

Subject title: MANIPULATIVE THERAPY

Subject Code: BNYS T 301 & BNYS P 301

Total Number of Hours: 250	Theory: 150	Practical: 100		
Credits				
Hours/week				
SCHEME OF EXAMINATION				
Total Marks: 200				
Theory: 130		Practical: 70		
Final Theory Exam	Internal Assessment	Viva Voce	Final Practical Exam	Internal Assessment
80	20	30	60	10

Goals & 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, chiropractics, osteopathy, and aromatherapy with preventive, curative and rehabilitative therapy.

Objectives

Knowledge:

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

- 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 chiropractics, osteopathy, reflexology and aromatherapy
- Describe essential oils with respect to the extraction, uses and combination that are therapeutically used

Skills:

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

- Perform different types of massage and manipulative therapies, such as osteopathy, chiropractics, aromatherapy , Swedish massage , Kellogg's massage, Shiatsu, Geriatric massage, Pediatric massage, antenatal massage , Ayurvedic massage, etc.

- Use therapies such as reflexology and zone therapy in their professional practice for musculoskeletal disorders, etc.

THEORY

Unit 1: <u>Introduction and historical highlights of massage & manipulative Techniques.</u>	(5 hours)
Unit 2: <u>classification of (lubricants) massage</u>	(10 hours)
i) Basic therapeutic massage (Swedish) techniques.-procedure, indications, contraindications, physiological action	
ii) Joint movement in massage therapy	
iii) massage to local areas	
Unit 3: <u>professional standards of massage professionals</u>	(5 hours)
Unit 4: <u>physiological effects, indications, and contraindications of massage on various organ systems</u>	(10 hours)
Unit 5: <u>Kellogg's massage</u>	(5hours)
Unit 6: <u>Shiatsu</u>	(5hours)
Unit 7: <u>Pediatric massage</u>	(3 hours)
Unit 8: <u>Geriatric massage</u>	(3 hours)
Unit 9: <u>Massage for antenatal care</u>	(3 hours)
Unit 10: <u>Ayurvedic massage- terminology, procedure manipulations</u>	(5 hours)
Unit 11: <u>Panchakarma in brief</u>	(5 hours)
Unit 12: <u>Chiropractic</u>	(20 hours)
i) History	
ii) The importance of spine in chiropractic	
iii) Physiological effect	
iv)chiropractic examination	
v) Spinal manipulative therapy	
vi) Treatment or various diseases	
Unit 13: <u>Osteopathy</u>	(15 hours)
i) Definition	
ii) History	
iii) Basic principles	
iv) Relation of osteopathy to the musculoskeletal system	
Unit 14:	(10 hours)
i. Thai yogic massage	
ii. Balanese	
iii. Hot-stone massage	
iv. Dry brush massage	
v. Deep tissue massage	
vi. Powder massage	
vii. Vibratory massage	

Unit 15: Aromatherapy

(20 hours)

- 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.

Unit 16: Reflexology and Zone therapy

(10 hours)

- 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

Unit 17: Milestones of females and its management through massage (10 hours)

PRACTICAL

Unit1: 10 full body massages

Unit2: 35 partial massages

Unit 3: Panchakarma demonstration and identification of different oils

Unit 4: Demonstration of different methods of application

- i. Inhalation
- ii. Compression
- iii. Diffuses

Unit 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

Subject name: ACUPUNCTURE & ACUPRESSURE

Subject Code: BNYS T 302& BNYS P 302

Total Number of Hours: 250	Theory: 100		Practical: 100	
Credits				
Hours/week				
SCHEME OF EXAMINATION				
Total Marks: 200				
Theory: 130			Practical: 70	
Final Theory Exam	Internal Assessment	Viva Voce	Final Practical Exam	Internal Assessment
80	20	30	60	10

Goal and objectives:

Goal:

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

Objectives

Knowledge:

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

- Illustrate the definition of Acupuncture;
- Understand the principles and historical highlights of Acupuncture;
- Explain the concepts and theories behind the mechanism in which acupuncture works, both traditional and modern;
- Demonstrate a basic understanding of procedures of different styles of Acupuncture and related therapeutic modalities, such as traditional Acupuncture, scalp Acupuncture, Auriculotherapy, Acupuncture anesthesia, Reflexology, Ozone therapy, Acupressure, etc.;
- Describe basic and advanced tools used in acupuncture;
- Be aware of the contraindications and dangers of Acupuncture, so as to avoid these in his/her professional practice.

