



# **NHAA Naturopathy**

**and**

# **Western Herbal Medicine Degree**

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## **CAS Curriculum Document**

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Prepared by the Examiners Subcommittee of the National Herbalists Association of Australia (NHAA), trading as the Naturopaths and Herbalists Association of Australia. August 2017.

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# Naturopathy and Western Herbal Medicine Curriculum

## NHAA CAS Curriculum Summary

The NHAA Degree Course Accreditations Standards are divided into several subject areas:

**Common:** Shared core foundation subject areas in both Naturopathy and WHM courses.

**Herbal Medicine:** Phytotherapy content core to both Naturopathy and WHM courses.

**Nutritional Medicine:** Nutrition content that includes subject areas that are core to both Naturopathy and WHM courses. Additional nutrition subject areas to be covered in Naturopathy courses.

**Electives:** Various electives that may be in both Naturopathy and WHM courses.

**Clinical Performance:** Clinical assessment and practicum components of Naturopathy and WHM courses.

## Core Subjects

Totalling to 1400 hours.

| SUBJECT AREA                                       | DELIVERY MODE   |
|--|-----------------|
| Anatomy and physiology                             | F2F &/or Online |
| Human biochemistry                                 | F2F &/or Online |
| Communication and counselling skills               | F2F &/or Online |
| Diet, lifestyle and culture in health and disease  | F2F &/or Online |
| Evidence based practice                            | F2F &/or Online |
| Herbal and naturopathic history and philosophy     | F2F &/or Online |
| Inter-professional communication and collaboration | F2F &/or Online |
| Legal, ethical and professional practice           | F2F &/or Online |
| Observation and critical evaluation                | F2F &/or Online |
| Pathophysiology, symptomatology and disease        | F2F &/or Online |
| Pharmacology and drug awareness                    | F2F &/or Online |
| Practice management                                | F2F &/or Online |
| Public health and health promotion                 | F2F &/or Online |

## Herbal Medicine

Totalling to 750 hours.

| SUBJECT AREA                        | DELIVERY MODE    |
|-------------------------------------|------------------|
| Medicinal botany                    | F2F &/or Online  |
| Herbal dispensing                   | F2F &/or Online  |
| Herbal materia medica               | F2F &/or Online  |
| Herbal pharmacy (manufacturing)     | F2F &/or Online+ |
| Herbal therapeutics and prescribing | F2F &/or Online  |
| Pharmacognosy and phytopharmacology | F2F &/or Online  |

## Nutritional Medicine

Totalling to 370 hours (Naturopathy) and 210 hours (WHM).

| SUBJECT AREA                  | DELIVERY MODE   |
|-------------------------------|-----------------|
| Fundamentals of nutrition     | F2F &/or Online |
| Nutrition across the lifespan | F2F &/or Online |
| Nutritional biochemistry      | F2F &/or Online |
| Nutritional Pharmacology      | F2F &/or Online |
| Nutritional Therapeutics      | F2F &/or Online |
| Dietary Prescribing           | F2F &/or Online |

## Elective

Totalling to 600 hours (Naturopathy) and 100 hours (WHM).

Electives have been included in the NHAA CAS to allow individual education institutions to develop their courses that comply with the NHAA CAS but with their own themes, focus or unique character.

| SUBJECT AREA      | DELIVERY MODE |
|-------------------|---------------|
| Elective subjects | F2F or Online |

## Clinical Performance

Totalling to 600 hours (Naturopathy) and 500 hours (WHM).

| SUBJECT AREA        | HOURS   | DELIVERY MODE |
|---------------------|---------|---------------|
| Clinical assessment | 100     | F2F Only      |
| Clinical practicum  | 500/400 | F2F Only      |

The total CAS course hours tally to 3720 hours for Naturopathy and 2960 hours for WHM courses.

(Note that the CAS hours listed do not include unspecified self-directed study, (projected at an additional 250 hours of time each year students utilise for planning, independent research and activities) - raising Full Time Equivalent study up around 1200 hours per annum.)

