

ACADEMIC CURRICULUM

for

B.Sc (Yoga Therapy)

Division of Yoga and Life Science	Category	Credits	Total Hours	L	T	P	F
Semester- I							
Sanskritam – 1	IC	3	60	15	15	30	0
English – 1	IC	3	60	15	15	30	0
Foundations of Yoga	IC	3	60	15	15	30	0
Introduction to Hath Yoga and it's texts	IC	3	60	15	15	30	0
Human Anatomy and Physiology-I	DC	3	60	15	15	30	0
Human Anatomy and Physiology Practicum-I	DC	3	60	15	15	30	0
Yoga Practicum-I	DC	2	45	0	15	30	0
Yoga Practicum - II (Bhajan + KY)	IC	2	45	0	15	30	0
Total		22	450	90	120	240	0
Semester- II							
Sanskritam – 2	IC	3	60	15	15	30	0
Environmental Studies	IE	3	60	15	15	30	0
Essence of Principal Upanishads	IC	3	60	15	15	30	0
Patanjala Yoga Darshana	IC	3	60	15	15	30	0
Human Anatomy & Physiology-II	DC	3	60	15	15	30	0
Kriya & Pranayama	DC	3	60	15	15	30	0
Human Anatomy and Physiology Practicum-II	DC	2	45	0	15	30	0
Yoga Practicum-III	DC	2	45	0	15	30	0
Total		22	450	90	120	240	0
Semester- III							
Generic Elective	IE	3	60	15	15	30	0
Life and Message of Ancient Yoga Masters	IC	3	60	15	15	30	0
Essence of Bhagavad Gita for Personality Development	IC	3	60	15	15	30	0
Yoga therapy for common ailments-1	DC	3	60	15	15	30	0
Methods of Teaching Yoga	IC	3	60	15	15	30	0
Advanced Techniques	DC	3	60	15	15	30	0
Advance Asana	DC	2	45	0	15	30	0
Yoga Practicum-V Teaching practice (Village Teaching)	DC	2	45	0	15	30	0
Total		22	450	90	120	240	0

Semester- IV							
Generic Elective	IE	3	60	15	15	30	0
Introduction to AYUSH	IC	3	60	15	15	30	0
Yoga therapy for common ailments-2	DC	3	60	15	15	30	0
Basis of Yoga Therapy	DC	3	60	15	15	30	0
Fundamentals of Biochemistry	DC	3	60	15	15	30	0
Special Techniques	DC	3	60	15	15	30	0
Biochemistry Lab	DC	2	45	0	15	30	0
Training in PDC	IC	2	45	0	15	30	0
Total		22	450	90	120	240	0
Semester- V							
Generic Elective	IE	3	60	15	15	30	0
Basis of Indian Culture	IC	3	60	15	15	30	0
Yoga and Human Consciousness	DC	3	60	15	15	30	0
Four Streams of Yoga	IC	3	60	15	15	30	0
Psychology Practicum	DC	3	60	15	15	30	0
Yoga Practicum 9 – Case Study	DC	3	60	15	15	30	0
Educational Tour	DC	2	45	0	15	30	0
Discipline Specific Elective	DE	2	45	0	15	30	0
Total		22	450	90	120	240	0
Semester- VI							
Generic Elective	DE	3	60	15	15	30	0
Yoga and Human Values	IC	3	60	15	15	30	0
Applied Yoga	DC	3	60	15	15	30	0
Research Methodology & Statistics	IC	3	60	15	15	30	0
Practical Statistics	DC	3	60	15	15	30	0
Research Project	PW	3	60	15	15	30	0
Yoga Practicum 10 – Case Study Reports	DC	2	45	0	15	30	0
Discipline Specific Elective	DE	2	45	0	15	30	0
Total		22	450	90	120	240	0

Semester I

Subject Code : BSCYT-TGC 101

Subject Name: Samskritam – 1

Objectives:

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Learning outcome

- Basic structure of Samskritam sentences
- Conversation in Samskritam
- Read and write Devanagari script

Unit 1: Basics of Samskritam

- Origin of language
- Uniqueness of Samskritam
- Samskrita Varnamala – Svaras, Vyanjanas and Ayogavaha (Utpatti Sthana and Prayatna)
- Transliteration rules
- Intro Parts of speech in Samskritam – Karaka, Linga, Vibhakti, Vachana

Unit 2: Speaking skills

- Samskrita Sambhashana Shibira of Samskrita Bharati
 - Daily Greetings
 - Numbers till 100
 - Identifying time in Samskritam
 - Framing basic sentences

Unit 3: Basic grammar lessons

- Introduction to Sandhi – Svara, Vyanjana and Ayogavahas
- Introduction to Samasa – 4 types of Samasas
- Introduction to Karaka – 6 Karakas

Unit 4: Memorization of selected verses and declensions of common (selected) words 10 Hrs

- 20 selected Subhashitas verses
- 35 Subanta Rupas and 10 Dhatus

Subject Code: BSCYT-TGC 102

Subject Name: Communicative English

Objectives:

Following are the objectives of introducing this course. To acquire the skills of English language to communicate with others effectively. To apply the value of English in diverse fields.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit- I GRAMMAR

1. Parts of Speech
 - a) Nouns
 - b) Pronouns
 - c) Verbs
 - d) Adverbs
 - e) Adjectives
 - f) Prepositions
 - g) Conjunctions
 - h) Interjections
2. Auxiliary verbs
3. Subject verb concord
4. Model auxiliary verbs
5. Conjugation of verbs
6. 12 tense forms
7. Active voice – passive voice
8. Direct – indirect speech
9. Question tags
10. Error identification
11. Jumbled segments

Unit- II

A. LISTENING SKILLS

- a) Developing listening skill
- b) Testing the ability of the listening skill

B. SPEAKING SKILLS

- a) Developing speaking skill
- b) Testing the ability of the speaking skill

Unit- III

A. READING SKILLS

- a) Passages for comprehension
- b) Reading the passages and answering the questions set on them

B. WRITING SKILLS

- a) Paragraph writing / expansion
- b) Summarizing
- c) Letter writing (formal & informal)

Unit- IV PRONUNCIATION

- a) Phonetic symbols for consonants and vowels.

REFERENCE BOOKS

1. Tickoo, M. L.: Teaching and Learning English. Orient Longman
2. Murphy's English grammar by Raymond Murphy, Cambridge University press.
3. English Grammar just for you by Rajeevan Karal, Oxford University press.
4. Phonetics and Spoken English by Central Institute of English and Foreign languages, Hyderabad.

Subject Code: BSCYT-TDS 103

Subject Name: Foundations of Yoga

Course 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.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit-1: General introduction to yoga

Brief about origin of Yoga: Psychological aspects and Mythological concepts; History and Development of Yoga: prior to the Vedic period, Vedic period, Medieval period, modern era; Etymology and Definitions of Yoga, Aim and Objectives of Yoga, Misconceptions of Yoga; Brief about Streams of Yoga; Principles of Yoga, Importance of Yoga

Unit - 2: General introduction to Indian philosophy

Philosophy: meaning, definitions and scope; Indian Philosophy: Salient features, Branches (Astika and Nastika Darshanas), Distinction from Religion and Science, Brief introduction to Prasthanatrayee and Purushartha Chatushtaya; Relationship between Yoga and Indian Philosophy

Unit - 3: Brief about Yoga in texts – I

Brief to Upanishads and Yoga in Principal Upanishads, Yoga in Yogopanishad; Yogic perspective of Epics: Ramayana, Adhyatma Ramayana and Mahabharata; Yogic perspective: Bhagavad Gita, Yoga Vasishtha, Narada Bhakti Sutras

Unit-4: Brief about Yoga in texts – II

Yogic perspective: Smritis, Puranas with emphasis to Bhagavat Purana; Yogic perspective to Shad-darshanas; Emphasis to Vedantic approach of Shankara, Ramanuja, Madhva and Vallabha; Brief: Agamas, Tantras, Shaiva Siddhanta

TEXT BOOKS

1. Lal Basant Kumar : Contemporary Indian Philosophy, Motilal Banarsidas Publishers Pvt. Ltd, Delhi, 2013
2. Dasgupta S. N : History of Indian Philosophy, Motilal Banarsidas, Delhi, 2012
3. Singh S. P : History of Yoga, PHISPC, Centre for Studies in Civilization Ist, 2010
4. Singh S. P & Yogi Mukesh : Foundation of Yoga, Standard Publication, New Delhi, 2010

BOOKS FOR REFERENCE

1. Agarwal M M : Six systems of Indian Philosophy, Chowkhambha Vidya Bhawan, varanai, 2010
1. Swami Bhuteshananda : Nararad Bhakti Sutra, Advaita Ashrama Publication-Dept. Kolkata, II Edition, 2009
2. Hiriyanma M : Outlines of Indian Philosophy, Motilal Banarsidas, Delhi, 2009
3. Hiriyanma M: Essentials of Indian Philosophy, Motilal Banarsidas, Delhi, 2008
4. Radhakrishnan S: Indian Philosophy, Oxford University, UK (Vol. I & II) II Edition, 2008
5. Max Muller K. M : The six system of Indian Philosophy, Chukhambha, Sanskrit series, Varanasi, 6th Edition, 2008

Subject Code: BSCYT-TDS 104

Subject Name: Introduction to Hath Yoga and it's texts

Objectives:

By introducing hatha Yoga & its eexts, students shall be able to Have an understanding about pre-requisites, principles about Hatha yoga. Understand the relationship between Patanjala and Raja yoga. Have an understanding about the concept of yoga in other yogic texts.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit - I: General introduction to Hatha yoga

Hatha Yoga: Origin, Meaning, Definition, Aim, Objectives and Misconceptions, Philosophy and Foundations; Hatha Yoga Parampara, Natha Cult Hatha Yogis and their contribution; Ghatashudhi: its importance and relevance in Hatha Yoga sadhana; Inter-relation of Hatha Yoga and Raja Yoga

Unit - 2: Pre-requisites

Badhaka Tattva (Obstacles) and Sadhaka Tattva (Facilitatory factors) in Hatha Yoga; Concepts of Matha, Concept of Mitahara, Pathya (conducive) and Apathya (non-conducive), Types of

aspirants; Dasha Yama and Niyama and its relevance in Hatha Yoga Sadhana; Swara,

Importance of Svarodaya-jnana in Hatha Yoga Sadhana; Hatha Siddhi Lakshanam

Unit - 3: Principles and Introduction to Hatha Yoga texts

Concept of Swas-prashwas, Vayu, Prana and Upaprana; Concept of Kand, Nadi, Swar, Chakra and Granthi; Kundalini prabodhan, Unmani avastha, Nadanusandhan; Concept of Samadhi; **Introduction to hatha yoga texts:** Brief: Hatha Yogic Texts, their nature and objectives; Siddhasiddhantapaddhati, Goraksha Samhita, and Shiva Samhita; Brief: Hatha Yoga Pradeepika, Gheranda Samhita, Hatha Rathnavali

