

BNYS 3rd

FORENSIC MEDICINE & TOXICOLOGY

Subject Title : FORENSIC MEDICINE & TOXICOLOGY (Duration : 12 Months)

Subject Code : BNYS – T 301 & BNYS – P 301

Subject	Theory	IA	Total	Practical	Viva voce	IA	Total	Grand Total Marks
Forensic Medicine & Toxicology	80	20	100	60	30	10	100	200

*IA - Internal Assessment

GOALS AND OBJECTIVES

Goal:

The goal of teaching Forensic Medicine and Toxicology to undergraduate students is to provide a comprehensive knowledge of medico-legal responsibilities in the practice of medicine. He/she learns about law with respect to medical practice, medical negligence and respect for codes of medical ethics.

Course Objectives:

- Outline basic medico-legal aspects of hospitals and general practice;
- Define medico-legal responsibilities of a general physician working in a rural primary health center or an urban health center

Course Outcomes (Cos) :

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

- **CO 1** - Observe and infer well, to enquire in criminal and medico-legal matters
- **CO 2** - Diagnose and manage acute poisoning and chronic toxicity
- **CO 3** - Be proficient in post mortem examinations including interpretation of findings.
- **CO 4** - Observe medical ethics in his professional practice.

THEORY

A) Forensic Medicine:-

1. Definition: 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 signs 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, hair 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, Virginitiy, Legitimacy, Un-natural offences, Medicolegal aspects.
11. Infanticide.
12. Medico–legal aspects of insanity
13. Forensic Psychiatry
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. Postmortem 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 lighting.
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.

TOXICOLOGY

1. General Considerations of Poisoning

- | | |
|---------------------------------------|---|
| i. Introduction | vi. Fate of poisons in the body |
| ii. Medico legal aspects of poisoning | vii. Diagnosis of poisoning in human beings |
| iii. Poisoning in India | viii. Classification of poisons |
| iv. Source of poisons | ix. Factors modifying action of poisons |
| v. Action of poisons | x. General line of treatment |

2 . Poisons

- i. Corrosives
- ii. Nonmetallic poisons
- iii. Metallic poisons

- iv. Organic irritant poison
 - a. Somniferous poisons
 - b. Inebriant poisons
 - c. Deliriant poisons
 - d. Drug dependence
 - e. Food poisoning
 - f. Spinal poisons
 - g. Cardiac poisons
 - h. Asphyxiants
 - i. Miscellaneous

PRACTICALS:-

1. Age estimation.
2. Autopsies-10
3. Skeleton remains.
4. Spotters.
5. Examination of injured.
6. Alcoholic.
7. Psychiatric.

Recommended books:

1. Medical Jurisprudence - Modi
2. A textbook of Forensic Medicine - Narayana Reddy
3. A textbook of Forensic Medicine - MRK Krishna
4. Fundamentals of Forensic Medicine and Toxicology - R. Basu
5. Textbook of Forensic Medicine and Toxicology - VV Pillay

Reference books

1. The essentials of Forensic Medicine - Dr. CJ Polson, DJ Gee and B. Knight
2. Forensic Medicine - Corden and Shapiro
3. Principles and practice of Medical Jurisprudence - Taylor's

COMMUNITY MEDICINE

Subject Title : COMMUNITY MEDICINE (Duration : 12 Months)

Subject Code : BNYS – T 302 & BNYS – P 302

Subject	Theory	IA	Total	Practical	Viva voce	IA	Total	Grand Total Marks
Community Medicine	80	20	100	60	30	10	100	200

*IA - Internal Assessment

GOALS AND OBJECTIVES

Goals:

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

Course Objectives:

- Describe the health care delivery system including rehabilitation of the disabled in the country.
- Describe the National Health Programme with particular emphasis on maternal and child health programmes, family welfare planning and population control.
- List epidemiological methods and describe their applications to communicable and non-communicable diseases in the community or hospital situation.
- Apply bio-statistical methods and techniques; delineate the demographic pattern of the country and appreciate the roles of the individual family, community and socio-cultural environment in health and disease.
- Explain the health information systems; enunciate the principles and components of primary health care and national policies to achieve the goal of Health administration, Health education in relation to community.
- Able to plan a Health Program and able to evaluate a Programme.
- Able to describe principles of organization.

Course Outcomes (Cos) :

After the end of the course, the student should be able to:

- **CO 1** - Use epidemiology as a scientific tool for making national decisions relevant to community and individual patient intervention.
- **CO 2** - Collect, Analyses interpret and present simple community and hospital-based data.
- **CO 3** - Diagnose and manage common health issues and emergencies at the individual family and community levels with existing healthcare resources, respecting socio-cultural beliefs.
- **CO 4** - Diagnose and manage maternal and child health problems and conduct family planning counseling and community programs keeping in mind national priorities
- **CO 5** - Diagnose and manage common nutritional problem at individual and community level.
- **CO 6** - Design, implement and evaluate health education program using simple audio-visual aids.
- **CO 7** - Participate with team members in organizing and implementing health care programs; Conduct group meetings, give talks on medical issues.

THEORY

1. Concepts of Health & Concept of Disease

1. Man, and Medicine: Towards Health for All
2. Concept of Health
3. Definitions of Health
4. Dimensions of Health
5. Determinants of Health
6. Positive health
7. Concept of wellbeing
8. Responsibility towards health
9. Health development and its indicators
10. Health science philosophies
11. Concepts of causation
12. Natural history of disease
13. Concepts of control and prevention
14. Modes of intervention
15. Population medicine
16. International classification of diseases

2. Epidemiology and Epidemiologic Methods

1. Definition, basic measurements in epidemiology
2. Epidemiological methods - descriptive, analytical and experimental epidemiology
3. Uses of epidemiology
4. Dynamics of disease transmission
5. Disease prevention and control
6. Investigation of an Epidemic
7. Screening of diseases: Concepts, Uses, Criteria for screening, sensitivity & specificity

