

## MINIMUM EDUCATION STANDARDS

### **Australian Traditional-Medicine Society**

# **NATUROPATHY**

Minimum Award Level: Equivalent to Advanced Diploma

Minimum Total Hours 2100 Total Core Component Hours 1955

Minimum Elective Hours 145

#### **Core Components**

Anatomy & Physiology	140 hours
Biochemistry & Chemistry	70 hours
Diagnosis, Symptomatology, Pathology & Pharmacology	260 hours
Natural Medicine Philosophy & Therapeutics	120 hours
Herbal Medicine Therapeutics	400 hours
Nutrition Therapeutics	400 hours
Communication	60 hours
Professional Practice	90 hours
Safe Practices	15 hours
Supervised Clinical Training	400 hours^

#### Elective\*

Massage Therapy 145 hours
Homoeopathy 220 hours

#### **Notes**

Provide First Aid Certificate - required.

ATMS requires that all supervised clinical training be completed by face to face practical training.

^ The Supervised Clinical Training must contain 80 hours of clinic for Massage or 180 hours for Homoeopathy (depending on the elective chosen) within the required minimum of 400 hours of supervised clinical training.

For naturopathy at least 70% of the clinic hours must be spent actively assessing and treating clients under supervision (ie no more than 30% of the time spent working in reception, working in the dispensary on tasks not directly related to their consultations etc).

Within the above 70% of clinic hours, each individual student must conduct a minimum 30 consultations where the student is the primary consulting practitioner (that is taking the case history, health assessment etc, developing the provisional diagnosis and treatment plan and being the sole/primary person talking with the patient).

These are the Minimum Education Standards for ATMS Accreditation, however, no training in needling, manipulation, ingestible medication or electrophysical therapies can be included unless otherwise indicated in these Standards. The ATMS Minimum Education Standards are subject to ongoing review and therefore may change at any time without notice.



<sup>\*</sup> Either Massage Therapy or Homoeopathy must be completed.

### **Anatomy & Physiology**

Minimum total hours for this component: 140

#### **Learning Outcomes**

- Describe commonly used terminology used in anatomy and physiology
- Describe the fundamentals of cell structure and function
- Describe the nature of metabolism
- Describe the management of body fluids
- Describe tissues, organs, and systems relevant to naturopathy
- Describe the organisation of the human body from the chemical to the organism level
- Define homeostasis, and explain the significance of homeostatic mechanisms in the body
- List the components, functions, and structure of the musculoskeletal system
- Describe the structure and function of the bones of the skeleton
- Describe the structure and function of the joints and muscles
- Give an explanation of the components, functions, and structure of the circulatory system
- Give an explanation of the components, functions, and structure of the respiratory system
- Give an explanation of the components, functions, and structure of the urinary system
- Give an explanation of the components, functions, and structure of the gastrointestinal system
- Give an explanation of the components, functions, and structure of the immune system
- Give an explanation of the components, functions, and structure of the nervous system
- Give an explanation of the components, functions, and structure of the endocrine system
- · Give an explanation of the components, functions, and structure of the reproductive system
- Apply knowledge of human anatomy and physiology to specific conditions, such as ageing and health problems

### **Biochemistry & Chemistry**

Minimum total hours for this component: 70

- Describe the nature of atoms, molecules, ions and ionic compounds
- Explain the chemical interaction of atoms
- List the characteristics of acids, bases and buffers
- Explain oxidation and reduction and the importance of antioxidants
- · Provide an understanding of organic chemistry, carbon chemistry, terminology, functional groups and their reactions
- Outline the nature and properties of carbohydrate molecules, and their roles in biological systems
- Describe the types of lipid molecules, outline their common properties, and their roles in biological systems
- Give an explanation of the roles of amino acids in protein structure, and outline the general structure of a protein molecule
- Apply knowledge of the properties of biological macromolecules to specific health problems
- Give an explanation of the nature of enzymes and enzyme action, and their roles in biological systems
- List the main pathways involved in cellular energy production, and the form of this energy
- Demonstrate an understanding of the main catabolic pathways for carbohydrates, fatty acids, amino acids, and haem
- Demonstrate an understanding of the main anabolic pathways for glucose, fatty acids, membrane lipids, and amino acids
- Describe the structure of the major nucleic acids of cells, and describe their properties
- Describe the processes involved in DNA replication and protein synthesis
- Define neurotransmitter and provide examples of these molecules
- Demonstrate an understanding of the body fluid compartments, and the roles of these fluids and their associated organs
- Explain the roles and mechanism of actions of hormones, vitamins and xenobiotics
- Explain the biochemistry of systems in the body e.g. liver, brain & nervous system, kidneys and muscles