Unit-4: Relationship between Patanjala Yoga and Hatha Yoga

Jnana Yoga: Meaning of Jnana and Jnana-Yoga, Sadhana-chatushtaya, Means of Jñāna-Yoga; Bhakti Yoga: Meaning of Bhakti and Bhakti-Yoga, Stages of Bhakti, Types of Bhakti, Means of Bhakti-Yoga; Karma Yoga: Meaning of Karma and Karma-Yoga, Concept of Nishkama Karma, Means of Karma Yoga; Inter-relationship between Bhakti-Yoga and Karma-Yoga, Theory of Karma and Rebirth (Reincarnation); Patanjala Yoga: Philosophical Foundations of Patanjala Yoga, Ashtanga Yoga of Patanjali, Relevance of Patanjala Yoga in day-to-day life; Hatha Yoga: Philosophical Foundations of Hatha Yoga, Hatha Yoga Sadhana, Chaduranga Yoga and Saptanga Yoga, Relevance of Hatha Yoga in day-to-day life; Inter Relationship between Patanjala Yoga and Hatha Yoga and their inter-dependance; Kundalini Yoga: Philosophical Foundations and Practices of Kundalini Yoga

TEXT BOOKS

Swami Muktibodhananda Saraswati Sahay G.S.: Hatha Yoga Pradeepika, Bihar school of yoga publications, Munger, 2000

HathaYoga Pradeepika of Svatmarama, MDNIY Publication, 2013

Sharma BR: Jotsna (Comentory of HathaYoga Pradeepika) Kaivalyadhama, Lonavala, 2013

BOOKS FOR REFERENCE

Gharote, M.M. & others: Therapeutic references in Traditional Yoga Texts, the Lonavla Institute, Lonavla, 2010.

Gharote ML: Hatharatnavali, The Lonavala Yoha Institute, Lonavala, Pune, IInd Edition, 2009

Briggs GW: Gorakhnatha and the Kanphata Yogis, 8th Edition, 2009

Swami Kuvalyananda & Shukla, S.A.: Gorakshasatkam, Kaivalyadhama, Lonavla, 2006

Gharote M.L. & Pai, G.K. (Edi): Siddhasidhantpaddhati, Kaivalyadhama, Lonavla, 2005

Burley, Mikel: Hatha Yoga, Its Context Theory and Practice, M.L.B.D. Delhi, 2000.

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, Hatha Ratnavali

Subject Code: BSCYT-TDS 105

Subject Name: Human Anatomy and Physiology-I

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

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit-1: Cell, Tissue and Muscular – Skeletal system

Cell structure –Plasma membrane and protoplasm; Cell organelles –Mitochondria, Golgi body, Endoplasmic reticulum, Lysosome, Peroxisome, Centrosome, Nucleus-Nuclear membrane, chromosome, nucleolus; Homeostasis; Structure and function of epithelial -simple and compound; Connective -connective tissue proper, skeletal and vascular; Muscular - Skeletal, involuntary and cardiac; Nervous tissues-Myelinated neuron and Non myelinated neuron; Anatomy of the Skeleton: Classification of bones-Axial bones and appendicular bones; Types of joint –Synovial joints and Fibrous joint; Structure of synovial joints ; Types of synovial joints; Types of Muscle in the body(striated, Smooth muscle, Cardiac muscle); Mechanism of muscle contraction

Unit-2: Biomolecules, Digestive and Respiratory system

Carbohydrates; Fats; Proteins; Minerals; Vitamins (fat soluble and water soluble); Dietary fibres Balanced diet; **Digestive system:** Digestive system of human-Mouth, buccal cavity, Pharynx, oesophagus, stomach, large intestine, small intestine, anus, associated glands-Liver, Pancreas, salivary glands, physiology of digestion and absorption; Malnutrition and under

nutrition; Respiratory system of human-Nose, nasal cavity, pharynx, Trachea, Larynx, bronchiole, lungs; Mechanism of breathing (Expiration and inspiration); Transport of respiratory gases (transport of oxygen and transport of carbon dioxide); Common respiratory disorder

Unit-3: Cardiovascular system

Composition and function of blood –Plasma, RBC, WBC and Platelet; Blood groups and their importance; Blood clotting; Structure and working mechanism of heart; Organisation of systemic and pulmonary circulation; Cardiac output and cardiac cycle; Functional anatomy of blood ; vessels; Blood pressure and regulation of blood pressure

TEXT BOOKS

Tortora and Bryan: Anatomy and Physiology

Khurana: Anatomy and Physiology

REFERENCE BOOKS:

Gore M. M. (2003). Anatomy and Physiology of Yogic practices.
KanchanPrakashan, Lonavla, India

LanPeate and MuralidharanNayar – Fundamental of Anatomy and Physiology for
students nurses

Evelyn, C. Pearce- Anatomy and Physiology for Nurses

Subject Code: BSCYT-PDS 106

Subject Name: Human Anatomy and Physiology Practicum –I

Objectives:

The objectives behind teaching Anatomy and Physiology is to

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

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

Unit-1: Demonstration of Osteology & Myology

Unit-2: Demonstration of Organs and Viscera

Unit-3: Demonstration of Bones, Joints

Unit-4: Demonstration of Human Skeleton

Subject Code: BSCYT-PDS 107

Subject Name: Yoga Practicum-I

Objectives:

Following the completion of this course, students shall be able to Make the students recite the Vedic hymns skillfully. Understand the concept and principles of Shatkarmas. Know and understand about breathing practice.

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

Unit-1: Recitation of hymns & hasta mudra

Recitation of Pratah-smaran and Shanti Mantras; Recitation of Pranava Japa and Soham Japa; Recitation of Hymns from Upanishad & Yoga Texts; Hasta Mudra: Chin, Jnana, Hridaya, Bhairav, Yoni

Unit-2: Shatkarmas

Dhauti (Kunjali, Vamana Dhauti, Vastra Dhauti); Neti (Jalneti, Sutraneeti); Kapalbhata and its variants; Agnisara

Unit-3: Breathing practices

Breathing practices: Hands in and out, Hands stretch, Ankle stretch, Rabbit, Dog, Tiger, Straight leg raising breathing; Breath Awareness: Shwas-prashwas samyama; Abdomen, Thoracic & Clavicular Breathing, Abdomen+Thoracic Breathing, Abdomen + Thoracic + Clavicular Breathing; Yogic Breathing: Pause Breathing (Viloma Pranayama), Spinal Passage Breathing (Sushumna Breathing); Practice of Puraka, Rechaka & Kumbhaka (Antar & Bahya Kumbhaka)

Unit-4: Continuous evaluation by the Teachers

TEXT BOOKS

Sri Ananda : The Complete book of Yoga, Orient Course Backs, Delhi, 2003.

Basavaraddi, I.V. & others : SHATKARMA: A Comprehensive description about Cleansing Process, MDNIY New Delhi, 2009

Joshi, K.S. : Yogic Pranayama, Oriental Paperback, New Delhi, 2009

Dr. Nagendra H R : Pranayama, The Art & Science, Swami Vivekananda Yoga Prakashan, Bangalore, 2005

BOOKS FOR REFERENCES

Basavaraddi, I.V. & others : SHATKARMA: A Comprehensive description about Cleansing Process, MDNIY New Delhi, 2009

Joshi, K.S. : Yogic Pranayama, Oriental Paperback, New Delhi, 2009

Swami Kuvalyananda : Pranayama, Kaivalyadhama, Lonavla, 2010

Swami Rama: Science of Breath, A Practical Guide, The Himalayan International
Institute, Pennselvenia, 1998

Swami Niranjananand Saraswati: Prana, Pranayama & Pranvidya, Yoga Publications Trust,
Munger, Bihar, 2005.

Subject Code: BSCYT-PDS 108

Subject Name: Yoga Practicum - II (Bhajan & Krida Yoga)

Objectives:

Following the completion of the course, students shall be able to Understand the concept and principles of Sukshma and Sthula vyayama. Explain and demonstrate the above mentioned practices skillfully. Have a indepth understanding anout Surya namskara and Yogasanas.

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	3
Hours/ week	0	0	6

Bhajan

Unit- 1: Prayers

- i. Prayer before Sunrise - *Prätaù Smaraëa Stotram*
 - ii. Salutations to *Vyāsa Maharçi - Vyāsa Prärthanä*
 - iii. Prayer before Meditation - *Dhyänamantraù*
 - iv. Prayer before *Präëyāma - Präëyāma Manträù*
 - v. Prayer before Sun Salutation- *Suryanamaskära*
- Mantraù*
- vi. Prayer before Food - *Bhojana Mantraù*

Unit-2: Bhagavad Géta

- i. *Räja yoga Çlokasaìgrahaù*
- ii. *Bhakthi yoga Çlokasaìgrahaù*

Unit- 3: Vedic Chanting

- i. *Çäntimanträù*
- ii. *Om Asato Mä Sadgamaya*
- iii. *Sarve Bhavantu Sukhinaù*
- iv. *Pürëamadaù Pürëamidaà*
- v. *çaà no× miPtraù çaà varu×ëaù*
- vi. *yaçchanda×sämaßñaBbho viPçvarü×paù*

Unit-4: Bhajans

- i. *Guru Stuti - Saccidänanda Guru SaccidänandaGuru, Hamäre Mana Mandira Me*
- ii. *Ganeshavandana - Vinäyakä Vinäyakä , Pähi Pähi*
Gajänanä
- iii. *Shiva Bhajan - Ätmalügam Bhajo Re*
- iv. *Devi Bhajan - Jaya Durge Jaya Durge, He Çärade*
Mäð He Çärade Mäð
- v. *Shree Rama - Premamudita Mana Se Kaho Räma*
Räma Räma, Ätmaniväsé Räm

Text Books:

1. Nagendra H R , Deshpande S, Tyagaragu, Kavitha A, Ramachandra R. A book on Yoga Practice - I.SVYP.Bangalore.2013.

Reference Books:

1. Nagendra H R. Vyasa pushpanjali.VYRF.Bangalore.2008.
2. Keerthana Sangraha.part 1 and part 2.Ramakrishna Matt.2005

Krida Yoga**Objectives:**

To understand

- i. To give free vent to pent up emotions and culture it.
- ii. To release stress.
- iii. To control excitements
- iv. Group games create a field of energy and break the barrier of Tamas.
- v. Games help to convert Rajasic energy into Satvik.