# Detailed Curriculum Outlines

## Core Subject Areas

### **AAP: Anatomy and physiology**

#### **Descriptor**

This subject area provides the foundational understanding of the structure and function of the body. This knowledge is based on the normal and healthy female and male body across the lifespan and thus provides the basis for then understanding disorders and disease to be covered in domain *Pathophysiology, symptomatology and disease (PAT)*.

#### **Delivery methodology**

F2F &/or Online+

#### **Learning Outcomes**

- L01 Describes structural and functional anatomy of the body, from intracellular to system level.
- L02 Understands the normal physiological processes at cellular, tissue, organ and system level.
- L03 Describes mitosis and meiosis, genetic inheritance and transcription, role of genetics and epigenetics in human health and disease.
- L04 Understands organ system integrations and the role of regulatory mechanism is homeostasis.
- L05 Describes structure and can differentiate roles of central, peripheral and autonomic nervous systems in human body.

### **BIO: Human biochemistry**

#### **Descriptor**

The objective of this subject area is to provide an understanding of the chemistry of the human body to improve understanding of physiological processes and disease processes, and in turn lead to a better understanding of the application of herbal medicines.

#### **Delivery methodology**

F2F &/or Online

#### **Learning Outcomes**

- L01 Describe the structure and function of biological molecules, cells membranes, and subcellular structures.
- L02 Describe the major anabolic and catabolic pathways in human biochemistry, including the purpose, location, inputs and outputs, control mechanisms, important cofactors, and role in health and disease.
- L03 Describe the specialised biochemical functions of tissues including the liver, nervous system, kidney, muscle, connective tissue and eye.
- L04 Describe the interaction and regulation of human biochemistry on a whole body level.

## **COM: Communication and counselling skills**

### **Descriptor**

This Subject area is client-focused and encompasses communication and counselling skills as essential competencies for effective practice.

Effective communication skills enable the establishment and maintenance of the therapeutic relationship and facilitate client and practitioner safety by ensuring accuracy and clarity of information.

Basic counselling skills rely upon effective communication and are essential to provide appropriate support, facilitate positive health changes and allow for referral of care as required. Practitioners are expected to be able to work effectively and demonstrate competence when engaging with people of diverse race, religion, culture, gender, sexuality and age.

NOTE: Practitioner-focused communication is described in *Inter-professional communication and collaboration (ICC)*.

### **Delivery methodology**

F2F &/or Online+

### **Learning Outcome**

- L01 Demonstrated effective communication skills.
- L02 Awareness of limitations of practice and need for referral to psychologist/mental health professional.
- L03 Understanding of and ability to maintain appropriate professional boundaries.
- L04 Demonstrate an awareness of cultural competence and issues of diversity.

## **DLC: Diet, lifestyle and culture in health and disease**

### **Descriptor**

This subject area incorporates the social determinants of health and the influences of diet and lifestyle on health. Diverse cultural groups and characteristics are explored in building cultural competence, with consideration of lifestyle, cultural dietary requirements and practices. Cultural and socio-economic groups at high risk of disease in Australia are detailed with focus on health improvement strategies.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcome**

- L01 Effectively engage with clients of different ages, genders, backgrounds and cultures and demonstration of cultural competence.
- L02 Understanding of cultural dietary considerations, customary protocols and sensitivities.

- L03 Understanding of diverse traditional and contemporary food production methods and practices with relation to community health and disease considerations.
- L04 Demonstrate an awareness of at risk cultural and socio-economic groups at risk of disease in Australia with knowledge of health promotion strategies.

### **EBP: Evidence based practice**

#### **Descriptor**

This subject area develops competency in applying the principles of evidence-based practice (EBP) in all aspects of clinical decision making. The history, definition, value, and controversy surrounding evidence-based practice will be explored, with emphasis on the integration of EBP in complementary medicine. Different methods of research within contemporary health care will be explored, with an emphasis on the interpretation and implication of such research in clinical practice.

#### **Delivery methodology**

F2F &/or Online

#### **Learning Outcome**

- L01 Describe and critically evaluate the relevance of various contemporary health care research methods, and basic descriptive and inferential statistical methods.
- L02 Employ effective search methodology to find and retrieve relevant health information.
- L03 Critically appraise various types of contemporary health care research.
- L04 Use the results of contemporary research to inform decisions around diagnosis and treatment.
- L05 Apply the principles of evidence-based practice in making and evaluating clinical decisions around diagnosis and treatment.