Skills:

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

- Diagnose common disease and the disorders using diagnostic techniques employed in Acupuncture, such as Tongue Diagnosis, Pulse Diagnosis, etc.

- Demonstrate skill in topographically locating meridians and Acupuncture points on the human body
- Perform needling and other essential skills in delivering Acupuncture therapy to a patient.
- Plan, implement and evaluate Acupuncture sessions with expertise in his/her professional practice.

Integration:

At the completion of training, the student should be able to comprehensively understand the traditional and modern approaches to Acupuncture and effectively utilize the same in preventive, primitive, curative and rehabilitative clinical practice as well as research projects.

THEORY:

Unit- 1: <u>Definition, Concepts of Acupuncture.</u>	(2 hours)
Unit- 2: <u>Traditional and modern theories of Acupuncture.</u>	(5 hours)
Unit- 3: <u>Materials and methods of Acupuncture.</u>	(3 hours)
Unit- 4: <u>Principles of Acupuncture</u>	(3 hours)
Unit- 5: <u>Rules for the selection of Acupuncture points.</u>	(2 hours)
Unit- 6: <u>Contraindication and complications of Acupuncture.</u>	(2 hours)
Unit- 7: <u>The concept of meridians:</u>	(25 hours)
i. Lung Meridian (Lu)	
ii. Large intestine Meridian (LI)	
iii. Stomach Meridian (St)	
iv. Spleen Meridian (Sp)	
v. Heart Meridian (H)	
vi. Small intestine Meridian (SI)	
vii. Urinary bladder Meridian (UB)	
viii. Kidney Meridian (K)	
ix. Pericardium Meridian (P)	
x. Triple Warmer Meridian (TW)	
xi. Gall Bladder Meridian (GB)	
xii. Liver Meridian (Liv)	
xiii. Governing vessel Meridian (GV)	
xiv. Conceptional vessel Meridian (CV)	
xv. Extra Meridian.	

- UNIT- 8:** The Extraordinary points (5 hours)
- UNIT- 9:** Examination methods of traditional Chinese medicine. (5 hours)
- UNIT- 10:** Auriculotherapy. (4 hours)
- UNIT- 11:** Scalp Acupuncture. (6 hours)
- UNIT- 12:** Moxibustion. (5 hours)
- UNIT- 13:** Types of stimulation in Acupuncture. (4 hours)
- i. Manual stimulation
 - ii. Electro Acupuncture.
- UNIT- 14:** Acupuncture therapeutics. (10 hours)
- UNIT- 15:** Acupuncture anesthesia (5 hours)
- UNIT- 16:** Reflexology & Ozone therapy. (5 hours)
- i. Reflexology, history, and development.
 - ii. How does reflexology work
 - iii. Body and its reflex zones
 - iv. Application, indication, and contraindication, preventive effects of reflexology.
- UNIT- 17:** Acupressure (4 hours)
- i. What is Acupressure
 - ii. Origin and development
 - iii. Physiological effects
 - iv. Therapeutic uses of Acupressure

PRACTICALS:

Unit 1: Demonstration of needling techniques, moxibustion, and electro stimulation.
(20 hours)

Unit 2: Each student should give treatment for at least 20 patients during the practical.
(20 hours)

Reference books:

