2. [Swami Muktananda](#): Nawa Yogini Tantra: Yoga for Women Paperback – January 1, 2003
3. [Geeta S. Iyengar](#): Yoga: A Gem for Women Paperback – 15 Mar 1983
4. [Swami Niranjanananda Saraswati](#): Yoga Education for Children (Volume - II) Paperback – Illustrated, Yoga publication trust, Munger. 2014
5. [Satyananda Saraswati](#): Yoga Education for Children Paperback, Yoga publication trust, Munger. 1999,

REFERENCE BOOKS:

1. Bhavanani, A.B. (2008). Yoga For Health and Healing. Pondicherry, India: Dhivyananda Creations.
2. [Bobby Clennell](#): The Woman's Yoga Book: Asana and Pranayama for all Phases of the Menstrual Cycle Paperback – May 4, 2010
3. Integrated approach of Yoga therapy for positive health-R Nagaratha, HR Nagendra
4. [Jill Petigara](#) & [Lynn Jensen](#): Yoga and Fertility: A Journey to Health and Healing Paperback – 30 Jan 2013
5. Khalsa,S.B., Cohen,L., McCall, T., & Telles, S (Ed.), The Principles and Practice of Yoga in Health Care (pp.17-29). East Lothian, UK: Handspring.
6. Kimberly Carson and [Carol Krucoff](#): Relax into Yoga for Seniors: A Six-Week Program for Strength, Balance, Flexibility, and Pain Relief Paperback – November 1, 2016
7. [Linda Sparrowe](#): Yoga for a Healthy Menstrual Cycle Paperback – Import, 18 May 2004
8. [Lisa Flynn](#): Yoga for Children: 200+ Yoga Poses, Breathing Exercises, and Meditations for Healthier, Happier, More Resilient Children Paperback – 18 May 2013
9. [O P Sharma](#): Geriatric Care Hardcover – 1 Jan 2008
10. [Rachel carr](#): Yoga for all ages Hardcover – 26 Jun 1972
11. Ramanathan, M. (2007). Applied Yoga-Application of Yoga in Various Fields of human Activity. Puducherry: Aarogya Yogalayam.
12. [Swati Chanchani](#) and [Rajiv Chanchani](#)Yoga for Children: a Complete Illustrated Guide to Yoga, Including a Manual for Parents and Teachers Paperback – 31 Jan 1997.

Formative Assessment/ IA			
Assessment Occasion	C 1 (in Marks)	C 2 (in Marks)	Total Marks
Class Test (Two Class Tests)	10	10	20
Seminar/ Class Work	10	-	10
Assignment/ Open Discussion	-	10	10
Total	20	20	40

BSc Yogic Science

VIII SEMESTER

Vocational-4: 3 Credits

Practical Teaching in Yoga Camp/ Yoga Training – Two of 10-15 days/ One of 20-30 days and reporting.

BSc Yogic Science

VIII SEMESTER

RESEARCH PROJECT: 6 Credits

Formative Assessment /IA	
Assessment Occasion	Weightage (in Marks)
Writing	25
Synopsis	15
Execution of the Project	25
Viva voce	15
Total	80

Question Paper pattern for the Theory Exams

Time: 3 Hours

Max Marks: 60

I. Answer the following questions **in one word / one sentence** each. 1X10=10

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

II. Write short notes to **ANY SIX** of the following questions. 5X6=30

- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.

III. Explain **ANY TWO** of the following questions. 10X2=20

- 19.
- 20.
- 21.
- 22.