### **HAP: Herbal and naturopathic history and philosophy**

#### **Descriptor**

The objective of this subject area is to provide the underpinning historical knowledge, philosophies and core principles required to practice Western Herbal Medicine and Naturopathy within a clinical framework. This subject area also focuses on key historical figures and the different cultural systems of medicine that have played a part in the evolution of current Western Herbal Medicine and Naturopathic practice.

#### **Delivery methodology**

F2F &/or Online

#### **Learning Outcome**

- L01 Demonstrate an understanding and application of the core principles and philosophies of Western Herbal and Naturopathic medicine as they apply to theoretical case exemplars.
- L02 Explain how key historical figures have contributed to the development of Western Herbal Medicine and Naturopathy.
- L03 Investigate the influence various cultural medicinal paradigms have had on the development of Western Herbal Medicine and Naturopathy.



L04 Explore the role and importance of Western Herbal and Naturopathic history, philosophies and principles in the modern context.

## **ICC: Inter-professional communication and collaboration**

### **Descriptor**

This subject area is practitioner-focused and develops communication skills and promotes collaboration with other health professionals to best support client outcomes.

The practitioner will recognise and work within their scope and identify the most appropriate referral options for their clients. The roles of other professionals are explored.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcome**

- L01 Demonstrated effective communication skills.
- L02 Awareness of scope of practice and the need for referral to other health professionals.
- L03 Ability to communicate effectively and document appropriately in referring clients.
- L04 Awareness of the roles of other health professionals.
- L05 Appreciation of scope of practice and referral requirements.

## **LEP: Legal, ethical and professional practice**

### **Descriptor**

This subject area encompasses the legal framework and key regulatory agencies for health practice in Australia including legislation applicable to complementary health care. It introduces ethics and ethical decision-making and practice and the function of codes of ethics and conduct, regulation and monitoring of professional practice.

The role of professional associations is explored as is the history and issues involved in statutory regulation. The distinction between professional associations, peak bodies and register/regulatory bodies is clarified. This module also explores the fundamental requirement for on-going professional development, reflection and accountability for safety and quality of client centred care when working in a health setting.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcome**

- L01 Knowledge of the legal requirements and relevant legislation as it applies to health practice in Australia.
- L02 Understands requirements for ethical and sound professional practice, including implementing this in clinical practice.
- L03 Engages in ongoing professional development and reflective practice.

## **OCE: Observation and critical evaluation**

### **Descriptor**

This subject area aims to encourage observation and critical analysis, with an understanding of the theories behind knowledge acquisition and communication. Students will learn to apply the observational habit and critical analysis in daily life and in health care, how to develop, communicate and debate concepts, and how to embed the principles of intellectual and academic integrity in their daily work.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcome**

- L01 Describe the various forms of knowledge acquisition and communication, including real life examples, and debate the strengths, weaknesses and controversies of each method.
- L02 Demonstrate accurate observational habit in various practical situations and one-on-one and group interactions.
- L03 Effectively structure and communicate information.
- L04 Develop rational arguments and debates on various issues.
- L05 Demonstrate the ability to critically analyse information and situations.
- L06 Demonstrates the ability to distinguish between correlation and causation.
- L07 Demonstrate a commitment to the principles of intellectual and academic accountability, honesty and integrity.

## **PAT: Pathophysiology, symptomatology and disease**

### **Descriptor**

This subject area covers the fundamental aspects of ill-health. Pathophysiology builds on the knowledge of normal physiological (cellular, biochemical, functional) processes covered in *Anatomy and physiology (AAP)* to understand the disordered, pathological processes in disease states for all body systems as listed in the contents below.

Knowledge of the pathophysiology informs an understanding of the symptom patterns and clinical presentation. Appropriate assessment and diagnostic techniques are included for each disorder/disease state. Clinical decision-making skills will be explored and developed.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcome**

- L01 Describes pathophysiological mechanisms and processes underlying human diseases.
- L02 Describes micro-organisms in health and disease.
- L03 Understands healing processes at a cellular through to functional level.
- L04 Understands, defines and classifies diseases based on pathogenic or morphological characteristics for the systems listed in the contents.

