

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



**SWAMI VIVEKANAND SUBHARTI  
UNIVERSITY**

**BACHELOR IN NATUROPATHY AND YOGIC  
SCIENCES**

उत्तिष्ठत जाग्रत प्राप्य वरान्निबोधत

**Programme Outcome & Course Outcomes**

## **PROGRAM OUTCOMES**

**Students of B.N.Y.S. degree Program at the time of graduation will be able to:**

### **PO.1**

**Demonstrate Comprehensive Knowledge & Understanding of the basis of Health & Disease & its management** – 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**

**Demonstrate Skill Competency & 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**

**Work with 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**

**Treat with Empathy, Moral & 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**

**Research attitude with Evidence Based Practice & Life-long Learning Approach** 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**

**Behave ethically & in Tune with the Laws of the Land** - 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**

**Be Environment friendly, Encourage Sustainability and have Individualized approach**-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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## FIRST YEAR

### 1. ANATOMY

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

#### 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 diseased states;
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 diseased states;
3. Describe developmental basis of variations and abnormalities with respect to sequential development of organs and systems, teratogens, genetic mutations and environmental hazards.
4. Identify body structures including topography of living body;

### 2. PHYSIOLOGY

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

#### Course Outcome

After completion of the program, the student must 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;
4. Illustrate the physiological response and adaptations to environmental stresses;
5. Analyze physiological principles underlying pathogenesis and disease management.
6. Conduct experiments designed to study physiological phenomena;
7. Interpret experimental/investigative data;

8. Differentiate between normal and abnormal data from results of tests, which he/she has done and observed in the laboratory.
9. Demonstrate the practical's efficiently.

### **3. BIOCHEMISTRY**

**Course code – BNY 107, BNY 108P**

#### **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. Analyze the molecular mechanisms of gene expression and regulation, the principles of genetic engineering and their application in medicine
7. Demonstrate conventional techniques/instruments to perform biochemical analysis relevant to clinical screening and diagnosis;
8. Analyze and interpret investigative data;
9. Demonstrate the skills of solving scientific and clinical problems and decision making.
10. 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.

#### **4. PHILOSOPHY OF NATURE CURE**

**Course code – BNY 109, BNY 110, BNY111P**

##### **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.
6. Explain the history of Naturopathy including major contributors to the field and their work;
7. Correlate the evolution and composition of the human body according to different schools of medicine such as Naturopathy, *Yoga, Ayurveda*, Homeopathy, Modern Medicine, etc.
8. 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
9. Analyze Principles behind using the diagnostic procedures of Naturopathy, like spinal diagnosis, facial diagnosis, iris diagnosis, and chromo diagnosis.
10. Demonstrate knowledge of recent advances and research in Naturopathy principles/theories.
11. Understand Principles behind using the diagnostic procedures of Naturopathy, like spinal diagnosis, facial diagnosis, iris diagnosis, and chromo diagnosis.
12. Demonstrate knowledge of recent advances and research in Naturopathy principles/theories.
13. Demonstrate basic knowledge of the various therapeutic modalities utilized in Naturopathy;
14. Describe the various principles of Naturopathy with respect to the body, health, disease and therapy, diagnosis and management.

## **5. YOGA PRACTICES**

**Course code – BNY 112, BNY 113P**

### **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 *AshtangaYoga*;
4. Demonstrate knowledge of *pranayamas*, *prana* and lifestyle, breathing and lifespan.
5. Demonstrate various types of *Yogasanas* in their correct method of performance;
6. Demonstrate different *pranayamas*.
7. Explain about the definitions, origin, branches of *Yoga*.

## **6. ENGLISH COMMUNICATION**

**Course Code - AECC 1**

### **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, 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

## SECOND YEAR

### 1. PATHOLOGY

Course code–BNY 201, BNY 202

#### **COURSE OUTCOME-**

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

1. 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.
2. Describe the pathophysiological processes which govern the maintenance of homeostasis, mechanisms of their disturbance and the morphological and clinical manifestations associated with it;
3. Analyze the mechanisms and patterns of tissue response to injury such that he/she can appreciate the pathophysiology of disease processes and their clinical manifestations;
4. 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.

