

SYLLABUS for M.Sc., Yoga
(From the Academic Year 2022-23 onwards)
Choice Based Credit System (CBCS)
Outcome Based Education (OBE)



Estd. 1919

PG & Research Department of Physical Education and Sports Sciences

National College (Autonomous)

(Nationally Re-Accredited at A+ Grade by NAAC,

College with Potential for Excellence)

Tiruchirappalli-620001, Tamil Nadu, India

National College (Autonomous)

VISION AND MISSION

VISION

➤ To offer quality higher education to the younger generation, especially from the rural India, who are economically and socially backward, to liberate themselves from prejudice, oppression and ignorance and to gain knowledge for their bright future.

MISSION

- To ignite the young minds with lofty ideas and inspire them to achieve excellence in the chosen field.
- To facilitate individual growth of students, with accent on character building, through cocurricular and extra-curricular activities.
- To encourage the students to take up research and help them reach global standards.
- To provide a congenial atmosphere to study and to learn with infrastructural facilities of high standards.
- To instil in the minds of the students, the sense of nationalism and to train them in social awareness.

PG & RESEARCH DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS SCIENCES

VISION AND MISSION

VISION

- To be an International Institute of Excellence, providing a conducive environment
- for education with a strong emphasis on innovation, quality, research and strategic
- Partnership blended with values and commitment to society.

MISSION

- To create an ecosystem for learning and world class research.
- To nurture a sense of creativity and innovation.
- To instill highest ethical standards and values with a sense of professionalism.
- To take up activities for the development of Society.
- To develop national and international collaboration and strategic partnership with industry and institutes of excellence.
- To enable graduates to become future leaders and innovators.

VALUE STATEMENT

- Integrity, Innovation, Internationalization

NATIONAL COLLEGE (AUTONOMOUS), TIRUCHIRAPALLI-1
M.Sc., Yoga
 (Applicable to the candidates admitted from the academic year 2022 onwards)

COURSE STRUCTURE

SEMESTER-I

Sem	Paper no	Title of the Paper	Hrs/ Weeks	Credit	Exam Hrs	Marks			Total
						Internal	External		
I	P22YO1	Yoga and Health	6	5	3	25	75		100
	P22YO2	Elements of Yoga	6	5	3	25	75		100
	P22YO3	Yoga Asanas: Practice and Benefits	6	5	3	25	75		100
	P22YO4P	Principles of yoga and methods of yoga – (practical– I)	6	5	4	25	70	5	100
	P22YO5E	Human Anatomy and Yoga	6	4	3	25	75		100
		Total		30	24				500

SEMESTER – II

II	P22YO6	Scientific Aspects of Yoga	6	5	3	25	75		100
	P22YO7	Yoga and Alternative Medicine	6	5	3	25	75		100
	P22YO8	Yoga and Sports	6	5	3	25	75		100
	P22YO9P	Practical –II Pranayama and Meditation	6	5	4	25	70	5	100
	P22Y10E	Yoga and chakras	6	4	3	25	75		100
		Total		30	24				500

SEMESTER –III

III	P22YO11	Research methodology & Statistics in Yoga	6	5	3	25	75		100
	P22YO12	Yoga and meditation	6	5	3	25	75		100
	P22YO13P	Teaching Practice (Practical–III)	6	5	4	25	75		100
	P22YO14E	Yoga therapy	6	4	3	25	70	5	100
	P22YO15E	Fitness and Rehabilitation	6	4	4	25	75		100
		Total		30	23				500

SEMESTER-IV									
IV	P22YO16	Application of test and Measurement	6	5	3	25	75		100
	P22YO17P	Advanced yoga (Practical-IV)	6	5	3	25	75		100
	P22YO18E	Hygiene, Diet & Nutrition	6	4	4	25	70	5	100
	P22YOP19	(Dissertation & Viva Voce)	6	5		25	75		100
		Total		30	22				400
		Grand Total		120	90				2200

Programme Outcomes:

- The student can understand the knowledge about the theory and practice of yoga, human anatomy & physiology, philosophy, Psychology Patanjali yoga sutras, Classical Hatha yoga texts, and yoga alternative therapies relevant to the theory and practice of yoga to help them gain the theoretical and scientific perspective on yoga.
- The student can understand the knowledge of Yoga and its nature, scope, Development of yoga through the ages, Different types of yoga like Karma Yoga, Bhakti Yoga, Jnana Yoga, Raja yoga, Hatha yoga and Mantra Yoga, Scientific research on yoga, Meditation and Its nature and scope, Different types of meditation, Scientific research on meditation, Yogic concepts in Bhagavad Gita ,Chakra theory.
- The student can understand the knowledge of human anatomy & physiology of Cell structure, systems in the body like skeletal system, Muscular system, Digestive system, Circulatory system, Respiratory system, excretory system, Endocrine system, Nervous system and Reproduction. Also knowledge on nutrition and dietetics.
- The student can understand the knowledge about Patanjali Yoga sutras, concepts of Iswarya, Chitta vruties, Kriya yoga Samyama and vibhutis- psychic powers (vibhutis).
- The student can understand the knowledge of Hatha yoga Pradipika, Asta Kumbhakas, Concept of Nadasandana, Introduction to Gheranda Samhitha and Pratyahara techniques.

PROGRAMME SPECIFIC OUTCOMES:

- To develop knowledge on theory and practice of yoga so that the students learn to practice and also to teach yoga to all age groups for promoting their health and effectiveness
- To acquire knowledge of human anatomy & physiology of Cell structure systems in the body like Skeletal system, Muscular system, Digestive system, Circulatory system, Respiratory system, Excretory system, Endocrine system, Nervous system and reproduction. Also knowledge about Nutrition and dietetics.
- To learn basic understanding of Patanjali Yoga sutras, concepts of Iswarya, Chitta verities, Kriya yoga Samyama and vibhutis- psychic powers (vibhutis).
- To develop basic understanding of importance in teaching methods in research methodology and statistics in Yoga field.
- To give them a basic understanding the importance of yoga for special groups who are suffering with physical, mental and developmental problems.
- To develop the necessary skills and knowledge of Kriyas, Asanas, Mudras, Bandas, Pranayama and meditative postures.

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*Scheme and Syllabus for M.Sc., Yoga
Outcome Based Education System (OBES) - 2022 onwards*

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
I	P22YO1	YOGA AND HEALTH	5	6	25	75	100

Objectives

- To acquire knowledge on basics of yoga
- To study and understand components of fitness.

Course Outcomes (COs)

- CO1. : To study and understand the fundamentals of yoga.
 CO2. : To attain the knowledge of components of fitness
 CO3. : Understand the basic concepts in yoga.
 CO4. : To acquire knowledge about bandas and yogic purification
 CO5. : To attain knowledge on yogic diet and yoga therapy.

Unit –I:

Yoga – Meaning and Relevance. Tradition and origin of yoga. The body, mind and role interlink with yoga. Concepts of yoga. Types of yoga – Hatha Yoga, Bhakti Yoga, Rajayoga, Karma yoga, Jnana yoga, Kundalini yoga, Mantra Yoga, Tantra Yoga and integral Yoga (Sri Auro bindo).

Unit – II: Components of fitness – Flexibility, Strength, speed, ability, co-coordinative abilities and Endurance. Fitness development–cycling, Aerobic activities, Jogging, calisthenics, Rhythmic exercise and circuit Training. Components of wellness – Factors(Psychological, Physiological and Anatomical), Progression, warming up and Limbering down, Special Physical Fitness Exercise and Principles of Physical fitness development.

Unit-III: Bandhas and yogic purification:

Bandhas: Jalandhar bandha, uddiyana Bandha, moolabandha and Mahabandha. Yogi purification: Bamana Dhouti, Barisara Dhouti,sahaj Agnisara Dhouti, Nouli, Netikriya, Nasa-polar shahaj Bastrikria,Waterbath,Tub-bath,Hip-bath,sun bath,spinal bath,Airbath, Hot foot bath, Thesitz bath, Tratak and message.