L05 Analyses information (signs, symptoms, physical examination findings, pathology and radiological assessments) to form working diagnoses and differential diagnoses.

## **PHA: Pharmacology and drug awareness**

### **Descriptor**

This subject area provides awareness and understanding of commonly employed conventional pharmaceutical agents, their modes of action, uses, cautions and contraindications, adverse reactions, as well as drug/herb and drug/nutrient interactions.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcome**

- L01 Define key terms and principles in pharmacology.
- L02 Demonstrate competence in recognising, classifying and reporting adverse reactions.
- L03 Demonstrate competence in obtaining, analysing and applying clinically-relevant information on drug classes and individual drugs, including interaction data.
- L04 Demonstrate knowledge of The Therapeutic Goods Act, Therapeutic Goods Regulations and The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) and its application to clinical practice.

## **PRM: Practice management**

### **Descriptor**

This subject area covers the core components of practice management for the new Herbalist/Naturopath. It includes aspects of business management, marketing, finance, records management and work health and safety.

It is acknowledged that this is an introductory level module and is not delivered to the same depth as a stand-alone course on practice management of Workplace Health and Safety (WH&S).

### **Delivery methodology**

F2F &/or Online

### **Learning Outcomes**

- L01 Knowledge of The Therapeutic Goods Act and The Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) and its application to clinical practice.
- L02 Aware of work health and safety obligations and practices.
- L03 First Aid certification.
- L04 Understands basic book-keeping and finance basics including records requirements, GST, income tax and software.
- L05 Knowledge of basic business structures, planning and promotion.

## **PUB: Public health and health promotion**

### **Descriptor**

This subject area includes the broader picture of public health, exploring epidemiology and the social determinants of health to understand individual health in the context of societal health patterns. Further, this looks at the Australian health care system, community health and support services and the role of complementary health care as well as models of health service delivery models, and methods of promoting a positive approach to health.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcomes**

- L01 Describe the history, philosophy and underlying principles of public health.
- L02 Describes principles of health promotion to clinical or community practice.
- L03 Demonstrated ability to review and critically appraise observational studies.
- L04 Distinguishes the difference between association and causation, and describes issues arising from inferring causation from observational designs.
- L05 Able to explain evidence in terms of risk in ways useful to clients.

# Herbal Medicine

## **BOT: Medicinal botany**

### **Descriptor**

Medicinal botany explores the botanical characteristics of plants used as herbal medicines including the identification of fresh and dried herbs through botanical morphology and organoleptic methods. The graduate will be able to identify medicinal plants, understand morphology, plant reproduction and the use of a botanical key. Plant and environmental sustainability is also explored.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcome**

- L01 Knowledge of plant taxonomy.
- L02 Ability to identify common medicinal herbs and poisonous plants.
- L03 Evaluates sources and sustainability of medicinal plants.

## **HDI: Herbal dispensing**

### **Descriptor**

The purpose of this subject area is to ensure those dispensing herbal medicine are equipped with an understanding of the methods of dispensing dry and liquid herbal materials, as well as the Australian regulatory framework underpinning extemporaneous dispensing.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcomes**

- L01 Appropriately dispense individualised dry and liquid herbal formulations, including rational dosage calculations and patient dosage instructions
- L02 Dispense herbal medicines effectively to minimise risk of contamination, infection, and other patient risks
- L03 Convert between different drug:extract ratios and dry herb equivalencies, for both diluted and concentrated extracts
- L04 Work within the Australian regulatory requirements for extemporaneous dispensing, and adhere to good practices in record keeping

## **HMM: Herbal materia medica**

### **Descriptor**

This subject area provides the foundational understanding of the primary plant medicines used in Australian herbal practice. The key characteristics of each medicine will be covered, enabling the student to develop a working understanding of the herbs in relation to the different systems of the body and to become both competent and confident in the use of these herbs for a wide variety of disease states. A

total of at least 160 herbs must be taught across the whole curriculum (including the 140 mandatory herbs in List A and B.)