1. Clinical practice of Acupuncture – A. L. Agarwal.
2. Clinical Acupuncture – Dr. Anton Jayasurya.
3. Principles and Practice of Acupuncture – Dr. J. K. Patel.
4. Health in your Hands - DevenderVora.
5. Clinical Acupuncture and Moxibustion – Liu Gong Wang.
6. Fundamentals of Acupuncture and Moxibustion - Liu Gong Wang / Akira Hyodo.
7. Advanced Acupuncture therapy – Arjun. L. Agarwal, Govind N Sharma .
8. Classical Acupuncture – The Standard textbook – Porket. Hemen, the china Academy.
9. Reiki:
 - Empowerment through Reiki – Paula Horan.
 - Reiki – Energy Medicine – Libby Barnett & Maggie Chamber with Susan Davidson.
10. Pranic Healing:
 - Pranic Healing using breathing with Healing mantras – Dr. L. R. Chowdhry.
 - Advanced Pranic Healing – ChoaKok Sui.
 - The Ancient Science and Art of Pranic Crystal Cleaning - ChoaKok Sui.

Subject title: YOGA & ITS APPLICATION

Subject Code: BNYS T 303 & BNYS P 303

Total Number of Hours: 165	Theory: 100	Practical:100		
Credits				
Hours/week				
SCHEME OF EXAMINATION				
Total Marks: 200				
Theory: 130		Practical: 70		
Final Theory Exam	Internal Assessment	Viva Voce	Final Practical Exam	Internal Assessment
80	20	30	60	10

Goals & objectives

Goal

The goal of teaching yoga and its applications to undergraduate student is to provide them with comprehensive understanding of yoga with reference to traditional texts like Patanjali Yogasutras, Hatha Yoga Pratipika, Shiva Samhita, Gheranda Samhita and Swara yoga; various streams of Yoga, advanced meditative techniques like Yoganidra, Omkar, cyclic meditation, Vipasana meditation and learn about their psychological & physiological benefits compared to exercises.

Objectives

Knowledge:

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

- Illustrate the knowledge of traditional texts like Patanjali Yoga Sutras, Hatha Yoga , Siva Samhita and Gheranda Samhita
- Understand the principles behind various meditative practices like Yoganidra, Om meditation, cyclic meditation, Vipassana and so on
- Explain about yoga in relation to its application in education, sports;
- Demonstrate basic understanding of procedures of stretching an exercise.
- Describe basic physiological changes in asana
- Be aware of the effects of Shatkriyas and their adverse effects

Skills:

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

- Describe the concept of yoga as explained in the traditional texts
- Deliver a meditative session using any of the meditative styles

- Implement various exercises loosening or eye exercises or stretching to complement yoga practice

THEORY

- Unit 1:** Pathanjali yoga sutras- first two chapters (i.e. Samadhi Pada, Sadhana Pada brief summary of Vibhuti Pada) (10 hours)
- Unit 2:** Hatha yoga prathipika- full text with necessary reference to Ghrenda Samhita and Siva Samhita (30 hours)
- Description of practice of asanas 15,16,17,32,34 ,35,38,44,47,48,50 51,53 ,54,57, 58 ,59 ,62 ,63 ,64 ,65 ,67.
 - Description of practice of pranayama; versus-2,3, 5-12,14,16-20,22,24,26-32,34-37,39,30,44-51,54,57,59
- Unit 3:** Introduction to other streams of yoga: (6 hours)
Kundalini, Tantra, swaraand kriya
- Unit 4:** yoga Nidra- methods, applications, effects and benefits (5 hours)
- Unit 5:** Meditation- types - omkar, cyclic, vippassana, (5 hours)
- methods of application
 - benefits,
 - precaution
 - influence on health and disease
- Unit 6:** yoga in relation to personality and education (5 hours)
- Unit 7:** yoga in relation to sports, games, social and political life (6 hours)
- Unit 8:** eye exercises- benefits, methods and precautions (3 hours)
- Unit 9:** physiological aspects of asana (4 hours)
- Unit 10:** physiological, neurophysiologic aspect of pranayama (6 hours)
- Unit 11:** shatkriyas – comparative study of shatkriyas with other systems of medicine (4 hours)
- Unit 12:** physiological aspects of exercises (4 hours)
- Unit 13:** physical exercises for health and fitness (8 hours)
- introduction
 - who should stretch
 - when to stretch
 - why to stretch
 - how to stretch