Unit-IV: Yogic Diet

Food and meditation Food types: Sattvic (Cheese, Butter, curd, Ghee, sweet fruits, Honey, apples, bananas, Grapes, Papaya, Pomegranates, Mangoes, pears, Pineapple, Guavas, Figs etc. Rajasic (Eggs, Meat, Salt, Chillies, Chutney, Asafoetida, Pickles, Tea, Coffee etc.) and Tamasic (Beaf, Pork, wine, onion, Garlic, Rotten, state things). Balanced diet, carbohydrate, proteins, Fats and vitamins (Fat and water soluble).

Unit-V: Yoga therapy

Curative power for life – threatening diseases and disorders (Arthritis, Arteries clerosis, chronic fatigue, diabetes, Asthma and obesity). Yoga control the respiratory problem, high blood pressure, Body pain and weight reduction. Yogic practices reduce anxiety, create self-awareness and provide personal social value.

Reference:

1. George Feuerstein: The Yoga Tradition (Its history, literature, Philosophy and practice)
2. Sri Ananda: the complete Book of Yoga Harmony of Body and Mind (Orient Paper Backs: Vision Book Pvt. Ltd., 2282)
3. Swamy Satyananda Saraswathi: Asana, Pranayama, Mudra, Bandha (India: Yoga Publications Trust, Munger, Bihar)
4. Swami Sivandana Practice of Yoga (The Divine Life Society, Shivananda Nagar
5. P.O.U.P. Himalayas, India)
6. Swami Sivananda Practice of Karma Yoga (The Divine Life Society, Shivananda Nagar P.O. U.P. Himalayas, India)
7. B.K.S.Iyengar:Lighton theYoga Sutras of Patanjali (Haper Collinks Publications India Pvt. Ltd.,New Delhi)
8. Iyengar B.K.S. (2289)Lighton yoga:Unwin paper backs.
9. Prabhavananda (2253) Patanjali Yoga Sutras,Madras :SriRamakrishna Math 10. Thirumoolar (2006),Thirumantiram,Madras:Sri Ramakrishna Math.
11. Ranganatha Swami (2001) The message of the Upanishads, Mumbai:Bharatiya VidyaBhavan.
12. Vivekananda Swami (2005) Hinduism, Chennai: Sri Ramakrishna Math.
13. Sivananda SriSwami(2283), Practical Lessons in Yoga, Shivananda Nagar:The Divine Life Society
14. Desikachar TKV(2004) yoga yajnavalkyasamhita, Chennai:Krishnamacharya Yoga Mandiram
15. Desikachar TKV and kamsthub Desikachar,(2004) yoga Tharavali Chennai:Krishnamacharya Yoga Mandiram.
16. KokajiR.G.(2270) Hatha Pradipita ,lonavala:Kaivalyadhma
17. Desikachar T K V (2004), Nathamuni's Yoga Rahasya Chennai :Krishnamacharya Yoga Mandiram.Swami Sivananda Practice of karma Yoga (The Divine Life Society, Shivananda Nagar P.O. U.P.Himalayas India)

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

MOOC Courses	https://www.mooc-list.com/tags/yoga
E-content	https://www.coursera.org/learn/engineering-health-yoga-physiology
Other online resources	https://www.everydayhealth.com/yoga/ https://www.medicalnewstoday.com/articles/286745

Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
AVG	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial (High) “--“there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
I	P22YO2	ELEMENTS OF YOGA	5	6	25	75	100

Objectives

- To acquire knowledge on yama, niyama and asana
- To study and understand koshas in human beings and integral yoga practice

Course Outcomes (Cos)

1. To study and understand the fundamental concepts Astanga yoga and its limbs 2. To attain the knowledge of yama, niyama and asanas.
3. Understand the basic concepts in yoga.
4. To acquire knowledge about koshas in human being
5. To elaborate about the internal yogic practice.

Unit – I

Yama (Socialdiscipline)-Ahima (Nonviolence). Satya (Truth), brahmacharya (celibasy), Asteya(Nonstealing) and Aparigraha (Non-conveteousness).

Unit –II

Niyama (selfdiscipline) –saucha(cleanliness), santhosha(contentment)
Tapas(penance), svadhyaya(self/study) and Iswara Pramidhana(surrender to God).

Unit –III

Asana–Basic rules for asanas, caution and benefits of asanas. Pranayama(Breathcontrol) Rechaka(inhalation). Kumbaka(suppression) and Puraka(exhalation). Cosmic energy and their forms in human body. Yogic breathing and roles.

Unit –IV

Five sheaths (koshas) in human beings – Annamaya kosha, pranamaya kosha, manomayakosha, vighyanamaya kosha and anandamaya koshas. Pranayama practicing methods.Surya bhedna,sukhparvakpranayama,semveta pranayama,sahita pranayama,Nadishodan pranayama, Aritak pranayama, ujjayi Pranayama, Bhastrika pranayama, kapalbhati,sheetalipranayama,sheetkari,palvini,kewaliandAtiriktapranayama.

Unit –V

Internal yogic practice: Dharma (concentration) – control of senses methods and practice. Mind and unified awareness. Dharana practicing with external objects and internal part (third eye region). Meditation: Fivestages–vitarka, vichara, karuna, Mudita and Ekagrata. Samadhi

References:

- Arthur C.Guyton & John Edward Hall(2006), Textbook of medical Physiology, Florida, United States, Elseiver Standards.□
- Surinder H.Singh & Krishna Garg (2008), Anatomy and Physiology for nurses & allied health sciences, NewDelhi CBS Publisher.□
- SivaramakrishnanS.(2006), Anatomy and Physiology for Physical Education, NewDelhi, Friends Publishers.□
- AnneWaugh & IsonGraunt (2005) Anatomy and Physiology in Health and Wellness, Allahabad, Churhcill Livingtone.□
- Clark RobertK(2005) Anatomy and Physiology–Understanding the Humanbody, Suddury, United State, Jones & Bartiett.□
- Shri Krishna(2285) Noteson Structure and Functions of Humanbody & Effects of Yogic Practices in it, Mumbai. ICYHC Kaivalyadhama.□
- DuttaRay (2001) Yogi Exercises, NewDelhi: Jaypee Brothers.□
- ShirleyTelles(2006) A Gilimpse of the human, Bangalore: Swami Vivekanakda yoga prakashana□
- Leslie Kaminoff (2007) Yoga anatomy, Champaign: Human Kinetics□
- Peter LWilliams & Roger Waswie (2288) Gray’s Anatomy, Edinburgh: Chucill Livingstone□
- Evelyne C peace (2297) Anatomy & Physiology for Nurses NewDelhi: Jaypee Brothers.□
- GoreM.M.(2003) Anatomy & Physiology for yogic practices, Lonavala: Kamhans Prakshan.□

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

MOOC Courses	https://www.mooc-list.com/tags/yoga
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Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	2	2	2	2	1	1	1	1
CO2	3	3	3	3	--	--	--	--	--	--	1	1
CO3	2	2	2	2	--	--	--	--	--	--	--	--
CO4	1	1	1	1								
CO5	--	--	--	--	2	2	2	2	1	1	1	1
Total	10	10	10	10	4	4	4	4	2	2	3	3
AVG	2	2	2	2	1.6	1.6	1.6	1.6	0.4	0.4	0.6	0.6

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial (High) “--“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
I	P22YO3	YOGA ASANAS: PRACTICE AND BENEFITS	5	6	25	75	100

Objectives

- To acquire the practical knowledge of yogic practices.
- To provide practical exposure in selected yogic practices

Course Outcomes:

- CO1. : Understand the fundamental skills of Yoga
 CO2. : To attain the knowledge about various Asanas and Medication
 CO3. : To acquire knowledge about various asanas and its benefits
 CO4. : To discuss about the benefits, techniques and contraindications of various asana.
 CO5. : To develop the skills for practicing and teaching various yoga techniques