Unit- 1:

- i. Indoor games – *Rām*, *Çäm* (Awareness)
- ii. Ha-Ha-Ha (Emotional Culturing)
- iii. Finding the Leader (I.Q.)
- iv. Post Man (Memory)
- v. Kendra Says (Awareness)

Unit-2:

- i. Namste (Speed)
- ii. Dog and Bone (Alertness)
- iii. Song Enacting (Creativity)
- iv. Help Me (Initiative) – *Sahäyata*, Balloon Head

Unit-3:

- i. Outdoor games – Pig Fight (Dexterity and Stamina)
- ii. Running Race (Speed), Funny Touch (Dexterity)
- iii. Chain Forming (Coordination)
- iv. Eagle Race (Flexibility) Garuda Spardha

Unit-4:

- i. Stick Lifting (Alertness and Strength)
- ii. *Rāja*, *Rāma*, *Rāvaëa* (Speed and Awareness)
- iii. Memory Songs – There was a Tree
- iv. Special Claps, Flower Claps
- v. Yoga for Eye Sight Improvement

vi. Group Formations

Unit-5:

1. Outdoor games – Specialisation in one outdoor game namely
 - a. Volley ball
 - b. Basket ball
 - c. Throw ball
 - d. Foot ball
 - e. Cricket and other games played

Instructions: Weekly 2 to 3 days the students have to learn krida yoga and rest of the days they hope to play outdoor games as explained above by proper registration.

Text Book:

2. Nagendra H.R., Deshpande S, Nagaraju. Krida Yoga (Yogic games)., SVYP, 2013, Bangalore.

Reference Book:

1. Krida Yoga- Vivekananda Kendra Publication

Semester II

Subject Code: BSCYT-TGC 201

Subject Name: Samskritam – 2

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit 1:

An introduction to Subanta, Tiganta and Avyayas, Three parts of speech, Rupasiddhi in tiganta, Division of Atmanepada and Parasmaipada, Rupasiddhi - Bhu_sattayam, Edha_Vriddhau

Unit 2:

A brief study of all other Ganas in different Vikarana Pratyayas

Unit 3:

Samasa Prakaranam, Division of many Samasas.

Unit 4:

Definition and division of karakas, Introduction to other important Prakarans in Siddhanta Kaumudi like Sthree Pratyaya Prakarana, Kridanta and taddhitaprakarana etc.

Note:

- **5 hours for taking a special guidance while preparing their assignments and doing reference works.**
- **2 hours for conducting seminars and colloquiums.**

Reference:

- Laghukaumudi and Siddhantakaumudi by *Bhattoji dixit*
- Books published by Sanskrit department.
- Laghuvyakarana Chandrika by *Chakrapani*

Subject Code: BSCYT-TGC 202

Subject Name: Environmental Studies

Objectives:

Following the completion of these course students shall be able to Understand the ecosystem and different type of it. Have an idea about the natural resources and understand what is a renewable and non renewable natural resource. Have an understanding about different biodiversities and their conservation. Understand Pollution and its impact on our health.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit- 1: Introduction to environmental studies and Ecosystem

Multidisciplinary nature of environmental studies; Scope and importance; Need for public awareness; What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems:a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

Unit-2: Natural Resources: Renewable and Non-renewable Resources

Land resources and land use change; Land degradation, soil erosion and desertification; Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations; Water: Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state); Energy resources: Renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

Unit-3: Biodiversity and Conservation

Levels of biological diversity: genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots; India as a mega-biodiversity nation; Endangered and endemic species of India; Threats to biodiversity: Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity; Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

Unit 4: Environmental Pollution, policies and practices

Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution; Nuclear hazards and human health risks; Solid waste management: Control measures of urban and industrial waste; Environmental Policies & Practices; Sustainability and sustainable development; Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture; Environment Laws: environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

TEXT BOOKS

Bharucha, E. 2003, Textbook for Environmental Studies, University Grants Commission, New Delhi and Bharati Vidyapeeth Institute of Environmental Education and Research, Pune. 361.

Carson, Rachel. 1962. Silent Spring (Boston: Houghton Mifflin, 1962), Mariner Books, 2002

Economy, Elizabeth. 2010. The River Runs Black: The Environmental Challenge to China's Future.

Gadgil, M. & Ramachandra, G. 1993. This fissured land: an ecological history of India. Univ of California Press.

REFERENCE BOOKS:

Gleeson, B. and Low, N. (eds.) 1999. Global Ethics and Environment, London, Routledge.

Grumbine, R. Edward, and Pandit, M.K. Threats from India's Himalaya dams. Science 339.6115 (2013): 36-37.

Heywood V.H. & Watson, R.T. 1995. Global Biodiversity Assessment. Cambridge University Press.

Mc Cully, P. 1996. Silenced rivers: the ecology and politics of large dams. Zed Books.

Subject Code: BSCYT-TDS 203

Subject Name: Essence of Principal Upanishads

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.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit-1: Introduction essence of Isha and Kenopanishad

An Introduction to Upanishadic Philosophies; Antiquity of Upanishads; Prasthanatraya; **Ishavasyopanishad:** JnanaNishtha (Ish.1), Karma Nishtha (Ish.2), All compassion Brahman (Ish.5), Nature of Sage (Ish.6, 7), Prayer of dying Man (Ish.15); **Kenopanishad:** The inscrutable being (Kena-I.2, 3 ,4,6) (Kena II.2,3), Greatness of self Knowledge (KenaII.5)

Unit-3: Essence of Katho and Prashnapanishad

Kathopanishad: Futility of earthly pleasure (Katha I.i.26, 27); Glory of wisdom of self (Katha I.ii.1, 5, 6, 7, 12); Atman is immortal (Katha I.ii.18); Conditions of knowing that (Katha I.ii.23,24); The Razor's edge of Jnana (Katha I.iii.14, 15); Sense knowledge is nothing (Katha II.i.1, 2); The indivisible Brahman (Katha II.i.10, 11) (Katha II.ii.2,9,11)The supreme state; Prashnapanishad: Sun, the life of creatures, The all inclusiveness of Brahman, The state of becoming the soul

Unit-3: Essence of Mundaka, Mandukya and Taitriya

Mundaka: The greatness of Brahmanvidya, The worthlessness of Selfish-karma, Tapas and Gurubhakti, The origin of creation, Brahman the target of, meditation, Know thyself, Everything is Brahman, Purity extolled, Force of Desire, State of moksha; Mandukyopanishad: All this is Brahman, The fourth state of being

Unit- 4: Essence of Aitareya, Chandogya and Brihadaranyaka

Aitareya: Everything is only that Atman, All this is Brahman only; Chandogya: The meditation on udgithaomkara, Sandilyavidya, Mystic declarations, The sacrifice of the knower, The paradox of creation, The necessity for a guru, The supreme instruction, Need for understanding, Bhumavidya, The seer's health and purity, Desires should be renounced, Know the Atman; Brihadaranyakam: A prayer of the devotee, The self is the dearest, the self is the absolute, The death of the jnana, How to know the secret Atman, The ocean of the absolute, Words are useless, The atman and its knower, The infinite Brahman, Ethics

Subject Code: BSCYT-TDS 204

Subject Name: Patanjala Yoga Darshana

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 and Sadhana Pada. Undertand the essence of Vibhuti and Kaivalya pada.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit - 1: Introduction to Yoga darshana of Patanjali and concept of Citta, citta bhoomis Citta vrittis and Citta vritti nirodhopaya

Brief Introduction to Maharshi Patanjali and Patanjala Yoga Sutra (P.Y.S.), Brief Introduction to traditional commentators and commentaries of Patanjala Yoga Sutra (Vyasa Bhasya, Tatvavaisharadi, Bhoja Vritti and Yoga-vartika); Concept of Mana, Buddhi, Ahankar and Chitta; Concept of Citta Bhoomis (Kshipta, Mood, Vikshipta, Ekagra, Nirudha); Concept of Citta-Vrittis and their classification, Citta-Vritti Nirodhopaya (Abhyasa and Vairagya); Concept of Ishwar and Ishwar Pranidhana, Qualities of Ishwar, Concept of Samprajnata; Citta-Vikshepas (Antarayas), Concept of Citta-prasadanam, Relevance of Citta-prasadanam in Yoga Sadhana.

Unit - 2: Samadhi pada

Concept of Yoganushasanam, Yoga Lakshanam and its results; Types of Samadhi (Samprajnatah and Asamprajnatah Samadhi); Types of Samprajnatah Samadhi (Vitarka, Vichara, Anand and Ashmita); Concept of Samapatti and kinds of Samapatti (Savitarka and Nirvitarka, Savichara and Nirvichara); Types of Asamprajnatah Samadhi (Bhavapratyaya and Upayapratyaya).

Unit-3: Sadhana pada

Concept of Kriya Yoga of Patanjali, theory of Kleshes (Avidya, Ashmita, Raga, Dewesh, Abhinevesh); Concept of Dukhavada (Heya, Hetu, Hana, Hanopaya) Drishta and Drishanirupanam (Prakriti), Drastunirupanama (Purusha), PrakritiPurushaSamYoga; Brief Introduction to Ashtanga Yoga; Concept of Asana and Pranayama and their Siddhis; Concept of Pratyahara and its Siddhis.

Unit - 4: Vibhuti and Kaivalya Pada

Introduction of Dharana, Dhyana and Samadhi, Samyama and its Siddhis; Three types of Chitta Parinamah; Bhoota jaya, Indriya jaya and their Siddhis, Satvapurushanyatakhyati and its Siddhis; VivekInanaNirupanam, Kaivalya Nirvachana; Role of Dharana, Dhyana, Samadhi and its application; Five Types of Siddhis and Jatyantar Parinamh; Concept of Nirman Chitta and four types of Karmas; Concept of Vasana and concept of Bahya Pradartha (external element) and its abilities.