3. Epidemiology of Communicable & Non-Communicable Diseases

1. Respiratory infections - Small Pox, Varicella, Measles, Rubella, Mumps, Influenza, Diphtheria, Pertussis, Tuberculosis, Acute Respiratory Tract Infection(ARTI)
2. Intestinal infections Polio, Viral Hepatitis, Cholera, Acute Diarrheal Diseases, Typhoid, Food Poisoning, Amoebiasis, Ascariasis, Ancylostomiasis, Taeniasis.
3. Arthropod-borne infections- Yellow Fever, Japanese Encephalitis, Malaria, Filarial
4. Surface infections-Rabies, Trachoma, Tetanus, Leprosy, STD, AIDS
5. Epidemiology of non-communicable diseases - Cancer, Cardiovascular Diseases Obesity, Blindness, Accidents, Hypertension, Stroke, Rheumatic Heart Disease

4. Family Health

1. Family Planning Demographic cycle, population trends, fertility related statistics, health aspects of family planning, contraceptive methods delivery system, National family welfare program, and
2. Preventive medicine in Obstetrics, Pediatrics and Geriatrics - Antenatal, Natal, Postnatal care, Low birth weight, infant feeding, growth and development, growth chart, under-fives clinic, national health policy, indicators of MCH care, school health services, behavioral problems, geriatrics, Anganwadi, ICDS programs.

5. Environmental Issues

1. Environmental health and occupational health: Purification of water and water quality standards, air, ventilation, lighting, noise, radiation, air temperature and humidity, housing, solid wastes disposal and control, excretory disposal, water carriage system, modern sewage treatment,

2. Entomology-mosquito, housefly, lice itch mite, Cyclopes, rat flea, rodents, insecticides-hazards, diseases, pre-placement examination, measures for general health, protection of workers, prevention of occupational hazards

6. Statistics & Health Education

1. Basic Medical Statistics: Census, Vital events, SRS, measures of dispersion centering, sampling, tests of significance, correlation and regression
2. Health education communication: Objectives, principles, aids, practice of ii. Health education planning and evaluation

7. Healthcare of Community

1. Health planning - Management – International health organizations: Planning cycle, management methods and techniques, national health policy, health planning in India, five-year plans, health systems in India, five-year plans, health systems in India - at center, state and district levels, panchayat raj, rural development schemes
2. Healthcare of community - Health System and National Programs: Levels of healthcare, Health for All, primary healthcare, healthcare delivery, health problems, healthcare services and systems, voluntary health agencies, national health programs
3. International health agencies: WHO, UNICEF RED CROSS
4. Voluntary health agencies.

8. Nutrition and Health

1. Classification of food, vitamin, mineral, carbohydrate, protein, fat, energy balance, balanced diet, nutritional problems in public health, low birth N+PEM, xerophthalmia, nutritional anemia, IDPs, endemic fluorosis, lathyrism,
2. Assessment of nutritional status, nutritional surveillance, social aspects of nutritional food hygiene, food-borne disease, Legislation

PRACTICAL

1. Field Visit

1. Posting at any PHC, CHC, RHC or district hospital for National Immunization Program
2. Nutritional Assessment Surveys
3. 1 day workshop or awareness program on AIDS with NACO
4. Posting at Blood donation camp
5. Anganwadi, PHC/ CHC/RHC/ District hospital and understanding description of existing healthcare services

2. Study on Health-Related Problem in the Community

1. Family Health Advisory Service
2. To study the family structure & health status of individual members reference to

a. General health status	d. Environmental
b. Socio-economic status	e. Immunization status
c. Nutritional status	f. Family welfare planning status
3. Health Practices in 4 conditions
 - a. Pulmonary Tuberculosis
 - b. Index case: occupation, literacy, social status etc.
4. Preventive measures for other family members
 - a. Health education.
 - b. Antenatal Care
 - c. Literacy of the family and woman.
 - d. Customs - social / religious during pregnancy, delivery, lactation
 - e. Dietary habits: knowledge, aptitude and practices
 - f. Antenatal high risk care g. Health education, family planning advice
 - h. Protein energy malnutrition
 - i. Socio-economic status of family
 - j. Infant feeding and weaning practices

5. Social customs regarding diet for children.

3. Models

1. Insecticides
2. Universal Immunization Program
3. Communicable diseases
4. Insect-borne diseases
5. Microscope slides
6. Environment and Sanitation

4. Bio-Statistical charts

1. Bar charts
2. Histogram
3. Line diagram
4. Pie charts
5. Pictogram

RECOMMENDED BOOKS:

1. Textbook of Preventive and Social Medicine - JE Park & K Park
2. Textbook of Preventive and Social Medicine - BK Mahajan & MC Gupta

REFERENCE BOOKS:

1. Preventive medicine - Ghosh
2. Preventive medicine - Yashpal

REFERENCE PAPERS:

1. WHO Program papers
2. National Health Program Papers
3. Voluntary health Program Papers
4. Red Cross Program papers
5. UNICEF Program Papers

PSYCHOLOGY & BASIC PSYCHIATRY

Subject Title : PSYCHOLOGY & BASIC PSYCHIATRY (Duration : 12 Months)

Subject Code : BNYS – T 303

Subject	Theory	IA	Total	Practical	Viva voce	IA	Total	Grand Total Marks
Psychology & Basic Psychiatry	80	20	100	-	50	-	50	150

*IA - Internal Assessment

GOALS AND OBJECTIVES

Goal:

The goal 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.

Course Objectives:

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

Course Outcomes (Cos) :

- **CO 1** - After the completion of the course, the student shall be able to:
- **CO 2** - Utilize knowledge of psychology and psychiatry in diagnosing and managing various psychological disorders, assessing psychological profile;
- **CO 3** - Demonstrate usage of various therapeutic tools in psychiatry to improve mental health in professional practice.

Integration:

At the completion of training, the student should be able to integrate knowledge of normal and abnormal psychology and psychiatric therapies and efficiently utilize the same for therapeutic purposes.