Unit-I:

SuryaNamaskar: Technique (Namaskarasana, Parvathasana, HastaPadasana, Ekpadaprasaranasana, Bhoothharasana, Ashtanga Pranipatasana, Bhujangasana, Bhoothhrasana, Ekpada prasaranasana, Hastapadasana, Parvatasana, Dakshasana)– Benefits of Surya Namaskar
 Sukhasan: Technique – Benefits Mandukasan : Technique – BenefitsYogmudrasan:Technique– BenefitsSimhaasan:Technique– Benefits

Unit-II:

Sarvangasan:Technique- Benefits Supt Vajrasana :Technique – Benefits Mayurasan: Technique– Benefits Konaasan : Technique – Benefits Chakraasan: Technique–Benefits

Unit-III :

Naukaasan :Technique – Benefits Salab Asana : Technique– Benefits Ushtra Asana:Technique – BenefitsGomukhasana:Technique–BenefitsPadamAsana:Technique– Benefits

Unit-IV:

Parvatasana:Technique –Benefits Baddha Padamasana :Technique – Benefits Uthitha Padmasana :Technique – Benefits Halasana: Technique–Benefits Dhanurasan: Technique– Benefits

Unit-V:

PawanmuktAsana:Technique– Benefits Matsyaasan :Technique– Benefits Garudasan: Technique– Benefits MoolaBandhaasan: Technique –BenefitsPaschimotaasan :Technique – BenefitsShavasana:Technique– Benefits

Books Recommended:

1. R.S.Vadhyar & Sons: Infant Sanskrit Reader–,Palghat
2. Saralalokah(easy slokas for children) Samskrita kaaryalayah, aravindasrama, Pondicherry, TN
3. Hitopadesah of Narayanapandita, Jayalakshmi Publications, Hyderabad.
4. Prathama– Samskrta Bhasha Pracara Samiti, Hyderabad.

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

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Relationship Matrix for Cos, Pos

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial (High) “—“ there is no correlation

Sem	Course Code	Course Title	Credit	Hours	Marks		
					I	E	T
I	P22YO4P	PRACTICAL– I PRINCIPLES OF YOGA AND METHODS OF YOGA	5	6	25	75	100

Objectives

- To provide the necessary knowledge of the theory and practice of yoga so that the students learn to practice and also to teach yoga to all age groups for promoting their health and effectiveness

COURSE OUTCOMES:

- CO1. : To provide adequate practice on fundamental, advance skills and techniques in Selected yoga postures
- CO2. : To train on coaching, officiating in yoga discipline
- CO3. : To train on specific asanas and practice pranayama and kriyas
- CO4. : To develop and practicing the officiating rules in yoga
- CO5. : To learn to do specific asanas , pranayama and kriyas and learn about its techniques and contraindications

Unit– I

Concept of yogic practices– principles– Loosening exercises– its importance–introduction to Suryanamaskar (12 counts) (Breathing)

Unit –II

Asanas – Meaning – Definitions – Limitations –Classification– Scope Differences between Asanas and Physical exercises. Asanas – Name – Type – Category – Method of practice, Essentials and Limitations Breathing, Duration, Awareness, Sequence, Contra-indications, variations – Essentials limitations and benefits of following Asanas.

Sukhasana, Vajrasana, Ardha Padmasana, Padmasana, Savasana, Makarasana, Tadasana, Utkatasana, Ardhakaticakarasana, Padahastasana, ArdhaChandrasana, Dandasana, Baddakonasana, Janusirasana, Pachimotanasana, Pavanamukhasana, ArdhaSalabasana, Salabasana, Bhujangasana, ArdhaDhanurasana, Sasangasana, Uttanapadasana, Navasana, Vipareethekarani, Chakrasana, Garudasana, Natarajasana, BadhaPadmasana, UttithaPadmasana, Mandukasana, Dhanurasana, BhujapadaPidasana, sKarnaPidasana.

Unit –III

Pranayama–Meaning–Definitions–Techniques–Phases–BreathingGuidelines, Cautions, preparations, obstacles, aids, Ratio – Limitations – Benefits of the following: Sectional Breathing, Anulomaviloma, Surya Bhedana, ChandraBhedana, NadiShodhna

Unit –IV

Kriyas–Meaning–Types –Guidelines– Limitations, practicing methods, benefits,1.Kapalabashi, 2.TratakaBhagiranga – Antaranga Bandhas– Meaning– Definitions– Types–Practicingmethod, Guidelines benefits, application of Bandhasin Pranayama, JalendraBandha.

Unit– V

Mudras–Meaning–Types –Guidelines–Limitations, Practicing Method, Benefits Chin –Chinmaya– Adi(Sakthi)– Brama– LingaMudra– Meditations– meaning– concept methods of practicing – benefits. Saguna Meditation–Nirguna Meditation.

References:

- B.K.S.(2276) Light on yoga, London, Unwin paper packs.
- Sivananda Saraswathi Swami(2234) Yoga Asanas Madras : My Magazine of India
- Sathyananda Saraswathi Swami(2008) Asana, Pranayama, Mudra, Bandha, Munger: Yoga Publications trust.
- IyengerB.K.S(2008) Light on Pranayama NewDelhi: Haper Collins Publishers India.
- Vishnu Devananda Swami(2272) The complete illustrated book of yoga, NewYork: Pocket Books.
- ChandrasekaranK(2299) sound health through yoga Sedapatti: Prem Kalian Publications.
- Yogeshwaran and Saraswathi Swami(2275) Firststeps to higher yoga, Gangothari: Yoganiketan trust.
- Coulter, HDavid(2001) Anatomy and HathaYoga, USA:Bodyand Breath Ic.
- KirkMartin(2006) HathaYoga Illustrated Champaign: Human kinetics.
- Gharote(2004) Applied Yoga, Lonvla : Kaivalyadhama.
- Kathy Lee Kappmeier and DianeM.Ambrosini(2006) Instructing HathaYoga, Champaign: Human Kinetics.

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Relationship Matrix for Cos, Pos, PSOs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
Weightage	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.8	0.8	0.8	0.8

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial (High) “—“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
I	P22YO5E	Elective Course HUMAN ANATOMY AND YOGA	4	6	25	75	100

Objectives

- To acquire the knowledge on human anatomy and how yoga can help
- To provide the necessary knowledge of human anatomy & physiology of Cell structure.
- Systems in the body like Skeletal system, Muscular system, Digestive system, Circulatory system, Respiratory system, Excretory system, Endocrine system, Nervous system and Reproduction also knowledge about Nutrition and dietetics.

Course Outcomes:

- CO1. : Understand the fundamentals of human anatomy
 CO2. : To attain the knowledge about various systems in human body and its function
 CO3. : To understand the anatomy and physiology of nervous and digestive system
 CO4. : To discuss about the benefits of yoga in human anatomy
 CO5. : To explain the role of endocrine glands in development and regulation of body function

UNIT-1: Cell and Tissues:

Anatomical terminologies: Body cavities, specialized cells in human body, cell division, cell- cycle.
 Tissues: Epithelial tissues – simple, cuboidal, columnar, glandular and stratified types. Connective tissues: Fibroblast, macrophage, mast cells, Areolar, Adipose, Fibrous, Tendons, Ligaments, mucus, Elastic fibres, cartilage, Blood, Muscle and Nervous.

UNIT-2: Body connected with Breathing:

Upper Respiratory tract – Nostrils, Nasal cavities, pharynx, epiglottis and larynx. Lower respiratory tract – Trachea, Bronchi, Bronchioles and Lungs. Inspiration, Breathing and Lungs mechanics. Lungs capacity Disorder of respiratory Tract– Carbonmonoxide poisoning, pulmonary Embolism, sinusitis, otitis media and laryngitis. Lower respiratory tract disorders.