Mandatory herbs may be detailed as full monographs in the curriculum or they may only be referred to in brief, against a specific therapeutic action for instance. Substitution of herbs on the mandatory lists can be considered when supplied with substantiated reasoning. Evidence for mandatory herbs taught in the curriculum is to be provided, being mapped to subject - this can be assisted by the Materia Medica spreadsheet, available from the NHAA Examiners on request.

### Delivery methodology

F2F &/or Online

### Learning Outcomes

- L01 Define the various types of herbal actions, and their clinical application and relevance.
- L02 Classify herbal medicines by both action and body system affected.
- L03 Detail the key characteristics of each herbal medicine studied, including - but not limited to - Latin binomial, common names, botanical description, part(s) used, primary relevant constituents, actions, indications, cautions, contraindications, regulatory status in Australia, clinically relevant herb/drug/nutrient interactions, preparation forms, and dosage.

### LIST A – Core Herbal Medicines (125)

It is **mandatory** that of the following 125 herbs, 110 of them are taught throughout the course. The remaining 15 can either be taken from this list, or include new and emerging herbs of your choice. Evidence must be provided that outlines the herbs chosen within the curriculum.

| BINOMINAL NAME                 | COMMON NAME (Part specified) |
|--------------------------------|------------------------------|
| <i>Achillea millefolium</i>    | Yarrow                       |
| <i>Actaea racemosa</i>         | Black cohosh (root)          |
| <i>Aesculus hippocastanum</i>  | Horse chestnut (seed)        |
| <i>Albizia lebeck</i>          | Albizia                      |
| <i>Allium cepa</i>             | Onion                        |
| <i>Allium sativum</i>          | Garlic                       |
| <i>Aloe spp.</i>               | Aloe                         |
| <i>Althaea officinalis</i>     | Marshmallow                  |
| <i>Andrographis paniculata</i> | Andrographis                 |
| <i>Angelica archangelica</i>   | Angelica (root)              |
| <i>Apium graveolens</i>        | Celery                       |
| <i>Arctium lappa</i>           | Burdock (root)               |
| <i>Arctostaphylos uva-ursi</i> | Bearberry                    |
| <i>Armoracia rusticana</i>     | Horseradish                  |

| BINOMINAL NAME   | COMMON NAME (Part specified) |
|--|------------------------------|
| <i>Artemisia absinthium</i>  | Wormwood                     |
| <i>Astragalus membranaceus</i>   | Astragalus                   |
| <i>Avena sativa</i>  | Oats                         |
| <i>Bacopa monniera</i>   | Bacopa                       |
| <i>Berberis vulgaris</i>   | Barberry                     |
| <i>Boswellia serrata</i>   | Boswellia                    |
| <i>Bupleurum falcatum</i>  | Bupleurum                    |
| <i>Calendula officinalis</i>   | Calendula                    |
| <i>Camellia sinensis</i>   | Tea (Green)                  |
| <i>Capsicum minimum</i>  | Cayenne                      |
| <i>Cassia angustifolia</i>   | Senna, Indian                |
| <i>Centella asiatica</i>   | Gotu kola                    |
| <i>Chelidonium majus</i>   | Celandine (herb)             |
| <i>Cinnamomum zeylanicum</i> / <i>C.cassia</i>                         | Cinnamon (bark)              |
| <i>Coleus forskohlii</i>   | Coleus                       |
| <i>Commiphora myrrha</i>   | Myrrh                        |
| <i>Crataegus oxyacantha</i> / <i>C.monogyna</i>                        | Hawthorn                     |
| <i>Crocus sativus</i>  | Saffron                      |
| <i>Curcuma longa</i>   | Turmeric (root)              |
| <i>Cynara scolymus</i>   | Artichoke (Globe - leaf)     |
| <i>Dioscorea villosa</i>   | Wild yam                     |
| <i>Drosera rotundifolia</i> / <i>D. angelica</i> / <i>D.intermedia</i> | Sundew                       |
| <i>Echinacea spp.</i>  | Echinacea                    |
| <i>Eleutherococcus senticosus</i>                                      | Siberian Ginseng             |
| <i>Elytrygia repens</i>  | Couch grass                  |
| <i>Equisetum arvense</i>   | Horsetail (herb)             |
| <i>Eschscholzia californica</i>  | California poppy             |
| <i>Eucalyptus globus</i> / <i>E. spp.</i>                              | Eucalyptus                   |
| <i>Eupatorium perfoliatum</i>  | Boneset                      |
| <i>Euphorbia hirta</i>   | Asthma weed                  |