### 2. MICROBIOLOGY

Course code–BNY 203, BNY 204P

#### **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

### **3. COMMUNITY MEDICINE**

Course code–BNY 205, BNY 206P

#### **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“.

### **4. YOGA PHILOSOPHY**

Course code–BNY207, BNY 208P

#### **COURSE OUTCOME**

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

1. Illustrate the basic understanding of *Yoga* as a philosophy
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.

## **5. MAGNETOTHERAPY AND CHROMO THERAPY**

**Course code–BNY 209, BNY 210P**

### **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 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. Analyze the therapeutic values of colours and magnets in treatment of various diseases
6. Analyze latest research finding in improving his/her professional practice

## **6. ENVIRONMENTAL STUDIES**

**CODE: AECC-2**

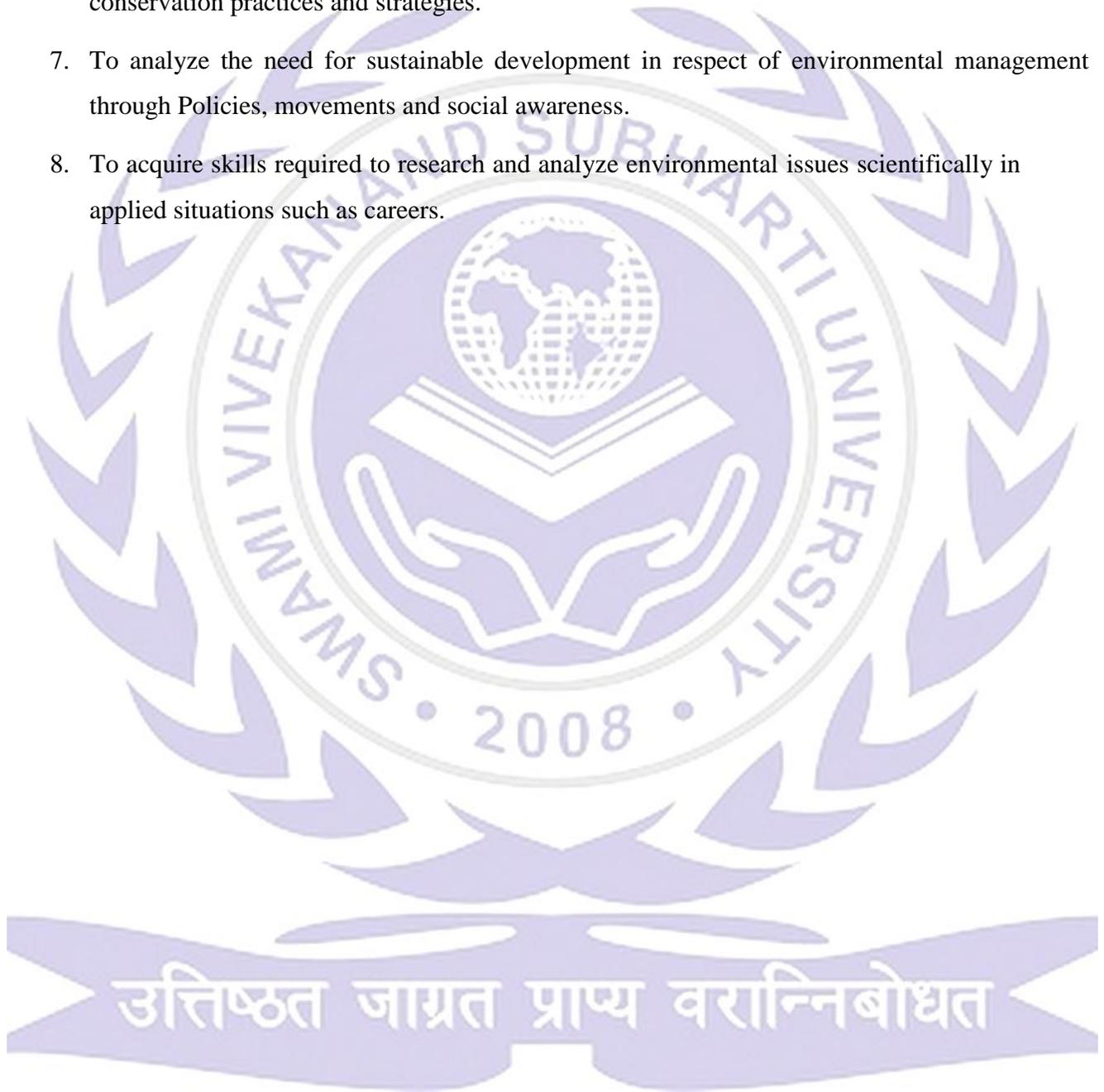
### **Course Outcome:**

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.



## THIRD YEAR

### 1. MANIPULATIVE THERAPY

Course code–BNY301

#### 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. Analyze the application of manipulative therapy in clinical practice.
4. Analyze the research based new development in manipulative therapy.