- Explain physiological processes of detoxification
- Explain the biochemistry of systems in the body e.g. liver, brain & nervous system, kidneys and muscles
- Explain physiological processes of detoxification

## Diagnosis, Symptomatology, Pathology & Pharmacology

Minimum total hours for this component: 260

#### **Learning Outcomes**

- Define the key terms used in pathology
- Demonstrate an understanding of the general concepts related to cell injury, inflammation, and repair, regeneration and fibrosis
- Demonstrate an understanding of health conditions which have an immunological origin
- Demonstrate an understanding of health conditions which have a genetic origin
- Demonstrate an understanding of the nature of the important neoplasias
- Demonstrate an understanding of important health conditions which have an environmental or nutritional origin
- Demonstrate an understanding of important health conditions which are caused by infectious or parasitic organisms
- Demonstrate an understanding of important health conditions of the cardiovascular system, respiratory system, gastrointestinal system, excretory system, male and female reproductive systems, endocrine system, skin, musculoskeletal system, and nervous system
- Demonstrate ability to interpret pathology and haematology reports
- Demonstrate ability to utilise diagnostic/health analysis equipment appropriate to the natural therapist (eg sphygmomanometer) and interpret and apply findings
- Identify emotional symptoms associated with health conditions and disease processes
- Demonstrate a basic understanding of common psychiatric disorders
- Demonstrate an understanding of the processes for health analysis/disease diagnosis, including the role of investigation
- Demonstrate an ability to take case histories and conduct a physical examination
- Demonstrate an understanding of the relationship between disease processes and healing

## **Natural Medicine Philosophy & Therapeutics**

Minimum total hours for this component: 120

- Define naturopathic philosophy & principles
- Critically evaluate naturopathic philosophy & principles and their application to naturopathic clinical practice
- Critically discuss the historical development of healing and medicine, and its impact on contemporary biomedicine & natural medicine
- Compare & contrast the biomedical and naturopathic approaches to health care
- Critically discuss the advantages and limitations of naturopathic health care
- Define the scope of naturopathic practice
- Describe the advantages and disadvantages of the Integrated Health Care model
- Discuss the characteristics (scope of practice, advantages, limitations) of other natural medicine modalities, including Herbal Medicine, Homeopathy, Nutrition & Massage
- Critically discuss the various types of evidence (eg research-based, traditional, clinical expertise) that are used in naturopathic clinical practice
- Demonstrate an understanding of the analytical, rationalistic approach to an understanding of disease and its management
- Discuss the current political context of health care
- Describe the dynamic interchange between the physical, emotional, psychological, spiritual and environmental aspects of the human condition and how these are influenced by health and disease

- Demonstrate an understanding of the sociology of health and the health care system
- Critically discuss various health analysis methods used in Naturopathic practice (these may include iris analysis, tongue
   & nail analysis, pathology laboratory tests, bioelectromagnetic testing techniques vega/mora/Listen, etc)
- Demonstrate an understanding of the contribution of Naturopathic health analysis methods to the evaluation & management of clients' health
- Critically discuss various commonly used therapeutics (other than herbal and nutritional medicine) in contemporary Naturopathic practice (these may include flower essences, hydrotherapy, traditional folkloric methods, colour therapy)
- Demonstrate an understanding of the contribution of commonly used therapeutics in Naturopathic practice (these may include flower essences, hydrotherapy, traditional folkloric methods, colour therapy) to the management of clients' health conditions
- Demonstrate an understanding of the safety & efficacy of various commonly used therapeutics (other than herbal and nutritional medicine) in contemporary Naturopathic practice (these may include flower essences, hydrotherapy, traditional folkloric methods, colour therapy) including possible interactions with other health care treatments

