

# Ordinance No. V- 63(B)

## MAHARISHI AUROBINDO SUBHARTI COLLEGE AND HOSPITAL OF NATUROPATHY AND YOGIC SCIENCES

(Duly approved in 22<sup>nd</sup> AC meeting minutes dated 20/07/2018 under agenda no. 22 (27))






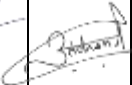





## SWAMI VIVEKANAND SUBHARTI UNIVERSITY

### PROGRAM- BACHELOR OF NATUROPATHY AND YOGIC SCIENCES

#### CURRICULUM

Dr. Nair Dhiren Ajit	Dr. Seema Dixit	Dr. Niraj Nayan Rishi	Dr. Archa na Anilk umar	Dr. Abhay Kumar	Dr. Abhijith.K. B	Dr. Jyoti Madhur	Dr. Sneha Bharti	Dr. Adil

# SYLLABUS

								
Dr. Nair Dhiren Ajit	Dr. Seema Dixit	Dr. Niraj Nayan Rishi	Dr. Archa na Anilk umar	Dr. Abhay Kumar	Dr. Abhijith.K. B	Dr. Jyoti Madhur	Dr. Sneha Bharti	Dr. Adil

## PROGRAM OUTCOMES

Students of BNYS Degree program at the time of graduation will be able to

**PO.1 Knowledge & Understanding** – Graduate should be able to assess the patients with the knowledge of basic medical sciences & correlate the physiological & pathological aspects of the disease & apply the knowledge & manage the disease by educating & making the concepts clear to patients or students.

**PO.2 Skill & Training** - Develop the skills in competencies, and training that are required to deliver naturopathy and yoga health care system to the masses. Demonstrate skills in documentation of individual case details as well as morbidity data relevant to the assigned situation. Organize and supervise the chosen/assigned health care services, demonstrate adequate managerial skills in the clinic/hospital or the field situation. Develop skills as a self-directed learner; recognize continuing educational needs, select and use appropriate learning resources.



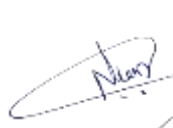






**PO.3 Self-Directed Approach & Social Relevance** -Recognize the health needs of the community become aware of the contemporary advances and developments in the discipline concerned to healthcare through naturopathy & yoga. Thus, become proficient in their profession by developing scientific temper and improve educational experience.

**PO.4 Human values-** Plan and devise measures in naturopathy and yoga for the prevention and rehabilitation of patients suffering from disease and disability. In doing so demonstrate empathy and humane approach towards patients and their families and exhibit interpersonal behavior in accordance with the societal norms and expectations.

**PO.5 Life-Long Learning-** Demonstrate competence in basic concepts of research methodology and epidemiology, and be able to critically analyze relevant published research literature. Acquire a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology.



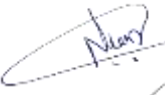






**PO.6 Ethics** -Carry out professional obligations ethically and in keeping with the objectives of the national health policies and to fulfill the social and professional responsibilities as a naturopathy and yoga physician through drugless therapies effectively and responsibly.

**PO.7 Environment Friendly-** Identify social, economic, environmental, biological and emotional determinants of health in a given case and take them into account while planning therapeutic, rehabilitative, and preventive and health promoting measures/strategies with sustainable approaches by educating the masses.

								
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**1<sup>st</sup> YEAR BNYS**  
**DURATION: ONE YEAR**

S.No	Subject	Theory	Practical
1	Anatomy –I	BNY-101	BNY-103P
2	Anatomy –II	BNY-102	
3	Physiology – I	BNY-104	BNY-106P
4	Physiology – II	BNY-105	
5	English Communication	AEC-01	AEC-01P
6	Biochemistry	BNY-107	BNY-108P
7	Philosophy of Nature Cure – I	BNY-109	BNY-111P
8	Philosophy of Nature Cure – II	BNY-110	
9	Yoga Practices	BNY-112	BNY-113P
10	Sanskrit	BNY-114	
11	Environmental Sciences	AEC-02	

								
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# 1. HUMAN ANATOMY

Course type- Core Course



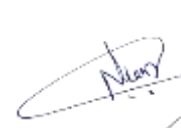






Course code – BNY-101, BNY-102, BNY-103P

## Objective:-

It aims at giving inclusive knowledge of the gross and microscopic structure and development of human body to provide a basis for assessing the correlation of organs and structures and anatomical basis for disease presentations.

## Theory

1. General anatomy in brief:
  - basic tissues of body.
  - terminology and nomenclature
2. Elements of anatomy in brief:
  - osteology
  - arthrology
  - myology
  - neurology
3. Regional anatomy:
  - upper limb, lower limb
  - thorax - including diaphragm
  - head, neck -brain and spinal cord in brief
4. Embryology (gen.embryology) in brief:
  - development of individual organs and systems
5. Histology:
  - general histology, micro-anatomy of individual organs and system.
6. Applied anatomy

								
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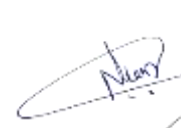






# Anatomy Paper-1.

**Course content** (related regional anatomy, histology, embryology, myology, arthrology & osteology of upper limb, head, neck & brain and microanatomy)

## Theory

- I. General anatomy:  
Introduction of anatomy, anatomical terms, different branches of anatomy, introduction of bones, its classification, functions, applied anatomy; joints-types, actions, applied anatomy; cartilage-types, action, applied anatomy, basics of all the tissues and systems of the human body.
- II. Osteology :( bones of skull & upper limb)  
Names of the bones and their positions; general features, skull - all normal and interior of skull & mandible.
- III. Muscular system :( head & neck and upper limb)  
Origin, insertion, nerve supply and action of the muscles with the applied anatomy and clinical testing.
- IV. Arthrology: (head & neck, upper limb)  
General features of different types of joints. Brief study of the following joints of the body with movements; Shoulder, elbow, wrist and other smaller joints of head & neck, upper limb.
- V. Head, neck and brain  
Head and neck- introduction, scalp, face and lacrimal apparatus, sides of the neck, sub occipital triangle, contents of vertebral canal (brief), meningeal layer, cavernous sinuses and other sinuses in brief, hypophysis cerebri, trigeminal ganglion, middle meningeal artery, contents of the orbit, triangles of the neck, ansa cervicalis, parotid gland, otic ganglion, submandibular gland, sublingual gland, thyroid gland, parathyroid gland, thymus, blood supply of deep structure, cervical ganglion, cervical plexus, styloid apparatus, oral cavity, palate, pharynx, auditory tube, nasal septum, paranasal sinuses, cartilage of larynx  
Parts of nervous system, meninges, ventricles , motor and sensory pathways, cranial nerve, motor and sensory cortex and their blood supply with cross sectional studies in brief morphology of spinal cord. Section of medulla - pyramidal decussation, sensory decussation, upper part of medulla, pons -mid level, midbrain-mid superior colliculus, inferior colliculus, cerebellum-horizontal- mid saggital section, horizontal section at interventricular formation, coronal section at anterior commissure, coronal section at mammillary body. Sensory organs (region wise)-gross anatomy of eyeball, ear, nose and tongue in brief, blood brain barrier.
- VI. Upper limb

An introduction, breast, clavipectrol fascia, axilla, lumbar triangle,

								
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triangle of auscultation, bursa of upper limb, musculotendinous cuff, intermuscular spaces, cubital fossa, synovial sheath, retinaculum of hand, palmar aponeurosis, spaces of hand, anatomical snuffbox.

Vii. Micro anatomy- 12 general topics, 15 systemic topics (separate list attached)

1. Study of microscopes and artifacts.
2. General histology, study of the basic tissues of the body, functional correlation of the structural components of the organs.
3. Systemic histology of concerned organs.



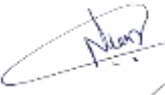






### Course outcome

After completion of the program, the student must be able to:

1. Illustrate normal human anatomy clinically important inter-relationship and functional anatomy of bodily structures;
2. Understand histological structures of various tissues and organs and correlate structure and function in order to understand diseased states;
3. Correlate basic structure and connections of the central nervous system,
4. Explain developmental basis of variations and abnormalities with respect to sequential development of organs and systems, teratogens, genetic mutations and environmental hazards.
5. Demonstrate and identify body structures including topography of living body;

### Assessment Scheme:

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

								
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## Anatomy Paper – 2

**Course content** (related regional anatomy, histology, embryology , myology, arthrology & osteology of upper limb, head, neck & brain and microanatomy)

### I. Thorax

General introduction

Pericardium, thorax wall, position and parts of the heart, conducting system, blood supply and nerve supply of the heart , names of the blood vessels and their distribution in the body , lungs & pleura-general features, surface markings, broncho pulmonary segments , applied anatomy , mediastinum , diaphragm, oesophagus, thoracic duct.

### II. Abdomen and Pelvis

Peritoneum- general disposition - horizontal and vertical, parts relation, blood supply, nerve supply of abdominal organs. Pelvic organs-parts position, relation, blood supply, nerve supply.

### III. LowerLimb

Deep fascia-modifications, saphaneous veins, lymph nodes, adductor canal muscles- nerve supply, blood supply, action, joints, arches of foot, joints of lower limb.

### IV. Embryology in brief:

Definition of embryology , brief account of male and female, ovary; definition of gamete; sperm, ovum, gametogenesis, migration of primordial germ cells into gonadal ridge; structure of sperms growth of ovarian follicles, ovarian and uterine cycles. Principle of family planning (contraception),in-vitro fertilization (for integrated teaching). Systemic embryology(brief): development of the individual organ of digestive system, genital system, urinary system, respiratory system, cardiovascular system, nervous system, special sensory organs (in brief) endocrine glands and mammary gland. Development abnormalities inbrief.



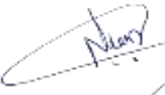






### Course outcome-

After completion of the program, the student must be able to:

1. Illustratenormalhumananatomyclinicallyimportantinter-relationship and functional anatomy of bodilystructures;
2. Correlate histological structures of various tissues and organs andco-relate structure and function in order to understand diseasedstates;
3. Deduce basic structure and connections of the abdomen, thorax,lower limb
4. Describe developmental basis of variations and abnormalitieswithrespect to sequential development of organs and systems, teratogens, genetic mutations and environmental hazards.
5. Identify gross congenital anomalies and be familiar with theprinciples ofkaryotyping;

### Assessment Scheme:

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
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End- Semester Examination (ESE)(Final Exams)	70
Total	100

## Anatomy Practical

**Total time: 32-34 weeks.**

**Gross anatomy:** (dissection / demonstration of following parts of body)

**Upper limb:** dissection: pectoral, scapular, shoulder, arm, and forearm (5 weeks)  
Prosected parts: joints, palm and dorsum of hand.

**Thorax:** dissection: chest wall, mediastinum, lungs and heart.

**Abdomen:** dissection: anterior abdominal wall and inguinal region, viscera and posterior abdominal wall.

**Pelvis:** dissection: pelvic viscera and blood vessels and nerve sagittal section(m&f) (2 weeks) prosected parts: sole of the foot and joints.

**Head and neck:** dissection: scalp, superficial and dissection of face and neck (8 wks to 10 wks). Prosected parts: orbit, eyeball, submandibular region, temporal and infra temporal fossa, cranial cavity, naso and oropharyngeal regions, ear, larynx and pharynx. Cross sections at c-4, c-6 levels. Sagittal section of head and neck.

**Nervous system:** section of brain and prosected specimens and major functional areas, gross structure of brain and spinal cord and study of gross sections as mentioned earlier (in brief).

**Demonstrations:**

- bones-as described in osteology section.
- brain and spinal cord.


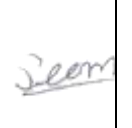
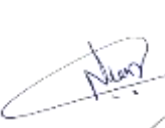






**Specific skills: students should learn the following skills**

1. To localize important pulsations and the structure against which pressure can be applied in case of bleeding & trauma of particular artery.
2. To elicit superficial and deep reflexes.
3. To demonstrate muscle testing and movements at joints.
4. To locate for: lumbar puncture, sternal puncture, pericardial tapping, and liver biopsy.
5. To locate veins for venous puncture.
6. To locate the site for emergency such as tracheotomy.

## Histology

### General histology

1. Microscope
2. Cell
3. Epithelial tissue i
4. Epithelial tissue ii
5. Connective tissue-bones and cartilages
6. Muscular tissues

								
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7. Nerve tissues (ts & ls of peripheral nerve, sensory & sympathetic ganglion, opticNerve)
8. Epithelialglands (serous, mucous and mixed salivarygland)
9. Circulatory system (large artery, medium sized artery, larger vein)
10. Lymphatic system (lymph nodes, thymus , tonsils , spleen)
11. Skin & appendages.
12. Placenta & umbilical cord.

### Systemic histology

- i. Respiratorysystem.
- ii. Oesophagus & stomach.
- iii. Liver, gall bladder, pancreas.
- iv. Urinary system i(kidney)
- v. Urinary system ii (ureter, bladder,urethra).
- vi. Small & largeintestine
- vii. Reproductive system-female
- viii. Reproductive system-male
  
- ix. Upper GIT (lip,tongue)
- x. Hypophysis cerebri, thyroid and suprarenalglands.
- xi. Eye - cornea andretina.



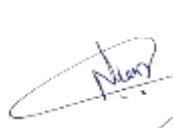






### Course Outcome

After completion of the program, the student must be able to:

1. Illustrate histological structures of various tissues and organs and co- relate structure and function in order to understand diseasedstates;
2. Deduce basic structure and connections of the central nervous system, understand the regulation and integration of various organs and systems and be skilled in locating lesion sites according to deficits in diseasedstates;
3. Describe developmental basis of variations and abnormalities with respect to sequential development of organs and systems, teratogens, genetic mutations and environmentalhazards.
4. Identify body structures including topography of livingbody;

### Assessment Scheme

Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination (ESE)-Practical	60 marks
End- Semester Examination (ESE)-Viva	30 marks

								
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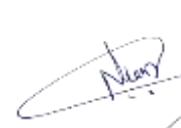






Total	100 marks
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### Text books

- 1 Text Book Of Anatomy (Vo L-I, II, III) By B.D.Chaurasia
- 2 Text Book Of Anatomy By Hamilton
- 3 Practical Anatomy By Cunningham
- 4 Human Embryology By Inderbir Singh

### References:

- 1 Text Book Of Anatomy By Gray
- 2 Atlas Of Histology By Diforie
- 3 Atlas Of Histology By Poddar
- 4 Text Book Of Human Histology By Dr. Veena Bharihoke
- 5 Cannigham's Text Book Of Anatomy By Cunningham
- 6 Balley's Text Book of Histology By Balley
- 7 Medical Embryology By Langman
- 8 A Color Atlas Of Human Anatomy By Mcminn
- 9 Grant's Method of Anatomy By Grant
- 10 Regional & Applied Anatomy By R.J. Last

								
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## 2. PHYSIOLOGY

Course type- Core Course

Course code – BNY-104, BNY-105, BNY-106P

Credits- 11

### Objective

The objective of teaching Physiology to undergraduate students is aimed at giving the student comprehensive knowledge of the normal functions of the organ systems of the body to facilitate comprehension of the physiological basis of health and disease.

### THEORY



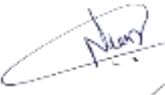






#### Physiology paper - 1

#### I. GENERAL PHYSIOLOGY

1. Cellstructure
2. Sub-cellularunits
3. Cell membranes and theirproperties
4. Transportmechanisms
5. Bioelectricalpotentials
6. Body fluids andhomeostasis

#### II. BLOOD – Physical properties, composition and functions ofblood.

1. Plasma proteins
  - a) Normalvalues
  - b) Origin and methods ofseparation
  - c) Functions and variations in health anddisease.
2. Bonemarrow
  - a) Formed elements
  - b) Composition andfunctions
3. Erythrocytes
  - a) Morphology and variations in health anddiseases
  - b) Development oferythrocytes
  - c) Site and stages indevelopment
  - d) Necessaryfactors
  - e) Regulation of development oferythrocytes
  - f) Life-span and fate oferythrocytes
  - g) Erythrocytes sedimentation rate (ESR)
4. Haemoglobin



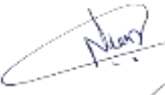






								
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- a) Structure, synthesis, function and metabolism
- b) Types of hemoglobin
- 5. Anaemia – Definition and classification
  - 1. Jaundice – Definition and classification
    - a) Role and function of spleen
  - 2. Leucocytes
    - a) Classification, morphology, development and functions.
    - b) Variation in health and disease.
  - 3. Thrombocytes
    - a) Origin, morphology and functions
    - b) Variation in health and disease
  - 4. Haemostasis
    - a) Mechanism of haemostasis, coagulation of blood
    - b) Fate of clot and disorders of clotting
  - 5. Anticoagulants
    - a) Mechanism of action and clinical applications
  - 6. Blood groups
    - a) Classification
    - b) ABO and RH system
    - c) Blood transfusion, indication and hazards
  - 7. Lymph and tissue fluids
    - a) Lymph and reticular system
    - b) Fluid compartments and Water Balance
    - c) Principles of immune system
    - d) Cellular and humoral immunity

### III - CARDIO-VASCULAR SYSTEM

Historical perspective and organization of cardiovascular system

- 1. Heart
  - a) Structure and properties of cardiac muscle
  - b) Cardiac metabolism
  - c) Innervation of heart, junction tissue of heart
  - d) Regeneration and spread of cardiac impulse
- 2. Electrocardiography
  - a) Einthoven's Law
  - b) Various ECG leads, normal ECG and its interpretation
  - c) Cardiac arrhythmias and heart block
  - d) Cardiac vector
- 3. Cardiac cycle
  - a) Pressure and volume change



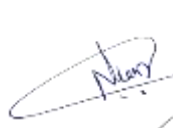






								
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- (mechanical events)
  - b) Heart sound andstethoscopy
  - c) Principle of echo-cardiography
  - d) Measurement and regulation of cardiacoutput.
4. Heartsounds
- a) Description, causation and relation to other events in cardiac cycle
  - b) Clinical significance of heartsounds
5. Blood pressure
- a) Definition, regulation and factors influencing B.P.
  - b) Measurement of bloodpressure
  - c) Physiology of haemorrhage and shock
6. Circulation
- a) Blood vessels
  - b) Physical principle of blood flow, regulation of bloodflow
  - c) Jugular venous pulse tracing, radial pulsetracing
  - d) Coronary, cerebral, renal and pulmonarycirculation
  - e) Splanchnic, cutaneous and capillarycirculation.

#### IV.RESPIRATORY SYSTEM

Introduction,internaland externalrespiration,physiological anatomy of respiratory system.



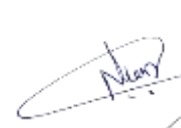






1. Mechanics ofrespiration
  - a) Inspiration andexpiration
  - b) Role of respiratory muscles and thoraciccage
  - c) Pressure and volume change duringrespiration
  - d) Work of breathing, lung compliance and its significance inhealth anddiseases.
2. Lung volumes and capacities
  - a) Lung volumes and capacities and theirmeasurements
  - b) Respiratory minute volume and maximumvoluntary ventilation
3. Alveolar ventilation Composition of atmospheric,inspired,alveolar and expired air
4. Pulmonarycirculation
  - a) Pulmonary circulation, ventilation-perfusionrelationship
  - b) Diffusion of gases across pulmonarymembrane
  - c) Oxygen uptake, transport anddelivery
  - d) Carbon-dioxide uptake, transport anddelivery
5. Organization of the respiratorycenters
  - a) Nervous and chemical regulationof respiration.
  - b) Classification and characteristics of hypoxia, cyanosis, asphyxia, hypercapnea, hypocapnea, dyspnoea, apnoea and orthopnea and

								
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- periodic breathing.
- c) Respiratory aspects of highaltitude
  - d) Physiology of acclimatization andhyperbarrism
  - e) Respiratory / pulmonary functiontests
  - f) Non-respiratory functions of lungs
  - g) Artificialrespiration.

## V. DIGESTIVESYSTEM

1. Introduction, organization and plan of digestivesystem.
2. Saliva.
  - a) Composition, functions, regulation ofsecretion
  - b) Methods of study of above aspects ofsaliva
3. Stomach
  - a) Functions ofstomach
  - b) Composition and functions of gastricjuice
  - c) Regulation of secretion and mechanism of HCLsecretion
  - d) Gastric emptying time and its regulation
  - e) Methods of study of gastric function and its appliedaspect.
4. Pancreas
  - a) Composition and functions of pancreaticjuice
  - b) Regulation of pancreaticsecretion
  - c) Methods of study of pancreatic secretion
5. Liver
  - a) Function, formation, storage and emptying ofbile
  - b) Composition, function and regulation of release ofbile
  - c) Entero-hepaticcirculation
  - d) Tests for liverfunctions
6. Smallintestine
  - e) Succusentericus
  - f) Composition, function and mechanism ofsecretions
7. Largeintestine
  - a) Functions
8. Gastro-intestinalHormones
  - a) Release andfunctions
9. Gastro-intestinalmovements
  - a) Mastication, deglutition andvomiting
  - b) Movements of stomach and small intestines
  - c) Movements of large intestine anddefecation.
  - d) Regulation of movements and methods ofstudy

								
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10. Digestion and adsorption of carbohydrates, fats, proteins and vitamins, minerals and water.



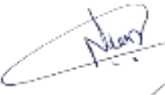






**COURSE OUTCOME-**

After completion of the program, the student will be able to:

1. Illustrate the normal functioning of all the organ systems and their interactions for well co-ordinated body function;
2. Correlate the relative contribution of each organ system to the homeostasis;
3. Describe the physiological aspects of normal growth and development;
4. Analyze the physiological response and adaptations to environmental stresses;
5. Classify physiological principles underlying pathogenesis and disease management.

**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

								
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## PHYSIOLOGY PAPER- 2

### VI. EXCRETORY SYSTEM



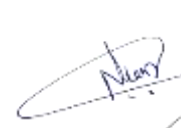






1. General introduction organs of excretion with special emphasis on evolution of excretory mechanisms.
2. Renal system-functional anatomy and renal circulation
3. Nephron
  - a) Mechanism of urine formation, glomerular filtration, tubular function
  - b) Concentration and acidification of urine
  - c) Composition of normal urine, and abnormal constituents of urine
  - d) Renal function tests
4. Non-excretory functions of kidney
  - a. Physiology of micturition and its abnormalities.
  - b. Skin-Structure and functions.

### VII. ENDOCRINE SYSTEM

1. Introduction-hormones, evolutionary background and organization of endocrine control systems
2. Methods of study
  - a) Classification of hormones and mechanism of hormonal action
  - b) Regulation of hormone secretion and feedback system.
3. Hypothalamohypoph system
  - a) Releasing hormones.
4. Active principles
  - a) Chemical nature, biosynthesis, role of action.
  - b) Control of secretion, excretion and its aspect.
  - c) Clinical study of their hypo- and hyperfunction.
  - d) Laboratory diagnosis of pituitary (anterior and posterior) gland, thyroid, parathyroid, adrenal cortex and medulla and islets of Langerhans.

### VIII. REPRODUCTIVE SYSTEM

1. Physiology of reproduction
  - a) Introduction to physiology of reproduction
  - b) Sex determination and sex differentiation and chromosomal study
2. Male reproductive system
  - a) Growth, development and structure of testes
  - b) Gonadotropins and gonadal

								
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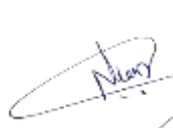






- hormones
- c) Functions of testes and spermatogenesis
- d) Composition of semen
- 3. Female reproductive system
  - a) Ovary, gonadotropins
  - b) Structure of ovary and corpus luteum
  - c) Function of ovary, ovarian hormones
  - d) Physiology of menstruation cycle and physiology of pregnancy
  - e) Physiology of placenta, gestation and parturition
  - f) Physiological basis of tests for ovulation and pregnancy
- 4. Physiology of lactation

**IX. NERVE MUSCLE PHYSIOLOGY**

- 1. Neurons
  - a) Morphology and measures of excitability
  - b) Classification and properties of nerve fibers
- 2. Muscle
  - a) Types of muscles and their properties and morphology
  - b) Neuro-muscular junction, excitation-contraction coupling
  - c) Myasthenia gravis
  - d) Starling's law and its applications.

**X. CENTRAL NERVOUS SYSTEM**



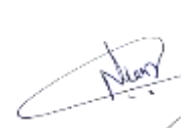






- 1. Structural and functional organization of central nervous system
- 2. Neuron
  - a) Neuroglia, functional types of neurons
- 3. Cerebro-spinal fluid
  - a) Formation, circulation, functions of CSF
  - b) Methods of collection and clinical significance of CSF.
- 4. Synapse
  - a) Types of synapses and their structure
  - b) Sympathetic transmission
  - c) General properties of neuro-transmitters.
- 5. Sensory Physiology
  - a) Classification and general properties of receptors
  - b) Sensory modalities and stereognosis.
- 6. Reflexes
  - a) Reflex and general properties of reflexes (with examples)

								
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7. Ascending tracts
  - a) Origin, course, termination and functions
  - b) Specific reference to pain pathway and physiology of pain
8. Organization of motor systems
  - a) Pyramidal and extra-pyramidal system
  - b) Upper and lower motor neurons and their lesions
  - c) Brown-sequard syndrome
  - d) Syringomyelia
9. Cerebellum
  - a) Functional anatomy, connections and functions.
  - b) Effects of lesions and tests for cerebellar function
10. Basalganglion
  - a) Functional anatomy, connections and functions
  - b) Diseases of basal ganglion and its clinical evaluation
11. Vestibular apparatus
  - a) Functions anatomy, connections and functions
  - b) Effects of lesions and their assessment
  - c) Physiology of maintenance and regulation of muscle tone, posture and equilibrium
  - d) Decerebrated rigidity and righting reflexes
12. Thalamus
  - a) Functional anatomy, connections and functions
  - b) Effects of lesions of thalamus
13. Hypothalamus
  - a) Functional anatomy, connections and functions
  - b) Effects of lesions of hypothalamus
14. Body temperature regulation
  - a) Normal body temperature, pyrexia and hypothermia
15. Cerebral cortex
  - a) Functional anatomy
  - b) Methods of study of cortical functions
16. Limbic system
  - a) Functional anatomy, connections and functions
  - b) EEG, Physiology of sleep and wakefulness
17. Higher functions
  - a) Learning, speech, memory, behaviour and emotions

## XI. AUTONOMIC NERVOUS SYSTEM

1. Sympathetic nervous system
2. Parasympathetic nervous system

								
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## XII. SPECIALSENSE

1. Smell
  - a) Physiology of olfaction and olfactory discrimination
  - b) Olfactory pathway and defects of olfaction
2. Receptors, primary taste sensation and taste pathway
3. Vision
  - a) Functional anatomy of eye, extra and intra-ocular muscles
  - b) Errors of refraction and their correction, visual acuity
  - c) Physiology of aqueous humour
  - d) Cornea, lens, intraocular pressure, accommodation
  - e) Retina, rhodopsin cycle, dark and light adaptation
  - f) Visual pathway and effects of lesions in visual pathways
  - g) Field of vision, perimetry, binocular vision
  - h) Iris and pupillary reflexes
  - i) Colour vision, colour blindness and tests for colour blindness
  - j) Formation and circulation of tears, lacrimal glands
4. Hearing
  - a) Functional anatomy of ear, function of external ear
  - b) Physiological functions of middle ear
  - c) Impedance matching and tympanic reflex
  - d) Functional anatomy of internal ear, cochlea, organ of Corti
  - e) Auditory pathway and auditory cortex
  - f) Frequency analysis, sound localization, defects of hearing
  - g) Audiometry, tests for conduction defects, Aphasia

**Note:** For the purpose of written Theory examination, the syllabus is divided as follows:

Theory Paper-I

Section-A: Consisting of chapters on General physiology, Blood, Cardiovascular system, Respiratory system and Digestive system.



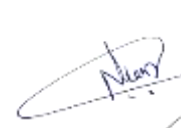






Theory Paper- II

Section-B: Consisting of chapters on excretory system, Endocrine system, Reproductive system (male and female), Nerve muscle physiology, Central nervous system, Autonomic nervous system and Special senses.

## COURSE OUTCOME

After completion of the program, the student will be able to:

1. Explain the normal functioning of all the organ systems and their interactions for well co-ordinated body function;
2. Correlate the relative contribution of each organ system to the homeostasis;
3. Describe the physiological aspects of normal growth and development;

								
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4. Illustrate the physiological response and adaptations to environmental stresses;
5. Analyse physiological principles underlying pathogenesis and disease management.

**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal A	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100



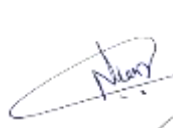






**PHYSIOLOGY PRACTICAL**

**I. HAEMATOLOGY EXPERIMENTS**

1. Collection of blood, study of fresh drop of blood, effects of isotonic, hyper tonic and hypo tonic saline on RBCs
2. Enumeration of RBCs (RBS count)
3. Estimation of haemoglobin
4. Packed cell volume (PCV) and blood indices
5. Determination of Erythrocyte sedimentation rate (ESR)
6. Enumeration of WBC (Total count)
7. Differential WBC count (Differential count)
8. Determination of clotting time and bleeding time
9. Enumeration of platelets (Platelet count)

**II. HUMAN PHYSIOLOGY EXPERIMENTS**

1. Recording of blood pressure in human beings and study the effects of exercise on blood pressure
2. Electrocardiography (Demonstrations)
3. Clinical examination of CVS and radial pulse
4. Determination of tidal volume, inspiratory reserve volume, expiratory reserve volume, inspiratory capacity, expiratory volume (All experiments are to be arranged for demonstration)
5. Stethoscopy, normal body temperature and its physiological variation
6. Pulse, respiration and temperature chart with correlation
7. Clinical examination of respiratory system
8. Plethysmography (Demonstration)
9. Clinical examination of CNS
  - a) Motor functions
  - b) Sensory functions
  - c) Cranial nerves
  - d) Reflexes superficial and deep

								
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10. Determination of vital capacity and maximum ventilator volume with spirometry (Demonstration)

Note - The above 10 human physiology experiments are to be conducted with demonstration as a joint venture by physiologists and the clinical faculty, if necessary.