THEORY PSYCHOLOGY

1. The Evolution of Psychology

How psychology developed from speculation science.

i) Studying the mind and behavior

ii) Early scientific approaches to psychology

a. Structuralism

b. Functionalism

iii) Contemporary approaches to psychology

a. Behavioral approach

b. Psychodynamic approach

- c. Cognitive approach
- d. Behavioral neuroscience approach
- iv) Positive approach to psychology: Humanistic movement and the positive Psychology movement
- e. Evolutionary psychology approach
- f. Sociocultural approach

2. Sensation and Perception

- i) How we sense and perceive the world
 - a. The visual system
 - b. The auditory system
 - c. Other senses
- ii) States of consciousness
 - a. Levels of awareness
 - b. Sleep and dreams
- iii) Altered states of consciousness
 - a. Hypnosis
 - b. Meditation
 - c. Drug-induced states

3. Learning and Memory

- i. Types of learning
 - a. Classical conditioning
 - b. Operant conditioning
 - c. Observational learning
 - d. Cognitive factors in learning
- ii. Memory
 - a. Nature of memory
 - b. Memory encoding: getting information into memory- the role of attention
 - c. Levels of processing
 - d. Enriching encoding
 - e. Memory storage
 - Sensory memory
 - Short-term memory
 - Long-term memory
 - f. Memory retrieval
 - Serial position effect
 - Retrieval cues and the retrieval task
 - Retrieval of autobiographical memories
 - Retrieval of emotional memories
 - Forgetting
 - g. Biochemistry of memory
 - h. Neural circuitry of memory
 - i. Anatomy of memory
 - j. Are there multiple memory systems? Implicit versus explicit memory
 - k. Declarative versus procedural memory
 - l. Semantic versus episodic memory

4. Thinking and Language

- a. The cognitive revolution in psychology
- b. Concept formation
- c. Problem solving
- d. Critical thinking
- e. Reasoning and decision-making

f. Language and thought language acquisition and development

5. Motivation and Emotion

i. Approaches to motivation:

- a) Evolutionary approach
- b) Drive reduction theory

- c) Optimum arousal theory
- d) The cognitive approach

ii. Hunger:

- a) The biology of hunger and thirst
- b) Environmental factors in the regulation of hunger
- c) Eating and weight
- d) Sexuality - the biology of sex and the human sexual response: cognitive and sensory/perceptual factors
- e) Cultural factors
- f) Psychosexual dysfunctions
- g) Sexual behavior and orientation

6. Intelligence

- i. Nature of intelligence
- ii. Intelligence testing
- iii. Neuroscience and intelligence
- iv. Theories of multiple bits of intelligence
- v. The extremes of intelligence and creativity
- vi. The influence of heredity and environment

7. Human development across the lifespan

- i. Exploring human development
- ii. Prenatal development
- iii. Child development: physical, cognitive and socio-emotional development in childhood
- iv. Adolescence positive psychology and adolescents
- v. Physical, cognitive and socio emotional development in adolescence
 - a. Adult development and aging
- vi. Physical, cognitive and socio emotional development in adulthood

8. Personality

- a. The nature of personality
- b. Psychodynamic perspectives
- c. Behavioral perspectives
- d. Humanistic Perspectives
- e. Biological perspectives and contemporary empirical approaches to personality

9. Stress coping and health

- i. The nature of stress
- ii. Major types of stress
- iii. Responding to stress
- iv. The effects of stress on psychological functioning
- v. The effects of stress on physical health
- vi. Factors moderating the impact of stress
- vii. Health-impairing lifestyles
- viii. Reactions to illness Improving coping and stress management

10. Social Psychology

- i. Social thinking
 - a) Attribution
 - b) Social perception
 - c) Attitudes
- ii. Social influences
 - a) Conformity and obedience.
 - b) Group influence
 - c) Leadership
- iii. Inter group relations
 - a) Group identity
 - b) Prejudice
 - c) Ways to improve interethnic relations
- iv. Social interaction
 - a) Aggression
- v. Relationships
 - a) Attraction
 - b) Love
 - c) Relationships and gender

ABNORMAL PSYCHOLOGY: PSYCHIATRY

1. Abnormal behavior in historical context-the science of psychopathology

- i. The historical conceptions of abnormal behavior
 - a. The supernatural tradition
 - b. The biological tradition
 - c. The psychological tradition
- ii. An integrative approach to psychopathology
- iii. One-dimensional and multidimensional models
- iv. Genetic contributions to psychopathology neuroscience and its contributions to psychopathology
- v. Behavioral and cognitive science
- vi. Cultural, social and interpersonal factors.
- vii. Classification of psychological disorders: DSM-IV and ICD 10)

2. Anxiety disorders

- i. Generalized anxiety disorders
- ii. Panic disorders; phobias
- iii. Obsessive-compulsive disorders

3. Somatoform and Dissociative disorders

- i. Hypochondriasis
- ii. Somatization disorder
- iii. Conversion disorder
- iv. Pain disorder
- v. Dissociative disorders

4. Mood disorders.

- i. Depressive disorders
- ii. Bipolar disorders
- iii. Suicide

5. Substance-related disorders

- i. Depressants
 - a) Alcohol abuse disorders
 - b) Sedative substance abuse disorders
 - c) Hypnotic substance abuse disorders.
 - d) Anxiolytic substance abuse disorders.
- ii. Stimulants
 - a) Amphetamine use disorders
 - b) Cocaine use disorders
 - c) Nicotine use disorders
 - d) Caffeine use disorders
- iii. Opioids use disorders
- iv. Hallucinogens
 - a) Marijuana
 - b) LSD
 - c) Other Hallucinogens
- v. Other drugs of abuse

6. Schizophrenia and other psychotic disorders

- i. Schizophrenia
 - a) Clinical description
 - b) Causes
 - c) Types and treatment
- ii. Personality disorders - cluster A, B, and C
- iii. Psychotherapies
 - a. Psychodynamic therapies
 - b. Behavioral therapies
 - c. Humanistic therapies

7. Mental health and Yoga

References:

1. Weiten, Wayne (1995) themes, and variations 3rd edition, New York Brooks.
2. Santrock, J.W. (2005) Psychology, 7th edition, New York, McGraw-Hill publications
3. Barlow, D.H. and Durand, V.M. (2002) Abnormal Psychology, 3rd edition, United States, Wadsworth Thomson Learning
4. Introduction to Psychology–Clifford T. Morgan & Richard A .King
- 5 .Abnormal Psychology–James D. Page
6. Positive Psychotherapy –Nossrat Pesseschkian
7. Psychology, Mental Health and Yoga–A.S. Dalal
8. General Psychology–J.P. Guilford
9. A brief Introduction to Psychology–Clifford T. Morgan

OBSTETRICS & GYNECOLOGY

Subject Title : OBSTETRICS & GYNECOLOGY (Duration : 12 Months)

Subject Code : BNYS – T 304 & BNYS – P 304

Subject	Theory	IA	Total	Practical	Viva voce	IA	Total	Grand Total Marks
Obstetrics & Gynecology	80	20	100	60	30	10	100	200

*IA - Internal Assessment

GOALS AND OBJECTIVES

Goal:

The goal of teaching Obstetrics and Gynaecology 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.