TEXT BOOKS

- Swami Digambara Ji and others: Glossary of the Samkhakarika, Kaivalyadhama, Lonavala, 2012
- Swami Virupaksananda: Samkhyakarika of I svarakrisna (with tattva Kamudia of Vachapati Mishra), Sri Ram Krishana Matha Madras, 1995
- James R. Ballantyne: The Sankhya Aphorisms of Kapila, Parimal Publications, New Delhi, 2004

BOOKS FOR REFERENCE

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

Subject Code: BSCYT-TDS 205

Subject Name: Human Anatomy & Physiology-II

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

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit -1: Nervous system and special senses

Structure and function of human brain.-Fore brain, mid brain, hind brain, Structure and function of spinal cord, Cranial nerve and spinal nerve, Autonomic nervous system- Sympathetic and para sympathetic nervous system, Reflex action, Mechanism of nerve conduction, Synapse and synaptic transmission, Structure and function of eye,ear,nose,tongue and skin

Unit -2: Endocrine system

Structure and function of important of endocrine gland (Pituitary, Adrenal, Thyroid, Parathyroid, Pancreas, gonads), Function of GI tract hormones, Mechanism of hormone action

Unit -3: Reproductive and Excretory system system

Male reproductive system of human.-Testis, penis, epididymis, prostate gland; Female reproductive system of human-ovary, uterus, vagina, cervix, fallopian tube; Menstrual cycle Gametogenesis-Spermatogenesis and oogenesis; Fertilization; Implantation and embryonic development; Pregnancy; Excretory system of human- Kidney, ureter, urinary bladder, urethra; Mechanism of urine formation-Ultrafiltration, selective reabsorption, tubular secretion; Role of kidney in osmoregulation

Unit -4: Lymphatic system and immune system

Lymphoid organ-Bone marrow, Thymus, spleen ,Lymph node, Composition and function of lymph, Immunity, Types of immunity-Innate immunity and acquired immunity, Antigen and antibody, Hypersensitivity, Autoimmunity

TEXT BOOKS

Tortora and Bryan: Anatomy and Physiology

Khurana: Anatomy and Physiology

BOOKS FOR REFERENCE

Bijlani R. L.: Understanding of Human Physiology, Jaypee Brothers Medical Publishers Pvt. Ltd, New Delhi, 2011

Arthur C Gyton & Hall: Medical Physiology, Reed Elsevier India Pvt. Ltd, New Delhi, 2006

Chatterji C. C: Human Physiology Vol. I & II, Medical Allied Agency, Kolkata, 2004

Sharma J. P: A-Z Illustrated Encyclopaedia of Human Anatomy & Physiology, KhelSahiya Kendra, Delhi, 2005

Pal G. K & others: Textbook for practical Physiology, Orient Longman Pvt. Ltd, Hyderabad, 2007

Subject Code: BSCYT-PDS 206

Subject Name: Kriya & Pranayama

Objectives:

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

Unit-1: Shatkarma

Dhauti, Neti, Nauli Madhyama, Vama, Dakshina and Nauli Chalana, Trataka (Jatru and Jyoti)

Unit-2: Pranayama

Nadi Shodhana (Technique 1: Same Nostril Breathing), Nadi Shodhana (Technique 2: Alternate Nostril Breathing), Nadi Shodhana (Technique 3: Alternate Nostril Breathing + Antar kumbhak); Nadi Shodhana (Puraka + Antar Kumbhak + Rechaka + Bahya Kumbhak) (1:4:2:2); Bhramari Pranayama

Unit-3: Practices leading to meditation

Pranav and Soham Japa; Yoga Nidra (1,2,3); Antarmauna; Ajapa Dharana (Stage 1, 2, 3); Mind sound resonance technique (MSRT)

Unit- 4: Continuous evaluation by the Teachers

TEXT BOOKS

Swami Niranjanananda Saraswati: Asana Pranayama Mudra Bandha; Bihar school of yoga publications; Munger, 2001

Swami Niranjanananda Saraswati: Dharana Darshan; ; Bihar school of yoga publications; Munger, 2001

BOOKS FOR REFERENCES

Basavaraddi I. V. & Others : Teachers Manual for School Teachers, MDNIY, New Delhi, 2010

Joshi, K.S. : Yogic Pranayama, Oriental Paperback, New Delhi.

Swami Kuvalyananda : Pranayama, Kaivalyadhama, Lonavla, 2009

Iyengar, B.K.S.: Light on Pranayama, Harper Collins, Swami Vivekanand Yoga Prakashan, 2012

Nagendra, H.R: The Art and Science of Pranayama, Swami Vivekanand Yoga Prakashan, 2005, Bangaore.

Nagendra, H.R: Mind sound resonance technique, Swami Vivekanand Yoga Prakashan, 2002, Bangaore.

Subject Code: BSCYT-PDS 207

Subject Name: Human Anatomy and Physiology Practicum-II

Objectives:

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

Unit-1: Hematology and physical examination

Anthropometry measurements; Method of Collection of Blood, Haemoglobinometry; Total White Blood Cell Count, Differential WBC count; E.S.R., Bleeding Time, Clotting Time; Blood Groups; Pulse, Determination of Arterial Blood Pressure in Humans; Effect of posture, exercise and cold stress on blood pressure; Stethography, Spirometry; BMI Calculation; Reflexes, Recording of Body Temperature.

Unit-2: Viva voce

Unit-3: Continuous evaluation by the Teachers

TEXT BOOK

1. Parvati Mahapatra : Practical physiology, Jaypee publishers, 2nd edition, 2004

Subject Code: BSCYT-PDS 208

Subject Name: Yoga Practicum-III

Objectives:

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

Unit-1: Yogic suksma and sthula vyayama

1.1 Yogic suksma vyayama

Netra shakti-vikasaka (for the eyes); Kapola shakti-varadhaka (for the cheeks); Karna shakti-varadhaka (for the ears); Griva shakti-vikasaka (for the Neck) (i), (ii) and (iii), Skandha-tatha-bahu-mula shakti-vikasaka (for the shoulders), Bhuja- bandha shakti-vikasaka, Kohini shakti-vikasaka, Bhuja-valli shakti-vikasaka, Purna-bhuja shakti-vikasaka (for the arms), Mani-bandha shakti-vikasaka, Kara-prstha shakti-vikasaka, Kara-tala shakti-vikasaka, Anguli-mula shakti-vikasaka (for the fingers), Anguli- shakti-vikasaka (for the fingers), Vaksa-sthala shakti-vikasaka (for the chest) (1), Vaksa-sthala shakti-vikasaka (for the chest) (2), Udara shakti-vikasaka (for the abdomen) (i) to (x); Kati shakti-vikasaka (for the waist) (i) to (v), Jangha shakti-vikasaka (for the thighs) , Janu shakti-vikasaka (for the knees), Pindali shakti-vikasaka (for the calves), Pada-mula shakti-vikasaka, Gulpha-pada-pristha -pada -tala-shakti-vikasaka (for the ankles and the feet), Padanguli shakti-vikasaka (for the toes)

Unit- 2: Surya namaskara

Unit-3: Yogasana (Standing Postures and body alignment)

Yogāsanas:

Standing:

- | | |
|------------------------|---------------------|
| A. Ardhakaṭi Cakrāsana | B. Ardha Cakrāsana |
| C. Padahastāsana | D. Trikoṇāsana |
| E. Bakāsana | F. Ardha Candrāsana |
| G. Vṛkṣāsana | |

Sitting:

- | | |
|---------------------|-------------------------|
| A. Vajrāsana | B. Śaśāṅkāsana |
| B. Paścimottānāsana | D. Uṣṭrāsana |
| E. Vakraśana | F. Ardha Matsyendrāsana |

G. Baddhakoṇāsana

H. Uṣṭrāsana

Prone:-

A. Bhujāṅgāsana

B. Salabhāsana

C. Dhanurāsana

D. Tiryaṅka Bhujāṅgāsana

Supine:-

A. Sarvāṅgāsana

B. Halāsana

C. Matsyāsana

D. Navāsana

Unit-4: Continuous evaluation by the Teachers

TEXT BOOKS

Swami Dharendra Bhramhachari: Yogic Sukshma Vyayama, Dharendra Yoga Publications, New Delhi, 1980

Swami Dharendra Bhramhachari: Yogasana Vijnana, Dharendra Yoga Publications, New Delhi, 1966

BOOKS FOR REFERENCES

Swami Kuvalyananda : Asana, Kaivalyadhama, Lonavla, 1993

Swami Satyananda Saraswati : Asana, Pranayama, Bandha, Mudra, Bihar School of Yoga, Munger, 2006

Basavaraddi, I.V. & others: YOGASANA: A Comprehensive description about Yogasana, MDNIY, New Delhi, 2011

Basavaraddi, I.V. & others : Yogic Sukshma Evam Sthula Vyayama, MDNIY, New Delhi, 2011.

Semester III

Subject Code: BSCYT-TGE 301

Subject Name: Elective

Objectives:

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Subject Code: BSCYT-TDS 302

Subject Name: Life and Message of Ancient Yoga Masters

Objectives:

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit-1:

- I. Introduction to the ancient lineage of Yoga masters - Yoga parampara:
- II. Lives of modern yogis continuing the parampara - modern
- III. yogis breaking away from the traditional paths their special contributions and repercussions on the society.

Unit-2:

- I. Study of the life of Sri Ramakrishna
- II. Vivekänanda
- III. Ma Shärada,
- IV. Sri Aurobindo
- V. Swami Yogänanda
- VI. Swami Sivänanda.

Text books:

Subject Code: BSCYT-TDS 303

Subject Name: Essence of Bhagavad Gita for Personality Development

Objectives:

Following the completion of this course, students shall be able to Understand the significance of Bhagavad gita and its essence. Understand the concept of Atman, Paramatman, Sthitaprajna.

Have a deep understanding between the qualities of a Karma and Bhakti yogi. Understand the concept of Ahara its role in healthy living.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Introduction to Bhagavadgita; Bhagavadgita and traditional commentaries; Bhagavadgita: a synthesis of Yoga; Definitions of Yoga in Bhagavadgita and their relevance; Bhagavadgita and their relevance in Yoga Sadhana

Unit–2: Concept of Atman, Parmatman and characteristic of Sthita prajna in

Bhagavdgita

Concept of Samkhya Yoga in Bhagavadgita; Concept of Sthita Prajna, stages and characteristic of it; Concept of Atman (Purusha), Jivatman; Concept of Paramatman (Parmeshwar or Purushottam) their characteristic in Bhagavadgita; Concept of Jnana and Jnana Yoga, origin of the world as described in Bhagavadgita

Unit-3: Karma yoga and Bhakti yoga in Bhagavadgita

Concept of karma Yoga in Bhagavadgita; Concept of Bhakti, concept of Shraddha and its relevance as described in Bhagavad Gita Yoga of Bhakti and Bhakta as described in Bhagavadgita; Dhyana Yoga together with devotion as described in Bhagavadgita and Nature of Dhyana in Bhagavadgita

Unit – 4: Concept of ahara and role of Bhagavadgita in healthy living

Role of Bhagavadgita in day to day life; Concept and classification of Ahara as described in Bhagavadgita; Ahara and its role in Adhyatma Sadhana; Concept of Triguna in the context of Bhagavadgita; Theory of Adjustment in healthy living as described in Bhagavadgita

TEXT BOOKS

Swami Gambhiranand ; Bhagavadgita (with Gudharth Dipika) Sri Ramkrishna Matha Madras
Swami Gambhiranand ; Bhagvatgita with the commentary of Sankaracharya, Advita
Ashrama, Kolkata, 2003

Swami Ramsukhadas; Srimad Bhagavadgita (Sadhaka Sanjivani) Gita Press Gorakhpur

Swami Ranganathananda ; Bagavadgita, Advaita Ashrama Sub- Dept-5 Deli Entally
Road Kolkata

BOOKS FOR REFERENCE

Swami Shrikantananda; Gita Darshana, Indian Institute of Human Excellence Hyderabad