| BINOMINAL NAME                                 | COMMON NAME (Part specified) |
|--|------------------------------|
| <i>Euphrasia officinalis</i>                   | Eyebright                    |
| <i>Filipendula ulmaria</i>                     | Meadowsweet                  |
| <i>Frangula purshiana</i>                      | Rhubarb (root)               |
| <i>Fucus vesiculosus</i>                       | Bladderwrack                 |
| <i>Galega officinalis</i>                      | Goat's rue (herb)            |
| <i>Galium aparine</i>                          | Cleavers                     |
| <i>Gentiana lutea</i>                          | Gentian (root)               |
| <i>Geranium maculatum</i>                      | Cranesbill                   |
| <i>Ginkgo biloba</i>                           | Ginkgo (leaf)                |
| <i>Glycyrrhiza glabra</i>                      | Licorice (root)              |
| <i>Gymnema sylvestre</i>                       | Gymnema                      |
| <i>Hamamelis virginiana</i>                    | Witch Hazel (leaf and bark)  |
| <i>Harpagophytum procumbens</i>                | Devil's claw                 |
| <i>Hedera helix</i>                            | Ivy (English - leaf)         |
| <i>Hemidesmus indicus</i>                      | Hemidesmus                   |
| <i>Humulus lupulus</i>                         | Hops                         |
| <i>Hydrastis canadensis</i>                    | Goldenseal                   |
| <i>Hypericum perforatum</i>                    | St. John's wort              |
| <i>Inula helenium</i>                          | Elecampane (root)            |
| <i>Iris versicolor</i>                         | Blue flag                    |
| <i>Lavandula officinalis / L. angustifolia</i> | Lavender (flower)            |
| <i>Leonurus cardiaca</i>                       | Motherwort                   |
| <i>Linum usitatissimum</i>                     | Linseed (aka Flaxseed)       |
| <i>Lycopus virginicus</i>                      | Bugleweed (aka Gypsyweed)    |
| <i>Marrubium vulgare</i>                       | White Horehound (herb)       |
| <i>Matricaria recuitica</i>                    | Chamomile (German) (flower)  |
| <i>Melaleuca alternifolia</i>                  | Tea Tree (oil)               |
| <i>Melissa officinalis</i>                     | Lemon balm                   |
| <i>Mentha x piperita</i>                       | Peppermint                   |
| <i>Nigella sativa</i>                          | Black cumin                  |



| BINOMINAL NAME                           | COMMON NAME (Part specified)   |
|--|--------------------------------|
| <i>Olea europaea</i>                     | Olive (leaf)                   |
| <i>Paeonia officinalis</i>               | Peony (flower and root)        |
| <i>Panax ginseng</i>                     | Ginseng (root)                 |
| <i>Passiflora incarnata</i>              | Passionflower (herb)           |
| <i>Phytolacca decandra / P.americana</i> | Poke root                      |
| <i>Pimpinella anisum</i>                 | Aniseed (Anise) (seed)         |
| <i>Piper methysticum</i>                 | Kava kava                      |
| <i>Piscidia erythrina</i>                | Jamaican dogwood               |
| <i>Plantago lanceolata</i>               | Ribwort                        |
| <i>Plantago ovata</i>                    | Psyllium                       |
| <i>Polygonum aviculare</i>               | Knotweed (herb)                |
| <i>Prunus serotina</i>                   | Wild cherry (bark)             |
| <i>Ptychopetalum olacoides</i>           | Muiru puama (aka Potency wood) |
| <i>Rehmannia glutinosa</i>               | Rehmannia                      |
| <i>Rhodiola rosea</i>                    | Rhodiola                       |
| <i>Rosmarinus officinalis</i>            | Rosemary (leaf)                |
| <i>Rubus idaeus</i>                      | Raspberry (leaf)               |
| <i>Rumex crispus</i>                     | Yellow dock                    |
| <i>Salix alba</i>                        | White Willow (bark)            |
| <i>Salvia officinalis</i>                | Sage (leaf)                    |
| <i>Sambucus nigra</i>                    | Elder (flower)                 |
| <i>Schisandra chinensis</i>              | Schisandra                     |
| <i>Scutellaria baicalensis</i>           | Baikal Skullcap                |
| <i>Scutellaria lateriflora</i>           | Skullcap                       |
| <i>Serenoa serrulata / S. repens</i>     | Saw Palmetto (berry)           |
| <i>Silybum marianum</i>                  | St Mary's Thistle              |
| <i>Solidago virgaurea</i>                | Goldenrod                      |
| <i>Stellaria media</i>                   | Chickweed                      |
| <i>Tanacetum parthenium</i>              | Feverfew                       |
| <i>Taraxacum officinale</i>              | Dandelion                      |

