SINGHANIA UNIVERSITY

RAJASTHAN

DETAILED SYLLABUS

DNYS

(DIPLOMA IN NATUROPATHY & YOGA SCIENCE)

(YEARLY PROGRAMME)

DNYS (Diploma in Naturopathy and Yoga Science)

COURSE TITLE : DNYS

DURATION : 2 YEAR

FIRST YEAR

COURSE TITLE	PAPER CODE	MARKS		
		Theory	Practical	Total
HUMAN ANATOMY	DNYS—110	100	100	200
HUMAN PHYSIOLOGY	DNYS —120	100	100	200
HUMAN PATHOLOGY	DNYS —130	100	100	200
PHILOSOPHY OF YOGA	DNYS – 140	100	100	200
PHILOSOPHY OF NATURECARE	DNYS – 150	100	100	200
YOGA CULTURE	DNYS —160	100	100	200
			TOTAL	**1200**

SECOND YEAR

COURSE TITLE	PAPER CODE	MARKS		
		Theory	Practical	Total
BIOCHEMISTRY	DNYS—210	100	100	200
HUMAN MICROBIOLOGY	DNYS —220	100	100	200
COMMUNITY MEDICINE	DNYS —230	100	100	200
HYDRO THERAPY	DNYS – 240	100	100	200
FUNDAMENTALS OF AYURVEDA	DNYS – 250	100	100	200
FASTING NUTRITION DIETETICS	DNYS —260	100	100	200
PHYSIOTHERAPY	DNYS – 270	100	100	200
			TOTAL	**1400**

Note:

Theory Paper :30% Continuous Internal Assessment and 70% University examination. Practical Paper : 30% Continuous Internal Assessment and 70% University examination.

DNYS Ist YEAR

HUMAN ANATOMY

Maximum Time : 3 hrs University Assessment -70%

Total marks :100 Internal Assessment – 30% Minimum Pass Mark – 40%

COURSE CONTENTS – THEORY

1) **Introduction of Bones of the Human Body of :**
   - Upper Limb : clavicle, scapula, humerus, radius, ulna, carpus, metacarpus & phalanges
   - Lower Limb : hipbone, femur, tibia, fibula, tarsus, metatarsus & phalanges
   - Skull : name the bone of skull and sutures between them
   - Thorax : ribs and their articulations
   - Vertebral Column : Cervical, thoracic, lumbar, sacral and coccyx vertebrae
2) Nine regions of the abdomen
3) **Introduction of different Vital Organs :**

A) Respiratory Organs : (Brief description)

- Nasopharynx
- Oropharynx
- Larynx
- Trachea
- Bronchi
- Lungs (and their lobular segments)
- Thoracic cavity
- Pleura and Pleural cavity

B) Circulatory Organs : (Brief description)

- Anatomical position of the heart
- Pericardium of the heart
- Chambers of the heart
- Great vessels of the heart
- Valves of the heart

C) Digestive Organs : (Brief description)

- Tongue
- Teeth
- Oral cavity
- Pharynx
- Oesophagus
- Stomach
- Small intestine
- Large intestine and its colons

PRACTICAL :

Labeled Diagrams of different organs and bones
Viva

DNYS 1ST YEAR

HUMAN PHYSIOLOGY

Maximum Time : 3 hrs University Assessment -80%

Total marks :100 Internal Assessment – 20% Minimum Pass Mark – 40%

COURSE CONTENTS

Brief Description of various organs systems:

1. Cell :
    - **Definition**
    - **Structure and functions the cytoplasmic Organelles**
    - **Reproduction : Meiosis, Mitosis**
2. The important physic-chemical laws applied to physiology
    - Diffusion
    - Osmosis
    - Bonding
    - Filtration
    - Dialysis
    - Surface Tension
    - Adsorption
    - Colloid
3. Fundamentals of different Organ Systems in brief.
    - Cardiovascular System
    - Respiratory System
    - Digestive System
    - Excretory System
    - Reproduction System
    - Endocrine System
    - Lymphatic System
    - Practical
    - Viva and diagrams of different Vital Organs

Practical :

Viva and diagrams of different Vital Organs

DNYS Ist YEAR

HUMAN PATHOLOGY

Maximum Time : 3 hrs University Assessment - 70%

Total marks :100 Internal Assessment – 30% Minimum Pass Mark – 40%

COURSE CONTENTS –

1) The Cell in health and disease

   a. Introduction of pathology
   b. Cellular structure and metabolism
   c. Inflammation – Acute and Chronic
   d. Derangement of Body Fluids and Electrolytes
      - Types of shocks
      - Ischaemia
      - Infection
   e. Neoplasia – Etiology and Pathogenesis