- vi. relaxing stretches for back, leg, feet and ankles, hips, hamstrings and lower back
- vii. stretching exercises for elderly
- viii. stretching exercises for abdominal muscles, arms, chest, ankle, legs, thighs, forearm and knees
- ix. techniques of walking, running, cycling, etc
- x. caring for the back

PRACTICAL

Unit 1: All previous year asana – Veerasana, Koormasana, Kukkutasana, Uttaankoormasana, Matsyendrasana, Padmamayurasana, Simhasana, Sarvangasana (all variants), Sirsasana (all variants)

Unit 2: All loosening (Sithilikarana Vyayama) and breathing exercises

Unit 3: All previous year's pranayama -plus, Suryabedhana, Chandrabedhana, cat and tiger breathing, new variants of pranayama.

Unit 4: All previous year's kriyas plus – Dandadhouthi, Agnisara, Nauli, Bandas, mudras.

Textbooks

1. Autobiography of a yogi- Paramahansa Yogananda
2. Yoga as philosophy and religion- SN Dasgupta
3. Yoga - The Science of Holistic Living-VK Yogi
4. A complete illustrated book of Yoga- Swami Vishnu
5. Encyclopedia of Indian physical culture- DC Mujumdar
6. Preksha meditation- Acharya Tulsi

Subject name: NUTRITION & MEDICINAL HERBS

Subject Code: BNYS T 304& BNYS P 304

Total Number of Hours: 250	Theory: 150	Practical: 100		
Credits				
Hours/week				
SCHEME OF EXAMINATION				
Total Marks: 200				
Theory: 130			Practical: 70	
Final Theory Exam	Internal Assessment	Viva Voce	Final Practical Exam	Internal Assessment
80	20	30	60	10

Goal and objectives:

Goal:

The goal of teaching nutrition and medicinal herbs 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.

Objectives:

Knowledge:

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

- 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.

Skills:

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

- Assess the nutritional status of a patient.
- 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:

Unit 1: Nutrition

(120 hours)

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, ultra 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 and/or 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

Unit - 2: Medicinal herbs

(30 hours)

1. Introduction to Herbology
2. Following herbs are to be studied with respect to their source and therapeutic uses. Botanical details can be avoided.
 1. Embelicaofficinalis
 2. Cassia fistula
 3. Ficus glomerate
 4. Vetiveriazizanodies
 5. Cinnamomumcamphora
 6. Mosardicacharantia

7. Tribulusterrestris
8. Myristicafragrans
9. Cuminumcyminum
10. Sesamumindicum
11. Ocimum sanctum
12. Punicagranatum
13. Coriandrumsativum
14. Azadirachtaindica
15. Alliums cepa
16. Piper longum
17. Psoraleacorylifolia
18. Taxusbaccata
19. Aeglemarmelos
20. Semecarpusanacardium
21. Phyllanthusniruri
22. Piper nigrum
23. Trigonellafoenum – grade cum
24. Santalum album
25. Allium sativum
26. Mimosa pudica
27. Coruscalamus
28. Asparagus racemose
29. Rauwolfia serpentine
30. Curcuma long
31. Terminaliachebula
32. Ferula narthex
33. Syzygiumaramaticum
34. Terminaliabelerica
35. Zingiber Officinalis