| BINOMINAL NAME   | COMMON NAME (Part specified) |
|--|------------------------------|
| <i>Thuja occidentalis</i>                                | Thuja                        |
| <i>Thymus vulgaris</i>                                   | Thyme                        |
| <i>Tilia spp.</i>  | Lime (flower)                |
| <i>Tribulus terrestris</i>                               | Tribulus                     |
| <i>Trifolium pratense</i>                                | Red clover                   |
| <i>Trigonella foenum-graecum</i>                         | Fenugreek (seed)             |
| <i>Turnera diffusa</i>                                   | Damiana (leaf and herb)      |
| <i>Ulmus rubra</i>                                       | Slippery elm                 |
| <i>Urtica dioica</i>                                     | Nettle                       |
| <i>Vaccinium macrocarpon</i>                             | Cranberry                    |
| <i>Vaccinium myrtillus</i>                               | Bilberry (fruit)             |
| <i>Valeriana officinalis</i>                             | Valerian (root)              |
| <i>Verbascum thapsus</i>                                 | Mullein (flower)             |
| <i>Verbena officinalis</i>                               | Vervain (root)               |
| <i>Viburnum opulus</i>                                   | Cramp bark                   |
| <i>Vitex agnus-castus</i>                                | Chaste tree (fruit)          |
| <i>Withania somnifera</i>                                | Withania                     |
| <i>Zanthoxylum clava-herculus</i> / <i>Z. americanum</i> | Prickly ash                  |
| <i>Zea mays</i>  | Corn (silk)                  |
| <i>Zingiber officinale</i>                               | Ginger (root)                |
| <i>Zizyphus jujuba</i> / <i>Z. spinosa</i>               | Chinese date                 |

## LIST B – Low therapeutic index Herbal Medicines (15)

The list below contains the restricted/ scheduled herbs that are also mandatory.

| BINOMINAL NAME                               | COMMON NAME (Part specified) |
|--|------------------------------|
| <i>Aconitum napellus</i>                     | Aconite (aka Monkshood)      |
| <i>Aloysia triphylla</i>                     | Lemon Verbena                |
| <i>Atropa belladonna</i>                     | Belladonna                   |
| <i>Azadirachta indica</i>                    | Neem                         |
| <i>Borago officinalis</i>                    | Borage                       |
| <i>Cannabis indica</i> / <i>C.sativa</i>     | Cannabis (aka Hemp)          |
| <i>Cephaelis ipecacuanha</i>                 | Ipecac                       |
| <i>Digitalis lanata</i> / <i>D. purpurea</i> | Foxglove                     |
| <i>Ephedra sinica</i> / <i>E. spp.</i>       | Ephedra                      |
| <i>Lobelia inflata</i>                       | Indian Tobacco               |
| <i>Papaver somniferum</i>                    | Opium Poppy                  |
| <i>Prunus armeniaca</i>                      | Apricot (seed)               |
| <i>Pulmonaria officinalis</i>                | Lungwort                     |
| <i>Symphytum officinale</i>                  | Comfrey                      |
| <i>Tussilago farfara</i>                     | Coltsfoot                    |

### HPM: Herbal pharmacy (manufacturing)

#### Descriptor

This Subject area details the necessary skills and knowledge to process manufacture and dispense herbal medicines as tinctures and liquid extracts, infusions and decoctions, creams and lotions, poultices and oils.