Swami Tapasyananda ; Srimadbhgavadgita Sri Ramkrishna Matha Madras

Swami Abhidananda Bhagvatgita, the divine message, Ramakrishna Vedanta Matha,
Kolkata, 1990

Swami Raghvendrananda; Universal message of the Bhagvatgita, Advaita Ashrama,
Kolkata, 2000

Subject Code: BSCYT-TDS 304

Subject Name: Yoga therapy for common ailments-1

Objectives:

- To become familiar with various disorders
- To have knowledge about the causes of diseases.
- Line of treatment available in Yoga therapy

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit -1: Introduction to common ailments

- i. Introduction to stress and stress related disorders
- ii. Introduction to Yoga therapy – AdhijaVyadhi concept, IAYT

Unit -2: Respiratory Disorders

- i. Introduction to Respiratory disorders
 - a. Brief classification – Obstructive / Restrictive, infectious,
- ii. Bronchial Asthma
 - a. Definition, Etiopathogenesis, Classification, Clinical Features,
 - b. Medical and Yogic Management
- iii. Allergic Rhinitis & Sinusitis
 - a. Definition, Etiopathogenesis, Classification, Clinical Features,
 - b. Medical and Yogic Management
- iv. COPD
 - a. Chronic Bronchitis
 - i. Definition, Etiopathogenesis, Classification, Clinical Features,
 - ii. Medical and Yogic Management
 - b. Emphysema
 - i. Definition, , Classification, Clinical Features,
 - ii. Medical and Yogic Management
- v. Infectious Disorders
 - a. Tuberculosis
 - i. Definition, Etiopathogenesis, Classification, Clinical Features,
 - ii. Medical and Yogic Management

Unit -3: Cardiovascular Disorders

- i. Introduction to Cardiovascular disorders
- ii. Hypertension
 - a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management
- iii. Atherosclerosis / Coronary artery disease
 - a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management
- iv. Ischemic Heart disease – Angina pectoris / Myocardial Infarction/ Post CABG rehab

- a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management
- v. Congestive Cardiac failure
 - a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management
- vi. Cardiac asthma
 - a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management

Unit- 4: Endocrinal and Metabolic Disorder

- i. Diabetes Mellitus (I&II)
 - a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management
- ii. Hypo and Hyper- thyroidism
 - a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management
- iii. Obesity
 - a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management
- iv. Metabolic Syndrome
 - a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management

Unit -5: Obstetrics and Gynecological Disorders

- i. Menstrual disorders: Dysmenorrhea, Oligomenorrhea, Menorrhagia
 - a. Definitions, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management
- ii. Premenstrual Syndrome
 - a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management
- iii. Menopause and peri-menopausal syndrome
 - a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management
- iv. Yoga for Pregnancy and Childbirth
 - a. Introduction to pregnancy, Complicated pregnancies: PIH, Gestational DM
 - b. Ante-natal care
 - c. Post-natal care
- v. PCOS
 - a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management

Unit-6: Cancer

- i. Cancer
 - a. Causes, types, clinical features,
 - b. Side effects of Chemotherapy, radiotherapy
 - c. Medical and Yogic management

Recommended Texts:

1. IAYT series- SVYASA publications
2. Yoga for common ailments

Subject Code: BSCYT-TDS 305

Subject Name: Methods of Teaching Yoga

Objectives:

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit-1: Principles and methods of teaching yoga

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

Unit-2: Basics of yoga class management

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

Unit-3: Lesson planning in yoga

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

Unit-4: Educational tools of yoga teaching

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

TEXT BOOKS

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

BOOKS FOR REFERENCE

Dr. Gharote M L : Teaching methods for Yogic practices, Kaivalyadhama, Lonavala, 2007

Dr. Raj Kumar : Principles & methods of Teaching, Printo graphics, Delhi,

Saket Raman Tiwari & others : Teaching of Yoga, DPH Publishing Corporation, Delhi, 2007

Subject Code: BSCYT-TDS 306

Subject Name:

Objectives:

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit-1: Introduction to advanced techniques:

- i. Meditation, advancement in Meditation, Concept of Panchakosa
- ii. Advanced techniques, personality development, concept of Vyasti and Samasti
- iii. Relaxation, Awareness, Expansion of awareness.

Unit-2: Cyclic meditation

- i. Introduction to Cyclic Meditation.
- ii. IRT, in different positions and for different disease conditions, gaining control to tighten a specific part without contracting the surrounding muscles, Practicing on their own 10 times in one day.
- iii. Incidences from daily life where we experience Pointed awareness, Linear awareness, surface awareness, 3D awareness and all-pervasive awareness.
- iv. Centering, Ardhakati Cakrasana, Group synchronization, awareness.
- v. QRT Physical, Emotional, mental awareness and expansion.
- vi. Vajrasana, shashankasana and ustrasana with awareness.
- vii. DRT with awareness at Physical, pranic, mental, intellectual and spiritual levels.
- viii. Stimulations and relaxations, recognizing the tightness and let go, relaxation deeper than stimulation. Observation of blood flow, nerve impulses, 3rd awareness, sound resonance and mental, emotional, intellectual, spiritual stimulations and let go.
- ix. Worksheet writing and correction.
- x. Class taking by students and correction. Experience writing.

Unit-3: Pranic Energisation Technique:

- i. Prana, types of Pranas, UpaPranas, PranicEnergisation Technique
- ii. Practice Breath awareness at tip of the nose , complete breath awareness and deep abdominal breathing. Awareness practice of pulse,Heart beat, synchronization of pulse with heart beat, nerve impulses, nerve impulses with different mudras, Vyana, Vyana in between hands, Vyana at different parts of the body. Moving prana along right side, left

side, both sides. Understanding Vyasti and Samasti and practicing to feel Vyasti and Samasti. Choosing the right Sankalpa. Complete PET practice.

- iii. Worksheet writing and correction.
- iv. Class taking by students and correction. Experience writing.

Unit-4: Mind Sound Resonance Technique:

- i. Mind, Sound and resonance.
- ii. Practicing to tune to natural frequency to get resonance
- iii. Chanting of any mantra in three ways Loud voice, low voice and inside the mind and feeling vibrations.
- iv. Chanting practice of Om, M, U, A and A-U-M. Feel air moving from nose tip to the tip of the toes. Chanting practice (ahata and ahata followed by anahata) of Om , M, U, A and A-U-M with feeling vibrations and practicing to feel the vibrations from the top of the head to the tip of the toes.
- v. Triambaka Mantra , Full Practice, Writing the Worksheet, Practice by the students, Writing experiences.

Subject Code: BSCYT-PDS 307

Subject Name: Advance Asana

Objectives:

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

Unit-1: Advanced Āsanās

- Mayūrāsana
- Śīrṣāsana
- Jānuśīrṣāsana
- Titivāsana
- Upavisthakānāsana
- Maricāsana
- Yoganidrāsana
- Rajkapatāsana
- Hanumānāsana
- Omkārāsana
- Natrājāsana
- Pūrṇabhūjaṅghāsana
- Pūrṇaśalabhāsana
- Kūrmāsana
- Urdhvatānnāsana
- Matsyendrāsana
- Pūrṇa dhanurāsana
- Pūrṇacakrāsana
- Kukuṭāsana
- Ekapāda rajakopatāsana
- Gorakṣāsana
- Vasiṣṭhāsana
- Vakāsana
- Khogāsana
- Bekāsana
- Pariḡhāsana
- Pasāsana

Unit-2: Continuous evaluation by the Teachers

- Text Book:** 1. Himalaya, Swami Vivekananda Yoga Prakasana, Bangalore, 2000
2. Swami Satyananda Saraswati, Asana, Pranayama, Mudra, Bandha, Bihar Yoga Bharati, Mungher, Bihar, India.

Reference Books:

1. Swami Satyananda Saraswati : Asana, Pranayama, Mudra, Bandha

(Yoga Publications Trust, Munger,
Bihar, India).

2. Swami Muktibodhananda Saraswati : Hatha Yoga Pradeepika, Yoga Publications Trust

(Munger, Bihar, India) .

Subject Code: BSCYT-PDS 308

Subject Name: Teaching practice (Village Teaching)

Objectives:

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

During this period students shall get an opportunity of teaching yoga to villagers, weekly four hours. The academic institution where the student is undergoing his/her training takes the responsibility of organizing the classes in the near by villages.

Semester IV

Subject Code: BSCYT-TGE 401

Subject Name: Elective

Objectives:

Subject Code: BSCYT-TDS 402

Subject Name: Introduction to AYUSH

Objectives:

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit 1 : Yoga and Health and Integrated Approach of Yoga Therapy

- I. Concept of body, Health and disease.
- II. Concept of Yoga Ādhi and Vyādhi.
- III. Principle of Yoga Therapy in relation to Yoga Vāsiñōha
 - a) Practices at Paīca Koças level Annamaya, Prāīamaya,
- IV. Manomaya, Vijīānamaya and Ānandamaya koças.
 - b) Principle of Yoga Therapy in relation to Haōha Ratnāvali and Gheraēda Samhitā

Unit 2 : Introduction to Basic concepts of Naturopathy

- History of Naturopathy.
- Principles of Naturopathy.
- Concept of five elements and its applications.

Unit 3: Introduction to Basic concepts of Āyurveda

- The four aspects of life (Soul, Mind, Senses and Body)
- Paīcamahābhūtas (the five element theory),
- Āhāra, Vihāra and Auñadhi (three pillars of Āyurveda)
- Concept, role and importance of – Doña, Dhātu, Mala,

Updhātu, Srotas, Indriya, Agni, Prāēa, Prāēāyatna, Prakāti,
Deha Prakāti, Mānasa Prakāti.

- Role of Dosa, Dhatu and Mala in health and diseases

Concept of Dinacaryā (daily routine), concept of Ātucaryā
(seasonal routine), Svasthavātta and Ñāvātta in Āyurveda.

- Concept of Trayo Upasthambās.

Unit 4: Introduction to Basic concepts of Unāné & Siddha

- History of Unāné & Siddha.
- Concept of Unāné & Siddha.
- Principles of Unāné & Siddha

Unit 5: Introduction to Basic concepts of Homeopathy

- History of Homeopathy.
- Concept of Homeopathy.
- Principles of Homeopathy.

Text Books:

Dr R Nagaratha and : Yoga and Health

Dr H R Nagendra (Swami Vivekananda Yoga Prakashana, 2000)

Dash, V.B. : Ayurvedic Treatment for Common Diseases Delhi Diary, 1974.