Textbooks

1. Davidson and Passamore Human Nutrition – Passamore
2. Clinical Dietetics and Nutrition – FP Antia
3. Normal Therapeutic Nutrition – Corinne Robinson
4. Essentials of Food and Nutrition – Swaminathan
5. Sprouts – JD VaishYogaSamsthan
6. Science and Art of Food and Nutrition – Herbert Shelton
7. Nutritive Values of Indian Foods – NIN (Hyd)
8. Publications of NIN, Hyderabad
9. Herbs that Heal – HK Bakhru
10. Charaka and *Sushruta Samhita*
11. Fundamentals of *Ayurveda* – Mahadev Shastri

Subject title: NATUROPATHY DIAGNOSIS

Subject Code: BNYS T1 305 & BNYS P1 305

Total Number of Hours: 200	Theory: 100	Practical: 100		
Credits				
Hours/week				
SCHEME OF EXAMINATION				
Total Marks: 200				
Theory: 130		Practical: 70		
Final Theory Exam	Internal Assessment	Viva Voce	Final Practical Exam	Internal Assessment
80	20	30	60	10

Goals & Objectives

Goal:

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

Objectives

Knowledge:

After completion of the course the student shall be able to

- Define and be aware of the historically significant developments in diagnosis procedures used in naturopathy
- Illustrate the characteristics of a healthy body with respect to naturopathic principles
- Describe the philosophical theories of causation of disease according to naturopathy
- Utilize knowledge of encumbrances, their types, an interpretation, along with, naturopathic ways of therapeutically correcting them
- Understand and diagnose the pathology or the preponderance to a pathology based on physical diagnosis, anthropometric measurements and gait patterns

- Describe the characteristics of normal and unhealthy skin in different diseases
- Comprehend the techniques and interpretations of stool and urine diagnosis correlating modern medical knowledge and Ayurvedic sthoola and muthrapariksha

Skills:

Use of different diagnostic procedures in naturopathy to effectively and accurately diagnose various diseases, such as facial diagnosis, stool and urine diagnosis.

THEORY**Unit 1: Facial diagnosis**

(32 hours)

- i) Introduction
- ii) Characteristics of healthy body
- iii) Foreign matter theory, toxemia theory, vitality theory
- iv) Physiological and pathological perspective of foreign matter, toxaemia and mm
- v) Unity of disease, Unity of cure- interpretation with contemporary medicine
- vi) Encumbrance, its types, its interpretation with contemporary medicine.
- vii) Habits- significance, consequence an its correspondence in encumbrance
- viii) Significance of naturopathy treatment modalities in correction of encumberance.

Unit 2: Iridiagnosis

(38 hours)

- i) Definition and Historical Highlights
- ii) Anatomy of iris in detail
- iii) Conceptual theories of Iridiagnosis
- iv) Comparison of the science of iridiagnosis with concepts of *Drishtipraraksha* in *Ayurveda* and ophthalmology in modern medicine.
- v) Technique in iris reading
 - a. Normal and abnormal iris
 - b. The vibratory theory and its significance
 - c. Diagnostic chart
 - d. Iridoscope
 - e. Zones
 - f. Sectorial division
 - g. Interpretation of iris manifestation
 - h. Inherent lesions and weakness

- i. Cataract
- j. Toxic settlements
- k. Nerve rings
- l. Lymphatic rosary
- m. Injuries and surgeries
- n. Psora spot, scurf rim
- o. Rarii Solaris
- p. Sympathetic nerve wreath
- q. Closed and open lesions
- r. Sodium ring
- s. Circulatory indicators
- t. Drugs and chemicals' appearance in the iris and their effect on the body
- u. Arsenic, bismuth, bromides, coal tar products, ergot, glycerin, iodine, iron, lead, mercury, opium, phosphorus, quinine, salicylic acid,, sodium, strychnine, sculpture, turpentine, vaccines etc.