UNIT- 3:

Skeletal system: Functions, Types of skeletal system – Axial (Bone spine, skull and Ribcage) Appendicular (body's appendages: arms and legs – Shoulder and hip area bones) Types of bone: Long, short, Flat, Irregular compact and spongy. Bone composition, development and growth of bone. Bone marrow. Joints: structural and functional classification. Bones in skull, vertebral column and the lower limb.

UNIT- 4 :

Muscular system and physiology structure and functions of muscular tissue. Types of muscle tissue. Muscles in head, neck, facial part, eye, tongue, pharynx, Legs structures of Muscle fibre, Myofibril, myofibril. Muscle mechanics. Characteristics of contractions. Muscle energetics.

UNIT – 5 :

Nervous system and organs of special senses. Functions of Nervous system – sensing input integration output. Structure of neurons. Central and peripheral nervous system. Parts of CNS – Brain spinal cord,

Reflex action Brain waves – Theta, Alpha and Beta. Senses: sight, Hearing, Taste, Touch, Balance and acceleration, Temperature and kinesthetic sense.

TEXT BOOKS

1. C.D.Sharma: Critical Survey of Indian Philosophy, Motilal Banarsidass Publications 2003.
 2. N. V. Banerjee: The Spirit of Indian Philosophy, Arnold-Heinemann Publishers, 2274.
- REFERENCEBOOKS
3. P.T.Raju: Structural Depths of Indian Thought, SUNY Press, 2285
 4. S.N.Dasgupta: A History of Indian Philosophy Vol. 1, Motilal Banarsidass Publications, 2292
 5. J.N.Mohanty: Classical Indian Philosophy, Published by Rowman & Littlefield, 2000
 6. T.M.P.Mahadevan: Invitation to Indian Philosophy, Arnold-Heinemann Publishers, 2274

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

MOOC Courses	https://www.mooc-list.com/tags/yoga
E-content	https://www.coursera.org/learn/engineering-health-yoga-physiology
Other online resources	https://www.everydayhealth.com/yoga/ https://www.medicalnewstoday.com/articles/286745

Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
AVG	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
II	P22Y06	SCIENTIFIC ASPECTS OF YOGA	5	6	25	75	100

Objectives

- To acquire the practical knowledge of yogic practices.
- To provide practical exposure in fitness and components of fitness.

Course Outcomes:

CO1. : Understand the fundamental skills

CO2. : To attain the knowledge about principles and classification in yoga.

CO3. : To acquire knowledge about foundation of asanas , fitness basics of exercises

CO4. : To discuss about difference between yoga and physical exercises CO5.

: To develop the skills for officiating and organizing the events

UNIT –I 1. Introduction to Yoga

- 1.1 Definition and meaning of Yoga
- 1.2 Principles of Yoga –Kinds of Yogic Practices
- 1.3 Classification of Yoga–Meditative and Cultural
- 1.4 Difference between yoga and physical exercise

UNIT-II 2. Foundation of Asanas

- 2.1 Asana–Definition,Types,Benefits-Physical,PhysiologicalandPsychological
- 2.2 Pranayama–Meaning, Types, Stages and Benefits
- 2.3 Effect of various yogic practices on Respiratory and Circulatory system
- 2.4 Method of performing various asanas – Suryanamaskar, Padmasana, Vajarasana

UNIT-III 3. Introduction To Fitness

- 3.1 Fitness–Definition and Components of Physical Fitness
- 3.2 Health Related Fitness – Endurance, Flexibility, Strength, Body-composition, Co-ordination
- 3.3 Warm-up–Definition, Components and effects of warm-up

UNIT-IV 4. Basics of Stretching

- 4.1 Stretching– Definition, Frequency, Duration and Intensity of stretching
- 4.2 Types of Stretching- Factors affecting Flexibility
- 4.3 Static Stretching techniques- Guidelines and Precautions

UNIT-V 5. Exercise for Strength and Endurance

- 5.1 Strength–Definition, Benefits, Types, merits and demerits
- 5.2 Bodyweight Exercises- Squats, Push-ups, core exercises
- 5.3 Endurance–Definition, Types, benefits- frequency, Intensity, VO2max
- 5.4 Effect of endurance exercise for Cardiovascular and Respiratory system

REFERENCE:

1. Maniazhagu, Handbook of Stretching, Friends Publication,2014
2. Yoga for Health, DChandrashekar, KhelSahitya Kendrapublisher,2007.
3. Wayne Westcott, Building Strength and Stamina, Murfbooks, 2003
4. Gharote ML Guidelines for YogicPractice, Lonawala Medha Publications 2282

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

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Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial (High) “--“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
II	P22YO7	YOGA AND ALTERNATIVE MEDICINE	5	6	25	75	100

Objectives

- Understand the various meditation techniques like Naturotherapy, ayurveda, Physiotherapy etc.
- To provide practical exposure in selected indigenous activities.

Course Outcomes:

- CO1. : Understand the definition of health and factors effecting health.
 CO2. : To attain the knowledge about various medical practices
 CO3. : To acquire knowledge about Physiotherapy and therapeutic exercises.
 CO4. : To discuss Yogic practices related to lifestyle habits
 CO5. : To develop knowledge on de-addiction techniques, meditation and counseling

UNIT -I

Health–Definition–Factors influencing health–Dimensions of health, Disease– Cause of Disease– Mode of transmission.

UNIT -II

History, Advantages, Limitations of various systems of medicine–Ayurveda–Yoga & Naturopathy– Unani medicine– Siddha–Homeopathy

UNIT- III

Physiotherapy: Exercise therapy, Hydrotherapy, Electrotherapy, Massage, Relaxation techniques – Acupressure – Acupuncture – Shiatsu – Fasting – Therapeutic touch Biochemics.

UNIT-IV

Mud therapy– Music therapy– sound therapy– Colour therapy– magnetotherapy- Flower therapy– Reiki – Sunbath & Air Bath– Osteopathy– Auto Urine therapy.

UNIT -V

Yogic practices related to Drug abuse – Alcoholism – Smoking – De – addiction techniques– Psychotherapy– Hypnotherapy– Meditation – Counseling– Faith Healing.

References:-

1. Dr.O.P. Jaggi(2001) Healing systems, Delhi Orient paperbacks.
2. Swami Satyananda Saraswathi(2007) Yoga and cardiovascular management, Munger, Yoga publications Trust.
3. Dr.Swami Shankerdevnanda(2007) Yogamanagement of Asthma and Diabetes, Munger Yoga publications Trust.

4. Dr.Swami Shankerdevnanda(2006) The Effect of yoga on Hypertension, Munger yoga publications Trust.
5. Swami Kuavalayananda & Dr.S.C.Vineker(2294) Yogitherapy, New Delhi, central health education bureau.
6. LuisS.R(2001) Maser approaches to new alternative therapies, Delhi pustakmahal.
7. Phulgengda sinha(2276) Yoga cure for common diseases, Delhi:Orient paperbucks.
8. Joshi(2291)Yoga and Nature cure therapy, NewDelhi Sterling publishers private Ltd.
9. GardeR.K. (2284) Yoga therapy, Bombay, Taraporevala sons & co. Pvt. Ltd.
10. Nagarathana R.H.R.Nagendra & Shamantha Kanmani Narendran(2002) Yoga for comksahana.

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

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E-content	https://www.coursera.org/learn/engineering-health-yoga-physiology
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Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	0.8	0.8	0.80	0.8	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “--” there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
II	P22YO8	YOGA AND SPORTS	5	6	25	75	100

Objectives

- Understand the importance of sports and implementation of yoga
- To provide practical exposure in selected indigenous activities.

Course Outcomes:

CO1. : Understand the importance of yoga in physical education an sports.

CO2. : To attain the knowledge about various medical practices

CO3. : To acquire knowledge about remedies and practices for mental obstacle. CO4.

: To discuss Yogic practices related sports

Unit–I: Physical Education

Meaning & Definition–Application of Yoga in Physical Education–Systems of Physical Exercise – Importance of Yoga in Physical Education & Sports – Difference between Yogasanas & Physical Exercise–Individualized yogic autogenic training for players.