### **Herbal Medicine Therapeutics**

Minimum total hours for this component: 400

- Outline the history of herbal medicine from ancient civilisations to today with emphasis on the work of Dioscorides, Galen, Hippocrates, Paracelsus, Culpeper and Samuel Thomson
- Outline the philosophical principles of the doctrine of signatures, humoral theory, physiomedicalism and the eclectic movement
- Describe the philosophy of western herbal medicine in relation to the philosophy of holism and naturopathic principles
- Describe the basic concepts of ayurveda and traditional Chinese medicine
- Demonstrate skills in identifying medicinal plants
- Outline the general principles in growing, harvesting, drying and storage of medicinal plants
- Describe the main classes of phytochemicals found in medicinal plants
- Define the parameters of pharmacognosy and relevance to medicinal plant research
- Describe the general physiological activities of alkaloids, glycosides, polysaccharides, fixed oils, resins, essential oils and polyphenols
- Describe the general chemistry of alkaloids, glycosides, polysaccharides, fixed oils, resins, essential oils
- Describe the environmental factors affecting plant phytochemical content
- Compare the toxicity of pharmaceutical drugs and herbal medicines
- Describe the manufacture of water based preparations
- Describe the steps involved in the manufacture of a fresh plant tincture
- Describe the steps involved in the manufacture of dried plant alcohol based preparations
- Describe the steps involved in the manufacture of topical preparations
- List of advantages and disadvantages of using different types of solvents
- List the situations where alcohol based preparations are contraindicated
- Describe the removal of alcohol from herbal medicines
- Describe the classes of herbal medicines i.e. demulcents, immunomodulators, diaphoretics, diuretics, organ tonics, expectorants, alternatives, bitters, mucolytics, organ and hormonal normalisers, hepatics, lymphatics, stimulants, relaxants, adaptogens, laxatives, anti-inflammatories, anti-virals, anti-depressants
- Described the physiological activity of each class of herbal medicines
- Describe the indications, actions, general chemistry, contraindications and dosage regime of 75 herbal medicines that are commonly available in Australia
- Describe the principles of the naturopathic management of conditions using herbal medicines
- Describe the steps in developing an individual herbal medicine formula with an understanding of actions of the herbal medicines, the chemistry of the herbal medicines and the desired pharmacological response, based on naturopathic principles



- Describe the naturopathic management of the range of conditions, which present to a naturopathic practitioner, of the
  gastrointestinal tract, respiratory system, musculoskeletal system, female reproductive system, genitourinary tract,
  male reproductive system, endocrine system, integumentary system, cardiovascular system and nervous system, using
  herbal medicines
- Demonstrate case taking skills within a naturopathic framework and in accordance with herbal medicine prescribing
- Demonstrate skills in assessing conditions that present to a naturopathic practitioner and the possible pathological processes underlying the conditions
- Describe the situations where a naturopathic practitioner would not treat a client but refer the client to another health care professional
- Demonstrate herbal medicines dispensing skills
- List the possible adverse interactions between herbal medicines and pharmaceutical drugs
- Describe how to calculate the dosage of a herbal medicine formula, including the child's dosage
- Describe the use of flower essences in the holistic management of a client
- List the factors to take into account when assessing the biomedical literature
- Describe the different approaches in which herbal medicine is practised in Australia i.e an empirical approach, an evidence-based approach, a constitutional approach, a holistic approach, a symptomatic approach etc
- Describe the concept of synergism in herbal medicine
- List the information to be included on the label of the dispensed herbal medicines
- Demonstrate an understanding of the TGA and its relevance to herbal medicine prescribing and dispensing