#### Assessment Scheme

Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination (ESE)-Practical	60 marks
End- Semester Examination (ESE)-Viva	30 marks
Total	100 marks

#### Recommended text books for physiology

1	Text book of Medical physiology	A.C. Guyton
2	Review of Medical physiology	W.F. Ganong
3	Concise text book of Medical physiology	S.K. Choudhary
4	Understanding Medical physiology	Bijlani
5	Essentials of Medical Physiology	Sembulingam



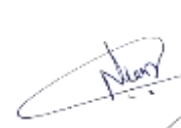






#### Reference books

1	Best and Taylor's physiology basis of medical practice	
2	Practical physiology	Ghai
3	Practical physiology	Ranade

#### COURSE OUTCOME

After completion of the program, the student will be able to:

1. Conduct experiments designed to study physiological phenomena;
2. Interpret experimental/investigative data;
3. Differentiate between normal and abnormal data from results of tests, which he/she has done and observed in the laboratory.
4. Demonstrate the practical efficiently.

								
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### 3. BIOCHEMISTRY



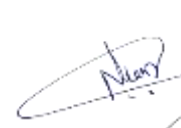






Course type- Core Course  
Course code – BNY-107, BNY-108P

#### Objective:

The objectives of introducing biochemistry to the undergraduate students is to make them understand the scientific basis of the life processes at the molecular level and to orient them towards the application of the knowledge in solving clinical problems.

#### BIOCHEMISTRY THEORY

1. Introduction and Prospects.
2. Hydrogen ion concentration, acids, bases, buffers, Henderson- Haselbasch Equation.
3. Principles of calorimetry, Paper chromatography and Electrophoresis.
4. Amino Acids - Classification, structure, properties and side chains of amino acids.
5. Peptides - Biological importance of peptides structure of Insulin.
6. Proteins - Definition, Biological importance, classification and properties, structure of proteins, coagulation and denaturation of proteins,
7. Elementary aspects of the structure of collagen, Myoglobin and Hemoglobin.
8. Enzymes - Definition, classification, specificity, coenzymes, co-factors and activators diagnostic importance of enzymes and iso-enzymes.
9. Carbohydrates - Definition, classification and biological importance of Monosaccharides- classification, properties and stereoisomerism, oligosaccharides- importance of Disaccharides.
10. Polysaccharides - Functions.
11. Lipids - Definition, classification and biological importance.
  - Simple lipids: Composition of triglycerol, Waxes.
  - Compound lipids: Functions of fatty acids - Properties of saturated and unsaturated fatty acids.
12. Nucleic acids- Definition, classification, composition and biological importance of nucleic acids, purines and pyrimidine bases. "Structure of DNA Structure, function and types of RNA.
13. Vitamins - Definition and classification. Brief account of source, biochemical function deficiency diseases. Vitamin antagonist Hypervitaminosis.
14. Minerals - Calcium, Phosphorous, iron, copper, zinc, magnesium, manganese, lead, mercury arsenic and metal toxicity fluorine and iodine.
15. Cell and subcellular structures: Cell membrane, its composition, function of subcellular structures, transport across cell membrane, Active and facilitated diffusion.
16. Metabolism - Digestion and absorption of carbohydrates, lipids, proteins and nucleic acids.
17. Carbohydrate Metabolism- Glycogenesis, glycogenolysis and kreb's cycle, glycolysis, pyruvate oxidation citric acid cycle, Gluconeogenesis, Metabolism of Fructose

								
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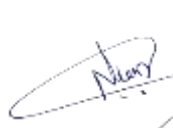






and Galactose, regulation of metabolic pathways, disorders of carbohydrate metabolism, regulation of blood sugar, glucose tolerance test, diabetes mellitus.

18. Biological oxidation - Oxidative phosphorylation.
19. Lipid Metabolism - Lipogenesis, synthesis of fatty acids, de-saturation, Phospholipids, Bio-synthesis of lecithine, Cephalin and utilisation of Ketone bodies, Ketosis, synthesis and utilisation of ketone bodies, Ketosis, synthesis and breakdown of cholesterol, disorders of lipid metabolism, outlines and formation and functions of prostaglandins and leucotrienes, fatty liver and lipotropic factors.
20. Metabolism of proteins and amino acids - Breakdown of tissue proteins, amino acids pool, general metabolism of amino acids, disposal of ammonia, urea cycle formation of glutamate and glutamine, disorders of amino acid metabolism.
21. Purine and Pyrimidine metabolism - Outline of synthesis and breakdown of purine and pyrimidine, Disorders of metabolism of purine and pyrimidine.
22. Biochemical genetics and protein synthesis - Replication, transcription, reverse transcription viruses, oncogenes, post transcription modification.
23. Biochemistry of blood - Outline of synthesis and degradation of heme, Function of Haemoglobin, abnormal haemoglobin, Jaundice, importance, functions and separation of plasma proteins, Functions of immunoglobulins, regulation of PH of blood, role of kidney and lungs in maintaining PH of blood, acidosis and Alkalosis.
24. Liver function - Liver Function tests, Detoxification mechanisms.
25. Kidney Function Tests - Composition of Urine, Urea clearance and creatinine clearance.
26. Energy metabolism (BMR) - Basal metabolic rate and its importance, calorific values of food, unbalanced diet, protein energy malnutrition (PEM), Essential fatty acids, dietary habits and diseases, biochemistry of starvation.
27. Electrolytes and water metabolism

#### COURSE OUTCOME-

After completion of the course, the student shall be able to:

1. Explain the molecular and functional organization of a cell and list its sub cellular components;
2. Correlate the fundamental aspects of enzymology and clinical application wherein regulation of enzymatic activity is altered;
3. Illustrate digestion and assimilation of nutrients and consequences of malnutrition;
4. Explain biochemical basis of inherited disorders with their associated sequelae;
5. Describe mechanisms involved in maintenance of body fluid and pH homeostasis;
6. Analyse the molecular mechanisms of gene expression and regulation, the principles of genetic engineering and their application in medicine

								
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**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

**Biochemistry Practical****SECTION – I**

1. Indicators
2. Reactions of monosaccharides - Glucose and fructose
3. Reactions of disaccharides - Lactose, Maltose and Sucrose
4. Reactions of polysaccharides - Starch and dextrin
5. Reactions of Proteins - albumin, casein, gelatin
6. Coagulation and Precipitation and reactions of Proteins.
7. Reactions of Non Protein Nitrogen ( NPN) - Urea, Uric acid and creatinine.
8. Analysis of Milk
9. Normal Constituents of urine
10. Analysis of abnormal urine.



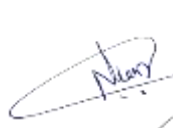






**SECTION –II**

1. Determination of a. Blood Sugar b. Blood urea c. Total serum protein d. Total serum calcium e. Total serum cholesterol f. Total serum bilirubin
2. Determination of
  - a. Sugar in CSF
  - b. Proteins in CSF
  - c. Chlorides in CSF
3. Determination of albumin and urea in urine
4. Determination of SGOT and SGPT
5. Demonstration of principles of
  - a. Calorimetry and calorimeter
  - b. Paper chromatography
  - c. Electrophoresis
  - d. Glucose Tolerance Test (GTT)
  - e. Flame photometry.

**COURSE OUTCOME**

At the end of the course, the student will be able to:

1. Demonstrate conventional techniques/instruments to perform biochemical

								
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- analysis relevant to clinical screening and diagnosis;
- Analyse and interpret investigative data;
  - Demonstrate the skills of solving scientific and clinical problems and decision making.
  - The integrated knowledge of biochemistry will help the students to integrate molecular events with the structure and function of the human body in health and disease.

### Assessment Scheme

Continuous Comprehensive Assessment(CCA)	10 marks
End- Semester Examination(ESE)-Practical	60 marks
End- Semester Examination(ESE)-Viva	30 marks
Total	100 marks

#### Note:



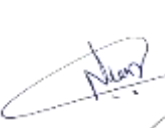






- Section - I of practical shall be conducted by students in biochemistry laboratory.
- Section - II of practical shall be conducted by teaching staff as a part of demonstration / seminar in the laboratory.

### Recommended Textbooks For Biochemistry

1	Text book of Biochemistry	Ramkrishna, Prasanna and Rajan
2	Biochemistry for medical students	Debajyothi Das.
3	Text book of Biochemistry	Rama Rao.
4	Text Book of Biochemistry	Sathyanarayan.

### Reference Books

1	Harper's review of physiological chemistry	By Harper
2	Text Book of Biochemistry	By Lubert Stryer
3	Biochemistry	By Albert Lehninger.
4	Text book of Biochemistry	By West & Todd
5	Laboratory manual of Biochemistry	By Pattabhiraman & Acharya
6	Laboratory manual of Biochemistry	By Rajgopal & Ramkrishnan

								
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#### 4. PHILOSOPHY OF NATURE CURE

Course type- Core Course

Course code – BNY-109, BNY-110, BNY-111P



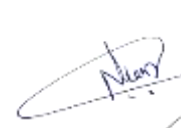






#### **Objectives:**

The objectives of introducing philosophy of Naturopathy to the undergraduate students is to make them understand philosophical basis of the system of Naturopathy, including concepts of health, causes and pathogenesis of disease and brief introduction to the various therapeutic modalities used in Naturopathy.

#### **THEORY**

#### **PNC PAPER -1**

1. The evolution of the humanbody.
2. Philosophy of the body, mind, soul, life, spirit and spiritualbody.
3. Composition of the human body, according to Ayurveda, Naturopathy, Yoga, Modern Medicine & Homeopathy.
4. History and Fundamental (Basic) principles of Naturopathy.
5. Comparative study of the Naturopathy with other systems of Medicine.
6. Ayurvedic Approach towards Naturopathy.
7. Homeopathy: introduction, history, principle, case taking, dilution factors, commonly used homeopathy medicine.
8. Philosophy of Indian Naturopaths:-
  - a) Vegiraj Krishnamraju
  - b) Dr. Kulranjan Mukherjee
  - c) Vinoba Bhawe.
  - d) Dr. Bhojraj Chhabaria
  - e) Mahatma Gandhi.
  - f) Sant Hirdaram Sahibji
  - g) Dr. S.J. Singh
  - h) Dr. Laxmi Narayan Choudhary
  - i) Dr. J.M. Jussawala
  - j) Dr. Hira Lal
  - k) Dr. Vittal Das Modi
  - l) Dr. K. Laxman Sharma
  - m) Dr. B. Venkat Rao
  - n) Dr. Janaki Sharan Verma
  - o) Dr. Dinsha K. Mehta
  - p) Dr. Ganga Prasad Goud Nahar
  - q) Dr. Sharan Prasad
  - r) Sohanlal Nishkam Karmyogi
  - s) Dr. Khushiram Dilkash
  - t) Dr. Keki R. Sidhwa
  - u) Seth Dharamchand Saravagi
  - v) Dr. M.M. Bhamgara
  - w) Sukhbir Singh Ravat
  - x) Jai Narayan Jaiswal
  - y) Krishna Swaroop Shrotriya
  - z) Dr. Moolraj Anand
9. Philosophy of Foreign Naturopaths
  1. Aesculapius
  2. Hippocrates
  3. The School of Salerno.
  4. Paracelsus
  5. Vincent Priessnitz.
  6. Sebastian Kneipp.
  7. Arnold Rickli.
  8. Louis Kuhne.
  9. Adolf Just.
  10. John H. Tilden.

								
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11. SigmundFreud.
12. HenryLindlahr.
13. BernarrMacfadden
14. BernardJenson
15. ArnoldEhret
16. Edwin Babbit
17. HerbertM.Shelton
18. J.H. KellogM.D.
19. BenedictLust
20. Dr. DeanOrnish
21. Dr.Paavo Airola
22. Dr. Paul C.Bragg
23. Dr.HerewardCarrington
24. Aterhov
25. John Wesley
26. SylvesterGraham
27. Dr. MaxGersonM.D.
28. Dr. HarryBenjamin
29. EdwardHookDewey
30. Issac JenningM.D.
31. Dr.StanleyLief
32. Silas WeirMitchell
33. Dr. R.T.TrallM.D.

10. Laws ofNature:

- o Pancha MahaBhutas.
- o Shareera Dharmas - Ahara, Nidra, Bhaya, Maithuna.
- o Inflammation and its differentstages.
- o Naturalrejuvenations.
- o Violations of Laws of Nature resulting indiseases
- o DictumofCurei)Removetherootcauseii)Eliminatethetoxin  
iii) Supplement of the vital Nutrients iv) Conservation of the vital energy or nerve energy.

11. Catechism of NatureCure

12. Swasthya Vritam:

- |                |                 |
|----------------|-----------------|
| a. Dinacharya. | B. Ratricharya. |
| c. Ritucharya. | D. Vegadharanam |

13. Unity of disease, unity of cure and way of treatment.

14. HowNature Cures?



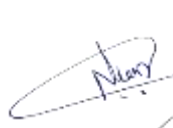






15. Foreign matter and Toxins accumulation in the body and itsimportancein elimination through different ways of channels. (Toxemia / Foreign Matter Theory).

16. How to acquire Natural immunity indiseases.

17. Difference between functional and organicdiseases.

18. Materia Hygienica

- a) Importance of Physical & MentalHygiene
- b) Revolution & Evolution ofHygiene
- c) Hygiene not acure
- d) Hygienic care of thesick
- e) Applications ofHygiene
- f) Medicine & the Hygienecontrasted
- g) Women &Hygiene
- h) Hygienists

								
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i) Future of Hygiene

19. The Philosophy of Life:-

- a) The Primordial Requisites of Life (Basic Needs of Living)
- b) The Laws of life.
- c) Mystery of life
- d) Life's Engineering
- e) Safeguards of life.
- f) How long can we live (Increase of average length of life), Are You Shortening Your Life? Why Live Long?

20. The Philosophy of Health

- a) Health Standards
- b) Health & its Conditions
- c) Ancient Man Was Healthier Than We Are.
- d) Positive Habits
- e) Vital Economy
- f) Divine science of Health.
- g) Nine Doctors at your Command.
- h) Health Destroyer (Tea, Coffee, Salt, Sugar, Tobacco Chewing, Smoking, Alcohol, Non-Veg (Animal Food), Excess Fat & Oil, Negative Thinking & attitude etc.)
- i) The Secret of Health - Storing Energy & Enzymes
- j) Internal Symbiosis
- k) Your Body: Do- it Yourself Repair Shop

21. Body's Protective Mechanism

- a) Digestion: First Line of Defense against Disease.
- b) The Liver: Second Line of Defense against Disease.
- c) The Endocrine Glands: Third Line of Defense against Disease.



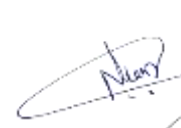






22. Food as Medicine

- a) Super Nutrition from Sprouts.
- b) Food is The Magic Healer.
- c) Let Food Be Your Medicine – Body As A Self Healer
- d) Wheat Grass Miracles
- e) The Hippocrates Diet
- f) Salt Eating
- g) Stimulant Delusion



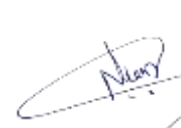






23. Preventive Medicine:

- a) Prevention of Disease
- b) Prevention of Epidemics

24. Natural Ways of Care:

								
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- a) Keeping Your Body Clean:-(Colon,Liver, Lungs, Kidneys &Skin).  
 b) Care of the Colon, Teeth, Eyes, Ears, Hairs, Feet &Skin.  
 c) Care of the Glands & EmotionalControl  
 d) Care of the Orifices of theBody.
25. The Philosophy of Disease in Nature Cure:  
 a) The Essential Nature of Disease  
 b) The Occasions forDisease  
 c) The Suppression ofDisease  
 d) Is Disease Friend orFoe?  
 e) The Rationale ofFever  
 f) Disease has ManyFaces  
 g) You under the Doctor"sEye  
 h) Fallacy ofDiagnosis  
 i) IatrogenicDiseases  
 j) PhysiologicalCompensation.
26. The Cure Core In NatureCure:-  
 a. Living Matter Cures Itself.  
 b. Reform Vs.Cure  
 c. The Delusion ofCure  
 d. ToCure TheIncurable.  
 e. RestCure
27. The Hidden Truth aboutDrugs:-  
 a) Biodynamics Vs. Pharmacodynamics  
 b) Evils of Drug Medication  
 c) DrugIndulgences  
 d) Fallacy ofPharmacology  
 e) Fallacy ofCure  
 f) Drug cannot HealYou.  
 g) Suppression Vs.Elimination  
 h) Druglessness.
28. The Science ofRecovery:-  
 a. Convalescene- Gradual Recovery ofVigor  
 b. Conditions of Recovery &Time factor inRecovery.  
 c. The Tragedy ofIrreversibility.
29. The New HumanRedumtion.  
 30. Toxic Acid Crystals Cement yourBody.  
 31. Philosophy ofDeath:  
 a) Life &Death  
 b) Why Death, The BiologicalWay

								
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- c) How to Prolong Life & Postponed death
- d) The Causes of Death
- e) The Signs Of Old Age
- f) Phenomena of Death
- g) The Fear of Death.



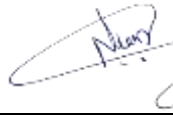






**COURSE OUTCOME-**

After completion of the course, the student shall be able to:

1. Illustrate the history of Naturopathy including major contributors to the field and their work;
2. Correlate the evolution and composition of the human body according to different schools of medicine such as Naturopathy, *Yoga*, *Ayurveda*, Homeopathy, Modern Medicine, etc.
3. Concepts of health and disease according to Naturopathy
4. Classify and Correlate Ten basic principles of Naturopathy
5. Describe Foreign matter, toxin accumulation, theory of Toxemia, Unity of disease and Unity of Cure.



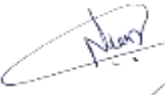






**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

								
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## PNC PAPER –II

1. Properties of Water, Mud, Air and Sunlight.
2. Health is positive and disease is Negative.
3. Basic concepts in Nutrition and balanced diet.
4. Role of diet in nature cure and yoga (Satvic, Tamsic, Rajsic)
5. Outlines on a) Regular Habits for health b) Rest and Relaxation c) Live Food- Natural Raw diet d) Fasting e) Exercises.
6. Fundamentals of Ayurveda
7. Fundamental of Siddha
8. Fundamentals of Homeopathy
9. Fundamentals of Unani
10. Fundamentals of Allopathy
11. The Diagnostic Procedures in Naturopathy & their Diagnostic Values :
  - a. Facial Diagnosis- The Science Of Facial Expression
  - b. Iridiagnosis
  - c. Chromo-Diagnosis
  - d. Spinal Analysis.
  - e. Arogya-Rakshaka Panchatantras and Their Importance In Restoration  
, Maintenance Of Health And Prevention Of Diseases.
12. Treatment Modalities in Nature Cure (in brief):
  - a. Enema - Colon Flushing  
- Colon Hydrotherapy.
  - b. Hydrotherapy:
    1. Hip Bath
    2. Spinal Bath
    3. Spinal Spray
    4. Foot Bath
    5. Arm Bath
    6. Contrast Arm & Foot Bath
    7. Steam Bath
    8. Sauna Bath
    9. Packs
    10. Full Wet Sheet Pack
    11. Jacuzzi
    12. Sitz Bath
    13. Full Immersion Bath

								
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14. Under Water Massage

15. Douches

16. Cold Circular Jet bath

17. Whirlpool Bath

18. Gastro Hepatic Pack Kidney Pack

19. Oxygen Bath

c. Mud Therapy:

i) Mud Packs ii) Mud Bath.

d. Chromotherapy:- Colour Treatment

i Heat, Light, Ultra-violet and Infra red rays

ii Chromothermolium.

iii Heliotherapy

iv. Sun Bath

v. Athapa-Snana (Banana Leaf Bath)

vi Air-therapy

e. Air Bath

f. Ozone Bath

g. Magnetotherapy

h. Massage Therapy

i. Aroma Therapy

j. Chiropractic

k. Osteopathy

l. Physiotherapy

m. Nutrition & Dietetics.

13. Crises and their Management.

14. Sleep- Repose.

15. Toxins and anti-toxins, their generation & mitigation in nature cure way.

16. Vaccinations and inoculation, their ill effects on the human mind and body.

17. Old age problems and natural rejuvenation.



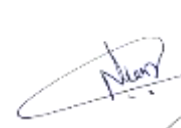






18. Family planning by Natural therapeutics.

### COURSE OUTCOME-

After completion of the course, the student shall be able to:

1. Explain the history of Naturopathy including major contributors to the field and their work;

2. Correlate the evolution and composition of the human body according to



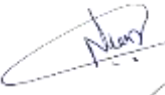






								
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different schools of medicine such as Naturopathy, Yoga, Ayurveda, Homeopathy, Modern Medicine, etc.

3. Analyze naturopathic viewpoints of concepts like hygiene, vaccination, family planning, personal life and prevention of diseases, geriatrics, etc, and implement them in his/her practice
4. Analyse Principles behind using the diagnostic procedures of Naturopathy, like spinal diagnosis, facial diagnosis, iris diagnosis, and chromo diagnosis.
5. Demonstrate knowledge of recent advances and research in Naturopathy principles/theories.

**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

								
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## PNC PRACTICALS

- a. Students should be introduced to various treatment procedures used in Naturopathy.
- b. Students should have knowledge of giving various treatments.
- c. Demonstration of :a) Natural Diet (Live food). b) Satvicboiled diet. c) Way of serving & various specialdiets.
- d. Practicals with record. v. Visiting to various nature cure clinics/ hospitals.

### COURSE OUTCOME-

After completion of the course, the student shall be able to:



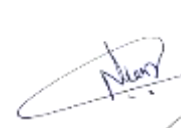






1. Understand Principles behind using the diagnostic procedures of Naturopathy, like spinal diagnosis, facial diagnosis, iris diagnosis, and chromodiagnosis.
2. Demonstrate knowledge of recent advances and research in Naturopathy principles/theories.
3. Demonstrate basic knowledge of the various therapeutic modalities utilised inNaturopathy;
4. Describe the various principles of Naturopathy with respect to the body, health, disease and therapy, diagnosis and management

### Assessment Scheme



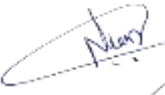






Continuous Comprehensive Assessment(CCA)	10 marks
End- Semester Examination(ESE)-Practical	60 marks
End- Semester Examination(ESE)-Viva	30 marks
Total	100 marks

### Text Books—



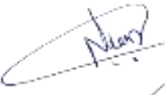






	Book Name	Authors
1	Philosophy ofNatureCure	By HenryLindlahr.
2	Practice ofNatureCure	By HenryLindlahr
3	Human cultureandCure	By Dr. E.D.Babbit
4	PracticalNatureCure -By Dr. K. Laxman Sharma.	By Dr. K. Laxman Sharma.
5	History and Philosophy ofNatureCure	By S.J.Singh
6	MyNatureCure	By M.K.Gandhi
7	Natural health care- AtoZ	By Belinda Gram
8	Introduction toNaturalHygiene	By Herbert M.Shelton
9	A Complete Handbook ofNatureCure	By H.K. Bakhr

								
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10	Nature Cure - a wayof life	By S.R.Jindal
11	The cure of advance cancer y Diet Therapy	Dr Max Gerson M.D
12	Toxemia	Tilden J.H
13	Books by Dr kulranjan Mukherjee.	Dainandin rogo kiPrakartikChikitsa Purane rogo kiGrahChikitsa Stri rogo kiGrahChikitsa Shishu rogo kiGrahChikitsa AbhinavPrakartikChikitsa Khadya kinayiVidhi
14	Books by Dr Bhojraj Chhabaria	Swasthya ke liye Bhojan BinadavaTandurusti SwasthyaavamSudaulata
15	How to get well	Dr. Paavo Airola
16	The Encyclopediaoof health &PhysicalCulture	Dr. BernarrMacfadden
17	Mywater cure	Father Sebastian Kneipp
18	The New Scienceof Healing	LouisKuhne
19	ReturntoNature	Adolf Just
20	Diet ReformSimplified	Dr. Stanley Lief
21	RationalFasting	Dr. Arnold Ehret
22	The Human Cultureand Cure	EdwinBabbit
23	Rogo kiAchookChikitsa	Dr. Janaki Sharan Verma
24	The GreatestHealthDiscovery	American Natural HygieneSociety
25	The History ofNatural Hygiene	HerewardCarrington.
26	Principles of Natural Hygiene	HerbertM.Shelton
27	Health For All	H.M.Shelton
28	Integrated Healing Arts	Dr. J.M.Jussawala
29	Prakratik Chikitsa Sagar	Dr.Gaurishankar Mishra
30	Speaking of Nature Cure	K.Laxmana Sharma &S.Swaminathan
31	Human Life-its Philosophy & Laws	Herbert M.Shelton
32	How to Get Rid of The Poisons in Your Body	Gary Null &Steven Null
33	Let's Get Well	Adelle Davis
34	Be your Own Doctor	Ann Wigmore Reference Books
35	My Nature Cure or Practical Naturopathy	By S.J. Singh
36	The Science of facial expression	By Louis Kuhne

								
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37	The Story of my experiment with truth	BY M.K. Gandhi
38	Ayurveda for Health and long life	By Dr. R.K. Garde
39	Everybody's guide to Nature Cure	By Harry Benjamin
40	Prayer	By M.K. Gandhi
41	Diet and Diet Reforms	By M.K. Gandhi
42	Panchatantra	By Venkat Rao
43	Healingfromwithin A. Nature CureB.	By J.M. Jussawala
44	Miracle of fasting	By Dr. Paavo Airola
45	Raw eating	By Aterhov & By HiraLal
46	Vitality fasting & Nutrition	By Hereward Carrington
47	Death Deferred	By Hereward Carrington
48	Natural Nutrition of Man	By Hereward Carrington
49	Mucousless diet healing System	By Arnold Ehret
50	Natural Hygiene -Pristine way of life	By Herbert M. Shelton
51	Better Sight without glasses	By Harry Benjami
52	Swasthavritta vijyana	By R.H. Singh
53	Fundamentals of Ayurveda	By K.N. Udupa
54	Arogya Prakash	By Ramnarayan Vaidya
55	Chikitsa Tatva Dipika	By Vaidya Mahaveer Prasad Pandey
56	Padarth Vijanam	By Ram Prakash Pathak
57	Gem of Siddha Medicine	By Dr. Ram Murthy
58	Living life to Live it Longer	By Herbert M. Shelton
59	Eating for Health with Emphasis on Economy	By L. Ramachandran
60	Hand Book of Naturopathy	By Sukhbir Singh
61	Healing Through Natural Foods	By H. K. Bakhru
62	The Human Body: Nature's Amazing Creation	By Dr. M.M. Bhamgara.

								
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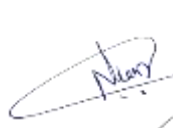






**5. YOGA PRACTICES**  
**Course type: Core Course**  
**Course code – BNY-112, BNY-113P**

**Objective:**

The objective of teaching *Yoga* to undergraduate students is to familiarize them with basic principles of *Yoga* with respect to history, definitions, philosophy and practices of *Yoga*, with emphasis of *AshtangaYoga*.

**THEORY**

1. Different definition of yoga, its philosophy & origin.
2. Fundamental outlines of AstangaYoga.
  - a) Yama
  - b) Niyama
  - c) Asanas :Sukshma vyayama and sthula vyayama, Shirshasana, Vajrasana, Supta Vajrasana Paschimottanasana, Baddha Padmasana, Trikonasana , Ardhakati and Kati Chakrasana, Padahastasana,shavasana, Suryanamaskara & Chandra namskara.
  - d) Pranayama-Suryabhedana, Ujjayi, Bhastrika, Sheetkari, Sheetal, Bhramari, Murcha,Plavini.
  - e) Prathyahara
  - f) Dharana
  - g) Dhyana
  - h) Samadhi
3. Kriyas
  - I) Neti-Jal
  - II) Sutra
  - III) Ghrita
  - IV) Dhouti-Vamana, Vastra Danda
  - V) Nauli-MadhyaDakshina & Vamna
  - VI) TratakaBindu Jyoti
  - VII)Kapalabhati
4. Rules & regulations to be followed for practising asanas, difference between exercise and asanas.
5. Chakras & Nadis
6. The life sketches, philosophy of Socrates, Plato, Aristotle, Adisankaracharya, Ramanujan, Maharshi Dayananda Saraswati, Ramakrishna Paramahansa, Swami Vivekananda, Swami Kuvalyanada, Ramana Maharshi, A.C. Bhakti vedanta Prabhupada, Jiddu Krishna Murthy, Shirdi Saibaba, Buddha, Mahavir, Shri Aurabindo, Sant Hirdaram Sahibji, Swami Lilashah, SantKanwarram.