Unit–II: Yogic Exercises & Meditation

Suryanamaskar Asanas –Objectives– Common Asanas &their types– Advanced Asanas –Pranayama– Types of Pranayama– Mudras – Bandhas – ShatKriyas.

Unit–III: Yogic & Meditation (Before and after completion)

Meaning & concept of meditation – Need of meditation, techniques of meditation tools of meditation– advantages of meditation–Experience of meditation–Obstacles.

Unit–IV (Before and After competition)

Mental obstacles to the practices of yoga – Remedies and practices – Kriyas yoga – Mortification Nescience– ignorance a version– Bondage and freedom– arma and meditation– Mystic word ‘OM’ and consciousness.

Unit–V(Before and Afterc ompetition)

Mind–Origin of mind–Types of mind (Cosmic and individual)–Fourfold mind–states of mind.(walking, dreaming, deep sleep) – Three Gunas, Sattwic, Rajasic, Tamassic), ThreeDoshas (Mala, Vikshapa, Avarana),powers of mind unfolding latest powers of mind –consciousness – sub–consciousness –unconsciousness –superconsciousness.

Reference Books

1. George Feuerstein: The Yoga Tradition (Its history, literature, philosophy and practice)
2. Sri Ananda: the complete Book of yoga Harmony of Body and mind (Orient paper Backs: Vision Book Pvt. Ltd. 2282)
3. Swamy Satyanandan Saraswathi: Asana, Pranayama, Mudra, Bandha (India: Yoga Publications Trust, Munger, Bihar)
4. Swami Sivananda: Practice of Yoga (The Divine Life Society Shivananda Nagar P.O. 5. U.P. Himalayas, India)
5. Swami Sivananda Practice of Karma Yoga (The divine Life Society, Shivananda Nagar P.O. U.P. Himalayas, India)
6. B.K. Sivananda: Light on the Yoga Sutras of Patanjali (Haper Collins Publications India Pvt. Ltd. New Delhi)
7. Iyengar BK S (2289) Light on Yoga: Unwin paperbacks.
8. Prabhavananda (2253) Patanjali yoga sutras, Madras : Sri Ramakrishna math
9. Thiumoolar (2006), Thirumantiram, Madras: Sri Ramakrishnamath

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

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Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	3	3	3	3	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
AVG	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “—“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
II	P22YO9P	PRANAYAMA AND MEDITATION	5	6	25	75	100

Objectives

- Understand the various meditation techniques and pranayama.
- To provide practical exposure in asanas, pranayama, kriyas and mudras.

Course Outcomes:

CO1. : To learn practical skills in suryanamaskar and loosening exercises.

CO2. : To attain the knowledge about pranayama CO3. : To acquire knowledge about kriyas and mudras.

CO4. : To discuss Yogic practices techniques and skills.

UNIT –I

Loosening Exercise Suryanamaskar– 12Counts (Breathing)

UNIT–II

Asanas:- Sukhasana, Vijrasana, Ardha Padmasana, Padmasana, Savasana, Makarasana, Tadasana, Utkatasana, Ardhakatichakarasana, Padahastana, Ardha Chankrasana, Danadasana, Baddakonasana, Janusiorasana, Pachimotanasana, Pavanamukhasana, ArdhaSalabasna, Salabasna, Bhujangasana, Ardhadhanurasana, Sasangasana, Uttanapadasana, Navasana, Vipareethekarani, Chakrasana, Garudasana, Natarajasana, Badha Padmasana, Uttitha Padmasana, mandukasana, Dhanurasana, Bhujapada Pidasana, KarnaPidasana.

UNIT– III

Pranayama: Preparatory Exercise (Sectional Breathing)– Anulomaviloma– Surya Bhedana– Chandra Bhedana – Nadi Shodhana.

UNIT–IV

Kriyas – Kapalabathi– Trataka– Bhagiranga, Antaranga

UNIT –V

Mudras: Chin– Chinmaya– Adi(Sakthi) Brama– Linga Mudra Meditations : Saguna Meditation– Nirguna Meditation

References:

1. Iyengar B.K.S.(2276) Light on yoga, London, Unwin paperpacks.
2. Sivananda Saraswathi Swami(2234) Yoga Asanas Madras ; My Magazine of India.
3. Satyananda Saraswati Swami(2008) Asana, Pranayama, Mudra, Bandha, Munger: Yoga Publications Trust.
4. Iyenger B. K.S. (2008) Light on Pranayama, NewDelhi :Haper Collins Publishers India.
5. Vishnu Devananda Swami(2272) The complete Illustrated book of yoga, New York: PocketBooks.

6. Chandrasekaran K(2299) Sound Health through yoga Sedapatti: Prem Kalyan Publication.
7. Yogeshwaran and SaraswathiSwami(2275) First steps to higher yoga, Gangothari: Yoganiketan trust.
8. Coulter, H.David(2001) Anatomy and HathaYoga, USA:Bodyand BreathInc.
9. KirkMartin(2006) Hatha Yoga Illustrated Campaign:Humenkinetics.
10. Gharote(2004) Applied yoga, Lonvla: Kaivalyadhama.

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

MOOC Courses	https://www.mooc-list.com/tags/yoga
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Relationship Matrix for Cos, Pos

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “—“ there is no correlation

*****□

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
II	P22YO10E	YOGA AND CHAKRAS	5	6	25	75	100

Objectives

- Understand the various scopes in yoga
- To develop knowledge in history of yoga.

Course Outcomes:

CO1. : Understand the history of yoga.

CO2. : To attain the knowledge about various terms of yoga

CO3. : To acquire knowledge about important yogic texts

CO4. : To discuss about seven chakras.

UNIT : I

History of Yoga – Indus Valley Civilization – Vedas, Upanishadas, Smritis, Puranas, Tantras, Buddhist and Jaina Literatures, Tamil Siddhars– Tirumoolar Tirumantiram–Yoga in Medieval History of India– Modern Developments and Trends in Yoga – Misconceptions about Yoga – Analysis and Clarifications – Causes and possible remedies thereof.

UNIT : II

Definition of the term Yoga – Yoga as the "Goal" as well as the "Means" –Meanings of Yoga– Comprehensive Nature and Scope of Yoga– Aims and Objectives of Yoga – Yoga Education in the Modern Context – Different Traditions and Schools of Yoga : Patanjali Yoga, Ashtanga Yoga, Tantra Yoga, Mantra Yoga, Hatha Yoga, Laya Yoga, Raja Yoga, Gnana Yoga, Bhakti Yoga, Karma Yoga– Two approaches discernible in various schools of Yoga:"Pranasamyamana yoga" and "Bhavanayoga".

UNIT : III

Important Yogic Texts: Hathapradipika, Gherandasamhita, Shivasamhita Bhagawadgita – Their key Contributions to Hatha yogic System – Contributions of Patanjali's Yoga Sutras –Selected Aphorisms of Patanjali's Yoga Sutras (PYS : SP-I 2,PYS : SP-II 29,46,49 PYS : VP-III 1,2,3) – Principles of Yoga practices: Asanas, Pranayama, Kriyas, Bandhas, Mudras, and Meditation.

