

# **Syllabus For Licensing Examination of MD Clinical Naturopathy 2023**



**Nepal Health Professional Council**

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# 1. Philosophy & Practice of Naturopathy

- History & evolution of therapies used in naturopathy.
- Principles of Naturopathy.
- The concepts of health & disease according to naturopathy
- Innate healing and health realization.
- Concept of drugless therapies and their relevance in healthcare.
- Principles of health promotion and disease prevention.
- The curative aspects of diseases and quality of life in naturopathy.
- Relevance of naturopathic approach in the prevention and management of stress related disorders.
- Relevance of naturopathic approach in the prevention and management of lifestyle related disorders.
- Relationship between naturopathy and spirituality
- Influence of demographic, cultural, socio-economic, environmental & occupational factors on health according to naturopathy.
- The integration of natural living based on naturopathy in public health and its' cost effectiveness in sustainable health care.

## 2. Physiological Basis & Clinical Relevance of Natural Therapies:

### Unit-1 Fasting Therapy

- Introduction
- Types of fasting
- Methods of fasting
- Physiological effect of fasting therapy on human system and systemic diseases
- Effect of fasting in immune system, cardiovascular system, gastrointestinal system, brain, blood picture
- Autophagy
- Indication, Contra-indication, precautions,
- Modern and recent researches

### Unit -2 Modern Nutrition and dietetics

- Introduction
- Carbohydrates, proteins, lipids, enzymes, vitamins and minerals, water
- Digestion, absorptions, transport, assimilation, metabolism and elimination of nutrients and metabolic waste products
- Types, Classifications, Composition and nutritive values, processing of
- Cereals, pulses, milk and milk products, vegetables and fruits, oils, dry fruits,

### Unit -3 Naturopathic diet, nutrition and dietetics

- Introduction, Philosophy and Concepts of Naturopathic diet
- Types and Classification of naturopathic diet
- Physiological effects of naturopathic diet
- Mucus generating diet, mucolytic diet

- Nervous stimulating and calming diet
- Diet-gut-brain axis
- Diet-gut- lung axis
- Diet-gut-skin axis
- Diet-gut- immune axis
- Science of food combination
- Clinical applications
- Prebiotic and Probiotics
- Recent Advances in human nutrition
- Nutritional regulation of gene expressions, epigenetics
- and nutrigenomics
- Therapeutics diet

#### **Unit- 4 Hydrotherapy**

- Introduction
- Physiological effect of hydrotherapy on human system and systemic diseases
- Clinical applications of different treatment methods of hydrotherapy
- Recent advancement in hydrotherapy

#### **Unit-5 Manipulative therapies [massage therapy; Chiropractic; Osteopathy & physical therapy]**

- Introduction
- Physiological effect of manipulative therapies on human system and systemic diseases
- Clinical applications of different treatment methods of manipulations
- Recent advancement in manipulation therapies

#### **Unit-6 Acupuncture, moxibustion, cupping and Acupressure**

- Introduction
- Physiological effect of acupuncture, moxibustion, cupping and acupressure therapies on human system
- Clinical applications of acupuncture, moxibustion, cupping and acupressure in systemic diseases
- Recent advancements in acupuncture, moxibustion, cupping and acupressure

#### **Unit-7 Color therapy & magnet therapy**

- Introduction
- Physiological effect of Color therapy & magnet therapy on human system and systemic diseases

#### **Unit-8**

#### **Energy medicine**

#### **Unit-9**

#### **Health/Clinical psychology and Counseling**

### **3. Clinical applications and underlying mechanisms for the individual and combinations of treatments used in naturopathy.**

#### **Unit-1 The disease specific naturopathic treatments strategies are evolved based on**

- Historical use of natural therapies,
- Available physiological effects of individual therapies
- Clinical observations

#### **Unit-2 Applied Basic Medical Sciences Relevant To Naturopathy marks**

- Applied anatomy related to advancement in understanding the physiological effects of natural therapies.
- Applied physiology related to advancement in understanding the physiological effects of natural therapies.
- Applied Biochemistry related to advancement in understanding the physiological effects of natural therapies.
- Physiological basis for symptomatology and diagnostic procedures used in naturopathy i.e facial diagnosis, Iris diagnosis, Chromo diagnosis.
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- Microbiology related to advancement in understanding of patho- physiology and pathogenesis relevant to the concepts of health and disease in naturopathy
- Pathology related to advancement in understanding of patho- physiology and pathogenesis relevant to the concepts of health and disease in naturopathy