								
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## COURSE OUTCOME-

After the completion of the course, the student shall be able to:

1. Explain the various definitions of *Yoga*, history of *Yoga* and branches of *Yoga* ;
2. Describe kinds of *Yogasanas*, its importance, methods, rules, regulations and limitations;
3. Illustrate the various limbs of *Ashtanga Yoga*;

### Assessment Scheme:

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

## Yoga Practices Practical

Asanas, Kriyas, Pranayama, Dharana, Dhyana-Meditation Practicals with records.

### Asanas

#### A. Standing Postures

1. Tadasana
2. Ardhakati Chakrasana
3. Padahastasana
4. Ardha Chakrasana,,
5. KatiChakrasana
6. Trikonsana

#### B. Supine Postures



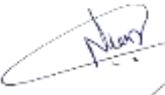






1. Shavasana
2. Matsyasana
3. Sarvangasana
4. Halasana
5. Chakrasana
6. Pavanmuktasan

#### C. Prone Postures

1. Makarasana
2. Bhujangasana
3. Ardha Shalabhasana
4. Shalabhasana
5. Dhanurasana

#### D. Sitting Postures

1. Vakrasana

								
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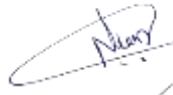






2. Ardhamatsyendrasana
3. Paschimottanasana
4. Ustrasana
5. Vajrasana
6. Padmasana
7. Baddha Padmasana
8. SuptaVajrasana

### Pranayama

1. Kapalbhathi
2. Bhastrika
3. Sheetakari
4. Sheetali
5. Anuloma Viloma
6. Ujjayi
7. Bhramari

### Kriyas

1. Neti - Jala - Sutra
2. Dhouti - Vaman
3. Nauli - Dakshina - Madhya
4. Trataka - Jyoti
5. Kapalbhathi

								
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## COURSE OUTCOME

After the completion of the course, the student shall be able to:



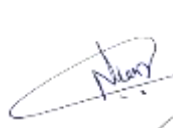






1. Demonstrate knowledge of *pranayamas*, *prana* and lifestyle, breathing and lifespan.
2. Demonstrate various types of *Yogasanas* in their correct method of performance;
3. Demonstrate different *pranayamas*.
4. Explain about the definitions, origin, branches of *Yoga*.

## Assessment Scheme

Continuous Comprehensive Assessment (CCA)	20 marks
End- Semester Examination (ESE)-Practical	10 marks
End- Semester Examination (ESE)-Viva	05 marks
Total	35 marks

## Reference Books

1	Sukshma Vyayama	Swami Dharendra Brahmachari
2	Basis and definitions of Yoga	Vivekananda Kendra
3	RajaYoga	Swami Vivekananda.
4	Asanas	Swami Kuvalyananda
5	Glimpses of Divine Light	S.K. Das
6	The Gospel of Buddha	Parul Caruso
7	The Gospel of Sri Ramakrishna	Mahendranatha Gupta
8	Complete works of sri Aurobindo	Sri Aurobindo
9	Asanas, Pranayama, Mudras & Bandhas	Swami Satyananda Saraswati,
10	Yoga in Daily life	Dr. A.U. Rahman
11	Yoga- The science of Holistic living	VKS yoga
12	Yogasana Vigyan	Swami Dharendra Brahmachari

								
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## 6. SANSKRIT

Course Type –Ability Enhancement Compulsory Course,  
Course Code- BNY-114

### Objective:

The objective of teaching *Sanskrit* to undergraduate students is to provide a comprehensive knowledge of *Sanskrit* in order to be able to study, understand, comprehend and utilise the knowledge contained in Indian traditional texts in their professional practice, **especially in the field of Yoga.**

### Theory

#### Basic Orientation

Knowledge of Devanagari script - alphabet, i.e. vowels, consonant vowel combination, two consonant combinations, special conjunct consonants and their pronunciation associated with their articulation.

#### Chapter 1

Verb roots, nine forms for three persons and three numbers; practice all the verb roots and their forms for correct pronunciation; usage of prefixes and how they change the meaning of the verb root and how to find them in the dictionary.

#### Chapter 2

Noun, masculine and neuter genders; 8 cases and their possible meanings; 24 forms of a noun and its declensions; practice of other similar declensions and usage of the 24 forms of a noun. Introduction to write a sentence; syntax, prepositions and their definite requirements of cases; rule how „ra/sha“ changes dental „n“ to cerebral „N“ and its exceptions for this rule; repeat declensions for pronunciation.

#### Chapter 3



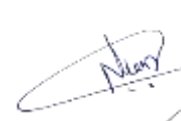




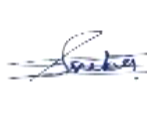

Noun- feminine gender; both ā ending and i-ending and practice of similar declensions. Practice of writing sentences with words mainly in feminine gender; exercises mainly for the feminine gender illustration; special declensions where dental „n“ changes to cerebral „N“; repeat all feminine noun declensions.

#### Chapter 4

*Madhurashtakam* illustrating all the three genders of nouns and study of the adjectives, having all the three genders and changing according to the gender of different qualified nouns; Midterm examination.

#### Chapter 5

Ex 32-38 ; models of declensions; how to recognize a gender or find the gender using the dictionary and write declensions of new words according to their models of declensions, while applying the rule changing dental „n“ to cerebral „N“; making simple sentences for all the words given there; repeat vowel- ending model declensions.

								
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## Chapter 6

Exercises for appropriate use of the cases; irregular verbs; absence of verb root “to have” in Sanskrit; where to omit root „AS” (to be), use of certain special verbs; repeat model declensions.

## Chapter 7

Pronouns: Introduction to pronouns; declensions of pronouns; corresponding translations of pronouns into English; forming sentences with pronouns; Different aspects of pronouns being used as demonstrative pronouns and as interrogative pronouns and details of distance specification.

## Chapter 8

*Sandhi* explanation; three major kinds of Sandhi: Vowel-Sandhi, Visarga-Sandhi and Consonant- Sandhi, and fifteen exercises.

*Parasmaipadi* (P) and *Atmanepadi* (A) forms of verbs;

Verb and ten *Ganas*; how to find the *Gana* using the *Apte*

Sanskrita - English Dictionary

Verb and ten *Lakaras*; mastering five *Lakāras* of both *Parasmaipadi* and

*Atmanepadi* and doing the pertaining exercises for that.

## Chapter 9

*Vaidhyakeyasubhashitasahityam*:

1. *Ragarogyavijnanam*
2. *Vyayama vijnanam*
3. *Pranayama vijnanam*
4. *Madhyagunadosha vijnanam*.

### Assessment Scheme:



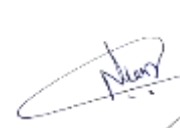






Continuous Comprehensive Assessment (CCA) (Internal Assessment)	20
End- Semester Examination (ESE)(Final Exams)	30
Total	50

### Text Books

1. Dr. Sarasvati Mohan, Sanskrita Level-2, Sanskrita Academy Dr. Sarasvati Mohan, Sanskrita-English-Sanskrita Dictionary, Sanskrita Academy.
2. Dr. Sarasvati Mohan, Sanskrita Level-3, Sanskrita Academy Vaman Sivaram Apte, Sanskrita-English Dictionary, Sanskrita Academy

### Reference Books:

Sanskritabhasadipika, Sri Surasaraswati Sabha (R) Sringeri, Bangalore, 2003.

								
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**7. English Communication**  
**Course Type – Ability Enhancement Compulsory Course,**  
**Course Code- AEC-01**

**Objective**

The purpose of commencing English communication skills course is to develop in students fundamental communication skills being integral to personal, social and professional interactions. One of the significant associations among human beings is the ability to share thoughts, emotions and ideas through various means of communication: both verbal and non- verbal. The present course hopes to address most of these aspects through an interactive approach of teaching learning process; focusing on various dimensions of communication skills. The course also focuses on enhancing the ability to handle casual and formed situations in terms of personal and intellectual grooming.

**SYLLABUS**

**Module 01 – Self Introduction**

- Introducing self
- Speaking about achievements
- Voicing future aspects

**Module 02 – Non verbal Communication**

- Body Language
- Paralanguage skills

**Module 03 – Manners and Etiquettes**

- Personal grooming
- Dresscode
- Telephone etiquettes
- Intellectual grooming

**Module 04 – Conversation in Real life situations**

- Meeting people,
- Traveling
- Visiting Places
- Shopping

**Module 05 – Public Speaking skills**



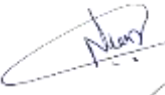






- Extempore
- Role Play
- Group Discussion

**Module 06 – Practical Assessment**

- Presentations



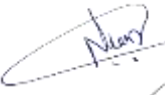






**COURSE OUTCOMES:**

1. Projecting the first impression
2. Use simple forms of polite expressions to establish basic social contact and to perform everyday functions including making requests and offers,

								
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conducting simple phone conversations, asking and telling time, giving simple directions, asking about price, ordering a meal, etc.

3. Students learn to use general, social and professional language.
4. Polishing manners to behave appropriately in social and professional circles.
5. Handling difficulty situations with grace style and professionalism.



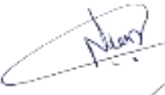






								
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**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	15
End- Semester Examination (ESE)(Final Exams)	35
Total	50

**Books Recommended:**

1	An introduction to Professional English and Soft Skills	By B. K. Das et al., Cambridge University Press
2	Technical Communication: Principles and Practice, Second Edition	by Meenakshi Raman and Sangeeta Sharma, Oxford Publications
3	Effective Technical Communication	by M Ashraf Rizvi, The McGraw-Hill companies
4	Understanding Body Language	by Alan Pease
5	Communicative Grammar of English	by Geoffrey Leech and Ian Svartik
6	Better English Pronunciation	by J.D.O'Connor
7	English Grammar	by Wren and Martin.
8	Strengthen Your English	M.Bhaskaran and D.Horsburgh,Oxford

								
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**8. COURSE NAME: ENVIRONMENTAL STUDIES**  
**COURSE TYPE: ABILITY ENHANCEMENT**  
**COMPULSORY**  
**COURSE CODE: AEC-02**

**OBJECTIVES:**

1. Understanding of major concepts in environmental sciences and creating the awareness about environmental problems among people;
2. Recognize the interconnectedness of multiple factors in environmental challenges;
3. Imparting basic knowledge about the environment and its allied problems to develop an attitude of concern for the environment in respect to environment protection and environment improvement;
4. Motivating students to participate in Develop analytical skills, critical thinking, in identifying and solving environmental problems.

**UNITS**

**Unit 1: Concept of Environment(3 Hrs)**

Definition and concept of environment; Types and components of environment (Lithosphere, Atmosphere, Hydrosphere, Biosphere); Scope and multidisciplinary nature of the subject; Man-environment relationships.

**Unit 2: Ecology and Ecosystems(7 Hrs)**



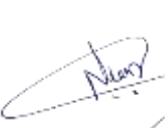






Concepts of Ecology: Subdivisions of ecology; Ecological factors - climatic, edaphic, physiographic and biotic; Concept of Biological clock; physiological adaptation of Hydrophytes, Xerophytes, mesophytes; Ecological Succession and classification (hydrosere, xerosere, mesosere etc.).

Structure and Functions of Ecosystem; a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries); Trophic Levels; Ecological Pyramids; food chains and food webs; Energy flow in an ecosystem; Ecological Interactions; Ecotone; Habitat; Ecological Niche; Resilience.

**Unit 3: Environmental Pollution and Global Environmental Issues(6 Hrs)**

Environmental pollution: types, causes, effects and controls; Air, water, soil, noise, thermal and radioactive pollution; Solid waste management: Control measures of urban and industrial waste, special reference e-waste, biomedical waste; Climate change; global warming; ozone layer depletion; acid rain and its impacts on human communities and agriculture; Case studies on Pollution Tragedies: Love canal, Bhopal Gas, Endosulfan and Minamata; International Agreements: IPCC, Montreal and Kyoto protocol.

**Unit 4: Natural Resource Management and Biodiversity Conservation(8 Hrs)**

								
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Renewable and non-renewable energy resources, use of alternate energy resources, Water resources: sources, usage, over-exploitation and sustainable management of water resources; Conflicts over water (international & inter-state); Land resources: land use change, land degradation, soil erosion and desertification; Forest Resources: types of forest in India, importance of forests, deforestation, Disaster management: floods, earthquake, cyclones and landslides. Conservation of biodiversity: *In-situ and Ex-situ* conservation of biodiversity; IUCN-Red Data Book categories; Hot spots in India; Biomes; Role of Govt. and Non-Government organizations in Conservation of Biodiversity in India; International Biodiversity conservation practices and strategies.

### Unit 5: Environmental Education and Management(6 Hrs)



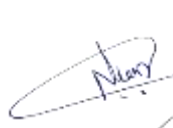






Environmental Education and movements: Goals of environmental education; Environmental education at primary, secondary and tertiary level Chipko, Silent Valley, Bishnoi, Narmada Bacchao Andolan, and Tehri Dam Conflict; Environmental communication and public awareness; Environmental ethics: Green Politics, Earth Hour, Green Option Technologies; EIA- Principles and Process; ISO standards: ISO 9000 and 14000; Environment Laws and Practices.

**Course Outcome:** Students will be able,

- 1 To understand the concept and function of the environment and recognize the physical, chemical, and biological components of the earth's systems and their functions.
- 2 To acquire the awareness on the ecosystem structure and process which interlinked with human survival, intensively need attention at global and regional level.
- 3 To identify common and adverse impacts of human activities on biotic communities, soil, water, and air quality and suggest sustainable strategies to mitigate these impacts;
- 4 Develop an understanding of environmental pollutions and hazards and general measures to control them.
- 5 To identify surrounding natural resources including renewable resources and non-renewable resources and practices for their restoration.
- 6 To realize the importance of biodiversity for maintaining ecological balance and Global conservation practices and strategies.
- 7 To analyze the need for sustainable development in respect of environmental management through Policies, movements and social awareness.
- 8 To acquire skills required to research and analyze environmental issues scientifically in applied situations such as careers.

### Reference books:



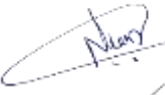






1. Banerji, K.S., *Environmental Chemistry*, TMH publication.
2. Bhargava & Gupta, *Environmental Pollution & Human Health*, CBS publication.
3. D. K. Asthana, *Environment : Problems & Solutions*, S. Chand Publishing, 2001
4. G. Tyler Miller, *Environmental Science Working With the Earth*, Cengage Learning.

								
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5. Ghosh, G.K., Environment and Development, ARHpublication.
6. Godfrey Boyle, Renewable Energy, Oxford UniversityPress.
7. Kumar, A., Environment Pollution and Management, ARHpublication.
8. M K Varshney, Environmental Pollution & Control, AshianPublication.
9. Odum Eugene P, Fundamental of Ecology, CengageLearning
10. Rajagopalan, R, Environmental Studies, Oxford UniversityPress
11. Sakarama Somayaji, Environmental Concept and SustainableDevelopment, TERI.
12. Shivdutt Upadhyay, Environmental Education and DisasterManagement, BharatPublication.
13. Shrivastava, A.K., Environmental Ethics, ARHpublication.
14. Trivedi, P.R., Ecology & Environment, ARHpublication.



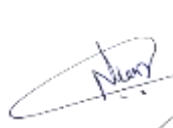






**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

								
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**2<sup>nd</sup> YEAR BNYS**  
**DURATION: ONE YEAR**

S.No	Subject	Theory	Practical
1	Pathology	BNY-201	BNY-202P
2	Microbiology	BNY-203	BNY-204P
3	Community Medicine	BNY-205	BNY-206P
4	Yoga Philosophy	BNY-207	BNY-208P
5	Chromo Therapy & Magneto Therapy	BNY-209	BNY-210P
6	Basic Pharmacology for Lifestyle Disorders	BNY-211	-

								
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**1. PATHOLOGY**  
**Course type- Core Course**  
**Course code–BNY-201, BNY-202P**



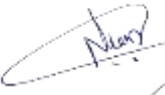






**Objective:**

The objective of teaching pathology to undergraduate students is to provide a comprehensive knowledge of the mechanisms and causes of disease, so that he/she is able to comprehend fully the natural history and clinical manifestations of disease.



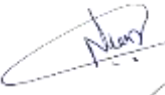






**THEORY**

**General Pathology**

1. History and Scope of Pathology
  - a) Definition and various branches in Pathology.
  - b) Scientific study of disease and methodology.
2. The cell and the reaction of cell, tissue and organ to injury.
  - a) Structure of cell and its function.
  - b) Causes and nature of cell injury.
3. Reaction of cell to Injurious agents.
  - a) Lethal injury- Necrosis and gangrene.
  - b) Cloudy swelling.
    - i) Fatty changes in Liver, heart and kidney.
    - ii) Glycogen infiltration and hyaline degeneration.
    - iii) Lipoid degeneration.
    - iv) Mucoïd degeneration.
  - c) Pathological Calcification
4. Inflammation and Repair:
  - a) Definition, Classification and nomenclature.
  - b) Acute Inflammation. Vascular and cellular phenomenon, cell of exudate chemical mediators and tissue changes in acute inflammation Cardinal signs of acute inflammation, Fat, types and systemic effects of acute Inflammation.
5. Chronic Inflammation:
  - a) Difference between acute and chronic inflammation.
  - b) Definition of Granuloma.
6. Wound healing:
  - a) Regeneration and Repair. Repair of epithelial and mesenchymal tissue.

								
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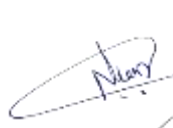






- b) Primary union and secondary union.
- c) Mechanism involved and factors modifying repair process.
7. Gangrene - Causes, Dry Gangrene, Moist gangrene, Gas gangrene.
8. Granulomas:
- a) Classification of granulomas.
- b) Tuberculosis- Genesis and fate of tubercle, primary and secondary tuberculosis.
- c) Definition, Classification and Pathology of Leprosy.
- d) Acquired, Primary, Secondary and Tertiary stages of syphilis.
- e) C.N.S. syphilis, C.V.S. syphilis and Gumma, congenital syphilis.
- f) Actinomycosis, maduramycosis and rhinosporidiosis.
9. Fluid and Hemodynamic Changes (circulatory disturbances):
- a) Hyperemia, congestion and hemorrhage.
- b) Thrombosis, embolism, DIC.
- c) Ischemia, infarction and shock. d). Edema.
10. Immunopathology:
- a) Basic Pathological mechanism in autoimmune disorders.
- b) Concept of immunodeficiency disorders.
- c) Pathology of AIDS.
11. Growth and its disorders:
- a) Definition of agenesis, aplasia, atrophy, hyperplasia, hypertrophy, hypoplasia, metaplasia.
- b) Concept of dysplasia, anaplasia and carcinoma-in-situ.
12. Neoplasia :
- a) Definition, Classification and Nomenclature.
- b) Characteristic features of benign and malignant tumours.
- c) Route of spread of malignant tumours.
- d) Grading and staging of cancers and pre-cancerous conditions.
- e) Carcinogenesis and carcinogens.
- f) Laboratory diagnosis of cancer-Biopsy, exfoliative cytology and prognostic prediction in cancer.
- g) Description of common tumours like-Fibroma, Lymphoma, Angioma, Leiomyoma and Fibrosarcoma, Lymphosarcoma, Angiosarcoma and Leiomyosarcoma.
- h) Tumours of infancy and childhood.
13. Mineral and pigment metabolism :
- a) Pathology of melanin pigment

								
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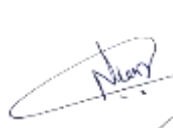






- b) Pathology of hemoglobin and its derivatives
  - c) Hemosiderosis and hemochromatosis
14. Genetic disorders:  
Klinefelter's syndrome, Turner's syndrome, Down's syndrome.

**Systemic pathology**

1. Disorders of RBC
  - I Definition, morphologic and etio-pathologic classification of anemias. Iron deficiency anemia-B12 and folate deficiency anemia, sideroblastic anemia, post-hemorrhagic anemia.
  - II Concept and classification of hemolytic anemias.
  - III Laboratory investigations in anemia.
2. Disorders of WBC
  - I Leukopenia & Leukocytosis.
  - II Agranulocytosis and Tropical Eosinophilia.
3. Coagulation and bleeding disorders
  - I Structure, function and pathology of platelets.
  - II Definition and classification of blood dyscrasias.
  - III Laboratory investigations in bleeding disorders.
4. Diseases of Cardiovascular System
  - I Arteriosclerosis and Atherosclerosis.
  - II Aneurysm.
  - III Rheumatic heart disease, Endocarditis, Myocardial Infarction.
  - IV Congenital heart diseases.
  - V Congestive cardiac failure.
5. Diseases of Respiratory System
  - I Lobar Pneumonia, bronchopneumonia, pulmonary Tuberculosis.
  - II Bronchiectasis and Pneumoconiosis.
  - III Tumors of lung.
6. Diseases of Gastro-intestinal system
  - I Pleomorphic adenoma of salivary gland.
  - II Barrett's Oesophagus.
  - III Gastritis and peptic ulcer and tumors of stomach.
  - IV Inflammatory bowel diseases - Crohn's disease, ulcerative colitis, typhoid ulcer.
  - V Megacolon and Tumors of colon.
  - VI Malabsorption syndrome, tropical sprue and coeliac disease.
  - VII Amoebiasis, bacillary dysentery and intestinal tuberculosis.
7. Diseases of liver, biliary tract and pancreas:

								
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- I Liver function tests and hepatic failure, viral hepatitis.
  - II Cirrhosis of liver. Tumors of liver.
  - III Alcoholic liver diseases.
  - IV. Indian childhood cirrhosis.
  - V. Cholecystitis and Gallstones.
  - VI. Pancreatitis and Diabetes Mellitus.
8. Diseases of Kidney:
- I Renal function tests, renal failure, Polycystic kidney.
  - II Acute glomerulonephritis, Crescentic glomerulonephritis, Membranous glomerulonephritis, Nephrotic syndrome.
  - III Chronic glomerulonephritis, acute tubular necrosis.
  - IV. Pyelonephritis, Kidney in hypertension.
  - V. Tumors of Kidney.
9. Diseases of Male Genital system
- I Orchitis and testicular tumors.
  - II Nodular hyperplasia of prostate, carcinoma of prostate.
  - III Carcinoma of penis.
10. Diseases of Female Reproductive Systems
- I Endometrial hyperplasia, adenomyosis and endometriosis.
  - II Carcinoma of cervix, tumors of ovary.
  - III Carcinoma and other diseases of vulva and uterus.
11. Diseases of Breast
- I Fibrocystic disease and tumors of breast.
  - II Gynaecomastia,
12. Endocrine Pathology
- I Endocrinal lesions in brief mainly stressing on thyroid and Pheochromocytoma.
13. Musculo-skeletal Pathology
- I Osteomyelitis and Osteoporosis.
  - II Rickets and Osteoporosis.
  - III Tumors of Bone.
  - IV. Rheumatoid Arthritis, Gout.
  - V. Myasthenia gravis and Progressive muscular dystrophy.
14. Diseases of Nervous System
- I Meningitis, tumors of CNS.



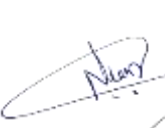






								
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- II. Tumors of Peripheral Nerves.
- III. Encephalitis.
- 15. Diseases of Lymph nodes and Spleen
  - I. Lymphadenopathy.
  - II. Malignant Lymphoma, basal cell carcinoma.
- 16. Pathology of Skin
  - I. Squamous cell carcinoma, Basal cell carcinoma.
  - II. Malignant melanoma.
  - III. Warts, Molluscum contagiosum.
  - IV. Fungal diseases.
- 17. Pathology of Eye.
- 18. Pathology of ENT.
- 19. Clinical Pathology Including Clinical Hematology & Clinical Bio-Chemistry.
  - I. Sample Collections for various hematological and clinical pathological investigations and anticoagulants used.
  - II. Theoretical aspects of HB estimation; hematocrit, blood indices, ESR and normal values in Hematology.
  - III. Blood grouping concept of blood groups.
    - Selection of donor, major and minor-cross-matching.
    - Blood transfusion, diseases transmitted by transfusions.
    - Coombs' test.
  - IV. CSF Analysis.
  - V. Semen Analysis.
  - VI. Urine analysis and microscopy.
  - VII. Liver Function tests.
  - VIII. Renal function tests.
  - IX. Glucose tolerance test.
  - X. Exfoliative cytology.

**COURSE OUTCOME-**

After the completion of the course, the student shall be able to:

- a. Explain the structure and ultra-structure of a sick cell, mechanism of cell degeneration, cell death and repair and be able to correlate structural and functional alterations.
- b. Describe the pathophysiological processes which govern the maintenance of homeostasis, mechanisms of their disturbance and the morphological and clinical manifestations associated with it;
- c. Analyse the mechanisms and patterns of tissue response to injury such that he/she can appreciate the pathophysiology of disease

								
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- d. processes and their clinical manifestations;  
 d. Correlate normal and altered morphology (gross and microscopic) of different organ systems in common diseases to the extent needed for understanding of disease processes and their clinical significance.

**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

**PATHOLOGY PRACTICALS**



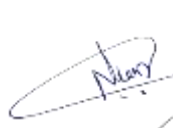






**I. Hematology**

1. Blood groups (A.B.O.System)
2. Estimation of hemoglobin.
3. Enumeration of RBCs (R.B.C.Count)
4. Total leucocyte count (totalcount)
5. Differential leucocyte count(D.L.C.)
6. Peripheral Smear staining and reporting
7. Absolute eosinophil count.
8. Demonstration of
  - a) Hemograms in anemia
    - i) Iron deficiency anemia
    - ii) Macrocytic anemia
  - b) Hemograms in Leukaemias
    - i) Acute types
    - ii) Chronic types
9. Slide study of:
  - a) Acute myeloid leukaemia
  - b) Chronic myeloid leukaemia
  - c) Chronic lymphatic leukaemia.

**II. SPOTTERS:**

**A. HAEMATOLOGY SLIDES**

1. Microcytic Hypochromic Anaemia.
2. Macrocytic Anaemia.

								
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3. Dimorphic Anaemia.
4. Acute Leukemia.
5. Chronic Myeloid and Chronic Lymphatic Leukemia.
6. Eosinophilia.

**B. HISTO- PATHOLOGY SLIDES FOR DISCUSSION**



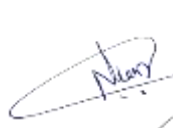






1. Acute Appendicitis.
2. Lobar Pneumonia.
3. T. B. Lymphadenitis.
4. Lipoma, Fibroma, Squamous Papilloma.
5. Squamous Cell Carcinoma.
6. Adenocarcinoma.
7. Osteosarcoma, Osteoclastoma.
8. Pleomorphic Adenoma.
9. Teratoma, Seminoma of Dysgerminoma.
10. Cystoglandular Hyperplasia.
11. Proliferative Hyperplasia.
12. Secretory Endometrium.

**C. INSTRUMENTS FOR SPOTTING**

1. Wintrobe's Tube.
2. Westergreen.
3. RBC pipette.
4. WBC Pipette..
5. Lumbar Puncture Needle.
6. Liver biopsy Needle.

**III. MORBID ANATOMY**

1. Acute Appendicitis.
2. Lobar Pneumonia.
3. TB Lung.
4. Gastric Ulcer.
5. Carcinoma Stomach.
6. Carcinoma Breast
7. Atherosclerosis.
8. Dermoid Cyst of Ovary
9. Seminoma Testis.

								
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## 10. Chronic Pyelonephritis.

### IV. CLINICAL PATHOLOGY

1. Examination of urine for:
  - a) Sugar, Ketone Bodies.
  - b) Protein and Blood.
2. Semen Analysis
3. Pregnancy Tests.
4. Liver Functions Test.
5. Fractional Test meal.
6. Glucose tolerance Test.

### COURSE OUTCOME-

After the completion of the course, the student shall be able to:

1. Elaborate on principles, procedures and interpretation of results of diagnostic laboratory tests;
2. Perform with proper procedure simple bedside tests on biological fluid samples like blood, urine etc.
3. Prepare investigation flow-charts for diagnosing and managing common diseases;
4. Identify biochemical and physiological disturbances in diseases;



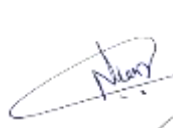






### Assessment Scheme

Continuous Comprehensive Assessment(CCA)	10 marks
End- Semester Examination(ESE)-Practical	60 marks
End- Semester Examination(ESE)-Viva	30 marks
Total	100 marks










### Recommended Text books for Pathology:-

1	Pathological Basis of Disease	By Robbins, Cotran and Kumar
2	Text Book of Pathology	By N.C. Dey
3	Text Book of Pathology	By Harsh Mohan

### Reference Books-

								
Dr. Nair Dhiren Ajit	Dr. Seema Dixit	Dr. Niraj Nayan Rishi	Dr. Archa Anilkumar	Dr. Abhay Kumar	Dr. Abhijith.K.B	Dr. Jyoti Madhur	Dr. Sneha Bharti	Dr. Adil

1	Text Book of Pathology	By Anderson
2	Systemic Pathology	By Symmers
3	Medical Laboratory Technology	By Ramnik Sood
4	Pathology	By Boyd
5	Oxford Text Book of Pathology	
6	The science and fine art of Disease Process (Orthopathy)	Herbert M. Shelton

								
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## 2.MICROBIOLOGY

Course type- Core

Course Course code–BNY-203, BNY-204P

### 1. OBJECTIVE:

The objective of teaching microbiology to undergraduate students is to provide a comprehensive knowledge of the natural history, mechanisms and causes of infectious disease, including etiology, pathogenesis, laboratory diagnosis, treatment and control of diseases in the community.