UNIT: IV

History– Introduction to chakra – Functions – Benefits – Chakra Points – Root Chakra- Sacral Chakra- Navel Chakra- Heart Chakra- Throat Chakra- Third-Eye Chakra- Crown Chakra

UNIT–V:

The seven chakra system- Sahasrara- Ajna- Vishuddha- Anahata- Manipura- Svadhishthana- Muladhara

References:

1. SriAnanda: the complete Book of Yoga Harmony of Body and Mind (Orient Paper Backs: Vision Book Pvt. Ltd., 2282)
2. Swamy Satyananda Saraswathi: Asana, Pranayama, Mudra, Bandha (India:Yoga Publications Trust, Munger, Bihar)

3. Swami Sivandana Practice of Yoga(The Divine Life Society, Shivananda Nagar, P.O.U.P.Himalayas, India)
4. Swami Sivananda Practice of Karma Yoga (The Divine Life Society, Shivananda Nagar P.O. U.P. Himalayas, India)
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7. Prabhavananda(2253) Patanjali Yoga Sutras, Madras :Sri Ramakrishna Math
8. Thirumoolar(2006), Thirumantiram, Madras: Sri Ramakrishna Math.
9. Ranganatha Swami(2001) The message of the Upanishads, Mumbai: Bharatiya Vidya Bhavan.
10. Vivekananda Swami(2005) Hinduism, Chennai: Sri Ramakrishna Math.
11. Sivananda Sri Swami(2283), Practical Lessons in Yoga, Shivananda Nagar: The Divine Life Society

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1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

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Relationship Matrix for Cos, Pos

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “—“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
III	P22YO11	RESEARCH METHODOLOGY & STATISTICS IN YOGA	5	6	25	75	100

Objectives

- Understand the basics of research methodologies.
- To provide knowledge on statistics and research methodologies in yoga.

Course Outcomes:

- CO1. : To expose the students to the basic theoretical concepts of conducting scientific research and motivate them to pursue higher research..
- CO2. : To attain the knowledge about basics of research.
- CO3. : To acquire knowledge variables and areas of research
- CO4. : To discuss Yoga researches and methodology.

Unit– I

Introduction to Research : Meaning and Importance of Research – Scope of Research to Yoga education, Types of research : Basic, Applied and Action Research, Research Problem : Criteria of Locating a Problem – Characteristics of good research – Delimiting and Limiting a Problem, Hypothesis : Meaning and Formulation of Research Hypothesis, Methods of Non Laboratory Research – Survey and Historical Survey Research : Survey by questionnaire and interview– Opinion assessment and observation method–Historical research: Primary and Secondary sources of data– Internal and External criticism.

Unit –II

Variables and Experimental Research Design–Variables; Independent, Dependent, Extraneous and Intervening variables, Experimental control, Characteristic of experimental research. Experimental Design: Random Group, Related group, Repeated Measures, Rotated group, Factorial and Static Group, Comparison design.

Unit –III

Areas of Research: Physiology of Yoga– Biomechanics in Yoga– Psychology Nutrition, Thesis format: Organization of thesis chapters– Preparation of Research reports.

Unit –IV

Statistics – Definition - Need and importance of Statistics in research Data – Raw data, Grouped data. Frequency table. Concept and calculations of measures of central tendency, mean – Median – Mode, measures of variability, range – Quartile Deviation and Standard Deviation– Mean Deviation Percentiles.

Unit– V

Normal Probability Curve – Principles and Properties – Divergence from Normality – Skewness and Kurtosis, Factors affecting Reliability– Random size and Variability– Level confidence – Null

Hypothesis – Test of Significance, concept and calculations of ‘t’ set, Chi –Square– Correlation– Co-efficient of – Product moment and spearman Rank order –Scoring scales– Sigma scale– T Scale– Z scale– Hull Scale– Hull Scale Error.

References:

- Clarke, David Hand Clarke, H.Harrison 2270 Research process in Physical education and recreation and Health Englewood chifs New Jersey, Prentice Hall, Inc□
- Blommers,PaulandLingustE.E.Statistical2258 Methods in Psychology and Education, Calcutta, Oxford Book, Co.,□
- Clarkes, H.Harrison2263, ‘The application of Measurement Health and Physical Education New York Prentice Hall Co.,□
- Swami Kuvalayananda and Dr.S.L.Vinekar (2263) Yogic Therapy, its basic principles and methods, Ministry of health, Govt. of India New Delhi.□
- David H Clarke, and Clarke H. Harrison, “Research Processes in Physical Education”. New Jersey, PrenticeHallInc2284.□
- T.A.Baumgartner and Strong C.H. “Conducting and Reading Research in Health and□ Human Performance New York: Brown and Benchmark:2294□
- C.R.Kothari “Research Methodology Methods and Techniques”, New Delhi Wiley Eastern Limited, 2293.□
- Anne Rothstein “Research Design and Statistics for Physical Education ”New Jersey: Prentice Hall Inc. 2285.□
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Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

MOOC Courses	https://www.mooc-list.com/tags/yoga
E-content	https://www.coursera.org/learn/engineering-health-yoga-physiology
Other online resources	https://www.everydayhealth.com/yoga/ https://www.medicalnewstoday.com/articles/286745

Relationship Matrix for Cos, Pos

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial (High) “--“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
III	P22YO12	YOGA AND MEDITATION	5	6	25	75	100

Objectives

- Understand the basics of yoga and meditation.
- To provide knowledge yoga and meditation.

Course Outcomes:

- CO1. : To expose the students to practices meditation and techniques..
- CO2. : To attain the knowledge about basics philosophies of yoga.
- CO3. : To acquire knowledge meditation techniques
- CO4. : To discuss Yoga meditational practices and skills

Unit– I

Meaning: Need, Nature and Scope of Philosophy, Yoga Philosophy, Vedanta Philosophy of Vedanta– goal of Vedanta– Universality of Vedanta, Vedas– The four main Vedas.

Unit –II

Philosophy in Sat darsanas – purpose of Darsanas – Nyaya Darsana, Vaisesika Darsana –Sankya Darsana, Yoga Darsana, Mimamsa Darsana, Vedanta Darsana, Philosophy of Hinduism, Buddhism, Jainism, Christianity and Islam.

Unit–III

Yoga Darsana– Sankhya and yoga darsanas– philosophy of patanjali’s yogasutras Samadhipada, SadhanaPada, Vibbutipada, KaivalyaPada– Obstacles to yoga– Ways to remove the obstacles of yoga – Astangas – Yoga Siddhis – Philosophy of Yoga vasishta.

Unit – IV

Meditational Techniques : Transcendental meditation, Raja yoga meditation-Sudarshan Kriyas, Chakra Meditation, Mantra Meditation, Preksha Meditation, Vibasana Meditation, Zen Meditation, Prayer Meditation(Christianity) workshop in Islam, Tibetan Yogic Meditation– Sri Aurobindo Meditation.

Unit– V

Meditational Techniques: MSRT(Mind Sound Resonance Technique) PET(Pranic Energisation Technique), SMET (Stress – Management of Excessive Tension), Dynamic Meditation– Nithya Dhyana, Walking Meditation, SuryaYoga, SKY

References:

- Vivekananda Swami(2007) Vedanta Voice of freedom, Kolkotta; Advaita Ashrama□
- Karela Wemer(2279) yoga and India Philosophy, Delhi; Motilal Bannarsi dass.□
- Radha krishnanS(2271) Indian Philosophy.□
- Jnanananda Swami(2000) Philosophy of yoga, Mysore; Sri Ramakrishna Ashrama□

- Hashananda Swami(2009) The six systems of Hindu philosophy, Chennai; Sri Ramakrishna Math□
- Abhadananda Swami(2297) Yoga in theory and practice, Calcutta; Ramakrishna Vedantanath□
- Ravishankar(2008) yoga the science of Holistic living, Chennai; Vivekananda Kendra Prakashan Trust□
- Vivekananda Swami(2005) Hinduism, Chennai; Sri Ramakrishna Math□
- Satyananda Saraswathi Swami(2007) Meditation from the Tantras Munger; Yoga publications Trust□
- Satyananda Saraswathi(2007) Dynamics of yoga, Munger; Yoga Publications Trust□

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

MOOC Courses	https://www.mooc-list.com/tags/yoga
E-content	https://www.coursera.org/learn/engineering-health-yoga-physiology
Other online resources	https://www.everydayhealth.com/yoga/ https://www.medicalnewstoday.com/articles/286745

□

Relationship Matrix for Cos, Pos

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “—“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
III	P22YO13P	TEACHING PRACTICE	5	6	25	75	100

Unit– I

Loosening Exercises –Suryanamaskar with Mantras, Chandra Namaskar

Unit –II

Asanas– Method of practice– Breathing, duration, Awareness, Sequence, contra –Indications, variations – Essentials, Limitations and benefits of following Asanas :Savasana, Makarasana, Trikonasa, Parsavakonasa, Vrikshanana, VeerabdrasanaVakrasana, SuptaVajrasana, Marichiyasana, Gomukasana Naukasana, Poorna Dhanurasana, Sarvangasana, Halasana Vatayanasana, Ekapadaurdhypadangusthasana, Hanumanasana,Uprivista Konasana, Bakkasana, Mayurasana, Bharadvajasana, ArdhaSirasasana.