Unit 3: Stool and Urine analysis (6 hours)

- i) Characteristics of normal stool and urine
- ii) Abnormal characteristics and significance
- iii) Comparison of Stool and urine diagnosis with mala & moothra pareeksha in Ayurveda

Unit 4: Skin Diagnosis (6 hours)

- i .Anatomy of skin
- ii. Skin types
- iii. Abnormality and its significance in Health
- iv. Comparison of skin diagnosis with twakpareeksha in *Ayurveda*

Unit 5: Tongue diagnosis (5 hours)

Unit 6: Pulse diagnosis (5 hours)

Unit 7: Chromo diagnosis (4 hours)

Unit 8: Advanced research updates (4 hours)

PRACTICAL

- i. Case sheet writing - minimum 25 cases with naturopathic diagnostic methods
(25 hours)
- ii. Regular hospital visit
(35 hours)
- iii. Dissertation of at least 20 cases studies with significant and relevant
Naturopathic diagnostic modalities
(40 hours)

Reference Books:

- 1 Macfaddans Encyclopedia of Physical Culture - Bernard McFadden
- 2 *Asthangahridayam*
- 3 *Charka samhitha*
- 4 *Susrutha samhitha*
- 5 The Science of Facial Expression – Louis Kuhne
- 6 Iridology - Dr. Bernard Jenson

Subject title: MODERN DIAGNOSIS

Subject Code: BNYS T2 305 & BNYS P2 305

Total Number of Hours:250	Theory: 150	Practical: 100		
Credits				
Hours/week				
SCHEME OF EXAMINATION				
Total Marks: 200				
Theory: 130		Practical: 70		
Final Theory Exam	Internal Assessment	Viva Voce	Final Practical Exam	Internal Assessment
80	20	30	60	10

Goals & objectives:

Goal:

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

Objectives:

Knowledge:

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

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

Skills:

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

- Effectively take a case history with examinations and prepare a detailed case report;
- Prescribe and interpret any further investigations required for the provisional diagnosis made.

Integration:

At the completion of training, the student should be able to comprehensively understand the principles, procedures and nuances of Diagnostic Methods in Conventional Medicine and employ the same for diagnostic and prognostic purposes.

THEORY

(140 hours)

Unit 1: Examination of the patient

- i) Approach to a patient
- ii) History taking and case sheet writing
- iii) Symptomatology
- iv) Examination of vital data
- v) Importance of height, weight, abdominal girth
- vi) General physical examination
- vii) Examination of skin, nail and hair
- viii) Systemic examination of the patient
 - a. Examination of Abdomen (digestive system)
 - b. Examination of Cardiovascular system
 - c. Examination of Respiratory system
 - d. Examination of Renal and urogenital system
 - e. Examination of Central nervous system
 - f. Examination of Locomotor system
 - g. Examination of ear, nose and throat
 - h. Gynecological examination
 - i. Endocrine system and metabolic disorder
 - j. Examination of the eye
 - k. Provisional diagnosis

i. Routine and special investigations

1. Laboratory investigations: Urine analysis, stool examination, blood examination-peripheral smear, total WBC count, differential WBC count; ESR, Hb estimation ;BT ,CT ,platelet count, red cell indices, bone marrow examination.
2. Radiological investigations: Plain X-ray chest, K.U.B., lumbar and cervical spine, skull and paranasal sinuses, joints
3. Contrast Radiology: Barium swallow, barium meal, barium enema; cholecystography, myelography, angiography, bronchogram, myelogram
4. Electrocardiography
5. Echo-cardiograph
6. Coronary angiography
7. Electro-encephalography
8. Biochemical investigations: LFT, creatinine clearance test, Vanillo-mandelic acid (VMA) excretion test in urine, SGOT and SGPT, LDH, CPK, blood urea, serum creatinine, cholesterol, renal function test, serum uric acid and serum amylase
9. Diagnostic Paracentesis
10. Diagnostic Thoracocentesis
11. Lumbar puncture and CSF analysis
12. Radioactive iodine uptake studies
13. Thyroid T3, T4, TSH estimation
14. Diagnostic skin tests
15. Endoscopic procedures
16. Ultra-sonography
17. CT, PET, MRI, Doppler
18. Tissue biopsy and FNAC