### THEORY

#### 1. General Bacteriology:

- Historical Introduction
- Morphology and Physiology of Bacteria.
- Sterilisation and Disinfection
- Cultivation of Bacteria
- Bacterial Growth and Multiplication
- Basic Principles of Bacterial Genetics

#### 2. Immunology

- Infection and Immunity
- Immunoglobulins and Immune Response
- Immune System and Antigen-Antibody Response
- Complement and other Serological Tests
- Hypersensitivity
- Basic Principles of Auto-Immunity.

#### 3. Systemic Bacteriology



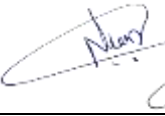






Streptococcus, Staphylococcus and Pneumococcus, Gonococcus, Meningococcus, Corynebacterium, Clostridium, Hemophilus, Bordetella, Mycobacterium, Spirochaetes, Yersinia, Chlamydia.

#### 4. Parasitology

- Protozoology Entamoeba and Plasmodium
- Helminthology- Ankylostoma, Ascariasis, Taenia, Wucheraria.

#### 5. Virology

- General properties- of Virus and their diagnosis.
- Herpes, Adenovirus, Picorna, Hepatitis Virus
- Poxvirus, Rabies Virus, Poliovirus, HIV, Bacteriophage

								
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## 6. Mycology

- a) General Characters and methods used of study and diagnosis of fungal infections.
- b) Superficial mycoses, systemic mycoses, Candidiasis, Aspergillosis, Mycetoma, Rhinosporidiosis.

## 7. Applied Microbiology

- a) Normal bacterial flora of human body.
- b) Diagnostic methods in common diseases
  - i. Meningitis, UTI, PID. Gastroenteritis, Respiratory Infection.
  - ii. Urogenital Infections, Pyogenic Infections, Nosocomial Infections, infections of Ear, Eye and Oral Cavity
- c) Bacteriology of Water.

## COURSE OUTCOME

After the completion of the course, the student shall be able to:



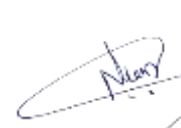






1. Describe all the infectious micro-organisms of the human body and host-parasite relationship
2. Describe parasitic micro-organisms (viruses, fungi, bacteria, parasites) with the pathogenesis of the diseases they cause;
3. Illustrate sources and modes of transmission, including insect vectors, of pathogenic and opportunistic organisms;
4. Describe the pathways and mechanisms of immunity to infection
5. Correlate knowledge about different vaccines that are available for the prevention of communicable diseases;

## Assessment Scheme:

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

## MICROBIOLOGY PRACTICALS

1. Microscopes & Microscopy
2. Sterilization & Disinfection
3. Morphology of Bacteria
4. Culture media
5. Culture methods
6. Staining of Bacteria
  - a) Gram staining
  - b) Alberts staining
  - c) Z-N staining

								
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7. Stools Examination
8. Identification of Bacteria
9. Demonstration of V.D.R.L. test
10. Demonstration of Widal test.

### COURSE OUTCOME-

After the completion of the course, the student shall be able to:

1. Illustrate and Effectively use sterilization and disinfection to control and prevent nosocomial and community acquired infections;
2. Analyse and order laboratory investigations for bacteriological examination of food, water and air.
3. Analyse and Prescribe and interpret laboratory investigations for diagnosis of communicable diseases and identify infectious agents by clinical manifestations;
4. Demonstrate common bed-side tests to detect and identify pathogenic agents, such as blood film for malaria, filaria, gram stain and Acid Fast Bacilli (AFB) staining and stool sample for ova cyst, etc.

### Assessment Scheme



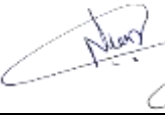






Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination (ESE)-Practical	60 marks
End- Semester Examination (ESE)-Viva	30 marks
Total	100 marks

### Text Books

1	Text Book of Microbiology	By R. Anantha Narayana & C.K. Jayaram Paniker
2	Parasitology	By Jayaram Panikar
3	Bacteriology	By Dey
4	Text Book of Microbiology	By Chakravarty

### Reference Books

1	Parasitology	By Chattarjee
2	Practical Microbiology	By R. Cruick Shank

								
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3	Clinical Microbiology	By Bailey & Scott
4	Medical Laboratory Manual	By Monica Cheesbrough

### 3. COMMUNITY MEDICINE

Course type- Core



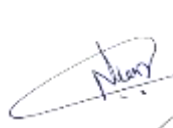






Course Code- BNY-205, BNY-206P

#### **Objective:**



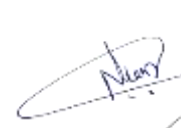






The objective of teaching Community Medicine to undergraduate students is to prepare them to function as community and first level physicians in accordance with the institutional objectives.

#### **THEORY**

1. Evolution of Medicine Ancient Medicine, Scientific Medicine, Modern Medicine, Medical Evolution.
2. Concepts in Community Health Concepts of Health, Health & Development, Indicators of Health, Concepts of Disease, Concepts of Prevention, Disease Control & Eradication, Public Health, Social Medicine, Community Medicine, Health Services, Planning & Management, Risk Approach, Evaluation of Health Services.
3. General Epidemiology Introduction, Measurement of Mortality & Morbidity, Epidemiologic Methods Descriptive Studies, Analytical Studies, Intervention studies, Association & Causation, Uses of Epidemiology, Infection Diseases Epidemiology, Disease Transmission, Immunity, Immunizing Agents, Disease Preventions & Control, Disinfection, Investigation of an Epidemic.
4. Genetics.

								
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5. Screening of Diseases Concepts, uses, criteria for screening, sensitivity & specificity
6. Epidemiology of communicable Diseases
  - a) Respiratory infections - smallpox, varicella, measles, rubella, Mumps, influenza, Diphtheria, Pertussis, Tuberculosis
  - b) Intestinal Infections - Polio, Viral hepatitis, Cholera, Acute Diarrhoeal Diseases, Typhoid, Food Poisoning, Ameobiasis, Ascariasis, Ancylostomiasis, Taeniasis
  - c) Arthropod-borne infections Yellow fever, Japanese Encephalitis, Malaria, Filariasis.
  - d) Surface Infections - Rabies, Trachoma, Tetanus, Leprosy, STD, AIDS.
2. Epidemiology of non-communicable diseases Cancer, Cardio-Vascular Diseases, Diabetes, Obesity, Blindness, Accidents, Hypertension, Stroke, Rheumatic Heart Disease.
3. Demography & Family Planning Demographic cycle, Population trends, Fertility related Statistics, Health aspects of Family planning, Contraceptive methods and Delivery System, National Family Welfare Programme.
4. Preventive Medicine in Obstetrics, Paediatrics & Geriatrics Antenatal, Intranatal, Postnatal Care, Low Birth Weight, Infant Feeding, Growth & Development, Growth Chart, Under fives clinic, National Health Policy, Indicators of MCH care, School Health Services, Behavioral Problems, Geriatrics.
5. Environment & Health and Occupational Health Purification of water & water Quality Standards, Air, Ventilation, Lighting, Noise, Radiation, Air Temperature & Humidity, Housing, Solid Wastes Disposal & Control, Excreta Disposal, Water Carriage System, Modern Sewage Treatment, Entomology Mosquito, Housefly, Lice, Itch mite, Cyclopes, Rat Flea, Rodents, Insecticides - Hazards, Diseases, Preplacement Examination, Measures for General Health, Protection of Workers, Prevention of Occupational Diseases, Legislation.
6. Basic Medical Statistics Censuses, Vital Events, Legislation, SRS, Notification of Diseases, Measures of Dispersion & Centring, Sampling, Tests of Significance, Correlation & Regression.
7. Health Educations and Communication Objectives, Principles, Aids, Practice of Health Education, Planning and Evaluation.
8. Health Planning - Management - International Health Organizations. Planning Cycle, Management Methods & Techniques, National Health Policy, Health Planning in India, Five Year Plans, Health Systems in India - at Centre, State and District Levels, Panchayat Raj, Rural Development Schemes.
9. Health care of Community - Health Systems and National Health Programmes. Levels of Health care, Health for All, Primary Health Care, Health Care Delivery, Health Problems, Health Care Services and Systems, Voluntary Agencies,

								
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National Health Programmes.

### COURSE OUTCOME

After completion of the course, the student shall be able to:

1. Describe the health care delivery system including rehabilitation of the disabled in the country;
2. Describe the National Health Programmes with particular emphasis on maternal and child health programmes, family welfare planning and population control;
3. Classify and List epidemiological methods and describe their applications to communicable and non-communicable diseases in the community or hospital situation;
4. Illustrate the demographic pattern of the country and appreciate the roles of the individual family, community and socio-cultural environment in health and disease;
5. Explain the health information systems;
6. Correlate the principles and components of primary health care and national policies to achieve the objective of „Health administration, Health education in relation to community“.

### Assessment Scheme:



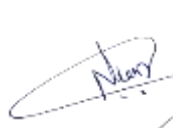






Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

### COMMUNITY MEDICINE PRACTICALS

1. Insecticides - 10 +Models.
2. Universal Immunization Programme - 10 +Models.
3. Communicable Diseases - 10 +Models.
4. Insect Borne Diseases - 10 +Models.
5. Microscope Slides - 10 +Models.
6. Environment and Sanitation - 10 +Models.
7. Statistical Charts
8. Field Visits
  - a) Rural Health Centres.
  - b) Sewage Disposal Plant.
  - c) Water Filtration Plant.
  - d) Nature Cure Hospitals.
  - e) Yoga Institutes etc.

### COURSE OUTCOME-

1. Illustrate epidemiology as a scientific tool for making national decisions relevant to community and individual patient intervention;

								
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2. Analyse, interpret and present simple community and hospitalbased data;
3. Deduce, Diagnose and manage common health issues and emergencies at the individual family and community levels with existing healthcare resources, respecting socio-cultural beliefs.
4. Demonstrate, Design, implement and evaluate health education program using simple audio-visual aids

**Assessment Scheme**

Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination (ESE)-Practical	60 marks
End- Semester Examination (ESE)-Viva	30 marks
Total	100 marks

**TEXT BOOKS:**



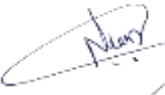






1	Text Book of preventive and Social Medicine	By J.E. Park & K. Park
2	Text Book of preventive and Social Medicine	By B.K. Mahajan & M.C. Gupta



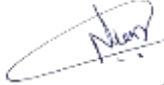






**REFERENCE BOOKS :-**

1	Preventive Medicine	by Dr. Ghosh
2	Preventive Medicine	By Dr. Yashpal Bedi

**REFERENCE PAPERS: -**

1	World Health Organization Programmes papers
2	National Health Programmes papers
3	Voluntary Health Programmes Papers
4	Red Cross Programmes Papers
5	UNICEF Programmes papers

								
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**4. YOGA PHILOSOPHY**  
**Course type- Core Course**  
**Course code–BNY-207, BNY-208P**

**Objective**

The objective of teaching *Yoga* philosophy to undergraduate students is to understand the intricacies of *Yoga* as a philosophy, its relation to ancient texts, other religious thoughts like Buddhism, with reference to *nyaya*, *vasistha*, *samkhya*, *mimamsa*, *Vedanta* and *PatanjaliYogasutras*.

**THEORY**

1. Yoga, its definition, its basis, purpose, its relation to philosophy and its application.
2. Historical highlights of Yoga- Practices and literature from the ancient to modern times with special refernce to nature of yoga upanishads, smritis & puranas.
3. The philoshpical Nature of Man and his essence, destiny in concept of Yoga.
4. The theory of Body, Mind, Life and Nature of soul, and evidence for the existence of soul.
5. The existential situation of man as reflected in European and Indian thought.
6. Basic concepts of Indian Psychology-definition a brief history of psychology, contemporary psychology according to Freud, Mr.Woodsworth and varioud psychologists, yogic science in relation toPsychology.
7. AstangaYoga (8-Limbs ofYoga-patanjali)
8. Streams of Yoga-Jnana Yoga, Karma Yoga, Raja Yoga and Bhaktiyoga.
9. Asanas - their importance, methods, rules, regulations andlimitations
- 10.Spiritual values of pranyama & kriyas, their methods, importance, rules and regulations, difference between breathingexercises & Pranayama.



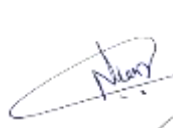






**COURSE OUTCOME**

After the completion of the course, the student shall be able to:

1. Illustrate the basic understanding of *Yoga* as aphilosophy
2. Explain the various schools of philosophy which had an influence on *Yogic text* like Buddhism, *samkhya*, *mimamsa* etc.
3. Correlate the concept of *brahman* according to *Vedanta*.
4. Describe spiritual values of pranayama andkriyas.

**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

								
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## YOGA PHILOSOPHY PRACTICAL










Loosening exercises (Shitikarana Vyayama) & Breathing exercises- allexercises from “Asanas” pranayama Kriya.-Vivekananda Kendra Publication.

### I) Yogasanas

1. Siddhasana
3. Bhadrasana.
5. Swastikasana.
7. Simhasana
9. Virasana
11. Vakrasana
13. Ustrasana
15. Shalabhasana.
17. ViparitaraniAsana.
19. Dhanurasana.
21. Matsyasana
23. Kukkutasana
25. Sirsasana
27. ArdhaKatichakrasana
29. Konasana
31. Padhastasana
33. Makarasana
35. Naukasana
37. Garudasana
39. Janusirshasana
41. Padangusthasana
43. Tolangulasana
45. Yoganidhrasana
2. Padmasana.
4. Samasana.
6. Vajrasana
8. Gomukhasana.
10. ArdhaMatsyedrasana
12. Paschimottasana
14. Uttitapadasana
16. Pavanmuktasana.
18. Sarvangasana
20. Halasana
22. Kurmasana
24. Mayurasana
26. Trikonasana
28. ParshavaKonasana
30. Katichakrasana
32. Savasana
34. Baddhapadmasana
36. Chakrasana
38. Akarna Dhanurasana
40. Suptavajrasana
42. Karnapidasana
44. Garbhasana

### II) Pranayama

1. Anuloma Viloma
2. NadiSuddhi
3. Ujjayi
4. Sheetali
5. Shitakari
6. Bhastrika
7. Bhramari
8. Suryabhedana
9. Chandrabhedana
10. Sadanta

								
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### III) Kriyas

1. Neti -Jal andSultra.
2. Dhouti- Vamana anddanda
3. Trataka - Jyoti andBindu
4. Kapalabhati

### IV) Meditation (Dhyana)

1. CyclicMeditation
2. Omkara Meditation

### COURSE OUTCOME-

After the completion of the course, the student shall be able to:



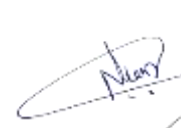






1. Demonstrate knowledge of *pranayamas*, *prana* and lifestyle, breathing and lifespan.
2. Demonstrate various types of *Yogasanas* in their correct method of performance;
3. Demonstrate different *pranayamas*;
4. Describe various philosophies of *Yoga* and apply them therapeutically, relating to patient's life situation or personality.

### Assessment Scheme



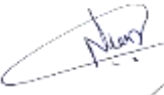






Continuous Comprehensive Assessment(CCA)	10 marks
End- Semester Examination(ESE)-Practical	60 marks
End- Semester Examination(ESE)-Viva	30 marks
Total	100 marks

### Books Recommended:

1	The History of Yoga	Vivian Worthinton
2	The psychology of yoga	Taimini
3	The Science of Yoga	Taimni
4	Yoga & Indian Philosophy-	Karel Werner
5	The Basis and application of Yoga Dr. Nagendra	(Vivekananda Kendra Publication)
6	Jnana Yoga, Bhakti Yoga, Karma yoga, Rajaj Yoga	By Swami Vivekananda (Vivekananda KendraPublication)
7	Narada Bhakti Sutras	
8	Asanas	
9	Pranyama	(Kaivalyadhma Lonavala Publications)
	Asana, Pranayama, Kriyas	
	Pranayama	Vivekananda Kendra Publication
	Yoga philosophy in relation to other system of philosophy	S.N. Das Gupta
	Yoga Deepika	B.K.S.lyengar.
	Psychology	Florance C. Kerip
	Asana why and how	O.P. Tiwari (Kaivalyadham)

								
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Yogank - Kalyan	Gita Press, Gorakhpur
Light on The Yoga Sutras of Patanjali	B.K.S. Iyenger
Light on Yoga	B.K.S. Iyenger
Light on Pranayama	B.K.S. Iyenger
Hatha Yoga Pradipika	Swami Muktibodhananda
Asana , Pranayama, Mudra , Bandha	Swami Satyananda Saraswati Bihar School of Yoga

								
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# **1. MAGNETOTHERAPY AND CHROMO THERAPY**

Course type- CoreCourse



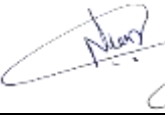






Course code–BNY-209, BNY-210P

## **1. Objective:**

The objective of teaching Colour therapy and Magneto biology to undergraduate students is to provide them with comprehensive understanding of philosophy, science and modes of applications of colours and magnets in preventive, curative and rehabilitativetherapy.

## **THEORY**

1. Introduction.
  - a) Definition of Magetotherapy
  - b) Historicalhighlights
  - c) Use of magnets upheld by Naturopathy
2. Magnetism in theUniverse.
  - a) Earth a huge naturalmagnet
  - b) Nature of EarthMagnetism.
  - c) Earth magnetic effects on the humanbeings.
3. Effects of Magnetism on livingorganisms.
4. Bio-magnets- Biological experiments withmagnets
5. Medical influence of magnetic field Rheumatoid arthritis,hemiplegias, arthralgia, Neuralgias, Stimulation of nervous system, endocrine glands etc.
6. Magnetotherapy, symptomatic relief , Combined treatments i.e. Magnetotherapy, Hydrotherapy ,Massage, Diet & Yoga and the result of these combined treatments.
7. Magnets and theircomposition.
  - a) Natural magnets and artificialmagnets.
  - b) Permanent magnets - classification of magnetic materials , Power of magnets- various qualities of magnets- low, medium and high power magnets and magnetic beltsetc.
  - c) Electro magnets - electro magnetic field on human behaviour, Electro magnets- for medical purpose -Electro magnetic treatment, bed and hand Magnetiser, foot magnetiser, vibroelectro massager, electro- magnetic chair etc. Non Pulsating clinical Electromagnet.
8. Technique of application of magnets - North and South pole, local & general treatment and the Technique of application of Magnets in treatment of various commondiseases.
9. Magnetised water and MagnetisedoilsMagnetised water in Nature, influence of magnetic field on the properties of water, method and preparation of magnetised water,

								
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- dosage and therapeutic effect of magnetised Water. Method of preparation of magnetised oils and their application and therapeutic effects.
10. Advantages of Magneto Therapy, Magnetotherapy is a natural treatment - Use of Magnets as a preventive device.
  11. Clinical Reports from Indian and Foreign Magneto Therapists.
  12. Magnetotherapy and Acupressure-Acupuncture Points-Certain clinical case reports. Utilisation of Acupuncture points in Magnetotherapy.
  13. Terminology - Technical terms related to Magnetotherapy.
  14. Recent developments in Magnetotherapy.

### Text Books

1	Magneto therapy	Dr. H.L. Bansal
2	Magnetic cure for common diseases	Dr. R.S. Bansal, Dr. H.L. Bansal
3	The text book on Magneto therapy	Dr. Nanubhai Painter
4	Magneto therapy and Acupuncture	Dr.A.K.Mehta



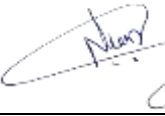






### Reference Books—

1	Electromagnetic treatment	Dr. H.L. Bansal
2	Magnetic fields or healing by magnets	Dr. A.R. Davis and Dr. A.K. Bhattacharya of Naihati of West Bengal

## CHROMOTHERAPY

### Theory

1. Introduction.
  - a) Historical Highlights
  - b) Harmonic laws of the universe
  - c) Solar Family
2. Theory of light and force.
3. Chromophilosophy-Reflection, Refraction, Absorption.
4. The Source of light- the sun forming sources, the solar atmosphere- sun power- how the colour effects are produced - influence of sun light on skin, muscles, digestive organs, Bones.
5. Chromo-Chemistry- character of spectrum analysis, materials discovered by the spectroscope, the spectrum - spectrum of grey and natural colour elements- spectra of elements of positive colours, chromatic repulsion and attraction.

								
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6. Chromo-diagnosis and chromo-hygiene.
7. Chromo - therapeutics - the healing power of colour, healing power of red, yellow, orange, blue, Green and Violet, non-spectral colours, sun stroke action of sun light on microorganisms.
8. Practical instruments for colour healing –Blue, Green, Red, pink, Violet, Yellow, Orange glasses- the solar thermoleum- the electro thermoleum, chromodisc, the chromolens- chromo lighteradiator.
9. Directions to be followed during treatment with light.
10. Healing by means of substances charged with different coloured light- method of solarization of water, oils and food substances etc.
11. Chromo therapy prescriptions for different diseases.
12. Chromo -Mentalism.
12. Bordeaux medicine. Chomoth.

#### AIR THERAPY

1. Composition of Air -Night and Day composition.
2. Ozone in the atmosphere.
3. Air Pollutants, their acceptable values
4. Physiology of Respiratory system.
5. Air baths (Cold and Hot)
6. Theory of Panchapranas and Nadis.



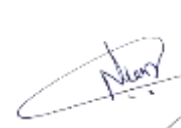






#### SUN THERAPY (Heliotherapy)

1. History
2. Physiological and Chemical properties of Sunlight.
3. Effect of sunlight on vegetation and Micro-organism.
4. Rejuvenation during diseases.
5. General Sun Bath.
6. Dr. Rikli's method of Sun Bath.
7. Dr. Kuhne's method of Sun Bath.
8. Sun Bath through wet pack.
9. Sun bath of children and aged persons.
10. Sunbath with leaves-Atapasnana.
11. Oil sun bath (Abhyangasnana)
12. Sun Stroke.
13. Practice of Exercise in Sunlight.

#### COURSE OUTCOME

After the completion of the course, the student shall be able to:

1. Correlate basic understanding of principles along which colours and magnets can be used as therapeutic agents, along with history of therapeutic uses of colours and magnets;
2. Explain bio-magnetism, electro-magnetism, properties of magnets, mechanisms of

								
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action of magnets on the human body, magnetic overload, charging, modes of application, etc. and apply this knowledge to therapeutically use magnets;

3. Illustrate classification of colours, physics of light, electromagnetic spectrum, pathway of vision, human aura, chakras, heliotherapy, colour breathing, chromo charging, and latest research, applying the same to disease management;
4. Deduce various diseases and disorders of the body and mind using the principles of colour diagnosis;
5. Analyse the therapeutic values of colours and magnets in treatment of various diseases
6. Analyse latest research finding in improving his/her professional practice

#### Assessment Scheme:

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

### CHROMO MAGNETO THERAPY PRACTICALS

Students should, have demonstration classes in various chromo therapeutic devices and their clinical application, various types of Magnets, equipment and their clinical application.

1. Case studies with record
2. Cases with bio-chemical reports
3. Demonstration of colour glasses & bottles.
4. Demonstration of instruments and equipments.



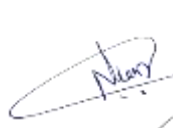






#### COURSE OUTCOME

After the completion of the course, the student shall be able to:

1. Correlate various diseases and disorders of the body and mind using the principles of colour diagnosis;
2. Illustrate and implement a plan of treatment using colours and magnets as therapeutic tools
3. Explain the therapeutic values of colours and magnets in treatment of various diseases
4. Analyse latest research finding in improving his/her professional practice.

#### Assessment Scheme

Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination (ESE)-Practical	60 marks
End- Semester Examination	30 marks

								
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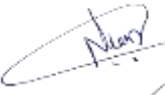






(ESE)-Viva	
Total	100 marks

### Text Books

1	The principles of light and colour	By Dr. E.D. Babbit
2	Human Culture and Cure in five parts	By Dr. E.D. Babbit
3	Colour therapy	By R.S. Amber
4	Healing through Colour	By Thea- Gimbel

### ReferenceBooks

1	The power of the rays	By S.G.J. Oseley
2	Colour Meditations	By S.G.J. Oseley
3	Colour and healing	By Gladya Mayer
4	Colour healing(Chromotherapy)	By Health Reserch Foundation (USA)
5	Practical colour Magic	By Raymond Buckland
6	All You Wanted to Know About Sun Therapy	Vijaya Kumar
7	Colour Therapy-Miracle of Sunrays	Rashmi Sharma and Maharaj Krishan Sharma
8	Science of Natural Life	Rakesh Jindal
9	Prakratik Chikitsa Sagar	Dr.Gaurishankar Mishra
10	Dhanwantari-prakrtik Chikitsank	Ganga Prasad Gaud "Nahar"

								
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# BASIC PHARMACOLOGY

Course type- Core Course

Course code–BNY – 211

## OBJECTIVE:-

The objective of teaching pharmacology to undergraduate students is to provide them with a comprehensive understanding of the principles of pharmacology, including drug actions, therapeutic uses, interactions, and adverse effects, so they can integrate this knowledge with naturopathic and yogic approaches to healthcare. By developing a strong foundation in pharmacology, students will be able to critically evaluate the role of modern medicines, ensure safe and effective patient care, recognize drug–herb interactions, and collaborate effectively within multidisciplinary healthcare settings while upholding the holistic philosophy of naturopathy and yoga.

## THEORY

### 1.General Pharmacology



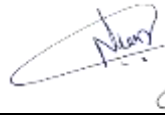






- a) Nature and sources of drugs
- b) Routes of administration
- c) Absorption and bioavailability of a drug – factors affecting drug absorption and its bioavailability

### 2. Distribution of a drug in the body

- a) Plasma concentration
- b) Drug storage
- c) Placental transfer
- d) Fate of the drug
- e) Drug excretion
- f) Drug receptors
- g) Mechanism of action of a drug – types of drug action
- h) Adverse reaction to the drug

### 3. Drug toxicity in humans –

- a) Drug intolerance

								
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- b) Hemopoietic toxicity
- c) Hepatotoxicity
- d) Nephrotoxicity
- e) Abnormalities of taste and smell
- f) Behavioral toxicity
- g) Production of a disease
- h) Electrolyte disturbances
- i) Endocrine disturbances
- j) Skin toxicity
- k) Carcinogenesis
- l) Teratogenicity
- m) Drug dependence



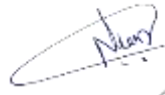






4) Factors modifying the effects of a drug

5) Role of a placebo

6) Brief description of the following drugs

(Their mode of action, dosage, adverse reaction, the method of tapering their dosage, including the adverse effects with the abrupt stoppage of their use)

- a) Drugs acting on the CNS
  - b) General sedatives
  - c) Anticonvulsant drugs
  - d) Opioid and Non-Opioid analgesics
  - e) Analgesics, antipyretics and non-steroidal anti-inflammatory drugs (NSAID)
  - f) CNS stimulants – Xanthine alkaloids
  - g) Psychopharmacology
  - h) Anti-anxiety drugs –
    - i. Meprobamate
    - ii. Benzodiazepines
    - iii. Chlormethiazole
- i) Anti-depressant drugs – Classification, actions, adverse reactions

								
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(monoamine oxidase inhibitors, tricyclic compounds, carbamazepine, lithium)

j) Psychotogenic drugs – LSD, Mescaline, Cannabis

k) Local Anesthetics – adverse reactions

l) Drug action on ANS

m) Skeletal muscle relaxants – Diazepam, Baclofen, Dantrolene

n) Anti-Parkinsonian drugs – Levodopa, Amantadine

o) Biogenic Amines and Polypeptides

p) Histamine and Antihistamine drugs

q) Angiotensin, Kinins, Leukotrienes, Cytokines & PGs

## 7) Drugs used in Respiratory Disorders

a) Expectorants, Central cough suppressants, antitussives, mucolytic agents

b) Pharmacotherapy of bronchial asthma and rhinitis

c) Drug therapy during an acute attack

d) Prevention of acute attacks

e) Treatment of acute severe asthma

f) Treatment of acute respiratory failure

g) Treatment of chronic persistent asthma

h) Drug therapy of rhinitis

## 8) Cardiovascular drugs

a) Digitalis

b) Pharmacotherapy of cardiac arrhythmias – Sodium channel

blockers, beta blockers, potassium channel blockers, calcium channel blockers

c) Pharmacotherapy of Hypertension – Clonidine, alpha methyl dopa, Reserpine, Phentolamine etc.