2) Introduction of hematology

   a. Formation of Blood
   b. Erythropoiesis
   c. Leucopoiesis
   d. Thrombopoiesis
   e. Collection of Blood
   f. Anticoagulants
   g. Red cell count – Haemocytometer, Methodsand Calculation
   h. WBC Count -- Methods
   i. Differential Leucocytes Count (DLC)--
      Morphology of White Cells, Normal Values
      Rananocostry Stains : Staining procedures
      Counting Methods, Principle of staining
   j. Hb estimation – Method
      Colorimetric Method
      Chemical Method
      Gasmetric Method
      S.G. Method
      Clinical Importance

I. Hematology :

- ESR
- Methods
- Factors – Affecting ESR
- Normal Values
- Importance
- RBC – Indices

- ❖ WBC
- Platelets

II. Body Fluids :

(a) Urine :
- Method of Collection
- Normal Constitutents
- Physical Examination
- Chemical Examination

(b) Stool Examination :
- Method of Collection
- Normal Constituents and appearance
- Abnormal Constituents (Ova, Cyst)

(c) C.S.F. Examination
- Physical Examination
- Chemical Examination
- Microscopy
- Cell 1 Count
- Staining

(d) Semen Analysis
- Collection
- Examination
- Special Tests

Practical : Urinek, Stool, Semen and C.S.F. – Collection, Handling, Examinations

(a) Absolute Eosinophil Count, PCV, RBC indices, ESR Estimation, Platelt Count
- Collection of Sample
- Hb estimation
- TLC and DLC
- RBC Count
- Peripheral blood film – staining and study of Malarial Parasite

II. Laboratory management – Sample Collection, Labeling, Transport, Screening, Reporting and Dispatch of Reports.

DNYS Ist YEAR

PHILOSOPHY OF YOGA

PAPER CODE: 140

THEORY

1. **General Introduction to Yoga .**
2. **What is Yoga**
3. **Components of Yoga.**
4. **The Six Purification process.**
5. **Yoga Philospphy.**
6. **Preksha Mediation**
7. **Yoga & Health**
8. **Therautipic Basis of Yoga.**
9. **Nutrients & Yogic Diet**
10. **Four internal Dhoutis Bahiskrita Dhouti Danta Dhouti, Danta Mula Dhouti, Jihva shodhana Dhouti, hrid Dhouti, Vastra Dhouti, Vamana Dhouti, Mulashodhana.**
11. **Neti Yog & Trataka**
12. **Kaphalabhati- Vamakrama, VyutKrama & Sitkarma**
13. **The seven exercises.**
14. **Asanas as prescribed in the original text.**
    Mudras and its benefits as prescribed in the original text.
    Pranayama
15. **Dhyana Yoga**
16. **Smadhi Yoga**

PRACTICALS:

1. **Practice of the Asanas, Pranayama, and Shat-kriyas**
2. **Visit to the yoga Ward in Hospital**

Reference Books:

1. **Yoga for Health – by Avadhutika Anandamitra**
2. **Yoga Therapy – by Dr. V. K. Ahluvalia & K.K. Suman**
3. **Yogasana & Sadhana – by Dr. Satyapal Grover**
4. **Preksha Yoga – by Dr. J.P.N. Mishra**
5. **Gherend Sanhita – by Aacharya Sri Niwas Sharma**

DNYS 1st YEAR

PHILOSOPHY OF NATURE CURE

PAPER CODE: 150

THEORY

1. **Principles & Practices of Nature Care .**
2. **Curative Power of Earth**
3. **Composition of Human body according to Ayurveda, Naturopathy, Yoga.**
4. **History & Fundamental Principle of Naturopathy**
5. **Laws of Nature – Pancha Maha Bhutas, Shareera Dharmas – Ahara. Nidra, Bhaya, Maithunani,**
6. **Definition of Prakarti and its types**
7. **Importance of the physical and mental hygiene**
8. **Introduction to Hydrotherapy – Properties and various forms in which water is used for therapy, Effect of different temperature on body and Treatments – Hip bath, Arm bath, Spinal bath, Steam bath, Foot bath, Immersion bath, Enema.**
9. **Introduction to Mud therapy – Collection to composition of mud, Preparation of pack, Types of application and Effects of MUD on the body**
10. **Magnets Thaerapy**
11. **Introduction to Manipulative therapy**
12. **Fasting therapy**
13. **Old age problems and their management**
14. **Introduction to Nutrition**
15. **Natural diet – Raw diet and its benefits, Sprouts and its benefits, Advantage and disadvantages of cooked and uncooked food and diet for different disease and ages**
16. **Natural contraceptive methods**

PRACTICALS

Identification of Naturopathic equipment, diets

Reference books

- **Philosophy of Nature Cure – by Hentry Lindlahr**
- **Human culture & cure – by Dr. E.D. Babbit**
- **Nature Cure Treatment – by I.N.Y.S. Publications, Bangalore**

DNYS 1st YEAR

YOGA CULTURE

PAPER CODE:160

THEORY

1. **Rules and Regulations for the practice of Yoga techniques**
    - Difference between Yogic and non-yogic physical practices
    - Physiological effects of various asanas on different system of the body such as Skeletal, Respiratory, Muscular, Cardio-vascular, etc (in general)
    - Research on physiological aspects of yogasanas, Pranayama, Meditation, Concentration, Relaxation techniques, Kriyas, etc.
    - Surya namaskar and its importance in health and diseased conditions
    - Mudras & Bandhas – their neuro muscular & glandular effects on the body.