Unit – III Pranayama:-

Techniques– Phases– Breathing Ratio, Guidelines, Cautions, Preparations, Obstacles, Aids, Limitations and benefits of the following pranayamas: Sitali, Sitkari, Bhramari, Bhastrika.

Unit –IV

Kriyas– Practicing methods, Guidelines, Limitations– precautions– benefits Jalaneti, Sutraneti, Vamana Dhouthi. Badhas–Practicing method, Guidelines, Benefits, Application of Bandhasin Prnayama Uddiyama Bandha, Moola Bandha.

Unit– V

Mudras– Practicing method, Guidelines –Limitations, Benefits. Matangi Mudra, Vajra Mudra, Hakini Mudra, Mukula Mudra, Kaleeswara Mudra, Meditations :-MandraMeditation, Japa Meditation, AjapaJapa Meditation, Trtaka Meditation, Inner Visualization, Yoga Nidra, Walking Meditation.

References:

1. B.K.S.(2276) Light on yoga, London, Unwin paper packs.
2. Sivananda Saraswathi Swami(2234)Yoga Asanas Madras; My Magazine of India.
3. Satyananda Saraswati Swami(2008) Asana, Pranayama, Mudra, Bandha, Munger: Yoga Publications Trust.
4. Iyenger B.K.S. (2008) Light on Pranayama, NewDelhi : Haper Collins Publishers India.
5. Vishnu Devananda Swami(2272) The complete Illustrated book of yoga, New York: Pocket Books.
6. ChandrasekaranK(2299) Sound Health through yoga Sedapatti: Prem Kalyan Publication.
7. Yogeshwaran and Saraswathi Swami(2275) First steps to higher yoga, Gangothari: Yoganiketan trust.

8. Coulter,H.David(2001) Anatomy and Hatha Yoga, USA: Bodyand Breath Inc.
9. KirkMartin(2006) Hatha Yoga Illustrated Champaign: Human kinetics.
10. Gharote(2004) Applied yoga, Lonvla: Kaivalyadhama.
11. Kathy Lee Kappmeier and Diane M.Ambrosini(2006) Instructing HathaYoga, Champaign: Human Kinetics.

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

MOOC Courses	https://www.mooc-list.com/tags/yoga
E-content	https://www.coursera.org/learn/engineering-health-yoga-physiology
Other online resources	https://www.everydayhealth.com/yoga/ https://www.medicalnewstoday.com/articles/286745

Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
AVG	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “—“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
III	P22YO14E	YOGA THERAPY	4	6	25	75	100

Objectives

- Understand the basics of yoga therapy.
- To provide knowledge on yogic practices.

Course Outcomes:

- CO1. : To expose the students to the basic theoretical concepts of yoga therapy
CO2. : To attain the knowledge about different disorder.
CO3. : To acquire knowledge on contraindication and therapies
CO4. : To discuss disorders and treatments..
CO5. : Learn causes of disorders and treatments and contraindications.

Unit– I

Yogic Practices– Pranayama, Kriyas, Bandhasa and Mudras

Unit –II

Meaning of Hypertension and Stress– Assessment– Clinical History– Causes– Treatment through yoga for Hypertension and stress– Contra Indication of Yogic Therapy.

Unit –III

Meaning of Metabolic disorder (Diabetics, Obesity and Thyroid) – Assessment – Clinical History – Causes – Treatment through Yoga for metabolic disorder – Contra Indication of Yogic Therapy

Unit -IV

Meaning of Pulmonary disorder (TB,Asthma and Sinus)– Assessment– Clinical History-Causes – Treatment through Yoga for pulmonary disorder – Contra indication of Yogic Therapy.

Unit– V

Meaning of Musculo skeletal disorder (Osteoporosis, Arthritis and Vertebral disorder)– Assessment– Clinical History– Causes– Treatment through Yoga for Musculo– skeletal-Contras Indication of Yogic Therapy.

References:

1. Shemanthakamani Narendhanetal(2008) Yoga and pregnancy, Bangalore, Swami Vivekananda Yoga Prakshana.
2. Nagarathna & Nagendra(2008) Yoga for BronchialAsthma, Bangalore, SwamiVivekananda, YogaPrakshana

3. Nagarathna & Nagendra(2007) Yoga for digestive disorders Bangalore, SwamiVivekananda, YogaPrakshana
4. SriKantassetal(2008) yoga for diabetics, Bangalore, Swami Vivekananda yogapakshana
5. Nagarathna & Nagendra(2008) yoga for Hypertension & Heartdisease, Bangalore Swami Vivekananda yoga
6. Nagarathna & Nagendra(2008) yoga for Arthritics Bangalore, Swami Vivekananda yoga

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

MOOC Courses	https://www.mooc-list.com/tags/yoga
E-content	https://www.coursera.org/learn/engineering-health-yoga-physiology
Other online resources	https://www.everydayhealth.com/yoga/ https://www.medicalnewstoday.com/articles/286745

Relationship Matrix for Cos, Pos

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “--“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
III	P22YO15E	FITNESS & REHABILITATION	4	6	25	75	100

Objectives

- Understand the basics health and fitness.
- To provide knowledge on training programmes and rehabilitation.

Course Outcomes:

- CO1. : To expose the students to the basic theoretical concepts of conducting scientific research and motivate them to pursue higher research.
- CO2. : To attain the knowledge about basics of fitness and rehabilitation in yoga.
- CO3. : To acquire knowledge improvement of fitness components
- CO4. : To discuss selective yoga practices for neurotic disorder

Unit- I

Define- Fitness- Health- Need and Importance of Health and Physical fitness-values of physical fitness- methods and development of Aerobic capacity, flexibility- Body build- Muscular Power- Muscular endurance- Speed- coordinative reaction- Balance- Good Health - Fitness and Yoga - Improvement aerobic capacity - Strength power -Strength and muscular endurance - Isometric construction - Isotonic contraction - Iso-kinetic contraction.

Unit -II

Yoga - Improvement of agility Co-ordination - reaction time - Training for success -Principles of Yoga training - flexibility- Ballistic stretching techniques- static stretching- guidelines- contract- relaxation methods- yoga and body composition.

Unit -III

Training Programme- Year Programme- Individual training- Age and Training- Asanas- Pranayama - Meditation - Relaxation - Care of the body - Sensible eating - Right lifestyle- limiting alcohol- Drugs- smoke- Healthy diet- Planning to safety- environment.

Unit -IV

Physiology and pathology in the yoga shastra - Description of the Glands - Ayurvedha -Vatha - Pitta, Kapha - Tridosha - Common ailments - Selective yogic practice for High Blood pressure or Hyper tension, Heart Myocardial infection, Common cold, Asthma, Sinusitis, Tuberculosis. Arthritis, Back pain, Digestive disorders, ulcer, piles, constipation, Diabetes mellitus, obesity.

Unit- V

Selective yogic practice for Neurotic disorders, mood disorders, obsessive compulsive disorder, Schizo- Phrenia, Chemical abuse, Eating disorders, Phobias, mental retardation -Diseases of Women: The monthly period, State of non-attainment of sexual maturity- Abortion and miscarriage, Absence

of mother's milk, disorders in menopause – yogic treatment – Selective yogic practice for Anemia, Skin diseases, Epilepsy, Impotency, Seminal disorders, Headache, Thyroid Disease– Yogic treatment.