### 2. ACUPUNCTURE

Course code–BNY 303, BNY 304P

#### COURSE OUTCOME

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

### 3. YOGA APPLICATION

Course code–BNY 305, BNY306P

#### 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 *shat kriyas* and their adverse effects
6. Describe the concept of *Yoga* as explained in the traditional texts;
7. Deliver a meditative session using any of the meditative styles;

#### **4. FASTING THERAPY**

**Course code– BNY 307, BNY308P**

##### **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. Analyze fasting therapy in managing various diseases

#### **5. NATUROPATHY DIAGNOSIS**

**Course code–BNY 309, BNY310P**

##### **COURSE OUTCOME:**

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

1. Illustrate historical significant developments in diagnostic procedures used in Naturopathy and the

characteristics of a Healthy Body with respect to Naturopathic Principles

2. Describe philosophical theories of causation of disease according to Naturopathy
3. Analyze knowledge of theory of encumbrances, their types and interpretation, along with naturopathic ways to therapeutically correct them.
4. Describe in detail Iris Diagnosis, with respect to history, techniques, iris signs, interpretations and tools used, and use the same to diagnose diseases;
5. Explain the techniques and interpretations of stool and urine diagnosis, correlating modern medical knowledge and Ayurvedic *sthoola* and *muthrapariksha*;
6. Analyze 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.

## **6. MORDERN DIAGNOSIS**

**Course code–BNY 311, BNY312P**

### **COURSE OUTCOME-**

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

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

## FINAL YEAR

### **1. NUTRITION DIETETICS AND HERBS**

**Course code–BNY 401, BNY402P**

#### **COURSE OUTCOME-**

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

1. Describe fundamentals of nutrition, with respect to different nutrients and food groups;
2. Illustrate details of nutritional requirements for different age groups, as well as pregnant and lactating women;
3. Classify modern nutrition to traditional Naturopathic diets;
4. Illustrate the use of specific herbs in common diseases, with therapeutic values.
5. Analyze 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 of herbs.

### **2. OBSTRETRICS ANDGYNAECOLOGY**

**Course code–BNY 403, BNY404P**

#### **COURSE OUTCOME**

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

1. Illustrate the anatomy, physiology and pathophysiology of the reproductive system and the common conditions affecting it, Detect normal pregnancy, labor, and puerperium
2. Classify the leading causes of maternal and perinatal morbidity and mortality;
3. Understand the principles of contraception and various methods employed, methods of medical termination of pregnancy, sterilization and their complications;
4. Describe the national programmes of maternal and child health and family welfare and their implementation;
5. Analyze different gynecological diseases and describe principles of their management, different techniques.
6. Analyze a pregnant women, recognize high risk pregnancies and make appropriate referrals;

### **3. YOGA THERAPY**

**Course code – BNY 405, BNY 406P**

#### **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. Analyze knowledge of *Yoga* therapy in managing various diseases;
6. Demonstrate usage of therapeutic aspect of *Yoga* in promotive, preventive, curative and rehabilitative therapy.

### **4. HYDROTHERAPY**

**Course code – BNY 407, BNY 408, BNY409**

#### **COURSEOUTCOME**

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

1. 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.
2. Illustrate physiological effects of hot and cold water upon the different systems of the body and applications to reflex areas;
3. Explain action and reaction mechanisms and physiology, with their effects and uses
4. Demonstrate use of water in preservation, acute diseases, chronic diseases;
5. 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;

6. Demonstrate techniques and procedures of various types of hydratic applications.

## **5. PHYSIOTHERAPY**

**Course code – BNY 410, BNY 411P**

### **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 cryo therapy;
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. Analyze remedial measures in *Yoga* for various disease conditions.

## **6. HOLISTIC PRACTICES OF NATUROPATHY & YOGA**

**Course code – BNY 412, BNY 413P**

### **COURSE OUTCOME**

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

1. Illustrate decision making in Naturopathy;
2. Understand the basic principles of screening and prevention of disease;

3. Comprehend the scope of practice- patterns of use, fields of practice, regulations, limitations;
4. Understand the concept of healing and disease crises and management of the same.
5. Understand the pathogenesis of the disease in Naturopathy basis and preventive measures of the same;
6. Deduce and form a specific module of therapy for the particular patient with varied presentations.

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

**Course code – BNY 414, BNY 415P**

### **COURSE OUTCOME-**

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

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

## **8. PSYCHOLOGY AND BASIC PSYCHIATRY**

**Course code – BNY 416, BNY 417P**

### **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 etiology and psychopathology along with classification of disorders;
5. Demonstrate knowledge of therapies aimed at psychological health, such as psychotherapy, *Yoga*, etc;