#### **Unit-3 Clinical Pharmacology**

- Introduction to principles of drug therapy
- Adverse reactions to drugs
- Physiology and pharmacology of the autonomic nervous system
- Nitric oxide and its' biologic and medical implications.
- Analgesics, Antibiotics, anti-hypertensives, Hypoglycemics, Diuretics, antipyretics, anti-helminthics, tranquilizers, anti-Psychotic, Anticoagulants
- Required knowledge to handle patients who are on conventional medication s while offering naturopathic treatments

### **4. Diagnosis Using Conventional Medicine & naturopathy and the naturopathic treatment for the disorders**

#### **Unit -1 Disorders of the cardiovascular system**

- Dyspnea, cough,
- Approach to the patient with a history of stable or unstable angina,
- Approach to the patient with hypertension; cyanosis; edema; shock.
- Diagnosis and approach to the patient with heart disease-physical examination of the cardiovascular system.
- Knowledge about conventional treatments.

- Disorders of the heart; normal and abnormal myocardial functions, heart failure; congenital heart disease in the adult, rheumatic fever, vascular heart disease, cor pulmonale; cardiomyopathies; myocarditis; pericardial disease; cardiac manifestations of systemic diseases.
- Vascular disease; atherosclerosis; acute myocardial infarction; ischemic heart disease; hypertensive vascular disease; vascular diseases of the extremities.
- Cardiac rehabilitation

## **Unit-2 Disorders of the respiratory system**

- Diagnosis and approach to the patient with disease of the respiratory system. Knowledge about conventional treatments.
- Disturbances of respiratory system; disturbances of respiratory functions.
- Disease of the respiratory system; bronchial asthma; chronic bronchitis.
- COPD; emphysema and airway obstruction; disorders of ventilation;
- sleep apnea; acute respiratory distress syndrome
- Pulmonary rehabilitation

## **Unit-3 Disorders of the kidney and urinary tract**

- Alterations In Urinary Functions And Electrolytes;
- cardinal manifestations of renal disease; voiding dysfunction, incontinence and bladder pain;
- fluid and electrolyte disturbances; acidosis and alkalosis.
- Alterations In The Urogenital Tract: impotence; disturbances of menstruation and other common gynecologic complaints in women.
- Approach to the patient with diseases of the kidneys and urinary tract. Knowledge about conventional treatment. Disturbances of renal function, acute renal failure and chronic renal failure.

## **Unit-4 Disorders of the gastrointestinal system**

- Alterations In Gastrointestinal Functions: dysphagia, nausea, vomiting and indigestion; diarrhea and constipation; gastrointestinal bleeding; jaundice- abdominal swelling; ascitis.
- Approach to the patient with gastrointestinal disease.
- Knowledge about conventional treatments
- Diseases of the esophagus; peptic ulcer and related disorders, disorders of absorption; IBS; ulcerative colitis and Crohn's disease.
- Liver and biliary tract disease;
- approach to the patient with liver disease;
- evaluation of liver function;
- derangements of hepatic metabolism;
- bilirubin metabolism and hyperbilirubinemia ;
- toxin and drug induced hepatitis; chronic hepatitis;
- cirrhosis and alcoholic liver disease;
- infiltrative and metabolic disease affecting the liver;
- disease of the gall bladder and the bile ducts.

## Unit-5 Disorders of the pancreas-

- acute and chronic pancreatitis.

## Unit-6 Disorders of the immune system, connective tissue and joints

- Hematological alterations-anemia; bleeding and thrombosis; enlargement
- of lymph nodes and spleen.Pain pathophysiology and management-chest discomfort and palpitation- abdominal pain-headache-back and neck pain
- Approach to the patient with the disorders of immune system, connective tissue and joints.Knowledge about conventional treatments
- Disorders of the immune system-Introduction to immune system,
- Major histo- compatibility,primary immune deficiency disease; HIV disease; AIDS and related disorders;
- Amyloidosis.
- Disorders of immune mediated injury-diseases of immediate type hypersensitivity;systemic lupus erythematosus;rheumatoid arthritis; dermato- myositis and polymyositis; Sjogren's syndrome; ankylosing spondylitis; undifferentiated spondyloarthropathy;Bechet's syndromethe vasculitis syndromes sarcoidosis.

## Unit-7 Disorders of the joints-approach to articular and musculoskeletal disorders;

- Osteoarthritis; arthritis due to deposition of calcium crystals,
- Infectious arthritis;
- Psoriatic arthritis
- Arthritis associated with gastrointestinal diseases
- Relapsing polychondritis and other arthritis.