2. **THEORY OF PRANAYAMAS: Types of Prana & their function.**
    - NADI: Ida, Pingala, Sushumna, and upanadis, Preparatory Breathing Exercises Anuloma – Viloma and Nadi Shudhi,
    - Types of Pranayamas: Suryabheda, Ujjayi, Sheetkari, Sitali, Bhastrika, Bhramari, Moorcha and plavani theory and practice.
    - Physiological & Psychological effects of Pranayamas
    - Physiological and spiritual importance of shatkriya practice
    - Physiological effects of shanka Prakshalana
    - Importance of Pratyaharas
    - Techniques of Dharana.

3. **Psycho – physiological effects of following meditation.**
    - Religious methods, Zen Meditation, Gurujapa, Transcendental meditation, Preksha meditation, Om meditation, Brahma meditation and Vipassana meditation
    - The basic of yoga science and kundalini
    - Different Chakras, its seat, its qualities and methods to awaken different charkas
    - Physiology and psychology of kundalini Yoga
    - Misunderstanding about kundalini and sex
    - Symptoms of kundalini
    - Kundalini charkas – innage Lifestyle
    - Governors of specific personality patterns
    - Symptoms & signs of kundalini awakening Phenomenon

4. **Yoga for personality development**
    - Yoga and Education Misconceptions
    - Yoga for woman, Emphasis on Yogic practices during pregnancy.
    - Yoga for the elderly person Role of Yoga.
    - Yoga teaching methods.
    - Yogic training, teaching and physical fitness
    - Psychology of Yoga in comparison to modern psychology

5. **Yoga Philosophy and sandhana**
    - Yoga and stress Management
    - Yoga and Consciousness
    - Yoga and science
    - Yoga and Religion

Practical's

- Practice of Surya Namaskar

- Practice of Mudra & Bandhas

REFERENCE BOOKS

- An autobiography of Yogi – by Paramahamsa Yogananda
- Yoga as Philosophy & Religion – by S.N. Dasgupta
- New perspectives in stress management
- Light on Pranayama by B.K.S, Iyengar

Reference books

DNYS 2nd YEAR

BIO – CHEMISTRY

PAPER CODE – 210

THEORY

1. **Hydrogen on concentration, Acids, Bases, Buffers, Henderson hasepbasch education amino acids – Classification, Structure properties & side chains.**

2. **Peptides-Biological importance of peptides structure of insulin. Proteins- Definition, biological importance, classification & properties structure of proteins, coagulation & denaturasation of proteins.**

3. **Elimantary aspects of the structure of collagen, Myoglobin & Haemoglobin, enzymes definition, classification, specificity, co-enzymes, co-factors & activators diagnostic importance of enzymes & iso-enzymes.**

4. **Carbohydrates- Definition, classification & Biological importance & function. Lipids – Definition, classification & biological importance.**
   Composition of trigycerol, waxes.
   Function of phospholipids, Spongiolipids & Glycolipids.
   Functions of Fatty acids- Properties of saturated & unsaturated fatty acids.

5. **Nucleic Acids – Definition classification, composition & biological importance of Nucleic acids, Purines & pyrimidine bases.**
   Vitamins – Definition & Classification,
   Minerals- calcium, Phosphosrus, Iron, Copper, Zine, Magnesium, Manganese, Lead, Merury, Arsenic, Metal Toxcity, Flourine & Iodine.

   1. **Digestion & absorption of carbohydrates, lipids & proteins carbohydrate metabolism-**

      Glycogenesis, glycogenolysis & Krebs' Cycle glycolysis, Pyruvate Oxidation Citric Acid Cycle,

      Gluconeogenesis, Metabolism of Fructose & Galactose, Regulation of Metabolic Pathway,

      Disorders of Carbohydrate Metabolism, Regulation of Blood Sugar, Glucose Tolerance Test,

      Diabetes Mellitus

2. **Biological Oxidation**

   Lipid Metabolism, Lipgenesis, Synthesis of Fatty Acids, Desideration, Phospholipids, Biosynthesis Of Letting, Cephalic & their Breakdown, Oxidation of fatty Acids, formation & utilization of Ketone Bodies, Ketosis, Synthesis & breakdown of Cholesterol, disorders of lipid metabolism. Fatty lever & Lipotropic factors

3. **Metabolism of proteins and amino acids – Breakdown of tissue proteins, amino acids poal, general metabolism of amino acids, disposal of ammonia, urea cycle, formation of glutamate and glutamine, disorders of amino acid metabolism.**
   Purina and pyrimidine merabolism – outline of synthesis and breakdown of purine and pyrimidine, Disorders of metabolism of purine and pyrimidine.