Subject Code: BSCYT-TDS 403

Subject Name: Yoga therapy for common ailments-2

Objectives:

- To become familiar with various disorders
- To have knowledge about the causes of diseases.
- Line of treatment available in Yoga therapy

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit- 1: Gastro Intestinal Disorders

- i. APD
 - a. Introduction to APD: Gastritis –Acute & Chronic, Dyspepsia, Peptic Ulcers
 - b. Clinical Features
 - c. Medical and Yogic management
- ii. Constipation and Diarrhoea
 - a. Definition, Etiopathogenesis, Clinical Features
 - b. Medical and Yogic management
- iii. Irritable Bowel Syndrome
 - a. Definition, Etiopathogenesis, Classification, Clinical Features
 - b. Medical and Yogic management
- iv. Inflammatory Bowel Disease
 - a. Ulcerative colitis
 - i. Definition, Etiopathogenesis, Classification, Clinical Features
 - ii. Medical and Yogic management

Unit-2: Musculo-Skeletal Disorders

- i. Back Pain
 - a. Classification of back pain: organic and functional
 - i. Lumbar Spondylosis
 - ii. Intervertebral disc prolapse (IVDP)
 - iii. Spondylolisthesis
 - iv. Spondylitis
 - v. Psychogenic- Lumbago
 - b. Medical and Yogic management
- ii. Neck pain
 - a. Classification
 - Cervical Spondylosis, radiculopathy
 - Functional neck pain
 - b. Medical and Yogic management
- iii. All forms of Arthritis
 - a. Rheumatoid Arthritis
 - b. Osteoarthritis
 - c. Medical and Yogic management

Unit-3: Neurological Disorders

- i. Headaches
 - a. Migraine
 - i. Causes, Classification, clinical features
 - ii. Medical and Yogic management
 - b. Tension headache
 - i. Causes and its symptoms
 - ii. Medical and Yogic management
- ii. Cerebro vascular accidents
 - a. Causes, clinical features
 - b. Medical and Yogic management
- iii. Epilepsy; pain; Autonomic dysfunctions
 - a. Causes, clinical features
 - b. Medical and Yogic management
- iv. Parkinson's disease
 - a. Causes, clinical features
 - b. Medical and Yogic management

Unit- 4: Psychiatric disorders

- i. Introduction to psychiatric disorders, classification – Neurosis, Psychosis
- ii. Neurosis
 - a. Anxiety disorders
 - i. Generalised anxiety disorder
 - ii. Panic Anxiety
 - iii. Obsessive Compulsive Disorder
 - iv. Phobias
 - v. Medical and Yogic management
 - b. Depression
 - i. Dysthymia
 - ii. Major depression
 - iii. Medical and Yogic management
- iii. Psychosis
 - a. Schizophrenia
 - b. Bipolar affective disorder
 - c. Medical and Yogic management

Recommended Texts:

- 1. IAYT series- SVYASA publications
- 2. Yoga for common ailments

Subject Code: BSCYT-TDS 404

Subject Name: Basis of Yoga Therapy

Objectives:

To understand the Yogic concept of Body and Health To have an understanding of the Yogic concept of Disease and yoga therapy for each disease.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit-1: Yogic concepts of health and disease

Definition & Importance of Health According to WHO; Dimensions of Health: Physical, Mental, Social and Spiritual; Concept of Health and Disease in Indian Systems of Medicine i.e. Ayurveda, Naturopathy and Siddha Systems of Medicine, Utility and Limitations of these systems in health and healing; Yogic Concept of Health and Disease: Meaning and definitions, Concept of Adhi and Vyadhi, Yogic concept of Health and Disease, role of Yoga in preventive health care – Heyam dukham anagatam; Potential causes of Ill-health: Tapatrayas and Kleshas, Physical and Physiological manifestation of Disease: Vyadhi, Alasya, Angamejayatva and Svasa-prashvasa. Mental and Emotional ill Health: Styana, Samshaya, Pramada, Avirati, Duhkha, Daurmanasya, Bhranti-darsana, Alabdha-bhumikatva and Anavasthitatva; Shuddhi Prakriyas in Yoga : Role of Shuddhi Prakriyas in preventive and curative Health, Karma Shuddhi (Yama, Niyama), Ghata Shuddhi (Shat-karma), Snayu Shuddhi (Asana), Prana Shuddhi (Pranayama), Indriya and Mano Shuddhi (Pratyahara), Mana, Buddhi, Ahamkar and Chitta Shuddhi (Dharana, Dhyana and Samadhi)

Unit-2: Yogic concepts for health and healing

Concepts of Trigunas, Pancha-mahabhutas, Pancha-prana and their role in Health and Healing; Concept of Pancha-koshas & Shat-chakra and their role in Health and Healing; Concept of Abhyas and Vairagya, Chitta and Chitta Prasadana, Kriya-yoga, Ashtanga Yoga of Patanjali for Health and Healing; Concept of Cleansing (Shuddhi), its role and importance in Health and Healing; Concept of Swara Yoga and its efficacy in Health and Healing

Unit-3: Yogic principles and practices of healthy living

Yogic Principles of Healthy Living: Aahara, Vihara, Aachara and Vichara; 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; Yogic principles of Lifestyle management and its role in prevention of disease and health promotion; Yogic Principles of Diet and its role in Healthy living; 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-4: Health benefits of yogic practices

Psycho-physiological effects and health benefits of Yogasana , Pranayama, Shatkarma, Bandha and Mudra, and Meditation

TEXT BOOKS

Preeti Goel and Rita Jain : Spectrum of Health (Sports Publications, New Delhi, 2003)

M. M. Gore : Anatomy and Physiology of Yogic Practices (New Age Books, New Delhi, 2008)

Dr. K. Krishna Bhat: The power of Yoga

Subject Code: BSCYT-TDS 405

Subject Name: Fundamentals of Biochemistry

Objectives:

Following the completion of this course, students shall be able to Understand the biomolecules and their role in our body. Have an understanding about the protein, carbohydrate, lipid metabolism. Understand the role of Biochemistry and its test as the indicators to know about the progress of a disease.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit - 1: Introduction to Bio-chemistry

Introduction to Bio-chemistry; chief intracellular components; Introduction to chemical receptors/co-receptors, cell to cell communication, channels & transportation; Definition and classification of Vitamins and their Clinical importance; Basics of Molecular mechanism of O₂ transport and storage, classification and bio-chemical structure of immunoglobulins with functions; Fundamentals of Bio-Energetics: Biological Oxidation, General Concept of oxidation, features of cellular Oxidations-respiratory chain oxidative phosphorylations

Unit – 2: Metabolism of carbohydrates

Carbohydrates: Definition, classification with examples and general functions; Basics of Carbohydrate Metabolism (I) - Glycolysis; Aerobic and Anaerobic, metabolism of glycogens; glycogenesis, glycogenolysis, glyconeogenesis, Regulation of glycogen metabolism; Basics of Carbohydrate Metabolism (II) - Krebs's Cycle (T.C.A), Regulation of Blood glucose, Hexose Mono Phosphate (HMP Shunt); Concept of isomerism, types & mode of action; Integration of metabolism and catabolism

Unit-3: Metabolism of lipids and proteins

Lipids: definition, classifications and general functions; Introduction to essential fatty acids, cholesterol, Blood lipids, brief review of lipoproteins; Basics of Lipid Metabolism - Oxidation of fatty acids, cholesterol synthesis and fatty liver; Proteins: definition, classification and Bio-medical Importance, Plasma Proteins and functions; Definition, classification and nomenclature of Enzymes, basic introduction to Enzymology and regulation of Enzymatic activity

Unit- 4: Functional Bio-chemistry

Introduction to hormones, molecular basis of hormonal action; Introduction to common metabolic disorders; Basic techniques for estimation of different Bio-chemical markers i.e., diffusion, Osmosis, Electro-phoresis, Quantative and Analytical Titration; Introduction to investigations related to Hepatobiliary diseases i.e., Serum bilirubin, Amino-Transferases, Alkaline Phosphatase, LDH; Basics of routine Bio-chemical tests for Kidney and related common diseases i.e., Blood Urea, Blood Urea Nitrogen (BUN), Serum Creatinine, Serum Uric Acid with estimation of Urinary Protein and Sugar.

TEXT BOOKS

Pankaja Naik: Bio-chemistry, Jaypee Brothers Medical Publishers Ltd, Delhi, 2010

Jacob Anthikad:Bio-chemistry for Nurses, Jaypee Brothers Medical Publishers Ltd, Delhi, 2008

K. Malhotra:Bio-chemistry for Students, Jaypee Brothers Medical Publishers Ltd, Delhi, 2012

N. Haridas:Bio-chemistry made easy:A Problem (Solving) based approach, Jaypee Brothers Medical Publishers Ltd, Delhi, 2012

Arvind S Yadav:Comprehensive practical and Viva in Bio-chemistry, Jaypee Brothers Medical Publishers Ltd, Delhi, 2004

BOOKS FOR REFERENCE

Robert K Murray & others:Harper's Illustrated Bio-chemistry, 26th Edition, 2003, McGraw Hill, US Shankara, Shivaraja,

M. K. Ganesh :Laboratory Manual of Practical Biochemistry, Jaypee Brothers Medical Publishers Ltd, Delhi, 2008

S. K. Sawhney & Randhir Singh:Introductory Practical Biochemistry, 2nd edition, Alpha Science International Ltd. 2005

Chawala Ranjana:Clinical Biochemistry (Methods & Interpretations), 3rd edition, Jaypee Brothers medical Publishers ltd. 2006

Rajesh Karajgaonkar:Clinical Biochemistry, Jaypee, 2008

Subject Code: BSCYT-TDS 406

Subject Name: Special Techniques

Objectives:

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit-1:

- i. Sūkñma Vyāyāma: Simple & Standard
 - a. Different types of sukshma vyamas
 - b. Indications
 - c. Contra-indications
- ii. Voice Culture
 - a. Different types of sukshma vyamas
 - b. Indications
 - c. Contra-indications
- iii. Dynamics
 - a. Different types of sukshma vyamas
 - b. Indications
 - c. Contra-indications
- iv. Supine special techniques
 - a. Different types of sukshma vyamas
 - b. Indications
 - c. Contra-indications

Unit- 2:

- i. Breathing practices
 - a. Different types of sukshma vyamas
 - b. Indications
 - c. Contra-indications
- ii. Arthritis
 - a. Specific asanas
 - b. Specific pranayma
 - c. Specific kriyas
 - d. Different breathing practices
- iii. Epilepsy
 - a. Specific asanas
 - b. Specific pranayma
 - c. Specific kriyas
 - d. Different breathing practices
- iv. Obesity
 - a. Specific asanas
 - b. Specific pranayma
 - c. Specific kriyas
 - d. Different breathing practices
- v. Parkinson's disease
 - a. Specific asanas
 - b. Specific pranayma
 - c. Specific kriyas

- d. Different breathing practices

Unit -3:

- i. Knee Pain
 - a. Specific asanas
 - b. Specific pranayama
 - c. Specific kriyas
 - d. Different breathing practices
- ii. Diabetes
 - a. Specific asanas
 - b. Specific pranayama
 - c. Specific kriyas
 - d. Different breathing practices
- iii. Migraine
 - a. Specific asanas
 - b. Specific pranayama
 - c. Specific kriyas
 - d. Different breathing practices
- iv. Back pain
 - a. Specific asanas
 - b. Specific pranayama
 - c. Specific kriyas
 - d. Different breathing practices

Unit-4:

- i. Asthama
 - a. Specific asanas
 - b. Specific pranayama
 - c. Specific kriyas
 - d. Different breathing practices
- ii. Hypertension
 - a. Specific asanas
 - b. Specific pranayama
 - c. Specific kriyas
 - d. Different breathing practices
- iii. Anxiety and Depression
 - a. Specific asanas
 - b. Specific pranayama
 - c. Specific kriyas
 - d. Different breathing practices
- iv. Diabetes
 - a. Specific asanas
 - b. Specific pranayama
 - c. Specific kriyas
 - d. Different breathing practices

Text books:

Yoga for common ailments manual, *Swami Vivekananda Yoga Prakashana*, Bangalore, 2002

Subject Code: BSCYT-PDS 407

Subject Name: Biochemistry Lab

Objectives:

Following the completion of this course, students shall be able to Understand the principle and procedure of each experiment. Demonstrate each experiment skillfully. Interpret the result during experiment.