Course Objectives:

- Delineate the anatomy, physiology and pathophysiology of the reproductive system and the common conditions affecting it;
- Detect normal pregnancy, labour, and puerperium;
- Elucidate the leading causes of maternal and perinatal morbidity and mortality;
- Understand the principles of contraception and various methods employed, methods of medical termination of pregnancy, sterilization and their complications;
- Recognize the use, abuse and side effects of drugs in pregnancy, premenopausal and post-menopausal periods;
- Explain the National Programmes of Maternal and Child Health and Family Welfare and their implementation;
- Assess different gynaecological diseases and describe principles of their management;
- 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)

Course Outcomes (Cos) :

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

- **CO 1** - Examine a pregnant woman, recognize high risk pregnancies and make appropriate referrals;
- **CO 2** - Recognize complications of delivery and provide postnatal care;
- **CO 3** - Recognize congenital anomalies of new-born;
- **CO 4** - Advise a couple on the use of various available contraceptive devices;
- **CO 5** - Perform pelvic examination, diagnose and manage common gynaecological problems including early detection of genital malignancies;
- **CO 6** - Interpret data of investigations like biochemical, histopathological, 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.

THEORY

OBSTETRICS

1. Basic Anatomy and Physiology

- a. Anatomy and Physiology of female reproductive organs and pelvis
- b. Maturation and fertilization of ovum
- c. Development of placenta
- d. Embryology of uterus

2. Physiology of pregnancy

- a. Maternal changes due to pregnancy
- b. Diagnosis of pregnancy
- c. Differential diagnosis of pregnancy
- d. Foetus in normal pregnancy
- e. Antenatal care

3. Physiology of labour

- a. Causation and stages of labour
- b. Mechanism of labour
- c. Conduct of normal labour.

4. Physiology puerperium

- a. Phenomena of normal puerperium
- b. Care of puerperium
- c. Care of new born child

5. Pathology of pregnancy

- a. Hyperemesis Gravidarum
- b. Venereal diseases
- c. Anaemia in pregnancy
- d. Diseases of the urinary system
- e. Diabetes in pregnancy
- f. Diseases and abnormalities of foetal membranes and placenta
- g. Abortion
- h. Ectopic pregnancy
- i. Ante-partum haemorrhage
- j. Placenta Previa

6. Pathology of labour

- a. Occipito-posterior position
- b. Breech presentation
- c. Prolapse of the cord, compound presentation
- d. Multiple pregnancy
- e. Contracted pelvis
- f. Management of labour in contracted pelvis
- g. Complications of 3rd stage of labour

7. Affection of new-born

- a. Asphyxia Neonatorum
- b. Pre-term baby
- c. Congenital malformations

8. Obstetrical operations

- a. Forceps
- b. Caesarean section
- c. Induction of abortion and labour

9. Pathology of Puerperium - Puerperal infections

10. Miscellaneous

- a. Perinatal mortality and maternal mortality
- b. Post-dated pregnancy
- c. Placenta insufficiency
- d. Control of contraception
- e. Medical termination of pregnancy
- f. Pre-term labour
- g. Ultrasonography in Obstetrics

11 Applied aspects in Obstetrics:

- a. Yoga and Naturopathy for Healthy parenthood
- b. Antenatal and postnatal care through Yogic methods
- c. Antenatal and postnatal care through Naturopathic modalities
- d. Antenatal and postnatal care through general exercises

- e. Antenatal and postnatal care through Hydrotherapy
- f. Natural diet during pregnancy and lactation

GYNAECOLOGY

1. Anatomy of the female pelvic organs

- a. External genitalia
- b. Internal genitalia
- c. Female urethra
- d. Urinary bladder
- e. Pelvic Ureter
- f. Rectum and Anal canal
- g. Pelvic muscles
- h. Pelvic fascia and cellular tissue

2. Blood vessels, lymphatic drainage and innervations of pelvic organs,

- a. Pelvic blood vessels
- b. Pelvic lymphatic's
- c. Pelvic nerves

3. Puberty and Menopause

4. Neuroendocrinology in relation to reproduction

5. Menstruation

6. Examination of a gynaecological patient and the diagnostic aids

- a. History
- b. Examination
- c. Ancillary aids
- d. Cytology
- e. Colonoscopy

7. Pelvic infection

- a. Defence of the genital tract
- b. Acute pelvic infection
- c. Chronic pelvic infection
- d. Genital tuberculosis

8. Sexually transmitted diseases

9. Infections of individual pelvic organs

- a. Vulva
- b. Bartholin's gland
- c. Vagina
- d. Cervix
- e. Endometrium
- f. Fallopian tube
- g. Ovary
- h. Parametrium

10. Dysmenorrhoea and other disorders of menstrual cycles

- a. Dysmenorrhoea
- b. Dysfunctional Uterine bleeding

11. Displacement the uterus

- a. Retroversion
- b. Prolapse
- c. Chronic inversion

12. Infertility

- a. Causes
- b. Investigations
- c. Treatment
- d. Assisted reproductive techniques
- e. Counselling techniques

13. Benign lesions of Vulva and Vagina

- a. Vulval epithelial disorders
- b. Vulval ulcers
- c. Vulval cysts and Vaginal Cysts