## 9) Drugs acting on Blood and blood forming organs



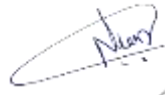






a) Drugs effective in iron deficiency anemia

b) Treatment of acute iron poisoning

## 10) Water, Electrolytes and drugs affecting Renal functions

a) Nutritional supplementation therapy

b) Diuretic and Anti-diuretic drugs

								
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## 11) Drugs used in GIT disorders

- Appetizers, Digestants, Carminatives, Appetite suppressants and agents lowering serum lipid
- Emetics, drug therapy of vomiting and diarrhea
- Pharmacotherapy of constipation
- Pharmacotherapy of peptic ulcer

## 12) Chemotherapy

- Sulfonamides, Cotrimaxazole, Nitrofurans
- Penicillin, antibiotic effective against gram positive and negative organisms
- Tetracyclines, chloramphenicol and antifungal agents
- Chemotherapy of UTI, STD, Tuberculosis, Leprosy, Malaria, Amoebiasis, Viral infections, Helminthiasis, Malignancy
- Antiseptics and Disinfectants

## 13) Drugs used in Endocrine disorders

- Thyroid and antithyroidal drugs
- Insulin and oral antidiabetic drugs
- Adrenal cortical steroids
- Gonadotropins, estrogens, progestins
- Antifertility agents and ovulation including drugs
- Drug therapy in lipidemia
- Drug therapy in obesity



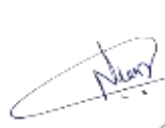
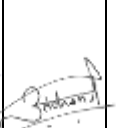





## 14) Therapeutic gases – oxygen carbon dioxide

## 15) Vitamins

## 16) Immunotherapy, immuno-suppressants and immune-stimulants

### COURSE OUTCOME

At the end of the course, a student would be able to :

								
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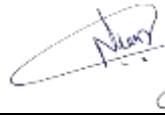






1. Describe Pharmacological effects of commonly used drugs by patients referred for Naturopathy and yoga , list their adverse reactions, precautions to be taken & contraindications, formulation & route of administration
2. Identify whether the pharmacological effect of the drug interferes with the Therapeutic response of naturopathy and yoga & vice-versa
3. Indicate the use of analgesics & anti-inflammatory agents with movement disorders with consideration of cost, efficiency & safety for individual needs.
4. Get the awareness of other essential & commonly used drugs by patients-The bases for their use & common as well as serious adverse reactions

**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100



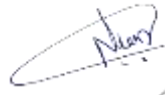






**TEXT BOOKS:**

1. Pharmacology and Pharmacotherapeutics – RS Satoskar, SD Bhandarkar, SS Ainapure
2. Essentials of Medical Pharmacology – KD Tripathi
3. Pharmacology – Rang and Dale

								
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**3<sup>rd</sup> YEAR BNYS**  
**DURATION- ONE YEAR**

S.No	SUBJECT	CODE	Practical
1	Manipulative Therapeutics	BNY-301	BNY-302P
2	Acupuncture	BNY-303	BNY-304P
3	Yoga Applications	BNY-305	BNY-306P
4	Fasting Therapy	BNY-307	BNY-308P
5	Naturopathy Diagnosis	BNY-309	BNY-310P
6	Modern Diagnosis	BNY-311	BNY-312P
7	Spa Technique & Entrepreneurship	BNY-313	BNY-314P

								
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# 1. MANIPULATIVE THERAPY

Course type- Core Course



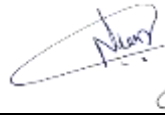






Course code-BNY-301,BNY-302P

## 1. Objective

The objective of teaching Manipulative Therapies to undergraduate students is to provide them with comprehensive understanding of science and modes of applications of different manipulative modalities like Massage, Chiropractic, Osteopathy, Aromatherapy in preventive, curative and rehabilitative therapy.

### THEORY

1. Introduction and History of Massage.
2. Rules, Regulations and Characteristics of Masseur
3. Structures especially concerned in massage and parts of the body to be specially studied for the purpose is as follows:
  - a) Skin
  - b) Muscular System
  - c) Heart and Circulation
  - d) Nervous System
  - e) Skeletal System Including joints
4. Effects of the pressure of hand and lubricants on the following systems:-
  - a) Skin
  - b) Muscular System:- Nutrition and Development Excitation & contraction of "Muscles", Increase of muscular electro-excitability, removal of the fatigue from muscle.
  - c) On the ligaments and skeletal system
  - d) On the Circulatory system
  - e) On Respiration-Increase of respiratory activity and increase of tissue respiration.
  - f) On GIT-Improvement in appetite, improvement in secretion of digestive fluids, absorption and improvement in peristalsis.
  - g) Excretory System
  - h) Powder Massage - merits and demerits, precautions
5. Managing crisis during massage (Side effects and benefits)
6. Basic therapeutic massage techniques, indications and contraindications of massage while applying to the patients.
7. Massage and its effects:-
  - a) Nutrition
  - b) Haematogenesis
  - c) Phagocytosis
  - d) Increase in the number of blood corpuscles.
  - e) Absorption of increased inflammatory exudate, change in the weight of the person, obese or emaciated.
8. Different Massage manipulations, classification and their detailed explanation, uses and contra-indications.

								
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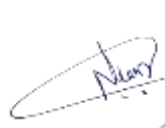
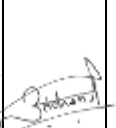





9. Manipulative treatments in stress management
10. Shiatsu in manipulative therapy(Acupressure)
11. Manipulations and lifeextension.
12. Sujoktherapy
13. Dry brushMassage

14. Movements of Joints:-

- i. Flexion
- ii. Extension
- iii. Abduction
- iv. Adduction
- v. Supination & Pronation
- vi. Circumduction
- vii.Deviations - Medial andLateral
- viii. Opposition

• Massaging in local areas under special circumstances-

1. Massage toAbdomen
  - i) Massage toliver
  - ii)Massage toStomach
2. Massage toheart
3. Massage tohead
4. Massage tospine
5. Special types of Massage in differentdiseases
6. Massage towomen
7. Massage to infants andchildren
8. Massage for prevention of diseases and maintenance of naturalbeauty
9. Ayurvedic Massage-Terminology, Methods andManipulation.
10. Introduction to Panchakarma techniques.
11. Osteopathy:Definition&theBasicprinciplesofosteopathy,Relationof osteopathy to Musculo-skeletalssystem.
12. Chiropractic:-
  - i. Origin & aims of Chiropractic Anatomy of spine
  - ii. Chiropractic Examination.
  - iii. Indication & contraindication of chiropractic
  - iv. Myo-fascial release
  - v. Strain Counter strain
  - vi. Manual manipulation of spineChiropractic treatment in various conditions
13. Cranio-Sacralthrapy:
  - i. Anatomy of skull, Introduction about Cerebro-spinal fluid and its movements.

								
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- ii. Evaluation of Cranio Sacral Rhythm,
- iii. Indication & Contraindications.
- iv. Diaphragm release, Base release, Decompression.
- v. Physical readjustments of skull bones.

14. Aromatherapy:-

- (a) Definitions, Origin and History of Aromatherapy.
- (b) Essential Oils and Its types, extraction of essential oils, distillation, cold pressing or expression, storage, recognition, selection and mechanism of essential oils. Carrier oils - Almond, Apricot, Avocado, carrot, corn, primrose, grapeseed, hazelnut, Jojoba, Olive, Peanut, safflower, sesame, Soyabean & sunflower oil.
- (c) Different methods of using essential oils- inhalation, diffusers, vaporizers, massage, baths, foot bath, pot pourri, compresses, oral intake, beauty treatment, room sprays, insect repellent etc.
- (d) Description of different essential oils & their benefits.
- (e) The best essential oils - The five fragrance categories - green, floral, citrus, Woody & Spicy and mixing of Aroma Oils & Equipment required for Mixing Oils.
- (f) Aroma Oils for common problems and their therapeutic properties.
- (g) Precautions, ill effects and careful handling of essential oil.
- (h) Contraindications- Oils to be avoided in particular problems

**COURSE OUTCOME-**

At the end of course, a student should be able to –

- 1. Understand the principles and history of manipulative therapy.
- 2. Description and therapeutic uses of different types of oils.
- 3. Analyse the application of manipulative therapy in clinical practice.
- 4. Analyse the research based new development in manipulative therapy.



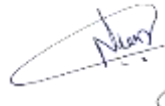






**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

**MANIPULATIVE THERAPY PRACTICALS**

- 1. 35 demonstration classes
- 2. 10 demonstrations in Panchakarma
- 3. Each student should perform 35 massages

**COURSE OUTCOME**

								
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After the completion of the course, the student shall be able to:

1. Demonstrate different types of massage and manipulative therapies, such as Osteopathy, Chiropractic, Aromatherapy, Swedish massage, Kellogg's massage, Shiatsu, Geriatric Massage, Pediatric massage, Antenatal massage, Ayurvedic massage, etc;
2. Analyse therapies such as Reflexology and Zone therapy in their professional practice for musculoskeletal disorders, etc.
3. Explain the disease and relevant treatment to the patient.
4. Correlate and study the disease and the manipulative practices.

#### Assessment Scheme



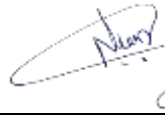






Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination (ESE)-Practical	60 marks
End- Semester Examination (ESE)-Viva	30 marks
Total	100 marks

#### Text Books:-

1	Massage Books	By George Downing
2	Massage	By Constant Young
3	Massage Therapy	By Dr. J.H. Kellog
4	The Complete Book of Massage	By Clare Maxwell Hudson
5	Step by Step Massage	By Carole Me. Gilvery and Gini Reed
6	The Book of Massage	By Luinda Lidell with Sarathomas, Carola Berb Ford Cooke and Anthony Porta
7	The Complete step-by-step guide to eastern and western	
8	Baby Massage - The Magic of Loving Touch	By Auckett, Anelia D
9	Natural Healing from Head to Toe	By Aihara, comellia - Aihara, Herman
10	Massage Works	By D. Baloti Lawrence and Lewis Harrison
11	Manual of osteopathy Practice	By Alan Stoddard
12	Alternative Chiroprathy Practice	By Susan Moore
13	Massage (Ayurvedic)	1. By Achanta Laxmipathy

#### Reference Books:-



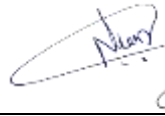






1	The Panchakarama Treatment of Ayurveda	By T.L. Devraj
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2	Chirotherapy : A-Text of Joint Movements	By Hesse P.De
3	MassageTherapy: the Holistic Way to Physical and Mental Health	By Juckson Richard
4	Book of Massage and Aromatherapy	By Facroix Nity and (Achieving complete relaxation & seager, Shoron well-being with massage and essential oils)
5	Brain Massage, Revitalize mind body	By Howell, Kelly
6	Massage to Common Ailments	By Penny Rich
7	All you wanted to know about Aromatherapy	By Lalita Sharma
8	Aromatherapy	By Julie Sadler
9	Health and Beauty through Aromatherapy	By Blossom Kochhar
10	Ayurveda & Aromatherapy	By Dr. Light Miller & Dr. Bryan Miller

## **2 ACUPUNCTURE**

**Course type- Core Course  
Course code-BNY-303,BNY-304P**



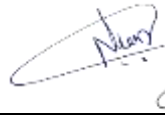






								
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## Objective:

The objective of teaching acupuncture to undergraduate students is to provide them with a comprehensive understanding of the science and art of Acupuncture, Acupressure and related therapies.

## THEORY

1. Definition, concepts of Acupuncture.
2. Traditional and modern theories of Acupuncture.
3. Pulsed diagnosis:
  - Location and types of pulse.
  - Co-relation with five elements
  - Techniques to improve flow of energy
4. Materials and Methods of Acupuncture.
5. Principles of Acupuncture.
6. Rules for selection of Acupuncture points.
7. Contraindications and complications of Acupuncture.
8. The concept of Meridians:-
  - a) Lung Meridian (Lu)
  - b) Large intestine Meridian (LI)
  - c) Spleen Meridian (SP)
  - d) Stomach Meridian (ST)
  - e) Heart Meridian (H)
  - f) Small intestine Meridian (SI)
  - g) Urinary bladder Meridian (UB)
  - h) Kidney Meridian (K)
  - i) Triple warmer Meridian (TW)
  - j) Gall bladder Meridian (GB)
  - k) Liver Meridian (Liv)
  - l) Governing vessel Meridian (GV)
  - m) Conceptional vessel Meridian (C.V)
  - n) Eight extra Meridians
  - o) The extra-ordinary points.
9. Diagnostic methods (both- Acupuncture and Modern)
10. Auriculo Therapy
11. Moxibustion
12. Stimulation in Acupuncture.
13. Acupuncture Therapeutics
14. Acupuncture Anaesthesia
15. Reflexology & Zone Therapy:-

								
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- What is Reflexology, history and development? How does reflexology work Body & its reflexzones?
  - Applications, indications and contra- indications Preventive effects of reflexology
16. Acupressure: -What is Acupressure?
- Its origin & development
  - Physiological effects of Acupressure
  - Therapeutic uses of Acupressure
17. Acupuncture/pressure in Acute disorders and emergency.
18. Pranic Healing.
19. Reiki

### COURSE OUTCOME

1. Illustrate the definitions of Acupuncture.
2. Description of the principles and historical highlights of Acupuncture;
3. Classify and Correlate the concepts and theories mechanism behind Acupuncture
4. Demonstrate basic understanding of procedures of different styles of Acupuncture and related therapeutic modalities.
5. Deduce basic and advanced tools used in Acupuncture;
6. Analyse the application of Acupuncture in clinical practice.

### Assessment Scheme:

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

### ACUPUNCTURE PRACTICALS



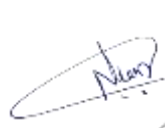
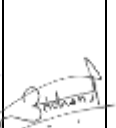





1. Demonstration of Needling techniques and Electro-stimulation, Moxibustion.
2. Each Student should give treatments to atleast 20 patients during the practicals.

### COURSE OUTCOME

1. Demonstrate basic understanding of procedures of different styles of Acupuncture and related therapeutic modalities, such as Traditional Acupuncture, Scalp Acupuncture, Auriculotherapy, Acupuncture Anaesthesia, Reflexology, Zone Therapy, Acupressure, etc;
2. Illustrate case discussion and the techniques to be used.
3. Analyse evidence based acupuncture and its application.

### Assessment Scheme

Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination	60 marks

								
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(ESE)-Practical	
End- Semester Examination (ESE)-Viva	30 marks
Total	100 marks

#### REFERENCE BOOKS-

1	Clinical Practice of Acupuncture	By A.L. Agrawal
2	Clinical Acupuncture	By Dr. Anton Jayasurya
3	Principles and practice of Acupuncture	By Dr. J.K. Patel
4	Health in your hands	By Devendra Vora
5	Shiatsu	By Ohashi

### **3. YOGA APPLICATION**

**Course type - Core**



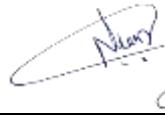






**Course code- BNY-305, BNY-306P**

#### **Objective:**

The objective of teaching *Yoga* and its applications to undergraduate students is to provide them with comprehensive understanding of *Yoga* with reference to traditional texts like *PatanjaliYogasutras*, *Hatha YogaPradipika*, *Shiva samhita*, *Gheranda samhita* and *Swara Yoga*; various streams of *Yoga*, advanced meditative techniques like *Yoganidra*, *Omkar*, *Cyclic*, *Vipassana* and learn about benefits of *Yogaas* compared to exercise.

#### **THEORY**

1. Patanjali yoga sutras - 1st two chapters.  
(ie., Samadhi Pada & Sadhana Pada, brief summary of Vibhutipada & Kaivalyapada)
2. Hatha Yoga Pradipika- full text with necessary reference to Gheranda Samhita & Siva Samhita.
3. Introduction to other streams of Yoga-Kundlini and Tantra Yoga.
4. Yoga Nidra-Methods, application, effects and benefits.
5. Meditation-Types of Meditation-Omkar, Cyclic, Vipassana etc. Methods of application, benefits, precaution, its influence on health and disease.
6. Different relaxation techniques.
  - a) Instant relaxation,
  - b) Quick relaxation,
  - c) Deep relaxation techniques-their methods, effects & benefits.
7. Yoga-in relation to personality and education.
8. Yoga-in relation to sports and games, social and political life.
9. Eye exercises- Benefits, methods, precautions.



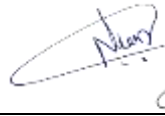






								
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10. Physiological aspects of Asanas.
11. Physiological, Neuro-Physiological aspects of pranayama.
12. Shat Kriyas- Comparative study of Shat Kriyas with other systems of Medicine.
13. Physiological aspects of exercises
14. Physical exercises for health & fitness
  - a) Introduction
  - b) Who should stretch
  - c) When to stretch
  - d) Why to stretch.
  - e) How to stretch
  - f) Relaxing stretches for i. Back, legs, feet and ankles. ii. Hips, hamstring, low back.
  - g) Stretching exercises for elderly.
  - h) Stretching exercises for Abdominal muscles, Arms, Chest, Ankles, Legs, knee, thigh, fore arm etc.
  - i) Techniques of walking, running, Cycling etc.
  - j) Caring back.
15. Swara – Yoga
16. Recent trends: Principle, practice and research studies on
  - a) Vinyasa yoga
  - b) Ayengar yoga
  - c) Preksha dhayna
  - d) Kriya yoga
  - e) Sudarshan-kriya yoga
  - f) Pattabhi jois yoga
  - g) Shivananda yoga

### COURSE OUTCOME

After the completion of the course, the student shall be able to:

1. Illustrate the knowledge of traditional texts like *Patanjali Yoga Sutras*, *Hatha Yoga*, *Shiva Samhita* and *Gheranda Samhita*;
2. Explain the principles behind various meditative practices like *Yoganidra*, *Om* meditation, *cyclic* meditation, *Vipassana* and so on;
3. Explain about *Yoga* in relation to its application in education, sports;
4. Demonstrate basic understanding of procedures of stretching and exercises;
5. Describe basic physiological changes of *asanas* and *shatkriyas* and their adverse effects
6. Describe the concept of *Yoga* as explained in the traditional texts;

								
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7. Deliver a meditative session using any of the meditative styles;

**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

**YOGA PRACTICALS**

I. Asanas

1. Including all asanas of I year adding some advanced postures from Yoga Deepika.
2. All loosening (Shitilikarana Vyayama) and breathing exercises.

II. Pranayama (as 1st B.N.Y.S.)

III. Kriyas- (including Portion of 1st B.N.Y.S.)

- 1) Dhouti-Vastra
- 2) Gajakara ni - (Vari sara Dhouti)
- 3) Nauli- (all three types).
- 4) Shankha Prakshalana- 1. Laghu. 2. Maha
- 5) Basti

IV. Meditation:-

- Omkara
- Cyclic
- Vipassana



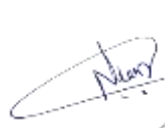
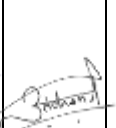





V. Techniques Like:-

- 1) Self-Management of Excessive Tension (SMET)
- 2) Pranic Energisation Technique (PET)
- 3) Mind Sound Resonance Technique (MSRT)
- 4) Yoga Nidra (Short and long session).

**COURSE OUTCOME**

After the completion of the course, the student shall be able to:

1. Explain the knowledge of traditional texts like *Patanjali Yoga Sutras*, *Hatha Yoga*, *Shiva Samhita* and *Gheranda Samhita*;
2. Illustrate the principles behind various meditative practices like *Yoganidra*, *Om* meditation, *cyclic* meditation, *Vipassana* and so on;
3. Demonstrate basic understanding of procedures of stretching and exercises;



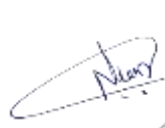
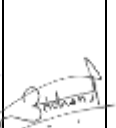





								
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**4. Deliver a meditative session using any of the meditative styles;**  
**Assessment Scheme**

Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination (ESE)-Practical	60 marks
End- Semester Examination (ESE)-Viva	30 marks
Total	100 marks

**Books Recommended:-**

1	The Science of Yoga	By Taimini (commentary on patanjali Yoga Sutras)
2	Hatha Pradipika	By (Kaivalyadhama Publication- Lonavla)
3	Yoga Nidra	By (Bihar School of yoga, Munger publications)
4	Kundalini Yoga	
5	Tantra Yoga	
6	Asana	
7	Pranayams	By Vivekananda Kendra Publications
8	Psychology	By Horensce C. Kenipp.
9	Religiousness in Yoga theory & Practice	By TKV Desikachar
10	Research papers	By Kaivalyadhama (Publication in Yoga Mimamsa- all papers relating to physiological effects of Yoga.)
11	Yoga in Education	By Dr. Nagendra (Vivekananda kendra Publication)
12	Vipassana	By S. Goenka
13	Anatomy & Physiology of Yoga	By Dr.M.M. Gore
14	An over view on research papers	By SVYASA, Bangalore
15	Patanjali yoga sutra	By Dr P.V. Karmavelkar (Kaivalyadham)
16	Patanjali yog pradeep	By Swami Omanand Teerth (Gita - press, Gorakhpur)
17	Hatha Yoga Pradipika	By Swami Muktibodhananda(Bihar School of Yoga)
18	Light on Yoga	By B.K.S.Iyenger
19	Light on Pranayama	By B.K.S.Iyenger
20	Light on The Yoga Sutras of Patanjali	By B.K.S.Iyenger

								
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## 4. FASTING THERAPY

Course type- Core Course  
code- BNY-307, BNY-308P

### **Objective:**

The objective of teaching Fasting Therapy to undergraduate students is to provide them with comprehensive knowledge of Fasting therapy and utilization of the same for therapeutic purposes.

### **THEORY**

#### **I. Introduction :-**



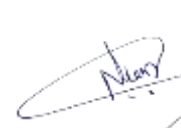






1. Theory of Fasting
  - a) Fasting in Animals
  - b) Your Tongue Never Lies
  - c) Miracles of Fasting
2. History of Fasting
  - a) Fasting in Ancient India
  - b) History of Fasting in India
  - c) History of Fasting in Foreign Countries
  - d) Historical Highlights of Fasting
3. Science of Fasting

#### **II. The Philosophy of Fasting**

1. The Philosophy of Sane Fasting
2. Philosophy of Therapeutic Fasting
  - a) Life & its existence in connection with health and diseases.
  - b) Nature of disease
  - c) The No-Breakfast Plan
  - d) Objections commonly raised in Fasting Therapy
  - e) Pros and cons of Fasting
  - f) Difference between Fasting and Starvation
  - g) Difference between Hunger and Appetite

#### **III. Physiology of Fasting:-**

- 1) General Physiology.
- 2) Source and Metabolism of Carbohydrates, Fats and Proteins During Fasting & Starvation.
- 3) Chemical and Organic changes during Fasting.
- 4) Repair of Organs and Tissues During Fasting.
- 5) Changes in the Fundamental Functions While Fasting.
- 6) The Mind & Special Senses During a Fast.
- 7) Secretions and Excretions.

								
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- 8) Bowel Action During aFast.
- 9) The Influence of Fasting on Growth andRegeneration.
- 10) Gain and Loss of strength WhileFasting.
- 11) Gain and Loss of weight DuringFasting.
- 12) Autolysis
- 13) Fasting andSex.
- 14) Rejuvenescence ThroughFasting.

IV. Facts Explained AboutFasting:-

- 1) Fasting Does Not Induce Deficiency“Disease”.
- 2) Death in theFast.
- 3) Objections totheFast.
- 4) The Quantity of Food Necessary to SustainLife.

V. Practice of Fasting:-

- 1) Does Fasting CureDisease?
- 2) The Rationale ofFasting.
- 3) The Length of TheFast.
- 4) Contraindications ofFasting.
- 5) Fasting in Special Periods and Conditions ofLife.
- 6) Symptomatology of TheFast.
- 7) Progress & Hygiene of TheFast.
- 8) Breaking TheFast.
- 9) Gaining Weight After TheFast.
- 10)Living After TheFast



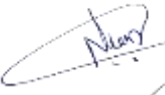






VI. Rules and regulations of Sane Fasting and TherapeuticFasting.

VII. Definition and Classification offasting

- 1) Definition of fasting in differentaspects.
- 2) General classification of fasting (Religious, Political andTherapeutic.)
- 3) Methods and types of therapeutic fasting (Dry, whey, Juice,Salad, Monodiet (Kalpa),Fruits Intermittent, Preventive, Weekly etc.

VIII. Hygienic Auxiliaries offasting-

- 1) Air and Breathing
- 2) Enema
- 3) Bathing
- 4) Clothing
- 5) WaterDrinking

								
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- 6) Exercise
- 7) Mental Influence

IX. Study of Patients During and After Fasting-

1. Crises during fasting and their management.
2. Physiological effects of fasting.
3. Biochemical aspects.
4. Study of the tongue, the breath, the temperature and pulse etc.
5. The loss and the gain of weight.
6. How and when to break the fast.
7. Diet after the fast.

X. Indications and Contraindications of fasting.

XI. Therapeutic aspects of Fasting



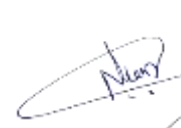






1. Fasting in acute diseases.
2. Fasting in chronic diseases.
3. Role of fasting in various diseases.
4. Obesity and fasting.
  - a. Definition and assessment of obesity.
  - b. Epidemiology.
  - c. Etiology.
  - d. Clinical Features
  - e. Treatment.
5. Fasting for preservation of health and prevention of diseases.
6. Fasting in Drug Addiction.
7. Fasting Versus Eliminating Diets.

XII. Results of Fasting.

**COURSE OUTCOME-**

After the completion of the course, the student shall be able to:

1. Illustrate definitions and historical highlights of fasting therapy through the centuries, including fasting employed in different religions, the concept of dietetic principles in Naturopathy.
2. Classify fasting according to duration, purpose, type, etc.
3. Explain the metabolism of fasting, Calorie Restriction: Concept, Method, Prevailing basic- Clinical-applied evidence.
4. Describe importance of various components of diet, such as dietary fiber, vitamins, minerals, etc.
5. Analyse fasting therapy in managing various diseases.

								
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**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

**FASTING PRACTICALS**

Study of 50 fasting cases & case study of 25 with record

**COURSE OUTCOME-**

After the completion of the course, the student shall be able to:



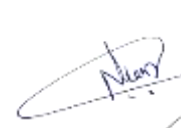






1. illustrate definitions and historical highlights of fasting therapy through the centuries, including fasting employed in different religions, the concept of dietetic principles in Naturopathy.
2. Classify fasting according to duration, purpose, type, etc.
3. Explain the metabolism of fasting, Calorie Restriction: Concept, Method, Prevailing basic- Clinical-applied evidence.
4. Demonstrate usage of therapeutic diets and fasting therapy in promotive, preventive, curative and rehabilitative therapy.

**Assessment Scheme**

Continuous Comprehensive Assessment(CCA)	10 marks
End- Semester Examination(ESE)-Practical	60 marks
End- Semester Examination(ESE)-Viva	30 marks
Total	100 marks



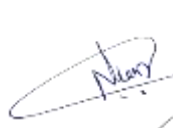






**Text Books -**

1	Fasting for Healthy and Long Life	By Hereward Carrington
2	The Fasting Cure and Vital Economy	By Lakshamana Sharma
3	Fasting can save your life	By Herbert M. Shelton
4	The Effects of Fasting	By Donald Upton
5	Fasting as a way of life	By Allan coli M.D.
6	Fasting can Renew your life	By Herbert M. Shelton
7	Scientific Fasting	By Hazzard, Linda Burfield
8	Fasting for Rejuvenation	By Seaton, Julia
9	The Science & Fine Art of Natural Hygiene	By Herbert M Shelton
10	The Science & Fine Art of Food & Nutrition	By Herbert M. Shelton
11	The Hippocrates Diet and Health Programme	By Ann Wigmore
12	The Juicing Book	By Stephen Blauer
13	Live Food Juices	By H.E.kirschner

								
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**ReferenceBooks-**

1	The Philosophy of Fasting	By Edward Eaul Purintion
2	Vitality, Fasting and Nutrition	By Hereward Carrington
3	The Fasting Cure	By Upton Sinclair
4	The Fast - Way of Health	By Harold R. Brown
5	Fasting	the Master Remedy
6	Fast for Health	By John Joseph Picker
7	The Biology of Human Starvation	By Keys, Ancel
8	Fasting Story NO.1	By Health Research
9	Fasting Story NO.2	By Health Research
10	Rational Fasting	By Prof.Arnold Ehret
11	Explaining Fasting	By Forster, Roger
12	Hints on Fasting Well	By Carrington, Hereward etc
13	The Science and Fine Art of Fasting	By Herbert M Shelton
14	Miracles of Fasting	By Dr. Paavo Airola
15	No Breakfast Plan	By Edward Hook Dewey
16	Thus Speaketh the Stomach	By Prof. Arnold Ehret
17	The Physiologically Correct Fast	By Dr. Are Waerland

								
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## 5. NATUROPATHY DIAGNOSIS

Course type- Core



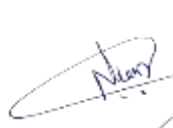






Course Course code–BNY-309, BNY-310P

### 1. OBJECTIVE:

The objective of teaching Diagnostic Methods in Naturopathy to undergraduate students is to provide them with comprehensive knowledge of diagnostic methods employed by traditional Naturopaths that can be used efficiently to diagnose various diseases without the use of sophisticated technology.