4. **Biochemistry of blood – synthesis and degradation of haeme, Function of Haemoglobin, abnormal haemoglobin, Jaundice importance, functions and separation of plasma preteins, Function and separation of plasma proteins Function of immunoglobin, regulation of PH of blood, role of kidney and lungs in maintaining PH of blood, Acidosis and Alkalasis.**

5. **Kidney Function Tests – Composition of Urine, Urea clearance and creatinin clearance, Electrolytes and water metabolism**

PRACTICALS

Determination of – Blood sugar, Blood Urea, Total serum protein, Total serum calcium Total serum cholesterol, Total serum billrubin, SCOT and SGPT
Demonstration of principles of Colorimetry and colorimeter, Paper chromatography, Electrophoresis, Glucose tolerance test (GTT) and Flame Photometry.

RECOMMENDED TEXT BOOKS:

Text of biochemistry – Harper
Biochemistry for medical studies – Divyajyoti das laboratory
Manual of biochemistry – pittabhikaman & acharya
Laboratory manual in biochemistry – Rajgopal & Ramakrishnan

DNYS 2nd YEAR

HUMAN MICROBIOLOGY

PAPER CODE : 220

1. **General Bacteriology:-**
    - Historical introduction and Morphology and Physiology of Bacteria
    - Sterilization and Disinfection
    - Cultivation of Bacteria (culture media & methods)
    - Identification of Bacteria and Bacterial Growth and Multiplications
    - Basic Principles of Bacterial Genetics

Immunology:-

- Infection and immunity, Antigens & immunoglobin
- Structure & function of immune systems & immune Response
- Immune System and Antigen-Antibody response.
- Compliment systems and other Serological Tests.
- Hypersensitivity
- Basic Principles Auto-immunity.
- Immune-deficiency diseases.

2. **Systemic Bacteriology:-**
    - Streptococcus, Staphylococcus and Pneumococcal, Gonococcus Meningococcal, Carynaebacteruim, Clostridium, Haemophilas , Bardetaila, Mycobacterium, Spirochete, Yesinia, Chalarrydia, Enterobactriaceae, Nonsporing amoeba, vibrio.

3. **Parasitology:-**

- Protozoalogy – Entamoeba and Plasmodium
- Helminthiology – Ankylostoma, Ascariasis, Taenia, Wucheria

Virology:-

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

4. **Mycology:-**

General characters and methods used for study and diagnosis of fungi infections.
Superficial Mycoses, Systemic Mycoses, Candidiasis, Aspergillosis Mycetoma, rhinosperidiosis.

5. **Applied Microbiology:**

Diagnostic methods in common diseas
Meningitis, UTI, PUO, Gastroenteritis, Respiratory infection Urogenital infection,
Phogenic infections, nosocomia infection, infections of Ear, Eye and Oral Cavity.

PRACTICAL:

Slides of important bacteria, virus & fungi

Disinfection of water & hospital instrument / Equipment sterilization

Identification of different type of culture media

REFERENCE BOOKS:

Text book of the microbiology – by R. Anantha Narayan & C.K. Jaya Ram Panikar

Parasitology – By Jaya Ram Panikar

Text book of microbiology – by Chakravarthy

DNYS 2nd YEAR

COMMUNITY MEDICINE

PAPER CODE – 230

THEORY

1.

- Ancient Medicine, Scientific Medicine, Modern Medicine, Medical Evolution
- Concepts in Community Health, Concepts of Development. Concepts of Disease. Concepts of Prevention, Disease control & Eradication, Public Health, Social Medicine, Community medicine, Health Services, Planning and management, Development of Health services
- Genetics
- Screening of Diseases, criteria for screening, sensitivity and specificity and specificity**.**

2.

- Epidemiology of communicable Diseases-
- Respiratory infection – small Pox, Vericella, Measles, Rubella, Mumps, influenza, Diphtheria, pertusis, tuberculosis
- Intestinal infections – Polio, viral hepatitis, cholera, acute diarrheal Diseases, Typhoid, Food poisoning, Ancylioslomiasis, Taoniasis
- Yellow fever, Japanese Encephalitis, Malaria, Filarial
- Rabies Tranchoma, Tetanus, Leprosy, STD, AIDS

3.

- Epidemiology of non-communicable diseases
- Hypertension, Cancer, Cardio-vascular Diseases, Diabetes, Obesity, Blindness, Rheumatic heart diseases and Accidents.
- Demography & family planning –
- Demographic cycle, Population trends, Fertility related statistics, Health aspects of Family Planning, Contraceptive Methods and delivery system, National family welfare Programme.
- Preventive Medicine in obstetrics, Pediatrics & Geriatrics – Antenatal, intranatal, Postnatal care, Low birth weight, infant feeding, growth and development, growth chart, national health services, behavioral Problems, geriatrics.