14. Benign lesions of the cervix

15. Benign lesions the uterus

- a. Fibroids
- b. Polyps

16. Benign lesions of the ovary

17. Ovarian neoplasm

18. Endometriosis and adenomyosis

19. Premalignant lesions

- a. Vulva
- b. Vagina
- c. Cervix
- d. Endometrium

20. Genital malignancy

- a. Cervical
- b. Endometrial
- c. Gestational trophoblastic Neoplasia
- d. Ovarian

21. Urinary problems in gynaecology

- a. Anatomy of the urethra-Vesical unit
- b. Genuine stress incontinence
- c. Overflow incontinence
- d. Retention of urine
- e. Urinary tract infections

22. Genital fistulae

- a. Genito-urinary
- b. Recto-vaginal

23. Amenorrhea

- a. Physiological
- b. Primary
- c. Secondary

24. Contraception

- a. Barrier methods.
- b. Natural
- c. IUCD
- d. Steroidal
- e. Emergency
- f. Sterilization

25. Special problems

- a. Abnormal vaginal discharge
- b. Pruritis vulvae
- c. Pelvic pain
- d. Postmenopausal bleeding
- e. Low backache
- f. Breast in gynaecology
- g. Vaginismus
- h. Dyspareunia
- i. Hirsutism
- j. Galactorrhoea

26. Operative gynaecology

- a. Postoperative care
- b. Dilation of cervix
- c. Dilation and curettage
- d. Dilation of and insufflations
- e. Hysterosalpingography
- f. Cervical biopsy
- g. Cryosurgery
- h. Perineoplasty
- i. Amputation of cervix
- j. Abdominal hysterectomy
- k. Vaginal hysterectomy

27. Endoscopic surgery in gynaecology

- a. Laparoscopy
- b. Hysteroscopy

28. Applied aspects in Gynaecology

- a. Role of Naturopathy and Yoga in Gynaecology
- b. Water treatments for gynaecological disorders.

PRACTICAL

1. History taking of antenatal and gynaecological cases
2. Demonstration of physical examination of antenatal and postnatal gynaecological
3. Demonstration of conductive labour, normal delivery and use of minor instruments during delivery

4. Demonstrations of instruments like Sim's speculum, Cusco's bivalve self-training vaginal speculum, Cervical dilators, Anterior vaginal wall retractor, Uterine curette .
5. Specimens
6. X ray, US, and CT plates
7. Case-history writing of antenatal and gynaecological cases
8. Demonstration of underwater delivery and painless delivery using acupuncture desired.

Textbooks

1. Clinical Obstetrics - Mudaliar and Menon
2. Textbook of Obstetrics and Gynaecology - CS Dawn
3. Shaw's Gynaecology
4. Textbook of Obstetrics and Gynaecology – Dutta

YOGA & PHYSICAL CULTURE II

Subject Title : YOGA & PHYSICAL CULTURE II (Duration : 12 Months)

Subject Code : BNYS – T 305 & BNYS – P 305

Subject	Theory	IA	Total	Practical	Viva voce	IA	Total	Grand Total Marks
Yoga & Physical Culture II	80	20	100	60	30	10	100	200

*IA - Internal Assessment

GOALS AND OBJECTIVES

Goal:

The goal of teaching Yoga & physical culture 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, Vasishta, Samkhya, Mimamsa, Vedanta and Patanjali Yogasutras.

Course Objectives:

- Explain the basic understanding of Yoga as a philosophy
- Describe the various schools of philosophy which had an influence on Yogic text like Buddhism, Samkhya, Mimamsa etc.
- Comprehend the concept of brahman according to Vedanta

Course Outcomes (Cos) :

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

- **CO 1** - Perform and demonstrate various asanas, pranayama, kriyas and meditations;
- **CO 2** - Describe various philosophies of Yoga and apply them therapeutically, relating to a patient's life situation or personality.

THEORY

1. Nyaya and Vaisheshika

1. Nature of physical worldMimamsa, Vedanta
2. Individual soul, liberation and concept of supreme soul in Indian philosophy
3. Theory of body, mind and soul and philosophical background
4. Category of substance-Nava dravyas
5. Category of quality-24 gunas
- 6.

2. Samkhya and Vedanta

1. Theory of cause and effect; Prakriti and Purusha
2. Process of evolution of universe and concept of liberation
3. Practical teachings of Samkhya
4. Concept of Atman, Brahma, Maya, Universe, God; the self and human life.
5. Liberation and means of attaining it.

3. Buddhism and Mimamsa

1. Four main schools of Buddhist philosophy
2. Atman, Brahma, Maya, Universe, God; the self and human life
3. Major teachings of Mimamsa system; selfless action, nonattachment, self-control, self-discipline,
4. Daily schedule for psychophysical wellbeing, social awareness, sense of equality, unity with diversity, selectiveness.

4. Darshanik Bases of Yog Therapy & Psychological Perspective of Yog Therapy

1. Understanding of Samkhya, Patanjala Yog and Panchakosha from the Therapeutic Point of View.
 - i) Philosophical Bases of Yog,
 - ii) Practices in Samkhya,
 - iii) Psychology: Introduction, History.
 - iv) Concept of Consciousness and Self in Psychology.
 - v) Psychology as “Mental Care System”.
 - vi) Psychology Understanding of Yoga Darshana from the View Point of Shad Darshana.
2. Psychological View of Normality and Yog Therapy -
 - i) In-depth Psychological Understanding of Yog in the Context of Taittiriya Aranyaka.
 - ii) In-depth Psychological Understanding of Yog in the Context of Models of Normality Presented by Eminent Psychologists.
3. Psychology - Development of Therapeutic Approach in Yog.
4. Functional & Emotional Disorders in the Context of Psychology, Yogic Texts, Counselling and Personality.
5. Personality Dynamics & Experiential Phenomena in Yog Therapy as per Yogic Text
6. Medical Implications of Abnormal Behaviour and Effect of Yogic Techniques, Abnormality, Prayer.