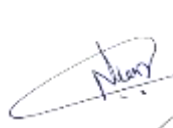






### THEORY FOR FACIAL DIAGNOSIS

1. Introduction to the science of facialexpression.
  - a) Historicalhighlights.
  - b) Definition and scope of the science of facialexpression.
2. Characters of the HealthyBody.
  - a) Normalfunctions.
  - b) Normal Figure.
3. Foreign matter theory:-
  - a) Definition of foreignmatter.
  - b) The process of accumulation of foreign matter in the body.
  - c) Encumbrance.
  - d) Changes caused in the body due to the accumulation of foreignmatter.
  - e) General pathology of foreignmatter.
4. The nature: origin and cure of diseases of children and theirunity.
5. Bad habits supports the accumulation of foreign matter in thebody-tobacco, alcoholic drinks, coffee, tea,opiumetc.Drug addictions-Pethedine, Heroin, Injection etc., Suppression of diseases viz elimination of morbid and diseased germs from the system.
6. Types of encumbrance - Front encumbrance, - back encumbrance front and right side Encumbrance, left side encumbrance and mixed or whole encumbrance, their description, general characters and possible diseases in the concerned encumbrance and theirtreatment.
7. Diseases of the internal organs and theirtreatment.
8. Process of elimination of foreignmatter.
  - a) Importance of Nature Curetreatments.
  - b) The digestive process-naturaldietetics.
  - c) Artificial outlets of elimination
9. Methods to be followed to increase the vitality of thebody.
10. The importance of Nabhi Pareeksha, the methods ofNabhi Pareeksha & the techniques ofcorrection.

								
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## THEORY FOR IRIS DIAGNOSIS

1. Introduction of iridology:
  - a) Definition of iridology
  - b) Historical highlights.
  - c) Comparison of other systems - Allopathy , Homeopathy , Ayurveda, Unani etc. Diagnostic methods.
  - d) Anatomy of the Iris.
  - e) Theory in application.
  - f) The theory of healing crisis.
  - g) A unit form division and classification of diseases.
  - h) Philosophical phase.
  - i) Theoretical phase
2. I. Instructions in Methods of Application:-
  - a) Technique in Iris reading.
  - b) The normal and abnormal Iris, colour of the Iris.
  - c) The Vibratory theory.
 II. Study of density of the Iris.  
 III. Key to Iridology.
  - a) Iris charts brought up to date.
  - b) Zone areas.
  - c) Sectoral Division.
3. Comparison of fermentation viz inflammation.
4. Interpretations of Iris manifestations.
  - I. A) Types of inflammation
    - B) Inherent ( Lesions and weakness)
    - C) Acidity and Catarrh
    - D) Toxic settlements
    - E) Nerve Rings
    - F) The Lymphatic rosary
    - G) Injuries and operations
    - H) Itch or Psora spots in the iris - the surfrim
    - I) The radii-solaris
    - J) Tumours
    - K) The sodium ring
    - L) Anaemia in the extremities and in the brain.
    - M) Drugs and chemicals appearance on the Iris and their poisonous effects in the body:- Arsenic, Bismuth, Bromides, Coaltar products, Ergot, Glycerin, Iodine, Iron, Lead, Mercury, Opium , Phosphorous, Quinine, Salicylic acid, Sodium, Strychnine, Sulphur, Turpentine, Vaccines etc.
  - II. The iris reveals the cause of disease.
5. Case histories according to Iridology.

								
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6. Advance research in Iridology.
  - a) Reflex areas and remotesymptoms.
  - b) Stomach and intestinal disorders, the principle causes, the principle disorders & remedial Measures.
7. Prakrutianalysis: Concept of vata pitta, kapha Manifestation of vata pitta kapha Diseases according to tridosha theory Pathya apathya

**COURSE OUTCOME:**

After the completion of the course, the student shall be able to:

- a) Illustrate historical significant developments in diagnostic procedures used in Naturopathy and the characteristics of a Healthy Body with respect to Naturopathic Principles.
- b) Describe philosophical theories of causation of disease according to Naturopathy.
- c) Analyse knowledge of theory of encumbrances, their types and interpretation, along with naturopathic ways to therapeutically correct them.
- d) Describe in detail Iris Diagnosis, with respect to history, techniques, iris signs, interpretations and tools used, and use the same to diagnosediseases;
- e) Explain the techniques and interpretations of stool and urine diagnosis, correlating modern medical knowledge and Ayurvedic *sthoola* and *muthra pariksha*;
- f) Analyse and apply different diagnostic procedures in Naturopathy to effectively and accurately diagnose various diseases, such as Iris Diagnosis, Facial Diagnosis, Stool and Urine Diagnosis, etc.

**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100



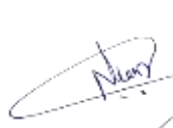






**NATUROPATHY DIAGNOSIS PRACTICALS**

1. Clinicalclasses
2. Demonstrations in the Nature Cure Hospital.
3. Case Studies 25 with Record.
4. Demonstration of Equipments.

**COURSE OUTCOME:**

After the completion of the course, the student shall be able to:

- a) Illustrate historical significant developments in diagnostic procedures used in Naturopathy and the characteristics of a Healthy Body with respect to Naturopathic Principles
- b) Explain philosophical theories of causation of disease according to Naturopathy
- c) Deduce knowledge of theory of encumbrances, their types and interpretation, along with

								
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naturopathic ways to therapeutically correct them.

- d) Demonstrate the techniques and interpretations of stool and urine diagnosis, correlating modern medical knowledge and Ayurvedic *sthoola* and *muthra pariksha*;

**Assessment Scheme**



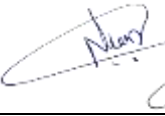






Continuous Comprehensive Assessment(CCA)	10 marks
End- Semester Examination(ESE)-Practical	60 marks
End- Semester Examination(ESE)-Viva	30 marks
Total	100 marks

**Recommended Text Books: -**

1	Science of Facial Expression	By Louis Kuhne
2	The New Science of Healing	By Louis Kuhne
3	The Science and Practice of Iridology	By Bernard Jensen
4	Iridiagnosis and other Diagnostic Mehods	By Henry Lindlahr

**REFERENCE BOOKS: -**

1	Iridology: A Guide to Iris Analysis and Preventive Health Care	By Adam J. Jackson
2	Iridology: How to Discover Your Own Pattern of Health and well-being Through the Eye	By Dorothy Hall
3	Iridology: A Complete Guide to Diagnosing Through the Iris and all related forms of treatment	By Davis and Farida.
4	Iridology: Alternative Health Series	By Adam J. Jackson
5	Vision of Health: Understanding Iridology	By Jensen, Bernard and Booden, Donald.
6	Eyes Talk: Through Iridology Better Health	By Vriend Joha.

								
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## 6. MORDERN DIAGNOSIS

Course type- CoreCourse  
Coursecode-BNY-311, BNY-312P

### Objective:

The objective of teaching Diagnostic Methods in Conventional Medicine to undergraduate students is to provide them with comprehensive knowledge of diagnostic methods employed by conventional doctors that can be used efficiently to diagnose various diseases, for diagnosis as well as prognosis.

### THEORY



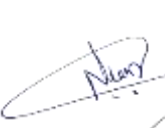






#### Section A-Clinical Diagnosis

##### I. Examination of Patients:-

1. Approach to a patient
2. History taking and case sheetwriting
3. Symptomatology
4. Examination of VitalData
5. Importance of height, weight, abdominalgirth
6. General physicalexamination
7. Examination of breasts, back, spine andgenitals
8. Systemic examination of the patient
  - a) Abdomen(Digestive system)
  - b) CardiovascularSystem
  - c) RespiratorySystem
  - d) Renalsystem
  - e) Central Nervous system
  - f) Locomotorsystem
  - g) Examination of ear, nose andthroat
  - h) Gynaecologicalexamination
9. ProvisionalDiagnosis

##### II. Routine and special Investigations:-

1. LaboratoryInvestigation
  - a) Urineanalysis
  - b) Stool examination
  - c) Blood examination
    - i. Peripheral smear, Total WBC Count, Differential WBCCount
    - ii. Erythrocyte sedimentation rate (E.S.R), HbEstimation
    - iii. Blood Sugar, Blood Urea, Serum uric acid, Serum cholesterol,Serum lipid profile, Serumcreatinine.
2. Radiological Investigation:-
  - a) Plain chestX-Ray
  - b) K.U.B.



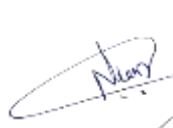






								
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- c) Lumbar and cervical spine
  - d) Skull and paranasal sinuses
  - e) Joints
3. Contrast Radiography:-
    - a) Cholecystography
    - b) Pyelography
    - c) Angiography
    - d) Bronchogram
  4. Electrocardiography
  5. Echo-Cardiography
  6. Coronaryangiography
  7. Electro-Encephalography
  8. Bio-chemical investigations
    - a) Liver function tests
    - b) Creatinine clearance test
    - c) Vanillo-mandellic acid (VMA) excretion test in urine
    - d) SGOT and SGPT
    - e) LDH
    - f) CPK
  9. Diagnostic Paracentesis
  10. Diagnostic Thoracocentesis
  11. Lumbar Puncture and CSF analysis
  12. Radio-active Iodine up-take studies
  13. Thyroid T3, T4 estimation
  14. Diagnostic skin tests
  15. Endoscopic procedures
  16. Ultra-sonography
  17. Computerised tomographic scan (CT Scan)
  18. Magnetic Resonance technique (MRI)
  19. Positron Emission Tomography (PET)
  20. Doppler Study

### III. Final Diagnosis

#### Section B- FIRS TAID



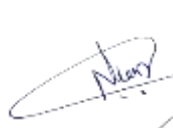






1. General principles of First Aid
2. Wounds Control of hemorrhage, Epistaxis
3. Shock- Classification and treatment
4. Dog bite, Snake bite, Scorpion sting
5. Burns and Scalds
6. Heat exhaustion, heat stroke and fainting, frost bite
7. Fractures, dislocations, sprains and strains

								
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8. Poisoning
9. Epileptic fits, convulsions in children
10. Aspiration of foreignbody
11. Artificialrespiration
12. Bandages of differenttypes
13. Unconsciousness and general principlesof treatment



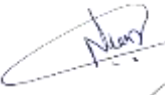






**SectionC-Recognition, Evaluation of Clinical Emergencies.**

1. Cardio Vasular System:-
  - Acute myocardialinfarction
  - CardiogenicShock
  - Cardiacarrhythmias
  - Cardiacarrest
2. RespiratroySystem-
  - Hemoptysis
  - Statusasthmaticus
  - Spontaneous pneumothorax
  - Acute respiratoryfailure
3. Gastro Intestinal System :-
  - AcuteVomiting
  - Perforation of PepticUlcer
  - Hemetemesis
  - Hepatic Precoma andcoma.
4. Central Nervous System:-
  - Unconsciouspatient
  - Cerebrovascular catastrophes
  - Convulsions
  - Statusepilepticus
5. Renal System:-
  - Acute renalfailure
  - Renal colic
  - Hematuria
6. Endocrine and Metabolism:-
  - Thyroidcrisis
  - AdrenalCrisis
  - Diabetic Keto acidosis andcoma
  - Hypoglycemia
7. MiscellaneousEmergencies-
  - Syncope
  - Acute peripheral circulatoryfailure
  - Acutereaction
  - Hypothermia

								
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**RECOMMENDED TEXT BOOKS:-**

1	Hutchinson's Clinical Methods	By Chamberlin
2	Clinical Methods	By P.S.Shanker
3	Manual of Clinical Methods	By Jai Vakil
4	Clinical Diagnosis	By P.J. Mehta
5	Modern Diagnosis	By Red Cross Society
6	Oxford's hand book of Clinical Medicine	By St. John Ambulance Association.
7	First Aid	By L.C. Gupta and others

								
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## COURSE OUTCOME-

After the completion of the course, the student shall be able to:

- Understand the procedures and nuances in approaching a patient and taking a detailed history and writing a casereport;
- Illustrate examination procedures and techniques generally as well as for specific systems and make provisional diagnoses of common diseases;
- Describe laboratory investigations used for supporting the provisional diagnosis made after history taking and examinations;
- Analyse and interpret radiological investigations, biochemical investigations, sonography, EEG, ECG, EMG, echocardiography, CT, PET, MRI, etc for diagnostic and prognostic purposes..
- Analyse and interpret any further investigations required for the provisional diagnosis made.

## Assessment Scheme:

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100



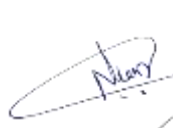






## MORDERN DIAGNOSIS PRACTICALS

- History taking and physical examination of cases.
- Case sheet writing in different general cases(25)
- Demonstration of equipments and instruments used for investigation in modern diagnostics
- Demonstration of a modern super-speciality Hospital to see the latest techniques of modern investigations.

## COURSE OUTCOME-



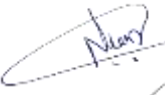






After the completion of the course, the student shall be able to:

- Illustrate the procedures and nuances in approaching a patient and taking a detailed history and writing a casereport;
- Correlate examination procedures and techniques generally as well as for specific systems and make provisional diagnoses of common diseases;
- Delineate laboratory investigations used for supporting the provisional diagnosis made after history taking and examinations;
- Analyse and interpret radiological investigations, biochemical investigations, sonography, EEG, ECG, EMG, echocardiography, CT, PET, MRI, etc for diagnostic and prognostic purposes.
- Demonstrate knowledge of invasive tests such as paracentesis, thoracocentesis, lumbar puncture, laparoscopy, endoscopy, biopsy, etc., take a case history with examinations and prepare a detailed case report.
- Analyse and interpret any further investigations required for the provisional diagnosis made.

								
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## Assessment Scheme

Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination (ESE)-Practical	60 marks
End- Semester Examination (ESE)-Viva	30 marks
Total	100 marks

								
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**7. TECHNIQUES IN SPA**  
**COURSE TYPE- SKILL**  
**ENHANCEMENT COURSE COURSE**  
**CODE - BNY 313**

**SPA TECHNIQUES AND ENTREPRENEURSHIP**

**Course Type:** Core Course

**Course Code:** BNY-314 (Theory), BNY-315 P (Practical)

**1. Course Objective**

The objective of teaching Spa Techniques and Entrepreneurship to undergraduate students is to provide comprehensive knowledge of spa therapies, wellness treatments, and spa management practices. The course aims to develop practical skills in spa treatments such as massage, body therapies, facial treatments, and hydrotherapy while also equipping students with entrepreneurial and managerial skills required to establish and operate a spa or wellness centre.

**THEORY**

**1. Introduction to Spa and Wellness Industry**

- History and evolution of spas
- Concept of wellness and holistic health
- Types of spas
  - Day spa
  - destination spa
  - Resort and hotel spa
  - Medical spa
  - Wellness retreat
- Global and Indian spa industry overview
- Professional ethics in spa practice

**2. Basic Anatomy and Physiology for Spa Therapy**



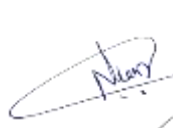






Structures relevant to spa therapies:

- Skeletal system
- Muscular system
- Circulatory system
- Nervous system
- Structure and functions of skin
- Contraindications for spa therapies

**3. Spa Therapies and Techniques**

Massage therapies:

- Swedish massage

								
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- Deep tissue massage
- Aromatherapy massage
- Hot stone therapy
- Thai massage (basic)
- Reflexology

Body treatments:

- Body scrubs
- Body polishing
- Body wraps
- Detox therapies

Hydrotherapy:

- Steam bath
- Sauna
- Jacuzzi

Facial treatments:

- Cleansing and exfoliation
- Face masks and packs
- Anti-aging and acne facials

#### 4. Beauty and Wellness Treatments



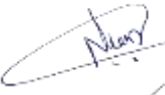






- Skin types and skin analysis
- Basic skincare products and ingredients
  - Hair spa treatments
  - Hand and foot spa (manicure and pedicure)
  - Overview of traditional wellness therapies

#### 5. Spa Products and Equipment

- Oils, creams, scrubs, and masks used in spa therapies
- Essential oils and aromatherapy products
- Spa machines and tools
- Equipment handling and maintenance
- Hygiene and sanitation standards



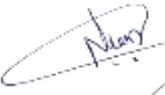






#### 6. Spa Management and Operations

- Spa layout and design principles
- Daily spa operations
- Appointment scheduling systems
- Inventory and stock management
- Vendor and product sourcing
- Legal requirements and licensing

								
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## 7. Customer Service and Human Resource Management

- Client consultation process
- Guest handling and professional etiquette
- Understanding client needs
- Complaint handling and client satisfaction
- Recruitment of therapists
- Staff training and development
- Staff scheduling and workplace ethics

								
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## 8. Spa Marketing and Entrepreneurship

- Branding and spa positioning
- Spa menu design and pricing
- Promotion strategies (online and offline)
- Social media marketing for spas
- Memberships and service packages
- Retail product sales
- Starting a spa business
- Business plan preparation
- Budgeting and costing
- Profit management and spa franchising models

### COURSE OUTCOME

At the end of the course, a student should be able to:



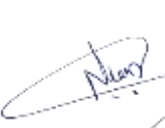






1. Understand the principles and functioning of spa and wellness therapies.
2. Identify different spa treatments, products, and equipment used in spa practice.
3. Analyze the role of spa therapies in relaxation, wellness, and preventive healthcare.
4. Apply management and entrepreneurial skills in spa operations and business development.

### Assessment Scheme

Component	Marks
Continuous Comprehensive Assessment (CCA)	30
End Semester Examination (ESE)	70
<b>Total</b>	<b>100</b>

### SPA TECHNIQUES AND ENTREPRENEURSHIP PRACTICALS

1. Demonstration classes on spa therapies and techniques
2. Practical training in body massage and spa therapies

								
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1. Facial treatment procedures and skin analysis
2. Body scrub and body wrap application
3. Aromatherapy techniques and use of essential oils
4. Spa manicure and pedicure procedures
5. Spa room setup and hygiene practices
6. Client consultation and service delivery
7. Front desk operations and appointment handling
8. Inventory and spa product management

### PRACTICAL COURSE OUTCOME

After completion of the practical course, the student shall be able to:

1. Demonstrate different spa therapies such as body massage, body scrubs, body wraps, facial treatments, and aromatherapy.
2. Perform spa manicure, pedicure, and hair spa treatments.
3. Maintain hygiene, sanitation, and safety standards in spa practice.
4. Apply spa management skills including client handling, service delivery, and basic spa operations.

### PRACTICAL ASSESSMENT SCHEME



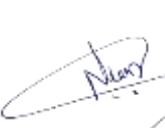






Component	Marks
Continuous Comprehensive Assessment (CCA)	10
End Semester Practical Examination	60
Viva Voce	30
<b>Total</b>	<b>100</b>

### TEXT BOOKS

1. Spa Bodywork: A Guide for Massage Therapists - Anne Williams
2. The Complete Spa Book for Massage Therapists - Steve Capellini
3. The Art and Science of Spa and Body Therapy - Jane Foulston
4. Spa Management: An Introduction - Mary S. Wisnom & Lisa L. Capozio










### REFERENCE BOOKS

1. The Spa Manager's Essential Guide - Mike Wallace & Melanie Smith
2. International Spa Management: Principles and Practice - Sarah Rawlinson & Tim Heap
3. Understanding the Global Spa Industry - Gerry Bodeker & Mare Cohen

								
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**FINAL YEAR**  
**DURATION- ONE & HALF YEARS**

S.No	SUBJECT	Theory CODE	Practical Code
1	Nutrition, Dietetics& Herbs	BNY-401	BNY-402P
2	Obstetrics &Gynecology	BNY-403	BNY-404P
3	Yoga Therapy	BNY-405	BNY-406P
4	Hydrotherapy –I	BNY-407	BNY-409P
5	Hydrotherapy- II	BNY-408	
6	Physiotherapy	BNY-410	BNY-411P
7	Holistic Practice Of Naturopathy & Yoga	BNY-412	BNY-413P
8	Hospital Management & Research Methodology	BNY-414	BNY-415P
9	Psychology & Basic Psychiatry	BNY-416	BNY-417P
10	Professional Ethics	BNY-418	-

								
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# 1. NUTRITION DIETETICS AND HERBS

Course type- Core Course

Course code-BNY 401, BNY402P

## OBJECTIVE:

The objective of teaching Nutrition and Medicinal Herbs to undergraduate students is to enable them to analyse nutritional profiles of their patients and prescribe diets to them based on nutritional requirements, as well as use herbs in the management of various diseases.

## THEORY

### I. Introduction of Nutrition:-



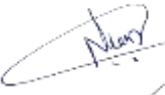






- a) History of Nutrition
- b) Progress in Food Science
- c) Basic Principles of Nutrition
- d) Food, Nutrition & Health
- e) Need of Complete Nutrition
- f) Nutritional Basis of Life and Life in Connection with Food
- g) Composition of Body in Relation to Nutrition

### II. Components of Food and their Classification:-

- a) Carbohydrates
- b) Proteins
- c) Lipids
- d) Vitamins
- e) Minerals and Trace Elements
- f) Water and Electrolytes
- g) Metabolism and Energy Needs of the body
- h) Energy Balance and the regulation of the body weight
- i) Enzymes

### III. A. Food Groups:-

- a) Cereals
- b) Millets and Coarse grains
- c) Pulses
- d) Green leafy Vegetables
- e) Other Vegetables
- f) Roots & Tubers
- g) Fruits
- h) Milk & Milk Products
- i) Sugar & Jaggery



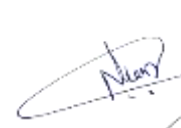






								
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- j) Honey
- k) Nuts & Oil-seeds
- l) Spices & Condiments



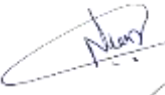






B. Nutritive Values of Food Ingredients Commonly Used in India

IV. The Science & Fine Art of Food & Nutrition:-

1. Philosophy of Nutrition
2. Calories: Measuring what we eat.
3. Law of the Minimum
4. Organic foods & Organic acids
5. Organic Vs. Inorganic Foods
6. Salt Eating, Salt Stimulation Vs. Good Diet
7. Fruitarianism and Vegetarianism
8. Nature's Food Refinery
9. The Digestibility of Foods
10. Mental Influences in Nutrition
11. Enjoying our Food
12. Absorption of Food
13. Uses of Food
14. How much shall we eat?
15. How to Eat?
16. Correct Food Combining - Food Combining Charts
17. Effects Of Cooking
18. Uncooked Foods (Raw Eating)
19. Salads
20. Conservative Cooking
21. Effects of Denatured Foods
22. Under Nutrition
23. Hypo-Alkalinity
24. Diet Reform Vs. Supplemental Feeding
25. Beginning the Reform Diet
26. Building the teeth
27. The Eliminating Diet
28. Feeding In Disease
29. The Three Year Nursing Period
30. Cow's Milk
31. Pasteurization
32. Mother's Milk
33. Should Baby Be weaned?
34. No Starch for Infants
35. Three Feeding a Day
36. Feeding of Infants
37. Feeding Children From Two to Six Years

								
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38. Man Shall Not Diet With Food Alone  
 39. Our Denatured Soil
- V. Food as Medicine - Known Facts
1. Proteins are Body Builders
  2. Proteins can be Body Killers
  3. Fats - Concentrated Body Fuels
  4. How Foods May Poison?
  5. Vegetables as Do It- Yourself Therapy
  6. Solid foods: When, What Kind, How Much?
  7. Vitamins and Supplements for all ages
  8. The Vitamins: Proof of natural food instincts
  9. Facts about common foods
  10. The Stimulant Delusion
- VI. Food & Toxins
- 1) Infective agents & Toxins in food
  - 2) Food Adulteration and Consumer Protection.
  - 3) Food additives
  - 4) Health hazards of added chemicals in foods
  - 5) Nutrition & Infection
  - 6) Study about adverse effect of Alcohol & Tobacco
- VII. Nutritional Diagnosis
- VIII. Public Health and Nutrition-
- 1) Education in Nutrition
  - 2) Nutritional Program
  - 3) Nutrition Survey and Methodology
  - 4) Balanced Diets
  - 5) Nutritional assessments, Social aspects of the Nutrition
  - 6) Fortification and Enrichment
  - 7) Exercise in Balanced Diet
  - 8) Nutrition in relation to disaster management
  - 9) Nutritional requirements of special groups
- IX. Nutrition in Health-
- 1) Human Nutritional requirements
  - 2) Nutrition in Pregnancy , Lactation , Infancy, Childhood, Adolescence and Old Age
  - 3) Nutrition and Immunity
- X. Nutritional deficiency diseases, Preventive and Curative approach
- XI. The Optimum Nutrition Program for Correcting Disease & Restoring, Building and Maintaining Health
- XII. Introduction to Functional Foods and Nutraceuticals: Definition, History,



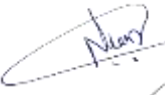






								
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Classification and brief introduction to Benefits and various aspects of Nutraceuticals in Health & Disease.

XIII. Introduction to Probiotics, Prebiotics and Synbiotics: Definition, History, Classification and brief introduction to Benefits and various aspects of Nutraceuticals in Health & Disease.



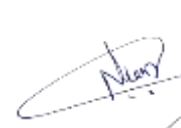






### DIETETICS-THEORY

1. Concept of Health in Naturopathy
2. Dietetic principles in Naturopathy
3. Concept of wholesome diet
4. Medicinal values of Foods
5. Natural qualities / properties / character foods in Naturopathy / Ayurveda / Modern Nutrition
6. Natural food and health-
  - a) Importance of Green Vegetables, other vegetables, fruits and their ingredients
  - b) Chemical Composition of different raw juices , their effects and uses- Ginger, Raddish, Bottlegourd, Wheat grass, Beetroot, Cabbage, Carrot, Cucumber, Lettuce, Garlic, Onion, Lemon, Papaya, Knol-kol, Pineapple, Mango, Tomato, Pomegranate, Grapes, Apple, Bittergourd, Ashgourd, Bael fruit , Spinach, Pumpkins, Watermelon, Indian Gooseberry , Orange , Sweet Lime, whey water & Neera etc.
  - c) Sprouts, their Nutritive Values and Methods of Sprouting
  - d) Food Values in Raw states, germinated form and Cooked form
  - e) Comparison with raw and cooked foods
7. Diet for Physical Labor & Mental work
8. Arguments from comparative Anatomy , Physiology, Chemistry & Hygiene
9. Naturopathic Hospital dietetics and their classification
10. Disease management with diet:-  
Diabetes, Renal diseases, Anaemia, PEM, Peptic Ulcer, Constipation, Malabsorption syndrome, Liver diseases like Jaundice, Fatty liver etc. HBP, LBP, Atherosclerosis, Gall Bladder disease, Cancer and arthritis
11. Liver & Gall bladder detox
12. Food allergy and dietary management
13. Diet for Weight Reduction & Weight Gaining
14. Dietary modification for specific condition
15. Dietary reaction for a different population groups with special reference to pregnancy, lactation, Infancy
16. Seasonal changes in the dietary pattern in Ayurveda / Naturopathy and Modern nutrition
17. Food , Sanitation, hygiene and health
18. Naturopathic approach towards vegetarian and non-vegetarian food
19. Harmful effects of the food colours, preservatives, pesticides, artificial manures
20. Dietary fibre and its therapeutic effects (e.g. constipation, ano-rectal disorders,

								
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colonic disorders, GIT disorders, D.M. etc.)

21. Geriatric nutrition and diet
22. Diet in exercise, sports, games and athletics
23. Paediatric Nutrition
24. Nutrition and life Span: How to Prolong Life & Postpone Death?
25. Diet, Fasting and Disease.
26. Vegetarianism: Its Positive and Negative aspects in Naturopathy
27. Customs and manners of eating: Different views, Effect of emotional state on food utilization
28. Kalpa therapy in Naturopathy: Grapes, Mango, Matha, Milk Etc.
29. Ideal Diet, China study & Genuine Health Care
30. Food, Eating, Self-Healing, Recovery of vigor
31. Drugs Increase Nutritional Requirements
32. Toxicless Diet, Body Purification & Healing System
33. How Vitamin-C keeps you Young, Natural Anti-oxidants
34. Question of Quality & Quantity of Food
35. Hygienic Food & Hygienic Cookery
36. Physio-Pharmacology of Foods :-
  1. Anti-Bacterial/Anti-Septic Foods
  2. Anti- Coagulant Foods
  3. Anti- Depressant Foods
  4. Anti- Diabetic Foods
  5. Anti- Diarrhoeal Foods
  6. Anti-Inflammatory Foods
  7. Anti-Oxidant Foods
  8. Anti-Viral Foods
  9. Anti- Hypertensive Foods
  10. Calming & Sedative Foods
  11. Anti-Cancerous Foods
  12. Carminative Foods
  13. Cholesterol Lowering Foods
  14. Diuretic Foods
  15. Immunity Enhancing Foods
  16. Life Prolonging Foods
  17. Memory Enhancing Foods
  18. Expectorant Foods
  19. Oestrogenic Foods
  20. Analgesic Foods
  21. Aphrodisiac Foods
  22. Anti-Ulcer Foods
  23. Anti-Pyretic Foods

								
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24. Anti-Spasmodic Foods
25. Spoliative & Sudorific / Diaphoretic Foods
26. Eliminative Foods
27. Cooling & Heating Foods
28. Anti- Emetic Foods
29. Purgative & Laxative Foods

### HERBOLOGY THEORY



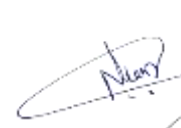






- a) Introduction to Herbology. The following herbs are to be studied with respect to their source and therapeutic uses.
- b) Botanical details shall be avoided.
- c) **Botanical Name:-**

Emblica Officinalis.	Psoralea Corylifolia
Cassia Fistia.	Taxus Baccata.
Ficus Glomerata.	Aegle Marnelos
Veliverta Zizanodies	Semecarpus Anacardium
Cinnamomum Camphora	Phyllanthus Niruri
Monardica Charantia	Piper Nigrum
Tribulus Terrestris	Santhalam Album
Myristiba Fragrans	Santhalam Album
Cuminim Cyminum	Allium Sativum
Sesamum Indicum	Mimosa Pudica
Ocimum sanctum	Acorus Calamus
Punica Granatum.	Asparagus Racemosus
Coriandrum Sativum.	Rauwoffia Serpentina
Azadirachta Indica.	Curcuma Longa
Allium Cepa.	Terminalia Chebula
Piper Longum	Ferula Narthex
Syzygium Aramaticum	Terminalia Belerica
Gingiber Officinalis	

### COURSE OUTCOME-

After the completion of the course, the student shall be able to:



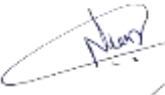






- a) Describe fundamentals of nutrition, with respect to different nutrients and food groups;
- b) Illustrate details of nutritional requirements for different age groups, as well as pregnant and lactating women;
- c) Classify modern nutrition to traditional Naturopathic diets;

								
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- d) Illustrate the use of specific herbs in common diseases,with therapeutic values.
- e) Analyse the nutritional status of a patient; Plan, implement and evaluate nutritional advice for people of different ages and patients of different diseases, including the use ofherbs.