4.

- Environment & Health - & 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, sewage treatment, Entomology - Mosquite, housefly, lice, ichite , Cyclopes, Rat Flea, Rodents, Insecticides hazards, diseases, Preplacement examination, measures for general health, Protection of workers, Prevention of Occupational diseases, Legislation.
- Basic medical statistics censes, vital events, legislation, SRS, notification of diseases, measures of dispersion & centering, sampling. Tests of significance, Correlation & Regression.

5.

- Health education and communication.
- Health planning – management – international health organization planning cycle. Management methods & techniques, National health policy. Health planning in India, five year plan, health systems in India – at centre, state and district levels, Panchayat Raj. Rural development schemes.
- Health care of community – health systems and national health programmes. Levels of health care. Health for all primary health service and system, Voluntary health agencies, national health programmes.

PRACTICAL

- Insecticides
- Universe immunization programme

- Communicable diseases
- Insect borne diseases
- Microscope slides
- Environment and sanitation
- Field visits
- Water filtration plant

TEXT BOOKS:-

- Text Book of Preventive and Social Medicine – By J.E. Park & K.Park
- Text Book of Preventive and Social Medicine – By B.K. Mahajan & M.C. Gupta.

DNYS 2nd YEAR

HYDROTHERAPY

PAPER CODE – 240

THEORY

1.

- Introduction and history of Hydrotherapy
- Physical propertites and chemical composition of water
- Importance of water to human body
- Effect of the application of hot and cold over reflex areas, Action and reaction, incomplete reaction, Condition thermic reaction, modified thermic reaction
- Hydrotherapy in preservation and promotion of health
- Hydrotherapy in emergency conditions
- Function of magnesium sulphate – use in Hydrotherapy
- General Principles of Hydrotherapy
- Therapeutic significance of reaction
- Adaptation of individual cases
- Exaggeration of symptoms under treatment the untoward effects and how to avoid them
- General indication and contra-indication of Hydrotherapy

2.

- Therapeutic action and use of Hydrotherapy
- Classification of Hydria tic effect, General Principles excitation and Depression
- Primary excitation effects – when to apply and when not a apply
- Local Haemostalis effects
- Cardiac effects – Hydratic heart tonics
- Vterine excitations , Emanogogic effects
- Vesical excitation
- Intestinal excitation, peristaltic effects
- Secondary excitant effects
- Restorative effects
- Tonic effects of cold water, Physiological effects of cold water, cold water vs medical tonic, application in the following

    - **Anemia, Neurasthenia, Hypochondria, Cerebral congestion, Rhevnatism, Diabetes mellitus ovular heart diseases**

3.

- Calorific and Diaphoretic effects of Hydrotherapy
- Importance of attention to the skin in Chronic diseases – alternative & Qualitative effect – Hot baths in Brigit's diseases, Sweating baths in dropsy and obesity, Depurative or eliminative effects, Toxemia in Rheumatism
- Expectorant effects of Hydrotherapy
- Diuretic effects Hydrotherapy – Bright's diseases Uraemia – eclampsia, atonic Dyspepsia, Hyperacidity

- The techniques of Hydrotherapy :- Cold hip bath – Kelog's & Kunhe's sitz bath, Shallow bath for males, females hand and arm bath ,

  Gradiuated bath footbath, hot and cold aiternative Natural Bath, Leg bath, Non revulsive bath, Immersion bath, cold plunge bath, Whirl pool bath, Aeration bath, Viechy spray massage, Rapid bath, Brand bath, fever bath, river bathing, sea bathing.

- Various baths abd air baths, Russian bath, Turkish bath, steam bath , local steam bath, steam inhalation , Hot air bath, local hot air bath, super hot air bath, cold air bath, indoor and out-door baths
- Douches and their uses

4.

- Fermentation, compresses and packs:- The hot water bag, the siphon hot water bag, the thermopore, the mustar fermentation, clay and glycerine poullice , charcoal poullice cotton poullice.
- The wet sheet pack, cooling pack, cold shower pack, sweating pack, dry pack, "half pack, hot blanket pack, evaporating pack, very cold compress, proximal compress, neutral compress, alternate compress, revulsive compress of ten days for injuries and eruptions, alternative ten applications to be head and spine, local packs, wet girdle pack, dry abdominal bandage.

  a. Abdominal heating compress, Head pack, Spinal pack.
  b. Hot and cold heart compress, Hot and cold lung compress
  c. Hot and cold gastro hepatic compress
  d. Hot and cold renal compress
  e. Hot and cold intestinal compress
  f. Hot and cold pelvic compress, Hot and cold abdominal pack
  g. Hot and cold spinal pack
  h. Hot an cold heart pancreatic pack

5.