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

Unit-1: Demonstration

Identification and Analysis of Constituents in Normal Urine –Urea-Uric acid – creatinine – Calcium and Phosphorous – Sulphate Ammonia – Chloride; Identification and Analysis of Constituents in Abnormal Urine – Protein, blood, bile pigments – bile salts, sugar, Ketone bodies; Identification and Analysis of glucose, fructose, lactose, maltose, sucrose; Identification and Analysis of Albumin, Casein, gelatin; Identification and Analysis of Blood glucose; Identification and Analysis of Blood Urea; Identification and Analysis of Urinary creatinine; Identification and Analysis of Gastric juice; Identification and Analysis of Urinal Chlorides.

Unit-2: Writing of Procedure and repetition of all the above mentioned biochemical tests

Unit-3: Teacher's continuous evaluation

TEXT BOOKS

Keith Wilson & John Walker :Principles & Techniques of Practical Biochemistry, 5th edition

V.K.Malhotra :Practical Biochemistry for students, 4th edition, 2008, 12th edition 2012, Jaypee Brothers medical Publishers ltd.

REFERENCE BOOKS

Shruti Mohanty & Aparna B. Varma: Practical Clinical Biochemistry, Jaypee Brothers medical Publishers ltd. 2013

D.M. Vasudewan & Subir Kumar Das :Practical Textbook of Biochemistry for medical students, Jaypee Brothers medical Publishers ltd. 2013

Subject Code: BSCYT-PDS 408

Subject Name: Training in PDC

Objectives:

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

During this period all students will undergo their training in Personality development camps for children for a period of one month. Following this training and their involvement with the training, each candidate will be assessed based on their regularity, skills, fluency, feedback of the students and the coordinator.



Semester V

Subject Code: BSCYT-TGE 501

Subject Name: Elective

Objectives:

Subject Code: BSCYT-TDS 503

Subject Name: Basis of Indian Culture

Objectives:

Following the completion of the course, students shall be able to Understand meaning and process of culture with respect to the settlement of human in India. Have an understanding about the religious movements and cultural configuration in India. Understand the development and progress of India during Guptas and their legacies. Understand the Indoislamic architecture and change in the trend during that time.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit- 1 : Meaning & process of culture and early human settlements in India

Meaning and process of culture; Sources – Archaeology, Literature, Foreign accounts; Pre and Proto historic cultures; Indus Civilization – Origin extent, date, art, architecture, religion, society, economy; Changes in the later Vedic period.

Unit - 2:Religious movements and cultural configurations in India

Religious movements in the sixth and fifth centuries BC with special reference to Buddhism and Jainism; Social and economic changes; Impact of Persian and Greek invasions; Role of Mauryan empire in Indian cultural unification; Asoka – his edicts and Dhamma; Mauryan art, polity and economy; Sangam age – Society and economy; Cultural configurations during the Sunga – Satavahana – Kushana era – New trends in art, literature and religion; Stupa and rock – cut architecture, sculpture; Dharmashastra, Natyashastra, Kamasutra, Panchatantra, Ayurveda; Religious sects and schools – Hindu, Buddhist and Jain.

Unit - 3 : Developments during the Gupta and legacies

Developments during the Gupta – Vakataka – Pallava age – Literature; Education, science, religion, society, polity, economy, architecture, sculpture, painting; Cultural contacts with outside world; Legacies of classical ideas and patterns and development of new trends in Indian society and thought during the early medieval times; Vedanta – Sankara, Ramanjua;

Bhakti, Tantra, Alavars, Nayanars; Temple styles Nagara, Vesara, Dravida; Literature, society, polity feudalism; Efflorescence of Indian cultural contacts; Islam in India; Alberuni on India.

Unit-4: Indo-Islamic architecture and new cultural trends in Mughal India

Indo-Islamic architecture during the Sultanate period; regional styles; Religious and philosophical developments – Bhakti and acharya traditions; Sufism in India; Islamic influences on Indian society and culture; Muslim interest in Indian classics; Literary developments, Sanskrit, Persian and regional languages; Cultural contributions of Vijayanagara empire; New cultural trends in Mughal India; Religious liberalism – Akbar, Abul Fazl, Dara Shikoh; Growth of Vaishnava Bhakti; Foundation of Sikhism to the institution of Khalsa; Mughal architecture and painting, regional styles; Classical Indian music including pre

– Mughal antecedents; Development of Hindi and Urdu literature; Sawai Jai Singh's astronomical contributions; Arrival and spread of Christianity; European studies of India-William Jones and Fort William College, Asiatic Society of Bengal, influence of Christian Missionaries.

Unit – 5 : Western ideas relationship with ancillary disciplines

Influx of Western ideas and Indian response; English education and press; Bengal renaissance; Reform movements in Bengal and other regions, Administrative Measures for Social Reforms (1828 – 1857), Indian reformers – Raja Ram Mohan Roy, Ishwar Chandra Vidyasagar, Keshav Chandra Sen, Mahagovinda Ranade, Jyotiba Phule, Dayanand Saraswati, Vivekananda, Syed

.Ahmad Khan; Indian nationalism-Rise, salient features and its cultural expressions in literature, art and education, Gandhian ideas – tradition and modernity; Indian Classics, Indian culture studies, Objectivity and bias; Relationship with ancillary disciplines; Scope of research; Primary and Secondary sources; Heritage of India; World's debt to Indian culture.

TEXT BOOKS

Ramshankar Tripathy; History ancient India, Motilal Banarsidass, Motilal Banarsidass Publication, Tenth edition, 1987

REFERENCE BOOKS

1. R.S. Sharma; India's ancient past, Oxford publication, 2006

Subject Code: BSCYT-TDS 504

Subject Name: Yoga and Human Consciousness

Objectives:

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.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit-1: Harmony in Human Being and in Myself

Concept of Human Being as 'I' & Body; Characteristics & activities of 'I' & Harmony in 'I'; Understanding the Harmony of 'I' with the Body: Sanyam and Swasthya, correct appraisal of body needs and meaning of prosperity in detail; Role of Yoga in developing Harmony within the self; Understanding the body as an instrument of 'I'

Unit -2: Harmony in Family and Society - Harmony in Human – Human relationship

Values in Family, Harmony in family; the basic unit of human interaction; Values in Human; Human relationship, Yogic concept of Human relationship – Maitri, Karuna, Mudita and Upeksha; Harmony in the Society – Concept of Vasudaiva Kutumbakam; Concept of Universal Harmonious order in society; undivided society (Akhand Samaj), Universal order (Sarvabhaum Vyawastha); Concept of Samman (Respect), difference between respect and differentiation, the other silent values in relationships

Unit -3: Concept of Human values: Moral Education

Definition and types of moral education, meaning and scope of morality; Role of Yoga in development of ethics and ethical decision making; Values, Yoga, Reality & their inter-relationship; Relevance of ethics and values in Yoga, Qualities of teacher and students; Ethics in Professional Practices, methods of teaching human values, Student – teacher relationship

Unit -4: Social Responsibility and Yoga

Moral Principles of SR; overview of SR; SR & health maintenance of employees through Yoga; Challenges of Environment; Principles of Environmental Ethics; Concepts of Civil Society and

its types; Relationship between Democracy, Civil Society and Social Capital; Efficient use of Yoga in them

TEXT BOOKS

Singh M S : Value Education, Adhyayan Publishers & Distributors, New Delhi, 2007

Chand Jagdish : Value Education, Anshah Publishing House, Delhi, 2007

Gawande E N : Value Oriented Education: Vision for better living, Sarup & Sons Publishers, New Delhi, 2008

Panda Sanjay Kumar: Corporate Social Responsibility in India: Past, Present & Future, The ICFAI University press, Hyderabad, 2008

BOOKS FOR REFERENCE

Kesari Vedanta : Values: The Key to a meaningful life; Sri Ramakrishna Math, Chennai, 2005

Prasad Rajendra : Varnadharm, Niskhana Karma & Practical Morality: A Critical essay on applied ethics, DK Print world Pvt. Ltd, Delhi, 1999

Radhakrishnan S: Indian Philosophy, Vol. 2, Oxford University, Delhi, 2008

Swami Ranganathananda: The Message of Upanishad, Bhartiya Vidya Bhawan, Delhi, 2001

Subject Code: BSCYT-TDS 505

Subject Name: Four Streams of Yoga

Objectives:

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

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit-1: JnanaYoga

Sadhana Chatustaya, Stages of JnanaYoga practice (shravan, manana, Nidhidhyasana), States of consciousness, The concepts of ida, pingla and thesushumna the central channel of energy running along the spine.