References:

- Shemanthakamani Narendhan etal(2008) Yoga and pregnancy, Bangalore, Swami Vivekananda Yoga Prakshana.
- Nagarathna & Nagendra(2008) Yoga for Bronchial Asthma, Bangalore, Swami Vivekananda, Yoga Prakshana
- Nagarathna & Nagendra(2007) Yoga for digestive disorders Bangalore, Swami Vivekananda, YogaPrakshana
- SriKantassetal(2008) yoga for diabetics, Bangalore, Swami Vivekananda yogapakshana
- Nagarathna & Nagendra(2008) yoga for Hypertension & Heartdisease, Bangalore Swami Vivekananda yoga
- Nagarathna & Nagendra(2008) yoga for arthritics Bangalore Swami Vivekananda YogaPrakshna
- The Paul Beashel and john Taylor the world of sport examined 2297 published by Thomas Nelson and Son's Ltd., 2297.

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

MOOC Courses	https://www.mooc-list.com/tags/yoga
E-content	https://www.coursera.org/learn/engineering-health-yoga-physiology
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Relationship Matrix for Cos, Pos

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “—“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
IV	P22YO16	APPLICATION OF TEST AND MEASUREMENT	5	6	25	75	100

Objectives

- To impart the fundamentals of Test, Measurement and Evaluation.
- To understand various fitness tests and yoga skill tests.

COURSE OUTCOMES:

CO1. : To impart the fundamentals of Test, Measurement and Evaluation

CO2. : To understand the concept of test classification and administration in Physical Education and yoga

CO3. : To explain about the Criteria of physical fitness test and yoga

CO4. : To explain about the Criteria of motor fitness test and yoga

CO5. : To understand various fitness tests and yoga skill tests

Unit– I

Define– Test and measurement– need and importance of test and measurement– speed -agility – flexibility – power – abdominal muscular endurance – stretch – coordination –pulse rate – blood pressure (high/low) – sensory functions – muscles – attention – stress –anxiety–anger –emotional– tension–assertiveness– self concept

Unit –II

Loosening Exercises: Asanas– Advanced Suryanamaskar– Asanas– method of practice -Breathing, Duration, Awareness, Sequence, Contra– Indications, Variations, Essentials, Limitations and benefits of following Asanas: Shanthiasana – Ekapadasana – Poorna Bhujangasana – Poorna Salabhasana, Sirasana, Padma Sirasana, Koormasana, Hanumanasana, Vrishchikasana, Ekapada Sirasana, Padma Parvattasana.

Unit –III

Pranayama :[1:1:1,1:2:2,1:2:4,1:4:2]

Kapalabhati [I&II & III steps] 30-40-50

Bhastrika [Intermediate &Advanced]30-40-50

Suka Poorva Pranayama [All ratio]

Preparatory Exercise (Sectional breathing) – Anulomaviloma – Surya Bhedana – Chandrabhedana – NadiShodhana – NadiSuthi – Sadhana Pranayama – Ujjai Pranayama –BrahmariPranayama

Unit –IV

Kriyas – Kapalabhati – Trataka – Nadi – Nauli – Bhagiranga, Antaranga – DugdhaNeti – GhrethaNeti– DandaDhauthi– Basthi Bandhas – MahaBhandha – MoolaBhandha – JalandhraBhandha – UddiyanaBhandha –Mudras – Practicing Methods, Guidelines, Limitations – Precautions – benefits – ThenuMudra–DharmaChakraMudra–LotusMudra–DhyaniMudra– MakaraMudra–Chn-Chinmaya– Adi(Sakthi)– Brama– LingaMudra

Meditation:

Transcendental Meditation, Sudarshan Kriyas, Preksha Meditation, Tibetan Yoga and Meditation– Saguna Meditation– Nirguna Meditation Vipasana Meditation, SuryaYoga SKY, MSRT(Mind

Resonance Technique), PET(Pranic Energisation Technique),SMET (Stress – Management of Excessive Tension), Dynamic Meditation– Nithya Dhyana.

Unit– V

Teaching practice– Teaching Techniques– Lesson Plan- Principles– Precautions– Demonstrations– Values– corrections.

Reference:

- Iyengar B.K.S.(2276) Light on yoga, London, Unwin paper packs.
- Sivananda Saraswathi Swami(2234) Yoga Asanas Madras :My Magazine of India
- Sathyananda Saraswathi Swami(2008) Asana, Pranayama, Mudra, Bandha, Munger: Yoga Publications trust.
- Iyenger B.K.S(2008) Light on Pranayama New Delhi: Haper Collins Publishers India.
- Vishnu Devananda Swami(2272) The complete illustrated book of yoga, New York: Pocket Books.

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

MOOC Courses	https://www.mooc-list.com/tags/yoga
E-content	https://www.coursera.org/learn/engineering-health-yoga-physiology
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Relationship Matrix for Cos, Pos

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “—“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
IV	P22YO17P	ADVANCED YOGA PRACTICES	5	6	25	75	100

Objectives

- To impart the fundamentals of advanced yoga practices.
- To understand various advanced asanas.

COURSE OUTCOMES:

- CO1. : To impart the fundamentals of advanced asanas
 CO2. : To understand the concept of nauli.
 CO3. : To explain about the mudratraya
 CO4. : To explain about the Criteria of motor fitness test
 CO5. : To understand practice of dyana.

ASANAS:

Brahmacharyasana, Yoganidrasana, Hanumansana, Vrichikasana, PadmaMayurasana, PinchaMayurasana, Bhairavasana, Durvasasana, Tittibhasana, Vasistasana, SuptaKurmasana, Marichasana, Pindasanain Sirshasana, Dvipadasirasana, EkaPadaRajaKapotasana, Kapotasana, Padmasarvangasana;

NAULI (clockwise and anticlockwise rotation)

MUDRATRAYA Sambhavamudra, Shanumukhimudra, Saktichalani

PRACTICE OF DHYANA

Recommended books:

Satyananda Saraswati, Swami(2002), Asana, Pranayama, Mudra, Bandha, Munger, Yoga Publications Trust

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

MOOC Courses	https://www.mooc-list.com/tags/yoga
E-content	https://www.coursera.org/learn/engineering-health-yoga-physiology
Other online resources	https://www.everydayhealth.com/yoga/ https://www.medicalnewstoday.com/articles/286745

Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
AVG	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “—“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
IV	P22YO18E	HYGIENE, DIET & NUTRITION	5	6	25	75	100

OBJECTIVES

- To impart basic concept and components of food and nutrition..
- To understand various food groups.

COURSE OUTCOMES:

- CO1. : To impart the basic knowledge on food and nutrition
- CO2. : To understand the concept of yogic diet plan
- CO3. : To explain about food and metabolism
- CO4. : To explain about the different food groups
- CO5. : To understand various components of food and nutrition

Unit-1: Basic concept sand components of food and nutrition

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

Unit-2: Food groups

Cereals & Millets– Selection, Preparation and Nutritive Value; Pulses, Nuts and Oil Seeds Selection, Preparation and Nutritive Value; Milk and Milk Products-Selection, Preparation and Nutritive Value; Vegetables and Fruits- Selection, Preparation and Nutritive Value, Fats, Oils and Sugar, Jaggery- Selection, Preparation and Nutritive Value.

Unit-3: Food and metabolism

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

Unit-IV: Yogic concept of diet & nutrition

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

Unit-V

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

TEXTBOOK

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

BOOKS FOR REFERENCE

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

Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

Online Resources

MOOC Courses	https://www.mooc-list.com/tags/yoga
E-content	https://www.coursera.org/learn/engineering-health-yoga-physiology
Other online resources	https://www.everydayhealth.com/yoga/ https://www.medicalnewstoday.com/articles/286745

Relationship Matrix for Cos, Pos

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “--“ there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
IV	P22YOP19	DISSERTATION & VIVA VOCE	5	6	25	75	100

Relationship Matrix for Cos, Pos

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “--“ there is no correlation