- **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, Leg pack, Perineal compress prone packs, Lumbar compress.

- **Internal use of water:-**
  a. Irrigations and enema (Colon flushing)
  b. Cold water drinking, Hot water drinking
  c. Water emetic, irrigation of ear, Nasal irrigation, Vaginal irrigation, intra-uterine irrigation, rectal irrigation.
  d. Enema :- Hot, Warm, Cold, graduated enema
  - ❖ Procedures that increase oxidation
  - ❖ Measures that encourage general and local metabolic activity
  - ❖ Procedures that increase general blood movement and local blood supply
  - ❖ Measures that increase heat production
  - ❖ Measures that increase the elimination of heat
  - ❖ Measures that combat bacterial development in blood
  - ❖ Measures that increases/ lessen heat elimination
  - ❖ Hydriatic in-compatibility
  - ❖ Adaption of hydriatic prescription of individual diseases
  - ❖ Hydrotherapy as a means of rehabilitation and health promotion measures
  - ❖ Emergency treatment in Hydrotherapy.

- **Mud Therapy**
  - ❖ Introduction of Mud Therapy
  - ❖ Classification of mud for therapeutic use
  - ❖ Precautions for storing mud
  - ❖ Methods of treatment of mud-applications, packing, hot poulities, effect of body
  - ❖ Natural mud bath, full and partial mud packs, mud plaster, thermal bat dry pack and sand pack and sand baths
  - ❖ Cosmetic uses of mud.

PRACTICALS:-

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

REFERENCE BOOKS:-

- Hand Book of Hydrotherapy – By show, Joel
- Hydrotherapy in Practice – By Davis, B.C. & Harrison, R.A
- Baths – By S.J.Singh
- Rational Hydrotherapy – By Dr. J.H. Kellogg

DNYS 2nd YEAR

FUNDAMENTALS OF AYURVEDA

PAPER CODE:-250

THEORY

1.

- **Brief history and introduction of Ayurveda.**
- **Astangas of Ayurveda: -**
  - The concept of panch Mahabhootas :- Prithvi – Aap – Vayu – Tejas – Akash.
  - Manovigyan.

- **Shareera Vigyan :-**
  - Sapta Dhatus: - Rasa – Rakta – Mansa – Meda – Asthi – Majja – Sukra.
  - Tridosha Vigyan: - Vata – Pitta – kapha.
  - Mala Vigyan: - Mala – Mootra – Sweda.
  - Ojas (Vital Force), Vyadhi Kshamatwa.
  - Different kinds of Agnis: - Jatharaagni – Bhootaagni – Dhatwaagnis.
  - Concept of Atma.
  - Marma Vigyan: - Strotas – Kostas.

- **Prakriti Vigyan.**

2.

- **Swastha Vritta, Dinacharya, Ratricharya, Ritucharya, Vegadharanam and Sadvata.**
- **Importance of Ahara, Nidra, Brahmacharya.**
- **Bhaishajya Kalpana, Panch vidha kahsya kalpana.**
- **Roga Vigyanan -**
  - Vyadhi and classification.
  - Nidana pachaka – Nidana – Poorva Roopam – Upasayam and Samprapti
  - Asta Vidh Pareeksha.
  - Concept of Dosh Kriyakal – Sanchaya – Prakopa – Prasara – Sthaana – Samasraya – Vyakti and Bheda.

3.

- **Concept of Arogya and Roga.**
- **Chikitsa Siddanta: -**
  - Chikitsa Purusha and Chikitsa Paadas.
  - Samanya Chikitsa Siddanthas.

- **Dvividhopa Karma.**
  - Santarapana and Apatarpana.

- **Shodhana Karma (Panch Karma), Poorva, pradhana, Paschyaat Sansarjana Karma.**
- **Importance of pathya Apathya Vichara in Ayurveda.**
- **Concept of Ras, Guna, Veerya, Vapika and Prabhawa in Ayurveda.**

HERBLOLGY

4.

- **The following herbs are to be studies with respect to their source and therapeutic uses.**

S. No.	Botanical Name	S. No.	Botanical Name
1.	Emblica Offcinals	**11.**	Cassia Fistula
2.	Ficus Glomerata	**12.**	Vetiveria Zizanodies
3.	Cinnamomum Camphora	**13.**	Monsardica Charantia
4.	Tribulus Terrestris	**14.**	Myristica Charantia
5.	Cuminum Cyminum	**15.**	Seasamum Indicum
6.	Ocimum Sanctum	**16.**	Punica Grantum
7.	Coriandrum Sativum	**17.**	Azadirachta Indica
8.	Allium Cepa	**18.**	Piper Longum
9.	Psoraled Corylofolia	**19.**	Taxus Baccata
10.	Aegle Marmelos	**20.**	Semecarpus Anacardium

5.