Unit-2: Bhakti Yoga

Navavidha Bhakti, Qualities of a bhakta, The pronunciation, chanting, knowledge, benefits of Sanskrit chants, hymns, bhajans, Satsang and the uplifting meaning of the chants helping to thin the activities of the mind, Mantra chanting, and their effect on the nadi and the chakras, Demonstrated ability to create a bhakti bhava during the chanting and singing

Unit-3: Karma Yoga

The concept and meaning of karma Yoga, Concept of Nishkama Karma, Prerequisites for a sthitaprajna, Sthitaprajnalakshana, The law of karma

Unit-4: Raja Yoga

Concepts and principles of PatanjalaYoga; Karma Shuddhi (Yama, Niyama); Snayu Shuddhi (Asana); Prana Shuddhi (Pranayama); Indriya and Mano Shuddhi (Pratyahara); Mana, Buddhi, Ahamkar and Chitta Shuddhi (Dharana, Dhyana and Samadhi)

TEXT BOOKS

Swami Bhuteshananda : Nararad Bhakti Sutra, Advaita Ashrama Publication-Dept. Kolkata, II Edition, 2009

Swami Vivekananda :J nana Yoga, Bhakti Yoga, Karma Yoga, Raja Yoga. Advaita Ashrama, Calcutta, 2000

Subject Code: BSCYT-TDS 506

Subject Name: Psychology Practicum

Objectives:

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

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Practical & Practicum

Division of Attention; Emotional Intelligence/Emotional Maturity; Spiritual Intelligence/Study of Values/Spiritual Belief ; Self concept; *Asakti/Anasakti* Scale; Anxiety Scale; Aggression Scale Fear of Death; Depression; Frustration; Personality Inventory; Adjustment/Mental Health General Well-being; Case study

Note: Each student will collect data of 10 respondents. Using any two of the tests mentioned above they have to give necessary statistical treatment and they should be presented at the time of Examination. Practical involves understanding of means of Central Tendency, involving means, median, mode & Standard Deviation.

Subject Code: BSCYT-PDS 507

Subject Name: Yoga Practicum 9 – Case Study

Objectives:

Objective of this course is to make the students to record the data everyday in a clinical set up and analyze the same for the presentation of the cases.

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

Unit-1: Case taking-I

Students shall be permitted to take four cases and supervise the practice for fifteen days and common parameters will be recorded everyday.

Unit-2: Case taking-II

Students shall be permitted to take remaining four cases and parameters will be recorded.

Unit-3: Preparation of the cases

Candidate shall write a report of a most improved and least improved case.

Unit-4: Presentation

Following the presentation, candidate will present the case to the examiners and the same will be examined.

Subject Code: BSCYT-PDS 508

Subject Name: Educational Tour

Objectives:

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

Unit-1: Study tour

The study tour is to give exposure to the students on the activities being conducted by reputed Yoga Institutes/ Colleges/ Universities/ Yoga Centers/ Yogic Hospitals. The students may be taken to any one or more than one Yoga Institutes /Yoga Centers etc. of repute in India. The Study Tour shall be arranged by the Institute and the expenses shall be borne by the concerned students only. Each student has to submit a Study Tour observation report that will be evaluated by the teacher who is in-charge of the study tour and also counter signed by the Course Coordinator.

The Study Tour will carry marks as mentioned in the Scheme of examination

Unit-2: Presentation

Presentations of Study Tour Report, its Utility and the exposure got to enhance their learning

Unit-3: Continuous evaluation by the Teachers

Subject Code: BSCYT-PDS 509
Subject Name: Energy Practicum

Objectives:

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

Semester VI

Subject Code: BSCYT-TGE 601

Subject Name: Elective

Objectives:

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Subject Code: BSCYT-TDS 602

Subject Name: Yoga and Human Values

Objectives:

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Subject Code: BSCYT-TDS 603

Subject Name: Applied Yoga

Objectives:

Following the completion of the course, students shall be able to Understand the applied value of yoga in different domain. Have an idea about the role of yoga for school, sports, techno stress and geriatric care.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit -1: Yogic Health for school

General Introduction to School Health, components of school health; Parent-Teacher-Student relationship in a School Health; Role of social interaction in a School Health; Brief introduction to developmental process of children; Psycho-Physiological changes and development of

cognitive functions in School going children; Role of Yoga in establishment of values in School going children; Personality Development: New Dimensions of Personality through Yoga

Unit -2: Yoga in Physical Education, Sports Sciences

General introduction to Physical Education and Sports; Difference between Physical Education & Sports; Relevance of Integration of Yoga in Physical Education & Sports; Yoga for Physical, Mental Stamina and other faculties / skills in a sports Personnel; Nature of different sports injuries, its prevention and management through Yoga; Yoga modules for different sports – track events, field events, single participation, group participation; Application of Yogic lifestyle in improving efficacy in sports personnels; Relationship between Yoga and sports activities; Research reviews on Yoga and Sports

Unit -3: Yoga for technostress

Introduction to Technostress, its cause, symptoms and complications; Health Hazards in computer professionals; Role of Yoga in the promotion of skills; Application of Yoga for management of Technostress; Research reviews on effect of Yoga on Technostress

Unit -4: Yoga for geriatric care

General introduction to Geriatric Care; Ageing: Causes and features, Premature ageing; Common Geriatric problems; Application of Yoga in common Geriatric problems and their prevention & management; Research reviews on Yoga & Geriatric care

TEXT BOOKS

Jayadev H J : Growing with Yoga, The Yoga Institute, Santacruz, Mumbai, 2004

Liz Lark : Yoga for Kids, Carlton Books Ltd., London, 2003

Swati & Rajiv Chanchani : Yoga for Children: A complete illustrated guide to Yoga, UBS Publishes Distributors Pvt. Ltd, 2008

Iyenger B K S : The Path to Holistic Health, A Dorling Kindersley Book, Great Britain, 2001

Dr. Goel Aruna : Yoga Education: Philosophy and Practice, Deep & Deep Publications Pvt. Ltd, 2007

BOOKS FOR REFERENCE

Basavaraddi I V : Yoga: Teachers manual for school children, MDNIY New Delhi , 2010

Basavaraddi I V : Yoga in School Health, MDNIY New Delhi, 2009 Iyenger B K S : Astadala Yogamala 1 to 7 volumes, Allied Publishers Pvt. Ltd, 2009

Basavaraddi I V : Yoga for Technostress, MDNIY, New Delhi, 2010

Dr. H Kumar Kaul : Yoga and Healthy Ageing, BR Publishing Corporation, Delhi, 2006

Basavaraddi I V : Yogic Management of Geriatric Disorders, MDNIY, New Delhi, 2009

Subject Code: BSCYT-TDS 604

Subject Name: Research Methodology & Statistics

Objectives:

Following the completion of the course, students shall be able to Understand the concept of research and its methodology for carrying minor and major research. Feed and analyze the data. Organize the data and represent the data.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

Unit- 1: Introduction to research methodology

Definition of research; Importance of Studying Research Methods: Evaluating Research Reports; Conducting Research, Thinking Critically About Research; Types of research Applied Research & Basic Research; Goals of Research: description, explanation, prediction, and control of behavior; Ethics of research: Informed consent, Anonymity, Confidentiality, Plagiarism

Unit- 2: Introduction to Research Process

Research questions; Literature review; Different Sources of Information: Primary, Secondary, Tertiary source; Electronic Databases: Google Scholar, Pubmed & PsycINFO; Hypothesis Operational definition; Sampling and Generalization - Population and Sample; Probability Sampling: Simple Random Sampling, Systematic Sampling, Stratified Sampling, Cluster Sampling; Sampling Bias and Nonprobability Sampling: snowball sampling, convenience; Types of Biological data (Scales of measurement) – nominal, ordinal, interval, ratio; Types of variables – Independent, dependent, confounding variable; Reliability & Validity

Unit-3: Introduction to Research Design

Cross-sectional studies and its advantages and disadvantages; Cohort studies and its advantages and disadvantages; Randomized controlled trials and its advantages and disadvantages; Factors need to be considered when designing a study: Availability of data, Sampling methods, Data collection, Cost of the design, time implications and loss to follow-up, Controls, Ethical issues, Issues of bias and confounding

Unit-4: Statistics

Normal distribution – Skewness and kurtosis; Frequency distribution; Measures of central tendency – mean, median, mode; Measures of dispersion – range, variance and standard

deviation; Graphical presentation of data – Bar graphs, Pie chart, line diagram, scatter plot; Paired samples t test; Percentage change

Unit-5: Reporting Research

Parts and Order of Dissertation, Title Page, Abstract, Introduction, Method Section, Results Section, Discussion Section, Reference Section

TEXT BOOKS:

R. L. Bijlani. (2008). Medical Research: All You Wanted to Know But Did Not Know Who to Ask. Jaypee Brothers Medical Publishers Pvt. Ltd. New delhi

REFERENCE BOOKS:

C R Kothari. (2009). Research Methodology: Methods and Techniques. New Age International (P) Ltd. New delhi.

Zar, J. H., & Zar. (1999). Biostatistical Analysis. Pearson Education. New Delhi

Subject Code: BSCYT-TDS 605

Subject Name: Practical Statistics

Objectives:

Following the completion of the course, students shall be able to Understand the concept of research and its methodology for carrying minor and major research. Understand the tricks of analyzing the data efficiently. Have an idea about various statistical tests and their application.

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

List of Practical's:

Introduce about MS-Word and write down the steps for performing various general operations in it (like open, saving, cut, copy, paste, printing a document etc.).

Create a simple MS –Word document about introducing yourself and preparing your Bio-data (using various formatting options in MS-Word).

Learning and performing various options/operations in MS-Word.

- Creating a table, Entering text and contents in a table.
- Toolbars in word, Using various toolbars options.
- Watermarks and Water-marking a document.
- Inserting clip arts/picture, Hyper-linking a text.
- Header/Footers.

Introduce about MS-Excel and write down the steps for performing various general operations in it (like open, saving, cut, copy, paste, printing a document etc.).

Learning and performing various options/operations in MS-Excel. Like:

- Creating and Saving a new Workbook.
- Deleting and Renaming a Worksheet.
- Creating Formulas, Using Formulas.
- Using Functions.

Introduce about MS Power-point explaining its various features and steps for performing various general operations in it.

Prepare a power-point presentation explaining the facilities /infrastructure available in your College/ Institution.

Net Surfing

Creation and Usage of E-mail Account

Subject Code: BSCYT-TDS 606

Subject Name: Research Project

Objectives:

Total Number of Hours: 60	Theory	Tutorial	Practical
Credits	3	1	0
Hours/ week	3	1	0

A pilot research shall be carried out by each student under the supervision of a Lecturer /Assistant Professor. As part of the research project, students will record the effect of any intervention of h/is/er choice for a common variable in a particular group of sample.

Subject Code: BSCYT-PDS 607

Subject Name: Yoga Practicum 10 – Case Study Reports

Objectives:

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4

Unit-1: Case taking-I

Students shall be permitted to take four cases and supervise the practice for fifteen days and common parameters will be recorded everyday.

Unit-2: Case taking-II

Students shall be permitted to take remaining four cases and parameters will be recorded.

Unit-3: Preparation of the cases

Candidate shall write a report of a most improved and least improved case.

Unit-4: Presentation

Following the presentation, candidate will present the case to the examiners and the same will be examined.

Subject Code: BSCYT-PDS 608

Subject Name: Energy Practicum

Objectives:

Total Number of Hours: 45	Theory	Tutorial	Practical
Credits	0	0	2
Hours/ week	0	0	4