### **Nutrition Therapeutics**

Minimum total hours for this component: 400

- Give an explanation of the general principles associated with the philosophy of naturopathic nutrition
- Demonstrate an understanding of the basic human nutrient requirements
- Understand the characteristics of the Australian diet and identify those areas which require changes for improved health
- Explain the meaning of RDI and its relevance in human nutrition
- Outline the characteristics of the Australian diet, and explain how it has changed over the past several years
- Demonstrate an understanding of the functions of carbohydrate, lipids and proteins in the body, outline the different types of each, and list food sources of each
- Describe the processes of digestion and absorption, and factors which influence them
- Define metabolism, and identify the factors which contribute to metabolism
- Distinguish the terms hunger and satiety, and outline the factors which influence these
- Demonstrate an understanding of the health problems associated with obesity, and factors which can lead to obesity
- Explain how good dietary advice assists in weight control
- Relate the level and nature of nutrition to the level of fitness
- · Give an explanation of the functions and food sources of vitamins, water, and minerals in the body
- Give an explanation of the special nutritional requirements associated with the various stages of development, and with ageing
- Give an explanation of the special nutritional needs associated with pregnancy and lactation
- Give an explanation of the special nutritional needs for various health conditions associated with the different body systems
- Explain the role of nutrition in anorexia nervosa and bulimia
- · Identify factors which affect the safety of foods, and measures which increase food safety in the community
- Asses a client's nutritional status using appropriate analytical/diagnostic tests
- Asses a client's condition from a naturopathic philosophical perspective
- Plan nutrition programs (including diet, food therapy and nutrient supplements) for managing specific conditions associated with the major body systems
- Treat a client for an assessed nutrition disorder (from a naturopathic perspective)

- Critically evaluate commercially available nutrition products for client use
- Educate clients in dietary and lifestyle modification programs
- Understand the clinical applications of vitamins, minerals, fatty acids and amino acids
- Explain nutritional approaches to the management of environmental hazards to health
- Describe the use of supplements in the management of drug-induced nutritional deficiencies
- Demonstrate an understanding of possible interactions between pharmaceutical drugs and foods, and nutrient supplements
- Conduct a client interview or conduct a questionnaire to collect data on a client's nutritional status
- Demonstrate an ability to write a professional report about a client
- Demonstrate an ability to assess a dietary regimen in terms of the nutrition provided and what may be deficient
- Demonstrate the ability to be flexible in dietary recommendations based upon the individual's likes, dislikes, socioeconomic factors, allergies, intolerances and religious and cultural beliefs
- Demonstrate an understanding of the therapeutic and culinary values of food
- Demonstrate an understanding of the cultural aspects of food

### Communication

Minimum total hours for this component: 60

- Demonstrate the ability to effectively communicate with the client, using terminology he/she can understand
- Demonstrate an understanding of the cultural, social, religious and personal issues that may influence effective communication
- Demonstrate adequate skills in client questioning and in the interpretation of clients' responses
- Demonstrate adequate skills in eliciting sensitive information from a patient
- Demonstrate skills in communicating information to clients in simple, straight-forward and where possible, non-medical language
- Demonstrate the ability to be 'affable' or 'at ease' in the presence to the client
- Demonstrate an understanding of how 'class' or 'professionalism' can impede human communication
- Demonstrate effective written communication skills
- Demonstrate effective recording and record-keeping skills
- Demonstrate listening skills
- Demonstrate basic conflict resolution
- Compare and contrast 'empathy' & 'sympathy'
- Demonstrate skills in managing emotions (of both client and practitioner)
- Demonstrate skills in dealing with death and dying
- Demonstrate skills in dealing with abuse (client → practitioner, present and past abuse of client)
- Demonstrate the application of basic counselling theories and techniques to naturopathic practice
- Demonstrate a basic understanding of human psychological development and needs
- Demonstrate a basic understanding of common psychopathologies including personality disorders
- Demonstrate the importance of appropriate referral of clients to professional counselling services when necessary
- Demonstrate an understanding of ethics associated with naturopathic practice
- Plan and conduct interviews with clients and staff
- Provide clear instructions to peers, staff, and other health care providers
- Apply mentoring and life-coaching principles to naturopathic health assessment and treatment, and client management
- Understand and analyse clients' expectations of the naturopathic consultation/treatment and the practitioner
- Understand the importance of stress management methods for maintaining and promoting optimum health Provide stress management and lifestyle modification strategies to assist the client