- **The following herbs are to be studies with respect to their therapeutic uses.**
  1. Phyllanthus Niruri
  2. Trigonella Foenum – Graecum
  3. Allium Sativum
  4. Acorus Calamus
  5. Rauwolfia Serpentina
  6. Terminalia Chebula
  7. Syzygium Aramaticulum
  8. Gingiber Officinalis
  9. Piper Nigrum
  10. Santahlum Album
  11. Mimosa Pudica
  12. Asparagus Racemosus
  13. Curcuma Longa
  14. Ferula Narthex
  15. Terminalia Belerica

PRACTICALS

- **Collection of minimum 25 herbs with record**
- **Visit to the Panch-Karma Ward in the Hospital**

BOOKS

1. **N.K. Udupa – Fundamentals of Ayurveda.**
2. **R.H. Singh – Swatha Vritta Vigyana**
3. **Charaka Samhita**
4. **Dr. Rakesh Verma & Hari Bhardwaj – Ayurveda Prakash.**

DNYS 2nd YEAR

FASTING NUTRITION & DIETETICS

PAPER CODE:-260

THEORY

1. **Introduction**
    - Theory of fasting in animals.
    - Fasting of Ancient India. History of fasting in India and foreign country.
    - Science and Fasting.

2. **The Philosophy of Fasting**
    - The philosophy of sane fasting and philosophy of Therapeutic Fasting
    - Life its existence in connection with health and diseases.
    - Theory and physiological fact of fasting-
    - Objections commonly raised in fasting therapy.
    - Pros and cons of fasting.

3. **Physiology of fasting and starvation**
    - General Physiology
    - Effect on metabolism of carbohydrates, fats and proteins during fasting
    - Difference between fasting and starvation
    - Difference between hunger and appetite

4. **Rules & Regulations of Sane Fasting and Therapeutic fasting**

5. **Definition and classification of fasting in different aspects**
    - General Physiology
    - Methods and types of therapeutic fasting (Dry, Water, Juice, Saline, Monodiet (Kalpa), Fruit, Intermittent, Preventive weekly etc.)

6. **Hygienic Auxiliaries of Fasting**
    - Air and Breathing, Enema, Bathing, Clothing, Water Drinking, Exercise, Fasting and Menial influence.

7. **Study of Patients during and after Fasting**
    - Crises during fasting and their management.
    - Physiological effects of fasting.
    - Study of the tongue, the breath, the temperature and pulse etc
    - The loss and the gain of weight.
    - How and when to break the fast
    - Diet after the fast.

8. **Indication and contraindication of Fasting**

9. **Therapeutic aspects of fasting**

- Fasting in acute diseases.
- Fasting in chronic-diseases.
- Role of fasting in various diseases.
- Obesity and fasting.
- Fasting for preservation of health and prevention of diseases.

PRACTICALS

- Visits to the Fasting, Nutrition, dietetic department of the hospital.
- Demonstration of sprouts.
- Preparation of low cost balanced diet for different population groups using natural foods.
- Canteen duties at Nature cure hospital
- Knowledge of Sathvic food preparation at Nature cure hospital.
- Field visit – nutrition survey and diet surveys.

Reference Books:

1. Fasting for healthy and long life by Hereward Carrington.
2. The fasting cure and vital economy byLakshamana Sharma.
3. The effects of fasting by dornals Upton.
4. Fasting for Regeneration by seaton, Julia**.**

Nutrition

1. **Introduction of Nutrition**
   - The nutritional basis of life
   - History of Nutrition
   - Life in connection with food.
   - Food, Nutrition & Health introduction
   - Composition of body in relation to nutrition.

2. **Components of the food and their classification Carbohydrates, Proteins, Lipids, Vitamins, Minerals and trace elements and water and Electrolytes**
   - Metabolism and energy needs of the body
   - Energy balance and the regulation of the body weight
   - Enzymes

3. **Food Groups**
   - Cereals, Millets and coarse grains, Pulses, Green leafy vegetables, Other vegetables, Roots and tubers, Fruits , Milk and Milk product, Sugar and Jaggery, Honey, Fats and oils, Spices and condiments, nuts and oils seeds and Fats and oils
   - Nutritive value of food ingredients commonly used in India

4. **Food and Toxins**
   - Infective agents and toxin in food
   - Adulteration of food and food additives
   - Health hazards of added chemicals in food.
   - Nutrition and infection
5. **Nutritional Diagnosis and public health and nutrition**
   - Nutrition and six types of Rasas in Ayurveda.
   - Nutritional programme
   - Nutrition survey and methodology,
   - Balanced diets and changes.
   - Nutrition assessment, social aspects of the nutrition,
   - Fortification and enrichment

6. **Nutrition in Health**
   - Human nutritional requirements.

- Nutrition in pregnancy , Lactation, infancy, childhood and adolescence
- Nutrition and Immunity.