5. Yoga in Bhagawat Gita -Therapeutic Significance of Bhagwat Gita

6. Yog as a Lifestyle :

1. Yog- Anushasanam for Brain – Body,
2. Modifications in Brain by Yog,
3. Yama – Niyama – Yogic Lifestyle,
4. Emotional Education,
5. Spiritual Education

PRACTICALS:

1. Stretching Exercises
2. Loosing exercises (Shitilikarana, Vyayama, and, Breathing, exercises)
3. All Asana of I B.N.Y.S. & II B.N.Y.S. plus advanced postures from yoga Deepika,
4. Pranayama (as in I B.N.Y.S. & II B.N.Y.S.)
5. Kriyas– (as in I B.N.Y.S. & II B.N.Y.S.)
 - a) Dhouti – Vastra, Danda
 - b) Gajakarani–(Vaisara Dhouti)

- c) Nauli– all the three types
- d) Shankaprakshalana – laghu & maha shankaprakshalana
- e) Basti

6. Meditation:

- a. Omkara
- b. Cyclic
- c. Vipassana

RECOMMENDED BOOKS:

1. Yog Darshan – P.P Swami Ramdev ji
2. Basis and definitions of Yoga - Vivekananda Kendra
3. Yoga Darshan - P.P. Swami Ramdev ji
4. Yoga – its Philosophy and Practice - P.P. Swami Ramdev ji
5. Yoga Vignanam - Acharya Balkrishna ji
6. Asanas-Swami Kuvalyananda
7. Yog, its philosophy and practice – P.P. Swami Ramdev ji
8. Yog Vignanam – Acharya Balkrishna ji
9. Raja, Hatha, Jnana, Bhakti Yoga - Swami Vivekananda
10. Yoga Biomechanics : Stretching Redefined – Jules Mitchell
11. Pranayama Rahasya – P.P. Swami Ramdevji
12. Encyclopedia of Indian physical culture- DC Mujumdar

REFERENCE BOOKS

1. Yog Samanya Gyan – P.P Swami Ramdev ji
1. Science Studies Pranayama – Patanjali Research Foundation
2. Yoga in Synergy with medical sciences - Acharya Balkrishna ji
3. Science of Yoga: Understand the Anatomy and Physiology to perfect your Practice – Ann Swanson.
Yoga Anatomy – Leslie Kaminoff and Amy Matthews

NUTRITION & HERBOLOGY

Subject Title : NUTRITION & HERBOLOGY (Duration : 12 Months)

Subject Code : BNYS – T 306 & BNYS – P 306

Subject	Theory	IA	Total	Practical	Viva voce	IA	Total	Grand Total Marks
Nutrition & Herbology	80	20	100	60	30	10	100	200

*IA - Internal Assessment

GOALS AND OBJECTIVES

Goal:

The goal of teaching nutrition and herbology to undergraduate students is to enable them to analyze 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.

Course Objectives:

- Describe fundamentals of nutrition, with respect to different nutrients and food groups;
- Illustrate details of nutritional requirements for different age groups, as well as pregnant and lactating women.
- Demonstrate therapeutic application of nutrition for common diseases
- Compare modern nutrition to traditional; naturopathic diets;
- Have detailed knowledge of recent advances and studies, such as carcinogens in food, food additives, contaminants, etc.
- Illustrate the use of specific herbs in common diseases, with therapeutic values.

Course Outcomes (Cos) :

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

- **CO 1** - Assess the nutritional status of a patient.
- **CO 2** - Plan, implement and evaluate nutritional advice for people with different ages and patients of different diseases, including the use of herbs. .

Integration:

At the completion of training, the student should be able to comprehensively integrate traditional naturopathic nutrition and modern nutrition along with the herbs, and employ the same for the therapeutic purposes.

THEORY

1. Nutrition

(120 Hrs)

1. Definition of food, nutrition, nutrient and diet
2. What is nutrition healing
3. Defining essential nutrients
4. Proteins and amino acids
5. Carbohydrates
6. Lipids, sterols, and their metabolism
7. Energy needs: assessment and requirements in humans
8. Electrolytes, water and acid-base balance
9. Minerals - calcium, phosphorous, magnesium, iron zinc, copper, iodine, selenium, chromium, trace minerals

10. Vitamins-A, retinoid, D, E, K, Thiamine, Riboflavin, Niacin, Pantothenic acid, Folic acid, B12, Biotin, C.
11. Clinical manifestations of human vitamin and mineral disorders
12. Role/significance of nutrition
 - i. Regulation of gene expression
 - ii. Membrane and transport
13. Control of food intake
14. Antioxidants
15. Food groups
16. Metabolic consequences of starvation
17. Fiber and other dietary factors affecting nutrient absorption and metabolism
18. Hormone, cytokine, and nutrient reactions
19. Nutrition and immune system
20. Oxidative stress and oxidant defense
21. Diet in work and exercise performance
22. Body composition: influence of nutrition, physical activity, growth, and aging
23. Maternal nutrition
24. Nutritional requirements during infancy
25. Diet, nutrition, and adolescence
26. Nutrition in the elderly.
27. Clinical nutrition assessment of infants and children
28. Clinical and functional assessment of adults
29. Nutritional assessment of malnutrition by anthropometric methods
30. Laboratory tests for assessing nutritional status
31. Dietary assessment
32. Childhood obesity
33. Nutritional management of infants and children with specific diseases/conditions
34. Assessment of malabsorption
35. Nutrition in pancreatic disorders
36. Nutrition in liver disorders.
37. Nutrition and diet in the management of hyperlipidemia and atherosclerosis
38. Nutrition, diet, and hypertension
39. Diet, nutrition, and prevention of cancer
40. Carcinogens in food
41. Nutritional support of the cancer patient
42. Nutrition and diet in rheumatic diseases
43. Nutritional management of diabetes
44. Obesity
45. Nutritional aspects of hematologic disorders
46. Renal disorders and nutrition
47. Nutrition, respiratory function, and disease
48. Diagnosis and management of food allergies
49. Nutrition and diet in alcoholism
50. The hyper catabolic state
51. Nutrition and infection
52. Nutritive value of food ingredients commonly used in India