## Unit-8 Endocrinology and metabolism

- Alterations in body temperature;
- fever and hyperthermia;
- fever and rash; hypothermia.
- Endocrinology-approach to the patient with endocrine and metabolic disorders Knowledge about conventional treatments.
- Obesity, anorexia nervosa and bulimia nervosa;
- Enteral and Parenteral nutritional therapy;
- vitamin deficiency and excess-disturbance in trace elements
- Neuroendocrine regulation and diseases of the anterior pituitary and hypothalamus;
- diseases of the thyroid; diseases of the adrenal cortex; pheochromocytoma; diabetes mellitus; hypoglycemia; disorders of the testes, ovary and female reproductive tract; endocrine disorders of the breast; disorders affecting multiple endocrine systems.
- Disorders of intermediary metabolism-disorders of lipoprotein metabolism, hemochromatosis; porphyrins; gout and other disorders of purine metabolism.
- Disorders of bone and mineral metabolism-calcium, phosphorus, bonemetabolism; calcium regulating hormones; diseases of the parathyroid glands; metabolic bone disease; disorders of phosphorus metabolism

## Unit-9 Neurological disorders

- Nervous System Dysfunction: faintness, syncope, dizziness, vertigo;
- weakness, abnormal movements and imbalance;
- episodic muscle spasms, cramps and weakness;
- numbness, tingling and sensory loss, acute confusional states;
- aphasia and other focal cerebral disorders;
- memory loss and dementia; disorders of sleep and circadian rhythms.
- Approach to the Patient with Neurologic Disease. Knowledge about conventional treatments.
- Electro-physiologic studies of the central and peripheral nervous systems;neuro imaging in neurological disorders.
- Diseases Of The Central Nervous System-migraine and cluster headache syndromes; seizures and epilepsy;Alzheimer's disease and other primary dementias; Parkinson's disease and other extra pyramidal disorders;ataxicdisorders;disorders of ANS: disorders of cranial nerves;
- diseases of spinal cord. gravis, muscular dystrophy and other diseases of neuromuscular junction; diseases of muscle. Chronic fatigue syndrome; Alcoholism and drug dependency-alcohol and alcoholism-opioid daig abuse anddependence.
- Neurological rehabilitation.

## Unit-10 Dermatological disorders

- Alterations in the skin-approach to the patient with skin disorders.
- Approach to the patient with dermatological diseases. Knowledge about ;Alterations in the skin-approach to the patient with skin disorders. conventional treatments. Eczema; Psoriasis; Acne vulgaris, allergic dermatitis; other common skin; disorders; skin manifestations of internal disease.

## Unit-11 Psychiatric disorders

- Approach to the patient with psychiatric disease. Knowledge about conventional treatments.
- Anxiety neurosis; depression; obsessive compulsive disorders, manic depressive psychosis; bipolar disorders; mood disorders; personality disorders; psychosis.
- Psychiatric rehabilitation

## Unit-12 Oncology

- Approach to the patient with cancer. Knowledge about the conventional treatments.
- Psycho-social factors in the etiology and pathogenesis of cancer
- Benign and malignant carcinomas, knowledge about congenital diagnostic procedures, radio therapy and chemotherapy
- Disorders Of The Nerves And Muscles-diseases of the peripheral nervous system; myasthenia
- Principles and practice of integrative oncology i.e., use of congenital. and natural management strategies and psych- social care in oncology.
- Psychosocial rehabilitation



## Unit-13 Obstetrics and Gynecology

- Approach to the patient with pregnancy. Knowledge about conventional care
- Ante-natal care; maintenance of normal pregnancy, child birth, post-natal care  
Approach to the patient with gynecological complaints. Knowledge about conventional care.
- Menstrual disturbances, Infertility; Uterine diseases; Ovarian diseases; Pelvic tumors. Family planning procedures.

### 1. Disorders of the eyes, ears, nose and throat

- Approach to the patient with ENT disorders. Knowledge treatments
- Disorders of the eye, disorders of nose, ears and throat.