7. **Nutrition deficiency diseases, preventive & curative approach.**

PRACTICALS-

- Visit to the nutrition department of the hospital.
- Canteen duties at nature cure hospital.
- Knowledge of satvic food preparation at nature cure hospital.

REFERENCE BOOKS:

1. A complete guide of vitamins-
   Edited by J.I. Rodac & staff
2. The complete Book of food & nutrition by J. RODALA
3. Indian journal of nutrition & dietetics
4. Nutrition survey of India.

DIETETICS

1. **Concept of health in naturopathy.**
2. **Dietetic principles in naturopathy.**
3. **Concept of wholesome diet.**
4. **Medicinal value of foods.**
5. **Natural Qualities/ Properties/ Character of food in naturopathy/ Ayurveda/ Modern nutrition.**
6. **Natural food & health.**
   - Importance of green vegetable, other vegetables, fruits & the ingredients.
   - Chemical composition of different raw juices & their effects & uses.
   - Wheat grass, beetroot cabbage, carrot, cucumber, lettuce, garlic, onion, tomato, pomegranate, grapes, apple, bittergourd, ashgourd, pumpkins etc.
   - Sprouts their nutritive values & methods of sprouting
   - Food values in raw states, Germination form & cooked form
   - Comparison with raw & cooked food.

7. **Food combination & health.**
8. **Health & herbs.**
9. **Naturopathic hospital dietetics & their classification.**
10. **Disease management with diet.**
    - Diabetes, Renal diseases, Anaemia, PEM, Peptic ulcer, Constipation, Malabsorption, Syndrome, Liver diseases like jaundice fatty liver etc. high B.P low B.P, Atherosclerosis, gall bladder disease, cancer, tuberculosis, and arthritis.

11. **Food allergy & dietary management.**
12. **Diet & obesity.**
13. **Dietary modification for specific condition.**
14. **Dietary requirement for a different population groups with special reference to pregnancy, lactation, infancy.**
15. **Seasonal changes in the dietary pattern in Ayurveda/Naturopathy & modern nutrition.**
16. **Food hygiene & health.**
17. **Methods of cooking & preservation.**
18. **Naturopathic approach towards vegetarian & non-vegetarian food.**
19. **Harmful effects of the food colours preservatives, pesticides, artificial manures.**
20. **Dietary fibre and its therapeutic effects**
    (eg-Constipation, Ano-rectal disorders, Colonic disorders, GIT disorders, DM etc)
21. **Gerietric nutrition and diet**
22. **Diet and exercise, sports, games, athletics.**
23. **Pediatric Nutrition**

24. **Nutrition and life span**
25. **Green vegetables and fruits.**
26. **Non- vegetarian diet: its positive and negative aspects in Naturopathy.**
27. **Customs and manners of eating different views and effects of emotional state on food utilization.**
28. **Kalpa therapy in naturopathy: grapes, mango, milk etc.**

PRACTICALS:-

Visit to dietetics department of the hospital

REFERENCE BOOK:-

1. **Clinical diabetes and nutrition by F.P Antia**
2. **Normal and therapeutic nutrition by Connane H. Robinson.**
3. **Nutrition diabetes by suohangine**
4. **Medical science of your food by aman**

DNYS 2nd YEAR

PHYSIOTHERAPY

PAPER CODE:-270

THEORY

1. **Introduction of Exercise Therapy**
   Starting Positions- Fundamental Starting Positions, Derived Positions, Muscle work for all the fundamental starting positions
   - Manual Muscle Testing
   - Goniometry

2. **Classification of movements on details-**
   - Voluntary Movements
   - Involuntary Movements
   - Active & Passive movements

3. **Techniques of relaxation, Principles of obtaining relaxation in various positions Types, factor responsible for good posture, factor responsible for poor development of good posture, Principles & Techniques of re-education, walking aids Analysis of normal Gait with muscles work, various Pathological gaits**
   Crutch Gait- Introduction, Crutch Measurement, Various types of Crutch gait (in Delhi)

4. **Exercise: -**
   - Mobilization Exercise
   - Strengthening Exercise
   - Stretching Exercise

5. **Electrotherapy**
   1.
   - Shortwave Diathermy
   - Microwave Diathermy
   - Ultrasonic Therapy
   - Interferential Therapy

   Infrared Radiation Therapy

   - Ultraviolet Radiation Therapy
   - Basic Principles of transcutaneous nerve stimulation & interferential therapy

PRACTICAL:

- Demonstration of all electrotherapy instruments
- Practice of exercise with minimum 100 of case with record

TEXT BOOKS-

- **Massage Books – By George Downing**
- **Massage – By Constant Young**
- **Massage Therapy – By Dr. J.H. Koloa**
- **The complete book of Massage – By Clare Maxwell Hudson**
- **Panchakarma Treatment of Ayurveda – By T.L. Devaraj Brain Massage, Revitalize mind body – By Howell, Kelly.**