53. Enteral feeding (only theory)
54. Parenteral nutrition (only theory)
55. Nutrition and medical ethics - the interplay of medical decisions, patients'rights, and the judicial system.
56. RDA individuals and populations
57. Nutritional implications of vegetarian diets
58. Social and cultural influences on food consumption and nutritional status
59. Food additives, contaminants, and natural toxins
60. Comparative study of modern nutrition and traditional naturopathy diet

2. Medicinal herbs

The following herbs are to be studied with respect to

- Basonym of drug
- Important Synonyms
- Regional Name
- Binomial Name
- Family
- Rasa Panchaka- Rasa, Guna, Virya, Vipak & Prabhav
- Action on Doshas, Dhatu and Mala
- Therapeutic Indications
- Therapeutic Uses
- Adverse Effects if any
- Remedial Majors

Herbs –

- | | | |
|---------------------------------------|---|---|
| 1. Acorus Calamus | 18. Emblica officinalis | 34. Ricinus communis |
| 2. Adethoda Vasica | 19. Ficus glomerata | 35. Santalum album |
| 3. Allium Capa | 20. Foeniculum vulgare | 36. Tamarindus indica |
| 4. Allium Sativum | 21. Glycyrrhiza glabra
(liquorice) | 37. Terminalia chebula |
| 5. Aloe Vera | 22. Hibiscus rosa-sinensis | 38. Vitis vinifera |
| 6. Asparagus racemosus
(Shatavari) | 23. Lawsonia inermis /
L.alba (henna) | 39. Withania somnifera
(Ashwagandha) |
| 7. Azadirachta Indica | 24. Mentha spicata | 40. Zingiber officinale |
| 8. Carica Papaya | 25. Momordica charantia | 41. Terminalia bellirica |
| 9. Carum Carvi | 26. Moringa oleifora | 42. Terminalia Arjuna |
| 10. Catharanthus Roseus | 27. Myristica fragans | 43. Cinnamomum Camphora |
| 11. Cinnamomum
Zeylancum | 28. Nigella sativa | 44. Cinnamomum tamala |
| 12. Coriandrum Sativum | 29. Ocimum sanctum | 45. Embelia ribes |
| 13. Commiphora Mukul | 30. Piper longum | 46. Coriandrum sativum |
| 14. Cuminum Cyminum | 31. Piper nigrum | 47. Ficus carica |
| 15. Curcuma Longa | 32. Punica granatum | 48. Commiphora mukul |
| 16. Eclipta alba | 33. Rauvolfia serpentina
(Sarpagandha) | 49. Benincasa hispida |
| 17. Elettaria Cardamomum | | 50. Syzygium aromaticum |

TEXTBOOKS

1. World Herbal Encyclopedia – Acharya Balakrishnaji
2. Secret of Indian Herbs for Good Health – Acharya Balkrishnaji
3. Bhojankutuhalam –Acharya Balkrishnaji
4. Aahar Rochan –Acharya Balkrishnaji
5. Ruchivadhu-Gal-Ratnamala – Acharya Balkrishnaji
6. Ashtang Niganthu - Acharya Balkrishnaji
7. Nutrition Sciences – V.Srilakshmi (New Age International Publishers)

REFERENCE BOOKS:

1. Checklist of World Herbal Encyclopedia – Acharya Balakrishnaji
2. Mera Aahar, Mera Swasthya – Dr. NK Neeraj

MANIPULATIVE THERAPY

Subject Title : MANIPULATIVE THERAPY (Duration : 12 Months)

Subject Code : BNYS – T 307 & BNYS – P 307

Subject	Theory	IA	Total	Practical	Viva voce	IA	Total	Grand Total Marks
Manipulative Therapy	80	20	100	60	30	10	100	200

*IA - Internal Assessment

GOALS AND OBJECTIVES

Goal

The goal of teaching manipulative therapy to the undergraduate student is to provide them with a comprehensive understanding of science and modes of application of different manipulative modalities like massage, chiropractic, osteopathy, and aromatherapy with preventive, curative and rehabilitative therapy.

Course Objectives:

- Understand the principles and historical highlights of massage and manipulative techniques
- Demonstrate basic understanding of principles and procedures of different types of massage their physiological effects, indications, and contraindications
- Delineate the principles and procedures of various manipulative therapies like chiropractic, osteopathy, reflexology and aromatherapy
- Describe essential oils with respect to the extraction, uses and combination that are therapeutically used.

Course Outcomes (Cos) :

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

- **CO 1** - Perform 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.
- **CO 2** - Use therapies such as reflexology and zone therapy in their professional practice for musculoskeletal disorders, etc.

THEORY

1. Introduction and historical highlights of massage & manipulative Techniques

2. Classification of (lubricants) Massage

- i) Basic therapeutic massage (Swedish) techniques, procedure, indications, contraindications, physiological action
- ii) Joint movement in massage therapy
- iii) massage to local areas

3. Professional Standards of Massage Professionals

4. Physiological Effects, Indications and Contraindications of massage various organ systems.

5. Kellogg's Massage

6. Shiatsu

7. Pediatric Massage

8. Geriatric Massage

9. Massage for Antenatal Care

10. Ayurvedic Massage- Terminology, Procedure Manipulations

11. Panchakarma in brief

12. Chiropractic

1. History
2. The importance of spine in chiropractic
3. Physiological effect
4. Chiropractic Examination
5. Spinal Manipulative Therapy
6. Treatment of Various Diseases

13. Osteopathy

- i. Definition
- ii. History
- iii. Basic principles
- iv. Relation of osteopathy to the musculoskeletal system

14. Other

- i. Thai yogic massage
- ii. Balinese
- iii. Hot-stone massage
- iv. Dry brush massage
- v. Deep tissue massage
- vi. Powder massage
- vii. Vibratory massage