Unit- 2: Final Diagnosis

PRACTICAL

- i. History taking and physical examination of cases.
- ii. Case sheet writing of different types of cases (25)
- iii. Demonstration of equipment and instruments used for investigation in modern diagnostics
- iv. Demonstration tour of an ultra-modern super-specialty hospital to view the latest technique of modern diagnosis

Textbooks

1. Hutchison's Clinical Methods
2. Manual of clinical Methods – PS Shankar
3. Clinical Diagnosis – JalVakil
4. Clinical Methods – Chamberlin
5. Physical Diagnosis – Golwala
6. Harrison's Principles of Internal Medicine
7. Manipal Manual of Clinical Medicine
8. Macleod's Clinical Examination
9. Davidson's Principles and Practice of Medicine
10. Essentials in Hematology and Clinical Pathology

Subject title: PSYCHOLOGY & BASIC PSYCHIATRY

Subject Code: BNYS T306 & BNYS P 306

Total Number of Hours:150	Theory: 100		Practical: 50	
Credits				
Hours/week				
SCHEME OF EXAMINATION				
Total Marks: 200				
Theory: 130			Practical: 70	
Final Theory Exam	Internal Assessment	Viva Voce	Final Practical Exam	Internal Assessment
80	20	30	60	10

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.

Objectives:

Knowledge:

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

- 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;

Skills:

- After the completion of the course, the student shall be able to:
- Utilize knowledge of psychology and psychiatry in diagnosing and managing various psychological disorders, assessing psychological profile;

- 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

Unit 1: The Evolution of Psychology- How psychology developed from speculation to science (10 hours)

- 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
 - e) Evolutionary psychology approach
 - f) Sociocultural approach
- iv) Positive approach to psychology: Humanistic movement and the positive psychology movement

Unit 2: Sensation and Perception (6 hours)

- 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

Unit 3: Learning and Memory

(15 hours)

- i. Types of learning
 - a. 1 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
 - 1. Sensory memory
 - 2. Short-term memory
 - 3. Long-term memory
 - f. Memory retrieval
 - 1. Serial position effect
 - 2. Retrieval cues and the retrieval task
 - 3. Retrieval of autobiographical memories
 - 4. Retrieval of emotional memories
 - 5. 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

Unit 4: Thinking and Language

(4 hours)

- i. The cognitive revolution in psychology
- ii. Concept formation
- iii. Problem solving
- iv. Critical thinking

- v. Reasoning and decision-making
- vi. Language and thought language acquisition and development

Unit 5: Motivation and Emotion (6 hours)

- 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

Unit 6: Intelligence (5 hours)

- 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

Unit 7: Human development across the lifespan (5 hours)

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

Unit 8: Personality

(6 hours)

- i. The nature of personality
- ii. Psychodynamic perspectives
- iii. Behavioral perspectives
- iv. Humanistic perspectives
- v. Biological perspectives and contemporary empirical approaches to personality

Unit 9: Stress coping and health

(6 hours)

- 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
- ix. Improving coping and stress management

Unit 10: Social Psychology

(8 hours)

- 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

Unit 1: Abnormal behavior in historical context- the science of psychopathology (10 hours)

- 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

Classifications

Unit 2: Anxiety disorders (3 hours)

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

Unit 3: Somatoform and Dissociative disorders (3 hours)

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

Unit 4: Mood disorders (2hours)

- i. Depressive disorders

- ii. Bipolar disorders
- iii. Suicide

Unit 5: Substance-related disorders

(4 hours)

- i. Depressants
 - a) Alcohol use disorders
 - b) Sedative substance use disorders
 - c) Hypnotic substance use disorders
 - d) Anxiolytic substance use 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

Unit 6: Schizophrenia and other psychotic disorders

(4 hours)

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

Unit 7: Mental health and Yoga

References:

1. Weiten, Wayne (1995) themes, and variations 3rd edition, New York Brooks/Cole ,Publishing company
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