## 5. Nutraceuticals and Natural Herbs in Health and Disease

### Unit-1 Nutraceuticals

- Critical evaluation of dietary requirements;
- Vegetarianism and its impact on health and disease,
- Rational use of Dietary supplements;
- Vitamin A
- Beta carotene
- Vitamin B complex
- Vitamin C
- Vitamin D
- Vitamin E
- Coenzyme Q
- Serotonin
- Melatonin
- Alpha Lipoic Acid
- Selenium
- Zinc
- Magnesium
- Calcium
- Biotin
- Chamomile tea
- Grapeseed extract
- Lycopene
- Glutathione
- Inulin
- Omega-3 fatty Acid
- Spirulina,
- Ganoderma Luciderm
- Cordyceps,
- Panax ginseng,
- Morinda Citrifolia

- Curcumin
- Resveratrol
- Glucosamine
- Flax seeds
- Chia seeds
- Aloe vera
- Green Tea
- And others

## **Unit-2 Clinical implications of commonly used natural herbs from all cultures and traditions.**

- Aloe vera
- India Gooseberry
- Zingiber officinale
- Curcuma longa
- Allium Sativum
- OciumTenuiflorom
- Wheat grass
- Lemon grass
- Withaniasomnifera
- Peppermint
- Fenugreek
- Licorice root
- Azadirachta Indica
- Asafoetida
- Clove
- Cinnamon
- Cardamon
- Cumin seeds
- Coriander
- Black pepper
- Fennel seeds
- Garlic
- Cinnamonumtamala (Bay leaf)
- And others

## **6. Environmental and occupational health hazards-**

- Specific environmental and occupational hazards related to
- Food products,
- Cosmetics,
- Drugs, and
- Indoor and outdoor living environment, work environment and ergonomics

# 7. Research methodology

## Unit-1 Research methodology

- Introduction to research methodology – definition of research, types of research, need for Yoga research; The research process
- Literature review – Purpose, Process, digital source: PubMed, etc., presentation of literature review
- Ethics of research – Laboratory ethics, Publication ethics, Ethical bodies – IEC & IRB, Guidelines for good clinical practice
- Scales of measurement – nominal, ordinal, interval, ratio
- Data collection methods: Observation, Interview, psychological tests, questionnaire, physiological tests, and archive

## Unit-2 Research Methodology Concepts –II

- Sampling methods - Population and Sample; Simple Random
- Sampling, Systematic Sampling, Stratified Sampling, Cluster Sampling
- Methods of controlling biases –Randomization
- Types of variables – Independent , dependent, confounding variable
- Types of research design – Experimental designs, cross sectional design, Case study, Survey
- Reliability: Test-Retest Reliability, Internal Consistency, Inter rater Reliability
- Validity: Construct Validity, Face Validity, Content Validity, Criterion Validity, Convergent and Discriminant Validity Issues of bias and confounding
- Selection bias, Recall bias, Observer or measurement bias, Publication bias
- Randomization, Matching, Crossover design, Restriction (or blocking), Stratification

## Unit-3 Statistical Concepts - I

- Descriptive statistics
- Inferential statistics
- Hypothesis, null hypothesis
- Statistics and Parameters
- Sample and Population
- Generalization
- One tailed, two tailed hypothesis
- Types of Errors and its control
- Central Limit Theorem

## Unit-4 Statistical Concepts - II

- Point estimate and interval estimate
- Power analysis: Effect size, sample size
- p-value
- Confidence interval
- Statistical tests and design
- Assumptions of tests
- Statistical tests for various designs: Correlation, proportions,

- paired-sample and independent sample t-tests, Chi-Square tests
- ANOVA, Repeated Measures ANOVA, parametric and non-parametric tests

## 8 Recent advances in naturopathy

- Psycho neuro immunology [PNI] and psycho neuro endocrinology-explaining the mind-body connection in disease and health
- Psychophysiology of biological rhythms, emotions, behavior and aging
- Stress and its impact on health and disease:
- Physiological mechanisms underlying 'stress response'.
- Psychomatics and psychomatic medicine-role of human thinking,
  - behavior and life style in the etiology, pathogenesis, clinical
  - manifestations and management of non-communicable life-style
  - related diseases.
- Lifestyle and psychosocial behavior-health education and natural
  - medicine in prevention in high risk groups, effective management of
  - chronic lifestyle related diseases and minimization of subsequent
  - medical complications.
- Inherent healing capacities and natural therapies;
- concept of spontaneous regression,
- role of positive thinking, health behavior and natural therapies in spontaneous regression
- clinical implications of natural therapies in eliciting inherent healing capacities.
- Natural and holistic medicine-integrating the physical, psychological,
  - mental, social and spiritual needs of an individual in promotion of
  - positive health, prevention of diseases and disabilities, management
  - of diseases and overall improvement in 'quality of life'.
- Advances in therapies used in Naturopathy
- Advances in medical & psychiatric rehabilitation.
- Integrative medicine.