**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

								
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## NUTRITION DIETETICS AND HERBS PRACTICALS

1. Visits to the dietetic department of the hospital
2. Menu planning using natural foods and raw foods in general patients
3. Demonstration of sprouts
  4. Preparation of low cost balanced diet for different population groups using natural foods
5. Modification of normal diet in consistency-liquid full soft
6. Canteen duties at nature cure hospital
7. Knowledge of Sathvic food preparation at nature cure hospital
8. Visit to different nutrition centres like NIN - Hyderabad, CFTRI (Mysore)

### COURSE OUTCOME-

After the completion of the course, the student shall be able to:



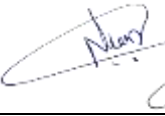






- a) Understand the procedures and nuances in approaching a patient and taking a detailed history and writing a case report;
- b) Illustrate examination procedures and techniques generally as well as for specific systems and make provisional diagnoses of common diseases;
- c) Describe laboratory investigations used for supporting the provisional diagnosis made after history taking and examinations;
- d) Analyse and interpret any further investigations required for the provisional diagnosis made

### Assessment Scheme

Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination (ESE)-Practical	60 marks
End- Semester Examination (ESE)-Viva	30 marks
Total	100 marks

### Recommended Text Books-



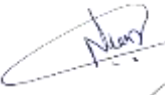






1	Davidson and Passmore Human Nutrition and dietetics	By Passmore, Eastwood
2	Clinical Dietetics and Nutrition	By F.P. Antia
3	Normal and Therapeutics nutrition	By Corinne H. Robinson Marilyn R. Lawler
4	Essentials of Food and Nutrition	By Swaminathan
5	Foundations of Normal and Therapeutic Nutrition	By Randall Teltal
6	Nutrition and dietetics	By Subhangini Joshi
7	Sprouts	By J.D. Vaish, Yoga Samsthan
8	Medical Secrets of Your Food	By Aman

								
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9	Mucusless Diet healing System	By Prof. Arnold Ehret
10	Raw Eating	By Aterhov
11	The Science and Fine Art of Food & Nutrition	By Herbert M. Shelton
12	Nutritive value of Indian foods	By NIN B.S. Narsinga Rao
13	Text book of Nutrition and Dietetics	By Sri Lakshmi
14	All publications of NIN, Hyderabad	

### Reference Book-



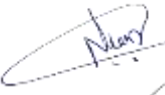






1	Food and Nutrition	By Gupta
2	Modern Nutrition in Health and Disease	By Shills
3	Human Nutrition	By Maxine E.Mc. Divit and Sumati Rajgopal
4	Superior Nutrition	By Herbert M. Shelton
5	All publications on Nutrition	By National institute of Nutrition, Hyderabad.
6	Periodicals of Indian Journal of Medical Research.	
7	Indian Journal of Nutrition and Dietetics	
8	Nutrition survey of India	
9	A Complete Guide to Vitamins	Edited By J.I. Rodele and Staff.
10	Nutrition	By Chaney and Ross.
11	The Complete Book of Food and Nutrition	By J.I. Rodele and staff.
12	Food Remedies	By S.J.Singh.
13	The Sprouting Book	By Ann Wigmore
14	Dictionary of Natural Foods	By William L.Esser
15	Healing through Natural Foods	By H.K. Bakhru
16	Food Combining Made Easy	By Herbert M. Shelton
17	Encyclopedia of Fruits, Vegetables, Nuts & Seeds for Healthful Living	By JosephM.Cadans
18	Nutritive Value of Indian Food Stuffs	By S.J. Singh
19	Diet & Nutrition	By Rudolph Ballentine
20	Nature's Healing Grasses	By H.E. Kirschner
21	Diet to Dissolve Kidney Stones	By Dr. S.J. Singh
22	The Vitamin & Health Encyclopedia	By Jack Ritchason
23	Food is Your Best Medicine	By Henry G. Bieler
24	Natural Dietetics	By Dr.J.M. Jussawala
25	The Grape Cure	By Johanna Brandt
26	Aahar hi Aushadhi hai	By Dr. Hiralal
27	The Hippocrates Diet and Health Program	By Ann Wigmore
28	The Natural Food of Man	By Hereward Carrington

								
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29	Sugar - The Curse of Civilization	By J.J.Rodale
30	Foods That Heal	By H.K. Bakhru
31	Anubhav aur Sar	By Dr. Sohanlal Nishkam Karmyogi
32	Protective Foods in Health & Disease	By Kulranjan Mukherjee
33	Miracle of Garlic	By Dr. Paavo Airola
34	Old age, its causes & prevention	By Sanford Bennett
35	The Encyclopedia of Health and Physical Culture (Vol 2)	By Bernarr Macfadden

### HERBOLOGY BOOKS:

1	Fundamentals of Ayurveda	By K.N. Udupa
2	Fundamentals of Ayurveda (ISM, Bangalore Publication)	By Mahadev Shastri M.
3	Swastha Vripta Vignana	By R.H. SINGH
4	Arogya Prakash	By Ramnarayana Vaidya
5	Astaanga Hirudaya	By Vagbhatta
6	Charak Samhita	By Charak
7	Sushrut Samhita	By Sushrut
8	Herbs that Heal	By H.K. Bakhru

								
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## 2. OBSTRETRICS AND GYNAECOLOGY

Course type- Core Course  
Course code–BNY-403, BNY-404P

### OBJECTIVES

The objective of teaching Obstetrics and Gynecology to undergraduate students is to provide them with the comprehensive knowledge of anatomy, physiology and pathophysiology of the reproductive system and gain the ability to optimally manage common problems.

- **Knowledge:**



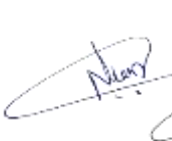






After the completion of the course, the student shall be able to:

1. Delineate the anatomy, physiology and pathophysiology of the reproductive system and the common conditions affecting it;
2. Detect normal pregnancy, labor, and puerperium;
3. Elucidate the leading causes of maternal and perinatal morbidity and mortality;
4. Understand the principles of contraception and various methods employed, methods of medical termination of pregnancy, sterilization and their complications;
5. Recognize the use, abuse and side effects of drugs in pregnancy, pre-menopausal and post-menopausal periods;
6. Explain the national programmes of maternal and child health and family welfare and their implementation;
7. Assess different gynecological diseases and describe principles of their management;
8. Explain the indications, techniques and complications of procedures like Caesarean section, laparotomy, abdominal and vaginal hysterectomy, and vacuum aspiration for Medical Termination of Pregnancy (MTP).

- **Skills:**

After the completion of the course, the student shall be able to:

1. Examine a pregnant woman, recognize high risk pregnancies and make appropriate referrals;
2. Recognise complications of delivery and provide postnatal care;
3. Recognize congenital anomalies of newborn;
4. Advise a couple on the use of various available contraceptive devices; Perform pelvic examination, diagnose and manage common gynaecological problems including early detection of genital malignancies;
5. Interpret data of investigations like biochemical, histopathological,

								
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radiological, ultrasound etc

- **Integration**

At the completion of training, the student should be able to integrate knowledge of Obstetrics and Gynaecology to manage related ailments and educate masses on family planning norms.

## OBSTRETRICS AND GYNAECOLOGY THEORY

### SECTION- A

#### 1. Basic anatomy and Physiology

- Anatomy and Physiology of female genital organs and pelvis.
- Maturation and fertilization of ovum.
- Development of placenta.
- Embryology of uterus.

#### 2. Physiology of Pregnancy

- Maternal changes due to pregnancy
- Diagnosis of pregnancy
- Differential diagnosis of pregnancy
- Foetus in normal pregnancy
- Ante-natal care.

#### 3. Physiology of Labour :-



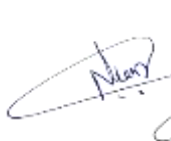






- Causation and stages of labour
- Mechanisms of labour
- Conduct of Delivery - the Natural means.

#### 4. Physiology of Puerperium



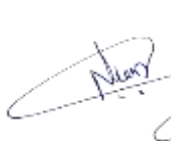






- Phenomena of normal puerperium
- Care of Puerperium
- Care of new-born child

#### 5. Pathology of Pregnancy

- Hyperemesis gravidarum
- Anaemia in pregnancy
- Diseases of urinary system
- Diabetes in pregnancy
- Abortion
- Ectopic pregnancy
- Ante-partum haemorrhage

								
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- Placenta previa
6. Pathology of Labour
- Occipital - posterior position
  - Breech presentation
  - Multiple pregnancy
  - Contracted pelvis
  - Management of labour in contracted pelvis
  - Complications of 3rd stage of labour
7. Affection of New-Born
- Asphyxia neonatorum
  - Preterm baby
8. Obstetrical Operations
- Forceps
  - Cessarean section
  - Induction of abortion and labour
9. Pathology of Puerperium
- Puerperal infections
10. Miscellaneous
- Perinatal mortality and Maternal mortality
  - Post-dated pregnancy
  - Placenta insufficiency.
  - Control of contraception
  - Medical Termination of Pregnancy.
  - Pre-term labour.
11. Naturopathic Application:
- Hydrotherapy in Pregnancy
  - Importance of Naturopathic Diet in Pregnancy & Puerperium
  - Underwater delivery
12. Yogic application:
- Exercises in –
    - Ist Trimester
    - IInd Trimester

								
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- IIIrd Trimester
  - Puerperium
  - Pelvic Floor Exercises
13. Natural Childbirth
  14. Birth Control: Natural and Unnatural
  15. Holistic Approach to menstrual Problems
  16. Vaginitis: A Natural Approach
  17. Breast Cancer Can Be Prevented
  18. Varicose Veins: Prevention and Treatment
  19. Understanding the Pregnancy: The Miracle of Creation
  20. What Smoking Does to Women?
  21. Depression : A New Epidemic
  22. What Woman Should Know About Anaemia?
  23. Overweight: Must It Be A Lifetime Struggle?
  24. Menopause: Dreadful Affliction or Glorious Experience?
  25. Uterine Tumors can Be Prevented



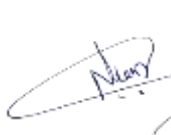






### Section - B

1. Gynaecological diagnosis
2. Malformation of Female genital organs
3. Diseases of vulva
4. Diseases of vagina
5. Sexually transmitted diseases in female
6. Diseases of urinary system
7. Trophoblastic diseases
  
8. Disorders of menstruation
9. Prolapse of uterus
10. New Growths of uterus
11. Endometriosis and adenomyosis
12. Diseases of ovary
13. Pelvic inflammatory diseases

### COURSE OUTCOME

After the completion of the course, the student shall be able to:

- a) Illustrate the anatomy, physiology and pathophysiology of the reproductive system and the common conditions affecting it, Detect normal pregnancy, labor, and puerperium;
- b) Classify the leading causes of maternal and perinatal morbidity and mortality;

								
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- c) Understand the principles of contraception and various methods employed, methods of medical termination of pregnancy, sterilization and their complications;
- d) Describe the national programmes of maternal and child health and family welfare and their implementation;
- e) Analyse different gynecological diseases and describe principles of their management, different techniques.
- f) Analyse a pregnant women, recognize high risk pregnancies and make appropriate referrals;

**Assessment Scheme:**

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100



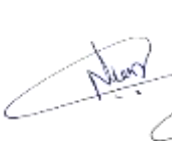






**OBSTETRICS & GYNAECOLOGY PRACTICALS**

1. History taking of ante-natal and gynaecological cases.
2. Demonstration of physical examination of ante-natal and gynaecological cases.
3. Demonstration of conductive labour, normal delivery and use of minor instruments during delivery.
4. Demonstration of various equipments used in obstetrics and gynaecology
5. Case -history writing of ante-natal and gynaecological cases(25)

**COURSE OUTCOME**

After the completion of the course, the student shall be able to:

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### Assessment Scheme

Continuous Comprehensive Assessment(CCA)	10 marks
End- Semester Examination(ESE)-Practical	60 marks
End- Semester Examination(ESE)-Viva	30 marks
Total	100 marks

### Recommended Text Books -

1	Clinical Obstetrics	By Mudaliar and Menon
2	Text Book of Obstetrics	By C.S. Dawn
3	Shaw's Text Book of Gynaecology	By Shaw
4	Text Book of Gynaecology	By Dr. Dutta
5	Text Book of Obstetrics	By Dr. Dutta
6	Text Book of Gynaecology	By Nina & Michael Shandler
7	Yoga for Pregnancy & Natural child Birth	
8	Women Disease & Easy Child Birth	By J.H.Tilden
9	Every women's book.	By Dr. Paavo Airola



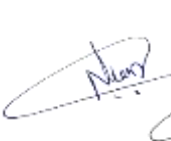






### Reference Books-

Illustrated Book of Obstetrics&Gynaecology

- By Dr. Gevan

### **3. YOGA THERAPY** **COURSE TYPE- CORE COURSE** **COURSE CODE- BNY-405, BNY-406P**



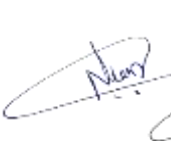






The objective of teaching *Yoga* Therapy to undergraduate students is to provide them

								
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with comprehensive knowledge of *Yoga* and the physiological effects of various *yogic* practices and utilization of the same for therapeutic purposes.

### THEORY

1. Introduction to Yogic Therapy / Basis of Yogic Therapy.
2. Role of Asanas in curing various diseases.
3. Specific importance of Pranayama in curing various diseases.
4. Vital role of Bandhas, Mudras, Drishtis, in curing various diseases.
5. Role of Shat-kriyas in curing various diseases particularly digestive disorders.
6. Role of general exercises.
7. The effects of various Yogic practices on different systems  
Viz : Skeletal system, Endocrine System, Nervous system, Digestive System, Respiratory system, Excretory system, Cardio-vascular system, Muscular system, Reproductive system
8. Research methods in yogic therapy, statistical analysis etc.
9. Yogic therapy for:
  - Cardio-Vascular diseases
  - Psychiatric diseases
  - Mental retarded diseases
  - Neuro-Muscular diseases
  - Gastro-intestinal diseases
  - Hormonal disease
  - Respiratory disorders
  - Metabolic disorders
  - Ophthalmologic disorders
  - Paediatric disorders
  - E.N.T. Disorders
  - Obstetrics & Gynecology disorder
10. Meditation and its applications on psycho-somatic disorders.
11. Yoga & Relaxation Techniques
  - QRT-Quick Relaxation Technique
  - IRT - Instant Relaxation technique
  - DRT-Deep Relaxation technique
12. Teaching methods of Yoga to Public, Students and patients. Model lesson planning and adoption of Yoga in education system, limitations, vidhi and Nisheda (right and wrong).
13. Workshop on Yogic therapy.
14. Dessertations.
15. Advanced techniques of Yogatherapy.
16. **Yoga props and its application.**
17. Pranic Healing & Reiki Therapy.

								
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18. Yoga and Mental health-Total integration of personality, correct mental behaviour and attitude, harmonial relationship of body and mind, self content tranquilising effect, psychology of spiritual growth and spiritual value, toning judgement, pure consciousness, mode of living and disciplined life.

19. Applied psychology:-

I. Stress -Its causes, effects and control

II. Historical perspective, Identifying psychological disorders

- Anxiety Disorders
- Dissociative Disorders
- Somato form Disorders
- Sexual Disorders
- Mood Disorders
- Personality Disorders
- Schizophrenia

III. Therapy for psychological disorders

Psychotherapy, therapy of Interpersonal relations, behavioral therapy

### COURSE OUTCOME

After the completion of the course, the student shall be able to:

1. Describe the physiological effects of various *yogic* practices like *kriyas*, *asanas*, *pranayamas*, *mudras*, *bandhas*, *drishtis*, Guided relaxation and Meditation;
2. Define rules and regulations of *Yoga* to be followed;
3. Understand the therapeutic aspects of *Yoga* as applied to different disease conditions;
4. Illustrate the concept of health and disease in *yogic* lore and role of stress in disease causation and management of the same with *Yoga*;
5. Analyse knowledge of *Yoga* therapy in managing various diseases;
6. Demonstrate usage of therapeutic aspect of *Yoga* in promotive, preventive, curative and rehabilitative therapy.



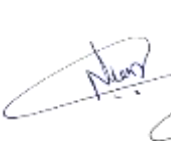






### Assessment Scheme:

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

### YOGA THERAPY PRACTICAL

Demonstration and instructions of advanced yoga posture, kriyas, meditation, and advanced yoga practices.

Case discussion-25

								
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## COURSE OUTCOME-

After the completion of the course, the student shall be able to:



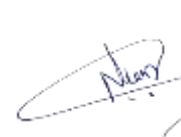






1. Demonstrate basic understanding of procedures of stretching and exercises;
2. Deliver a meditative session using any of the meditative styles;
3. Describe fundamentals of yoga, with respect to its principles;
4. Analyse the patient, and modulate a yoga session for the same.










## Assessment Scheme

Continuous Comprehensive Assessment(CCA)	10 marks
End- Semester Examination(ESE)-Practical	60 marks
End- Semester Examination(ESE)-Viva	30 marks
Total	100 marks

## REFERENCE BOOKS:-

1	Yogic therapy	By Dr. Vinekar, Govt. of India. Publication
2	Yogic therapy	By Dr. Giarde
3	Treatment of common	By Swami Satyananda Saraswati
4	Diseases through yoga	
5	Seminars on Yoga, Science & Man	By CCRYN, Delhi Publication.
6	Yoga Nidra	By Swami Satyananda Saraswati Bihar School of Yoga
7	The Ancient Science and Art of Pranic Healing.	By Choa Kok Sui
8	Pranic Psychotherapy	By Choa Kok Sui.
9	Psychology	By Robert A Baron.
10	Garifeld Special Psychotherapy	By John Wiley & Sons.
11	Hand Book of Behavior Modification & therapy	By Plenum press.
12	Stress & Mental Disorders	By Crarrett J.E. Raven Press, Newyork
13	Counseling and evidences	By Adams J.T. moe. Million co.
14	Stress Management Research papers	By V.K. Yoga Bangalore.

								
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#### 4. HYDROTHERAPY

Course type- Core Course

Course code – BNY-407, BNY-408, BNY-409P

#### **OBJECTIVE:**

The objective of teaching Hydrotherapy and Mud Therapy to undergraduate students is to provide them with comprehensive knowledge of treating diseases using water and mud, and the physiological effects of various kinds of such applications, and utilisation of the same for therapeutic purposes.

- **Knowledge:**

After the completion of the course, the student shall be able to:

- a) Describe the properties and chemical composition of water and mud used for therapeutic purposes, physiology of the skin, production of heat and body temperature regulation, which are essential as a foundation for hydrotherapy.
- b) Illustrate physiological effects of hot and cold water upon the different systems of the body and applications to reflex areas;
- c) Explain action and reaction mechanisms and physiology, with their effects and uses
- d) Demonstrate use of water in preservation, acute diseases, chronic diseases;
- e) Show in-depth knowledge of general principles of hydrotherapy, therapeutic applications of water, along with therapeutic actions, indications and contra-indications; and classification of mud, storing of mud, modes of mud treatment, cosmetic uses of mud and research updates in hydrotherapy and mud therapy;
- f) Demonstrate techniques and procedures of various types of hydrotherapeutic applications;

- **Skills:**

After the completion of the course, the student shall be able to:

- a) Utilise knowledge of hydrotherapy and mud therapy in managing various diseases;
- b) Demonstrate usage of therapeutic aspect of hydrotherapy and mud therapy treatments in promotive, preventive, curative and rehabilitative therapy.
- c) Institute and evaluate remedial measures in hydrotherapy for various disease conditions in clinical as well as research settings.



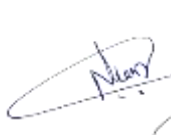






- **Integration**

At the completion of training, the student should be able to integrate knowledge of hydrotherapy in various diseases and efficiently utilise the same for therapeutic purposes.

#### **THEORY**

#### **PAPER-I**

1. Introduction and History.
2. Physical properties and chemical composition of water.

								
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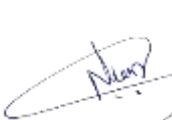






3. Physiological basis of Hydrotherapy:- The Skin and its anatomical construction, functions of the body production of heat and its distribution in the body, regulation of the body temperature, conditions that increase and decrease heat production in the body, body heat and body temperature
4. Importance of water to human body.
5. Physiological effects of water on different systems of the body
  - i. General and Physiological effects of heat upon:-
    - a) Skin
    - b) Respiration
    - c) Circulation
    - d) Nervous System
    - e) Heat and its production, dissipation etc.
    - f) Tactile and temperature sense
  - ii. General and physiological effects of cold upon skin, respiration, circulation, nervous system, G.I.T., Body temperature and its maintenance.
6. Reflex areas of the body, results of the application of hot and cold over reflex areas.
7. Action and reaction, incomplete reaction, Conditions that encourage and discourage reaction, internal reaction, thermic reaction, modified thermic reaction.
8. Place of water in preservation.
9. Place of water in Acute diseases.
10. Place of water in Chronic diseases.
11. Magnesium sulphate - use in Hydrotherapy

**Assessment Scheme:**



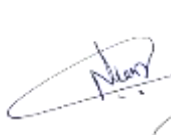






Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

**PAPER - II**

1. General Principles of Hydrotherapy.
  - a) General rules of hydrotherapy
  - b) Therapeutic significance of reaction
  - c) Adaptation of individual cases

								
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- d) Exaggeration of symptoms under treatment, the untoward effects and how to avoid them
- e) General indications and contra- Indications.
2. Therapeutic actions and use of Hydrotherapy:
- a) Classification of Hydratic effects, General principles excitation and Depression.
- b) Primary excitant effects when to apply and when not to apply.
- I. Local haemostatic effects.
  - II. Cardiac effects Hydratic heart tonics
  - III. Uterine excitations, emenagogue effects
  - IV. Vesical excitations
  - V. Intestinal excitations, peristaltic effects
- c) Secondary excitant effects:-
1. Restorative effects.
    - Tonic effects of cold water, physiological effects of cold water, Cold water Vs. Medical tonics, application and diseases.
    - Anaemia, Neurasthenia, Hypochondria Cerebral congestion, Rheumatism, Diabetes mellitus, Valvular heart diseases.
  2. Calorific effects.
  3. Diaphoretic effects.
    - Importance of attention to the skin in Chronic diseases - alternative & qualitative effect - Hot bath in brights diseases, Sweating baths in dropsy and obesity, Depurative or eliminative effects, Toxemia in Rheumatism.
  4. Expectorant effects.
  5. Diuretic effects - Brights disease, Uremia - eclampsia, Atonic Dyspepsia, Hyperacidity.
  6. Revulsive and derivative effects, flexion, revulsive methods for Combating superficial anaemia and for relief of deep congestion method adopted to anaemia of deep seated organs revulsion on analgesic measure.
  7. Resolvent effects
- IV. Sedative effects- general sedatives - local sedatives.
1. Sedatives of the circulatory system- antiphlogestic effects, inflammation, pneumonia, pleurisy and other acute disorders.
  2. Nerve sedatives, hypnotic, calmative analgesic, anesthetic, antispasmodic, insomnia, chorea, spastic paralysis, exophthalmic goiter, mania, epilepsy and various painful conditions.
  3. Anti- thermic and antipyretic effects, relation of heat production and heat elimination to antipyretic methods, principles that govern the

								
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application of hydriatic measures for the reduction of temperature in fevers , methods that may be efficiently employed in various morbid conditions and effects, indications and contra- indications.

4. Secretory and sedative effects - prophylactic uses.

f. Cold bathing in infancy and early childhood.

g. The cold bathing for Adults.

h. The cold baths for women.

i. The cold bath in old age-precautions.

3. The techniques of Hydrotherapy:-

- Plain water bath
- Coldhipbath- Kellog's &Kuhne's sitz bath
- Shallowbath- for males &females
- hand and arm Graduated bath,
- foot bath,
- hot and cold naturalbath
- alternative legbath
- Non revulsive bath
- Immersion bath
- Cold plunge bath
- Whirl pool bath
- Aeration bath
- Vichy spray massage
- Rapid bath
- Brand –bath
- Fever bathing, Sea bathing.
- Various baths and air baths, Russian bath, Turkish bath, Steam inhalation, Hot air bath, Local hot air bath, Super-hot air bath, Cold air bath, Indoor and out-doorbaths.

4. PoolTherapy:-

a) Introduction



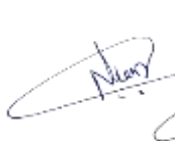






b) Principles of treatment Part I and PartII.

c) Physiological and Therapeutic effects of exercise in warmwater.

d) Indications and contra - indications.

e) Dangers andprecautions.

5. **Douches** :- Cold Douche ,Hot Douche, Neutral Douche, Alternative Douche, Underwater Douche, Contrast Douche, Horizontal JetCephalicDouche, Lumbar Douche, Fan Douche, Rain Douche orShower Douche HepticDouche, CircularDoucheand Semi Circular Douche, CerebrospinalDouche, Plantar Douche PercussionDouche, Scotch Douche, Revulsive Douche, Ascending Douche,

								
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Calliper Douche, Filiform Douche, Fog Douche, Massage Douche, Shoulder Douche, Thoracic Douche, Abdominal Douche, Anal Douche, Perineal Douche, Pulmonary Douche, Cardiac Douche, Gastric Douche, Enteric Douche, Renal Douche, Articular Douche, Vapour Douche.

6. **Fomentation and Stupes:-** The hot water bag, the siphon hot water bag, the thermopore, the mustard Fomentation, clay and glycerin poultice, charcoal poultice, cotton poultice.

7. **Compresses and Packs:-**



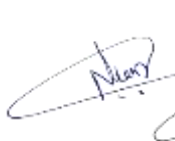






The wet sheet pack, cooling pack, cold shower pack, sweating pack, very cold compress, proximal compress, neutral compress, alternate compress, repulsive compress, compress of ten days for injuries and eruptions, alternative ten applications to the head and spine, local packs, wet girdle pack, dry abdominal bandage. Abdominal heating compress, Head pack, Spinal pack, Hot and cold heat compress, Hot and cold lung compress, Hot and cold gastro-hepatic compress, Hot and cold renal compress, Hot and cold intestinal compress, Hot and cold pelvic compress, Hot and cold abdominal pack, Hot and cold spinal pack, Hot and cold pancreatic pack.

**SPECIAL FORMS OF COMPRESS:-** Cephalic compress, Chest pack, Triangular chest Pack, Half chest compress, Joint compress, Pelvic pack, Foot pack, Cold spinal compress, Towel chest Pack, Pericardial or cardiac compress, Hip pack, Perineal compress, Prone Packs, Lumbar compress.

8. **Internal Use of Water:-** Irrigations and enema (Colon Flushing) Cold water drinking, Hot water drinking. Water emetic, irrigation of ear, Nasal Irrigation, Vaginal irrigation, Intra-uterine irrigation, rectal irrigation. Enema :- Hot, warm, Cold, graduated enema. Coloclyster, Retentive enema, Tonic Enema.

9. **Hydriatic Prescription Making:-**

- a) The natural defense of the organism.
- b) Procedures for increasing vital resistance.
- c) Procedures which excite the central ganglia.
- d) Procedures that increase oxidation.
- e) Measures that encourage general and local metabolic activity.
- f) Procedures that increase general blood movement and local blood supply.
- g) Measures that increase heat production.
- h) Measures that increase the elimination of heat.
- i) Measures that combat bacterial development of blood.
- j) Measures that increase/ lessen heat elimination.
- k) Hydratic incompatibility.
- l) Hydrotherapy as a means of rehabilitation and health promotion.

								
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m) Emergency treatments in Hydrotherapy.

#### 10. Mud Therapy:-

- a. Introduction to Mud Therapy.
- b. Classification of mud for therapeutic use.
- c. Precautions for storing mud.
- d. Methods of treatment of mud - applications, packings, hot poultices, effect of mud on different systems of the body.
- e. Natural mud bath, full and partial mud packs, mud plaster, thermal bath, dry pack, sand pack and sand baths.
- f. Cosmetic uses of mud.