15. Aromatherapy

- i. Definition, origin, history
- ii. Essential oils
 - a) Types
 - b) Extraction-Distillation, cold pressing or expression, solvent extraction method
 - c) Storage of essential oils
 - d) How to recognize an essential oil
 - e) How to select aroma oils
 - f) How essential oils work
 - g) Carrier oils- Almond oil, Apricot kernel oil, Avocado oil, carrot oil, corn oil, primrose oil, grape seed oil, hazelnut oil, jojoba oil, olive oil, peanut oil, safflower oil, sesame oil, soybean oil, sunflower oil.
- iii. Different methods of using essential oils- inhalation, diffusers, vaporizers, massage, baths, footbaths, potpourri, compresses, oral intake, beauty treatment, room spray, insect repellents etc.
- iv. Description of different essential oils and their benefits
 - a) Amrette seeds, aniseed, angelica, basil, bergamot, black pepper, camphor, cardamom, chamomile, clove bud, cedar wood, cypress clary sage, eucalyptus, fennel, frankincense, geranium, ginger, juniper berry, lavender, lemon, lemongrass, marjoram, neroli, orange, Palma rose, peppermint, patchouli, pine, rose, rosemary sandalwood, tarragon, tea tree, thyme (white). vetiver, ylang-ylang
- v. The best essential oils
 - a) 5 fragrance categories- green, floral, citrus, woody, spicy

- b) Mixing of aroma oils, equipment required for mixing oils
- vi. Precautions for use of aroma oils- skin patch test, testing essential oils in its pure state
- vii. Ill effects of aroma oils- in eyes, toxic effects, allergic effects etc.
- viii. Careful handling of essential oils
- ix. Contraindications
 - a) Oils to be avoided-phototoxic or photosensitive oils, oils to be avoided in pregnancy, oils that cause skin irritation etc.

13. Reflexology and Zone therapy

- i. what is reflexology, history, and development
- ii. how does it work
- iii. Body and its reflex zones
- iv. application, indications, and contraindications
- v. preventive effects of reflexology

14. Milestones of females and its management through massage

PRACTICAL

1. 10 full body massages
2. 35 partial massages
3. Panchakarma demonstration and identification of different oils
4. Demonstration of different methods of application
 - i. Inhalation
 - ii. Compression
 - iii. Diffuses
5. Local Baths

TEXTBOOKS

1. Massage - George Downing
2. Massage therapy - Dr. JH Kellogg
3. Massage - Constant Young
4. The complete Book of Massage - Claire Maxwell-Hudson

FUNDAMENTAL PRINCIPLES OF INTEGRATED SYSTEM OF MEDICINE –4th

Subject Title : FUNDAMENTAL PRINCIPLES OF INTEGRATED SYSTEM OF MEDICINE –4th
(Duration : 12 Months)

Subject Code : BNYS – T 308

Subject	Theory	IA	Total	Practical	Viva voce	IA	Total	Grand Total Marks
Fundamental principles of integrated system of medicine – 4 th	80	20	100	-	50	-	50	150

*IA - Internal Assessment

GOALS AND OBJECTIVES

Goal:

The goal at giving knowledge about the basics of Ayurveda which are important to identify the cause of disease and guide to follow healthy lifestyle to prevent and treat disease. It also provides a knowledge of History of Ayurveda and in order to be able to study, understand, comprehend and utilize the knowledge contained in Indian traditional texts in their professional practice, especially in the field of Yoga.

Course Objectives:

- Understand origin , history ,important of Ayurveda.
- Understand Principles behind Vyavahar Ayurveda and Vidhi Vaidyak,Shareera Stree Sharir Rachna, Shroni, Yoni, Garbhashaya , Ahara & Dravya Guna.
- Understand Fundamental viewpoints of Classical view.

Course Outcomes (Cos) :

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

- **CO 1** - Describe the various principles of Ayurveda.
- **CO 2** - Explore the information about various Shareera Stree Sharir Rachna, Shroni, Yoni, Garbhashaya , Ahara & Dravya Guna.
- **CO 3** - Elucidate the history of Vyavahar Ayurveda and Vidhi Vaidyak,Shareera Stree Sharir Rachna, Shroni, Yoni, Garbhashaya , Ahara & Dravya Guna.

THEORY

1. Basics of Vyavahar Ayurveda

- i. Definition of Vyavahar Ayurveda and Vidhi Vaidyak
- ii. History of Vyavahar Ayurveda and Vidhi Vaidyak
- iii. Mrityu according to Ayurved

- iv. Agantuja Vrana and its Classification
- v. Introduction to Manas Roga
- vi. Mrit Garbha Lakshanas according to Ayurved
- vii. Medical Ethics in Ayurveda

2. Basics of Stree Roga & Prasuti Tantra

- i. Stree Sharir Rachna, Shroni, Yoni, Garbhashaya
- ii. Garbhadhana Vidhi evam Garbha Sambhava Samigri
- iii. Masanumasik Vridhi of Garbha
- iv. Garbhini Paricharya
 - v. Asana Prasava, Prajayini, Upastith Prasava
 - vi. Asana Prasava Paricharya
 - vii. Sutika Vigyan evam Paricharya
- viii. Navjaat Shishu Paricharya
- ix. Sutika Jwara
- x. Garbhasanga, Aparasaga
- xi. Yonivayapada evam Artava Dusti

3. Basics of Ahara & Dravya Guna

- i. Ahara, Ahara Vargikaran, Ashta Ahara Vidhi Vishesh Ayatan
- ii. Dwadash Ashan Paricharya
- iii. Pathya Apathya Ahara
- iv. Ahara Varga
- v. Dravya- Etymological Derivation, Definition, Sapta Padartha
- vi. Rasa- Etymological Defition, Characteristics, Panchbhautikatwa, Effects of Season, Rasa Utpatti, Classification , Characteristics and Functions of Six Rasas, Local and General actions of Rasa, Knowledge of Shamana, Kopana of Doshas and Dushyas by Ras
- vii. Guna- Etymology, Definition, Characteristcs, Classification, Number and Brief Knowledge of Gurvadi Guna
- viii. Vipaka- Etymology, Definition, Characteristics, Analysis and Determination, Types
- ix. Virya- Etymology, Definition, Characteristics, Karma

RECOMMENDED BOOKS:

1. Ayurveda Siddhant Rahasya/ A Practical Approach to Science of Ayurveda – Acharya Balakrishna
2. Ashtang Hridayam – Acharya Balkrishnaji