### **Professional Practice**

Minimum total hours for this component: 90

#### **Learning Outcomes**

- Describe the role of the natural medicine practitioner within the health care system
- Identify possible job opportunities in the health care industry
- Plan the establishment of a natural medicine practice (including a business plan)
- Describe the knowledge & skills required to manage a natural medicine practice (including operational strategies, marketing strategies, stock level monitoring)
- Demonstrate an understanding of financial management procedures
- Demonstrate an understanding of personnel management procedures
- Identify methods of monitoring successful natural medicine practice (including development and implementation of policies and procedures)
- Apply safe work practices in a natural medicine practice
- Observe legal and ethical requirements in a natural medicine clinic
- Maintain a professional development program
- Monitor and evaluate one's own work practices
- Demonstrate an ability to write a professional report about a client

### **Safe Practices**

Minimum total hours for this component: 15

#### **Learning Outcomes**

- Follow organisational procedures for hazard identification and risk control
- Contribute to occupational health and safety in the workplace
- Use and implement strategies as directed to prevent infection in the workplace
- Use strategies to prevent work overload
- Work in a safe manner
- Use and implement strategies to prevent manual handling injuries
- Collect, handle, store and manage clinical and other waste in a safe manner
- Clean and disinfect equipment and surfaces
- Demonstrate hygiene management procedures
- Identify and respond to infection risk

## **Supervised Clinical Training**

Minimum total hours for this component: 400

- Demonstrate the ability to record and maintain client's records
- Perform daily operations of a naturopathic clinic (e.g. reception skills, stock control, dispensary duties)
- Perform routine physical assessments and simple diagnostic tests on clients
- Demonstrate how a naturopath applies her/his knowledge and skills in practice as appropriate to the discipline, based on naturopathic principles
- Formulate and test trials health assessments for clients
- Work with clients to develop naturopathic treatment plans, incorporating & integrating (where appropriate) nutritional, herbal, lifestyle modification, homeopathy &/or massage treatments
- Demonstrate a competent and caring professional manner in a naturopathic practice
- Treat clients with a wide variety of health conditions, in a Naturopathy clinic using appropriate techniques and naturopathic treatment strategies

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- Describe the place of Naturopathy within the framework of health and health-related services in a local community (including referral to other health professionals as appropriate)
- Demonstrate an awareness of the particular requirements for a group practice
- Demonstrate financial viability of operating a Naturopathy practice
- Describe the place of Naturopathy within the framework of health and health-related services in the local community
- Demonstrate behaviour conforming to ethical and legal standards when dealing with clients and other health professionals
- Demonstrate an understanding of cross-cultural issues for working with a range of clients
- Demonstrate an ability to work in a sole practice
- Demonstrate an ability to write a professional report about a client
- List those sections of government legislations that affect the practice of Naturopathy
- Demonstrate the maintenance of workplace/occupational health & safety, and infection control requirements in the clinic environment

#### **Notes**

Supervised clinical practice refers to a situation where a student consults with clients, performs an appropriate health assessment, prepares and provides treatment/management plans, in a clinic open to members of the public and while under the supervision or direction of a clinician, trainer or practitioner employed or contracted by the college or institution.

Supervised clinical practice must be undertaken in the presence of a lecturer, trainer, or qualified supervisor who must be present at and directly observing at least part of each student consultation. Selection of a clinical practice supervisor is determined by the teaching institution.

ATMS requires that all supervised clinical training be completed by face to face practical training. Supervised clinical practice does <u>not</u> include any unsupervised practice on family, friends or other students, or consultations/treatments provided in a classroom setting.

For Naturopathy at least 70% of the clinic hours must be spent actively assessing and treating clients under supervision (ie no more than 30% of the time spent working in reception, working in the dispensary on tasks not directly related to their consultations etc).

Within the above 70% of clinic hours, each individual student must conduct a minimum 30 consultations where the student is the primary consulting practitioner (that is taking the case history, health assessment etc, developing the provisional diagnosis and treatment plan and being the sole/primary person talking with the patient).