#### 11. Ozone therapy and its applications.

### COURSE OUTCOME

After the completion of the course, the student shall be able to:-

- i. Describe the properties and chemical composition of water and mud used for therapeutic purposes, physiology of the skin, production of heat and body temperature regulation, which are essential as a foundation for hydrotherapy.
- ii. Illustrate physiological effects of hot and cold water upon the different systems of the body and applications to reflex areas;
- iii. Explain action and reaction mechanisms and physiology, with their effects and uses.
- iv. Demonstrate use of water in preservation, acute diseases, chronic diseases;
- v. Correlate general principles of hydrotherapy, therapeutic applications of water, along with therapeutic actions, indications and contra-indications; and classification of mud, storing of mud, modes of mud treatment, cosmetic uses of mud and research updates in hydrotherapy and mud therapy;
- vi. Demonstrate techniques and procedures of various types of hydrotherapeutic applications.



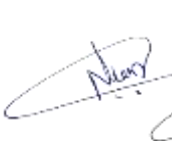






### Assessment Scheme:

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

### HYDROTHERAPY PRACTICALS

1. Demonstration of various therapeutic Procedure and treatments in Hydrotherapy during clinical classes at the hospital.
2. At the end of final B.N.Y.S. Course, candidate should be in a position to give treatments independently.

### COURSE OUTCOME

								
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After the completion of the course, the student shall be able to

1. Demonstrate use of water in preservation, acute diseases, chronic diseases;
2. Correlate general principles of hydrotherapy, therapeutic applications of water, along with therapeutic actions, indications and contra-indications; and classification of mud, storing of mud, modes of mud treatment, cosmetic uses of mud and research updates in hydrotherapy and mud therapy;
3. Demonstrate techniques and procedures of various types of hydrotherapy applications.

### Assessment Scheme



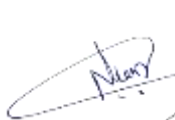






Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination (ESE)-Practical	60 marks
End- Semester Examination (ESE)-Viva	30 marks
Total	100 marks

### TEXTBOOKS:-

1	Baths	By S.J.Singh.
2	My Water Cure	By Sebastian Keneipp.
3	Rational Hydrotherapy	By Dr. J.H. Kellogg
4	The Healing Clay	By Michel Adserra.
5	Our Earth and Cure	By Raymond Dextroit.

### REFERENCE BOOKS:-

1	Hand Book of Hydrotherapy	By Shew, Joel.
2	Hydrotherapy in Practice	By Davis, B.C.& Harrison, R.A.
3	Medical Hydrology	By Sideny Licht.

								
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## **5. PHYSIOTHERAPY**

### **COURSE TYPE- CORE COURSE**

### **COURSE CODE- BNY-410, BNY-411P**

#### **Objective:-**

The objective of teaching physical medicine and rehabilitation to undergraduate students is to provide them with the knowledge and skills needed for utilization of Physical medicine for therapeutic, rehabilitative purposes.

#### **THEORY**

##### **I. Basic Physics in exercise therapy:-**

**1. Mechanics :** Force, Gravity, Line of gravity, center of gravity in human body, base, Equilibrium. And planes.

**1.1 Mechanical Principles :-** Lever, Order of Lever, examples in human body, Pendulum, Spring.

##### **2. Introduction to Exercise Therapy:-**

**2.1 Starting Position :-** Fundamental Starting positions, derived position, Muscle work for all the fundamental starting positions.

**2.2 Classification of movements in detail:-**

- Voluntary movements.
- Involuntary movements.

**2.3 Active movements**

**2.4 Passive movements**

**2.5 Muscle strength:-** Anatomy and physiology of muscle tissue, causes of muscle weakness/paralysis, preventing of muscles weakness/ paralysis, types of muscle work and contractions, range of muscle work, muscle assessment. Principles of muscle strengthening / re-education, early re-education of paralyzed muscles.

**2.6 Joint movement:-** Classification of Joint movements, causes for restriction of joint movement, prevention of restriction of joints range of movements, Principles of mobilizations of joint in increasing the range of motion. Technique of mobilization of stiff joint.

**3. Relaxation:-** Techniques of relaxation, Principles of obtaining relaxation in various positions

**4. Posture:-** Types, factor responsible for good posture, factor for poor development of good posture.



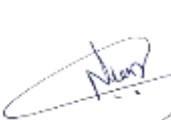






**5. Co-ordination exercises:-** Definition of co-ordinated movements, in-coordinated movements. Principles of co-ordinated movements, technique of co-ordination exercise.

**6. Gait- Analysis of normal gait with muscles work, various pathological gaits.**

**7. Crutch Gait :-** Introduction, crutch measurement, various types of crutch gait (in details)

**8. Neuro- muscular facilitation techniques, functional re-education.**

**9. Suspension Therapy :-** Principles of suspension, types of suspension therapy, effects and



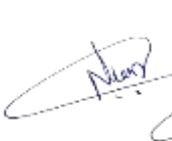






								
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uses of suspension therapy , their application either to mobilize a joint or to increase joint range of motion to increase muscle power, explaining the full details of the components used for suspension therapy

### ELECTROTHERAPY THEORY

1. Electrical fundamentals:-
  - a. Physical principles, structure and properties of matter, molecular atom, proton, neutron, electron, ion, etc., Electrical energy: Nature of electricity current, static electricity current, Electric potentials generated by cell, ohm's law, joule's law, Magnetic Energy: Nature and property of a magnet, magnetic induction, Show rule, maxwell's cork-screw rule. Electro-magnetic induction, principle and working of choke, coil, transformer, rectification of A.C. to D.C., Metal oxide Rectifier, semiconductor, Diode and triode, valves, principles of working in a capacitor, details of charging and discharging etc.
  - b. Transistors, measurement of current intensity, EMS and power, moving coil milometer and voltmeter.
2. Low Frequency Currents:- Nature and principle of production of muscles stimulating currents, types of low frequency currents used for treatment, Therapeutic electric stimulation, Intophoresis.
3. Preparation for electro therapy, preparation of apparatus, patient treatment technique. Stimulating the muscles of extremity, back and face through the motorpoints.
4. Faradic and galvanic currents.
5. High frequency current treatments:- Physics of high frequency currents, production of high frequency currents, principles, Bio Physics of heat, Physiology of heat and cold , Production, Physiological and therapeutic effects and uses. Technique of Treatments, Dangers and precautions, contra-indications of the following.
  - a) Shortwave Diathermy
  - b) Microwave Diathermy
  - c) Ultrasonic Therapy
6. Principles of radiation therapy, physics of radiation therapy, laws governing radiation, Production. physiological and therapeutic effects, uses, techniques of treatment, dangers and precautions, contraindication, etc. of the following.
  - a) Infrared radiation therapy.
  - b) Ultraviolet radiation therapy
7. Laser therapy: Introduction, dosage, indication, contraindication.
8. Pneumatic pressure therapy: introduction, usage, indication, contraindication.
9. Chest physical therapy: indication and methods
10. Basic principles of transcutaneous nerve stimulation and interferential therapy.
11. Wax therapy- physics-physiological and therapeutic effect and uses, Techniques of application.

### COURSE OUTCOME

								
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After the completion of the course, the student shall be able to:



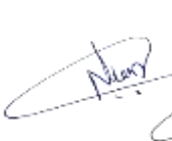






1. Illustrate principles of basic physics that act as a foundation for physical medicine
2. Describe exercise therapy in detail, including starting positions, movements and their types, muscle strength, joint movement, relaxation, posture, co-ordination, gait, walking aids, neuromuscular facilitation, suspension therapy and their therapeutic applications, including allied modalities like heat treatments and cryotherapy;
3. Understand electrotherapy in terms of fundamentals, principles, laws of electricity and magnetism, practical and theoretical aspects of electrotherapeutic applications, such as faradic and galvanic currents, high frequency currents, laser, ultrasound, radiation therapy (IR & UV), TENS and IFT.
4. Demonstrate usage of therapeutic applications of physical medicine in promotive, preventive, curative and rehabilitative therapy, focusing on rehabilitation.
5. Analyse remedial measures in *Yoga* for various disease conditions.

#### PRACTICALS I

1. Interrupted/modified D.C.
2. Stimulation of muscles directly.
3. Diagnostic tests:-
  - a) F.G. Test.
  - b) S.D. Curve
  - c) Fatigue Test.
4. Uses of surged faradism and interrupted galvanism in various peripheral nerve lesions.
  - Neuroproxia
  - Axonotomosis.
  - Neurotosis

#### PRACTICALS II

- High frequency current treatment
- (a) Shortwave diathermy-setting up of apparatus including selection of method and electricity, Techniques, preparation of patient, checking, contraindications, application of SWD for various conditions and various parts of the body. Those must be practiced by the students.
  - (b) Microwave diathermy-setting up of apparatus including selection of method and electricity, Techniques, preparation of patient, checking, contraindications, application of MWD for various conditions and various parts of the body. Those must be practiced by the students.
  - (c) Ultraviolet radiation: setting up of apparatus including selection of lamps technique of application of UVR for various conditions like test dose, general body bath, acne vulgaris, alopecia areata and total is, ulcers,

								
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psoriasis, rickets and general debility patients.

(d) Ultrasonics: setting up of apparatus, selection of dose, technique of application in various Condition and to various parts of the body.



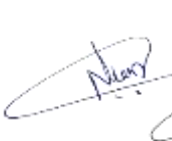






### PRACTICALS III

- 1) Demonstration and practice of Active and passive movements.
- 2) Demonstration and practice of putting suspension to shoulder joint, Elbow joint in upper limb, hip joint and knee joint in lower limbs for all movements. Demonstration of total suspension.
- 3) Muscle strength: Demonstration and practice of strengthening, re-education of weak/paralysed muscles of both upper and lower extremity, individual group muscles, abdominal muscle exercises.
- 4) Joint movements: Demonstration and practice of techniques to improve joint range of motion of hip joint, knee joint, ankle and foot in lower limb, shoulder joint, elbow joint, radio-ulnar joint, wrist joint & upper limb.
- 5) Demonstration and practice of free exercise to improve joint range of motion (Small joints, eg. hand, finger, toes etc.) Demonstration and practice of all crawling exercises, faulty posture. Correcting techniques.
- 6) Demonstration of various pathological gaits.
- 7) Measurement of crutches, walking aids, strengthening of crutch muscles, crutch balance, Demonstration and practice of all crutch gaits.
- 8) Breathing Exercises: Demonstration and practice of Diaphragmatic breathing, localised expansion exercises.
- 9) Passive stretching: Techniques of passive stretching to sternomastoid muscle, shoulder abductors, flexors elbow flexors, supinator, wrist and finger flexors in upper limbs passive stretching to hip flexors, Adductors, ilio-tibial band, tensor fascia lata, quadriceps, knee flexors, tendo achilles etc.

### COURSE OUTCOME

After the completion of the course, the student shall be able to:

1. Illustrate principles of basic physics that act as a foundation for physical medicine
2. Describe exercise therapy in detail, including starting positions, movements and their types, muscle strength, joint movement, relaxation, posture, co-ordination, gait, walking aids, neuromuscular facilitation, suspension therapy and their therapeutic applications, including allied modalities like heat treatments and cryotherapy;
3. Understand electrotherapy in terms of fundamentals, principles,

								
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laws of electricity and magnetism, practical and theoretical aspects of electrotherapeutic applications, such as faradic and galvanic currents, high frequency currents, laser, ultrasound, radiation therapy (IR & UV), TENS and IFT.



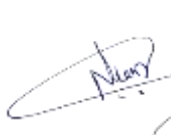






4. Demonstrate usage of therapeutic applications of physical medicine in promotive, preventive, curative and rehabilitative therapy, focusing on rehabilitation.
5. Analyse remedial measures in *Yoga* for various disease conditions.

#### Assessment Scheme

Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination (ESE)-Practical	60 marks
End- Semester Examination (ESE)-Viva	30 marks
Total	100 marks

#### BOOK REFERENCE (BOTH THEORY AND PRACTICALS)

1	Principles of Exercise Therapy	By Dena Gardiner.
2	Tidy's physiotherapy	
3	Cash text book of physiotherapy	
4	Clayton's Electrotherapy and Actinotherapy.	
5	Kisner's Therapeutic Exercise Foundation and techniques.	
6	Maggie's text Book of Physiotherapy	

								
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## 6. HOLISTIC PRACTICES OF NATUROPATHY & YOGA

Course type- Core Course

Course code – BNY-412, BNY-413P



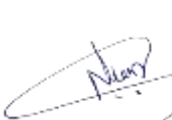






### 1. Objective:

The objective of teaching Holistic practices of naturopathy & yoga to undergraduate students is to train them to provide well integrated clinical service in Naturopathy & Yoga.

### THEORY

#### I. Diseases of Various Systems:-

1. Cardiovascular Disorders
2. Gastrointestinal Disorders
3. Blood related Disorders
4. Respiratory Disorders
5. Neurological Disorders
6. Psychiatric Disorders
7. Musculoskeletal Disorders
8. E.N.T. Disorders
9. Ophthalmology Disorders
10. Obstetrics & Gynaecology Disorders
11. Paediatric Disorders
12. Metabolic Disorders
13. Hormonal Disorders
14. Neuromuscular Disorder
15. Mental Retardation Disorder
16. Psychological Disorder
17. Sexual Disorder
18. Post surgical Rehabilitation
19. Post Chemotherapy Rehabilitation
20. Skin Disorders
21. Tumors & Cancers
22. Affections due to Parasites
23. Affections due to Physical agents & Intoxicants
24. Care of Wounds, Burns, Bites & Stings
25. Accidents & Emergencies

								
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## II. Cure of Surgical Disorders:-

1. Deviated NasalSeptum
2. Tonsillitis
3. Appendicitis
4. UterineFibroid
5. UterineProlapse
6. Hernia
7. Intervertebral DiscProlapse
8. Cervical Spondylosis & Slipdisc
9. CalcanealSpur
10. Osteoarthritis
11. Hydroceleetc.
12. Prostate
13. Hemorrhoids(Piles)
14. Fistula
15. Pyorrhea
16. Gall Stone &Renal Stone
17. Breasttumor.

### COURSE OUTCOME

After the completion of the course, the student shall be able to:



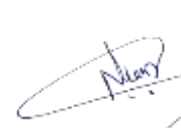






- a) Illustrate decision making in Naturopathy ;
- b) Understand the basic principles of screening and preventionof disease;
- c) Comprehend the scope of practice- patterns of use, fields of practice, regulations, limitations;
- d) Understand the concept of healing and disease crisesand management of thesame.
- e) Understand the pathogenesis of the disease in Naturopathybasis and preventive measures of thesame;
- f) Deduce and form a specific module of therapy for theparticular patient with varied presentations.

### Assessment Scheme: Theory

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

### Assessment Scheme: Practical

Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination	60 marks

								
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(ESE)-Practical	
End- Semester Examination (ESE)-Viva	30 marks
Total	100 marks

## **7. HOSPITAL MANAGEMENT AND RESEARCH METHODOLOGY**

**Course type- Core Course Course code – BNY-414, BNY-415P**

### **Objective:**

The objective of teaching Research Methodology and Recent advances to undergraduate students is to provide them with the latest updated scientific, knowledge in the field of Naturopathy and *Yoga* and introduce them to research methodology.

The Course covers 3 aspects:



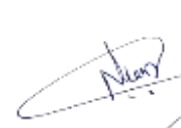






- I) Medical Jurisprudence, Forensic Medicine & Toxicology,
- II) Hospital Management (Naturopathy & Yoga) (Hospital Administration)
- III) Research Methodology

### **THEORY**

#### **I - Medical Jurisprudence, Forensic Medicine & Toxicology**

##### **A. FORENSICMEDICINE:**

1. Definition of Forensic medicine and its scope.
2. Procedure of giving medical evidence with reference to Indian evidence act.
3. Methods of identification of living and dead body, race, age, sex etc.
4. Death:- Medico-legal aspects, certification of death, sudden death, causes, Medico- legal importance, sign of death, changes due to death and calculating time of death.
5. Medico legal autopsy.
6. Medico-legal wounds, their classification and study and medico-legal aspects.
7. Examination of blood stains, hairs and seminal stains.
8. Miscellaneous causes of death from heat, cold, electricity, Starvation etc.,
9. Violent asphyxia deaths: - Hanging, Strangulation, Suffocation and drowning.
10. Sexual Offences: - Impotency and sterility, Virginity, legitimacy, unnatural Offences, Medico-legal aspects, Anesthetic death.
11. Infanticide.
12. Medico-legal aspects of insanity.
13. Forensic Psychiatry.

								
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14. Definition, Police inquest, difficulties in detection of crime, legal procedure in Criminal courts and their powers, oath, medical evidence, medical certificate, Dying declaration.
15. Rules of giving evidence, professional secrecy.
16. Post mortem examinations.
17. Death - signs of death cadaveric rigidity and spasm, putrefaction, estimation of Time since death.
18. Death from asphyxia, differences between hanging and strangulation, suffocation and Drowning.
19. Death from burns and scalds and lightning.
20. Rape and unnatural offences.
21. Abortion, pregnancy and delivery, miscarriage.
22. Law in relation to a medical man, medical ethics, duties, professional privilege and responsibilities.

#### B. TOXICOLOGY:

##### 1. General considerations of poisoning and classification.

- a) Actions of poisons, factors modifying their action.
- b) Diagnosis of poisoning.
- c) Treatment of poisoning in General.

##### 2. Poisons:-



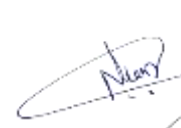






- Corrosives
- Nonmetallic poisons
- Insecticides and weedkillers
- Metallic poisons
- Organic Irritant poisons
- Somniferous poisons.
- Inebriant poisons
- Delibriant poisons
- Drug Dependence
- Food poisoning
- Spinal poisons
- Cardiac poisons
- Asphyxiants
- Miscellaneous

##### 3. Legal responsibilities: Medical ethics.

4. Responsibilities and duties of the medical practitioners to the state, Professional secrecy and privileged communication.
5. Un-professional conduct and malpractice.
6. The rights and privilege and duties of medical practitioners.
7. The functions of state-medical council and its relationship to Indian Medical Council.
8. Medical ethics approved by Indian Medical council.

### PRACTICALS

#### 1. Age estimation.

								
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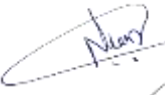






2. Autopsies
3. Skeletonremains.
4. Spotters.
5. Examination of injured.
6. Alcoholic.
7. Psychiatric.
8. Toxicology.

**TEXT BOOKS:-**

1	Medical jurisprudence	By Modi
2	A Text Book of Forensic Medicine	By Narayana Reddy
3	A Text Book Of Forensic Medicine	By M.R.K. Krishna

**REFERENCEBOOKS:-**

1	The essential of forensic medicine	By Dr. C.J. Polson, D.J. Gee and B. Knight
2	Forensic Medicine	By Corden and Shapiro
3	Principles and practice of medical jurisprudence	By Taylor's
4	Legal Boundaries of Nature Cure	By Advocate (Dr.) Ashok Kumar Sharma

								
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## II - Hospital Management (Naturopathy & Yoga) (Hospital Administration)

### SECTION 1- HOSPITAL ADMINISTRATION

- a. The Hospital administrator - Role and Responsibilities
- b. Profile of an effective Hospital Administrator

### SECTION 2- MANAGERIAL SKILLS

- a. Planning
- b. Information System
- c. Communication
- d. Decision Making
- e. Monitoring and Evaluation
- f. Managing Time
- g. Meetings

### SECTION 3- HOSPITAL ORGANISATION

- a. Hospital Organisation - Structure and Function
- b. Hospital Committees

### SECTION 4- THE HOSPITAL

- a. Role of Hospital in Health Care.
- b. Hospital Planning and design.
- c. Special Features of Nature cure Hospital, Qualities of Therapist, Hospital Atmosphere, Scientific Attitudes, Awareness of Scope, Limitations of nature cure.
- d. Newer Technology in Treatment Through Naturopathy

### SECTION 5- THE CLINICAL SERVICES & CLINICAL SUPPORTIVE SERVICES

- a. The Medical Staff Organisation, interaction with patients.
- b. Radiological Services
- c. Laboratory Services

### SECTION 6- THE NURSING SERVICES

### SECTION 7- SPECIALISED SERVICE AREAS

- a. Casualty Services
- b. Disaster Services
- c. Out-patient Services
- d. Day Care
- e. Diagnostic Services
- f. Medical Records



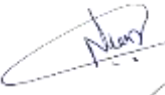






### SECTION 8- HUMAN RESOURCES

- a. Personnel

### SECTION 9- MATERIALS MANAGEMENT

### SECTION 10 FINANCES

- a. Finances
- b. Activity based costing in Hospital
- c. Economics of H.M.

								
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## SECTION 11- QUALITY ASSURANCE

- a. Quality Management in our Hospitals
- b. Medical Audit
- c. Infection control:- Control of Hospital acquired infection.
- d. ETHICS & LAWS
  - Ethics
  - Law applicable to Hospitals
  - Consumer Protection act 1986

## SECTION 12- INDIAN HEALTH POLICY

### PRACTICAL



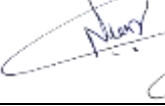






1. Visit to the different Hospitals.
2. Project work in Planning & Designing the Hospital

### REFERENCE BOOKS

1	Hospital Planning & Administration	By Llewellyn Davies Macaulay , H.M.C
2	Hospital Administration	By Francis C.M & Maria C.Desouza
3	Hospital ward Management	By Kusum Samant
4	Text Book of Social & Preventive Medicine	By Park. K.
5	Economics of Health care	By Martin Green
6	Hospital Planning	By Dr. Ashok Sahni
7	Principals of Hospital Administration & Planning	B.M. Sakharkar

### III. Research Methodology in Naturopathy & Yoga

1. Introduction
2. Planning a research Project
3. Design of the study
4. Statistics
5. Parameters to be recorded for specific diseases:-
  - Obesity
  - Diabetes mellitus
  - Hypertension
  - Asthma
  - Lumbago
  - Rheumatoid Arthritis
6. Project Preparation for Clinical Research
7. Bioethics
8. Ethical Issues in Clinical Trials
9. Recent Research Update in Naturopathy & Yoga

								
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10. Psychological Aspects in YogaResearch

11. Status of Research in India on naturopathy and  
yoga RECOMMENDED BOOKS

1. Research Methods - By Dr. H.R.Nagendra

3. Fundamentals of Evidence based Medicine - By KamleshwarPrasad

4. Research Reports From 1981 to 2006 - By INYS(Jindal Nature CureInstitute)

### COURSE OUTCOME

After the completion of the course, the student shall be able to;



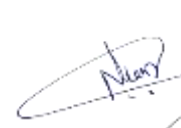






- Describe research methodology under process, materials and methods, design of a study, literature review, ethics, sampling, measurement tools, data organisation, statistics, data analysis, reliability and validity, etc, and implement this knowledge in practically designing, conducting, evaluating and publishing a study.
- Illustrate statistics and probability theory;
- Use technological aids for preparing research reports;
- Demonstrate knowledge about inter-disciplinary research

### Assessment Scheme: Theory

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	30
End- Semester Examination (ESE)(Final Exams)	70
Total	100

### Assessment Scheme: Practical

Continuous Comprehensive Assessment (CCA)	10 marks
End- Semester Examination (ESE)-Practical	60 marks
End- Semester Examination (ESE)-Viva	30 marks
Total	100 marks

								
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## 7. PSYCHOLOGY AND BASIC PSYCHIATRY

Course type- Core Course



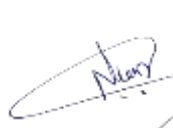






Course code – BNY-416, BNY-417P

### Objective:

The objective of teaching Psychology and Basic Psychiatry to undergraduate students is to provide them with comprehensive knowledge of normal and abnormal psychology and assessment of the same for therapeutic purposes.

### THEORY

1. Definition and brief history of Psychology.
2. Biology of Behaviour: Typical behaviour patterns, Sociobiology, Brain and Behaviour.
3. Sensory process and Perception.
  - Vision, Hearing, Smell, Taste, Skin senses.
  - Perceptual Process-Attention from perception, visual depth perception, Consultancy, Movement perception, Plasticity, individual difference.
4. Principles of Learning: Classical conditioning, Instrumental conditioning, cognitive learning etc.
5. Memory: Theories about memory, Forgetting and Amnesia, Improving Memory
6. Thinking and Language: The thinking process, concepts, Problems solving, Decision making, Creative thinking, Language Communication.
7. Motivation: Theories of motivation, Biological motivation, Social motives, Motives to know and to be effective, Frustration and conflict of motives.
8. Emotion and Stress: Expression and perception of Emotions, physiology of emotion, Stress Theories of Emotion.
9. Social Perceptions, Influence and Relationship: Social perception social influence, social relationship.
10. Attitudes: The Nature of attitudes, the measurement of attitudes, attitude theories, Factor in attitude change, attitudes and behaviour, behaviour & Attitudes.
11. Development during infancy and childhood: Methods of studying development, infancy, early childhood and later childhood.
12. Development during Adolescence, Adulthood and Old age: Adolescence, Youth, Early and Middle adulthood, Old age.
13. Psychological Assessment and Testing: Psychological tests, The Nature of intelligence and assessing intelligence, Individual difference in intelligence, Testing for special aptitudes, Personality Assessment, Behavioural Assessment.
14. Personality: Type and Trait theories of personality, Dynamic personality theories, humanistic theories, learning and behavioural theories of personality.
15. Abnormal Psychology: (Psychiatry)
  - Abnormality in everyday life
  - The language of Abnormality
  - General causes of abnormal Behaviour

								
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- Classifying Psychological Disorders: Clinical syndromes, Brain Syndrome, Psychoses, Neuroses, and Personality disorders
  - Psychoneuroses
  - Hysteria, Anxiety state and Neurasthenia.
  - Other forms of Psychoneuroses (OCD, Phobias etc.)
  - Treatment of Psychoneuroses - Psychotherapy and its procedures, Other therapies.
  - Psychoanalysis and related school.
  - Psychoses
  - Schizophrenia
  - Mania - Depressive Psychoses
  - Involutional Melancholia and Paranoia
  - Alcoholic Mental Disorders
  - Toxic and Organic Psychoses
  - Epilepsy
  - Mental Deficiency
  - Antisocial personalities and crime.
16. Therapy for Psychological distress:
- Positive Psychotherapy & other Psychotherapies: Psychoanalysis, Behaviour therapy, Logo therapy, Conversation therapy, Gestalt therapy and Primal therapy, Transactional analysis.
  - Positive Psychotherapy and its practical application for various conditions.
17. Co-relation of Psychology, Mental health and Yoga.

### COURSE OUTCOME-

After the completion of the course, the student shall be able to:



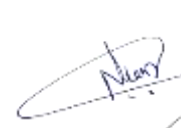






1. Describe the evolution of Psychology from speculation to science;
2. Illustrate mechanisms of sense and perception, states of consciousness and their functions;
3. Understand basic and complex functions such as learning, memory, thinking, language, motivation, emotion, intelligence, development of psychology across lifespan, personality, stress coping, social psychology, attitudes, etc.
4. Explain abnormal psychology and describe aetiology and psychopathology along with classification of disorders;
5. Demonstrate knowledge of therapies aimed at psychological health, such as psychotherapy, Yoga, etc;

### Assessment Scheme: Theory

Continuous Comprehensive Assessment (CCA) (Internal Assessment)	20
End- Semester Examination (ESE) (Final Exams)	50
Total	70

### Assessment Scheme: Practical



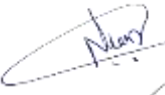






Continuous Comprehensive Assessment (CCA) | 05 marks

								
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End- Semester Examination(ESE)-Practical	15 marks
End- Semester Examination(ESE)-Viva	10 marks
Total	30 marks

**Books Recommended:**

1	Introduction to Psychology	By Clifford T. Morgan & Richard A. King
2	Abnormal Psychology	By James D Page
3	Positive Psychotherapy	By Nossrat Pesseschkian
4	Psychologies, Mental Health and Yoga	By A.S. Dalal
5	General Psychology	By J.P. Guilford
6	A brief Introduction to Psychology	By Clifford T. Morgan

								
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**8. PROFESSIONAL ETHICS**  
**COURSE TYPE: - ABILITY ENHANCEMENT COURSE**  
**COURSE CODE – BNY-418**

Unit 1: Defining Ethics

- Medical Ethics:-Introduction
- The History of Medical ethical systems
- The role of codes

Unit 2: Theories of Healthcare Ethics

Unit 3: Principles of health care Ethics

Unit 4: Clinical ethics and organization ethics

Unit 5: The physician-patient relationship

Unit 6: Patient's Right and Ethical issues



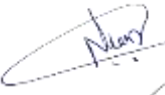






Unit 7: Research in human Subjects: Ethical issues

Unit 8: Ethics Committees



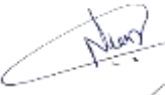






Unit 9: Introduction to Yoga and meditation for professional excellence and stress management

**Books**

1. Health care ethics: Critical issues for the 21<sup>st</sup> century, second editions by Eileen E. Morrison
2. Organization Ethics in Health Care by Edward M. Spencer, Ann E. Mills, Mary V Rorty
3. Medical Ethics by Robert M. Veatch

								
Dr. Nair Dhiren Ajit	Dr. Seema Dixit	Dr. Niraj Nayan Rishi	Dr. Archa na Anilk umar	Dr. Abhay Kumar	Dr. Abhijith.K. B	Dr. Jyoti Madhur	Dr. Sneha Bharti	Dr. Adil

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