#### Delivery methodology

F2F &/or Online+

#### Learning Outcomes

- L01 Describes and complies with the regulatory requirements for the manufacture and dispensing of the various forms of herbal medicine.
- L02 Describes the requirements for growing, harvesting, drying and storage of herbs.
- L03 Prepares liquid herbal medicines and solid herbal medicines (such as lozenges, pills and capsules), including accurate dose ratios.

## **HTP: Herbal therapeutics and prescribing**

### **Descriptor**

This subject area focuses on the traditional and modern principles and practicalities of managing and preventing various health complaints in all body systems using herbal medicines.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcomes**

- L01 Demonstrate the ability to construct individualised herbal treatments utilising holistic, traditional and modern principles in patient care.
- L02 Choose and apply the most appropriate herbal preparation forms and dosages for individual patient requirements.
- L03 Apply herbal medicines to manage patterns and specific conditions in a range of body systems as listed.
- L04 Describe the limitations of herbal treatment in specific scenarios, and apply herbal medicines safely within the context of those limitations and in the context of known and suspected interactions with other medicines.

## **PHY: Pharmacognosy and phytopharmacology**

### **Descriptor**

The purpose of this subject area is to promote an understanding of pharmacognosy and the chemical complexity of plants. The medicinal value of primary and secondary plant metabolites are to be explained and detailed, with encouragement to include practical applications of herbal constituent knowledge in a clinical context. This subject area also focuses on safety, quality and commercial issues in herbal medicine.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcomes**

- L01 Demonstrate an understanding of the history and methods of natural product chemistry, and importance of this field in health care.
- L02 Explain the chemistry, medicinal activity, and toxicology of various plant constituents.
- L03 Demonstrate knowledge of the commercial production and regulation of therapeutic goods in Australia.

# Nutritional Medicine

## FON: Fundamentals of Nutrition

### Descriptor

This subject area explores macro- and micro-nutrients in detail encompassing the digestion, absorption transport, storage, metabolism and excretion of nutrients and potential interactions with other nutrients, pharmaceuticals and herbal medicine of nutrients). Nutrient reference values for life-stages and health and disease are included.

### Delivery methodology

F2F &/or Online

### Learning Outcomes

- L01 Describe macronutrients, micronutrients and related nutrient reference ranges.
- L02 Describe the role of water as an essential requirement of human nutrition.
- L03 Explain nutrient digestion, absorption transport, storage, metabolism, excretion and interactions.
- L04 Describe links between nutrients and health and disease.

## NT: Nutritional Therapeutics

### Descriptor

This subject area relates to the key therapeutic nutritional intervention in ill-health and disease. It examines the relationship between diet and health and disease, reviews the pathogenesis of disease and metabolic pathways and critically evaluates the evidence for nutritional therapeutic interventions.

The body systems outlined in the subject area *Pathophysiology, symptomatology and disease (PAT)* will be covered including medical/surgical management, lifestyle, dietary and nutritional supplementation strategies.

### Delivery methodology

F2F &/or Online

### Learning Outcomes

- L01 Integrates knowledge from the domains *Pathophysiology, symptomatology and disease (PAT)*, *Nutritional biochemistry (NBI)*, *Observation and critical evaluation (OCE)* and *Evidence based practice (EBP)* to describe the pathogenesis and metabolic disturbances in a range of disease states.
- L02 Describes the influence of dietary factors in the development of diseases, especially metabolic conditions such as Non-alcoholic fatty liver disease, metabolic syndrome, non-insulin dependent diabetes and cardiovascular disease.
- L03 Develops guidelines/plans for the implementation of dietary interventions such as FODMAP diets, gluten-free etc.
- L04 Critically appraises the evidence and outlines therapeutic nutritional interventions, including prescribing and dosing of nutritional supplements.

## **DP: Dietary Prescribing**

### **Descriptor**

This subject area relates to the skills and knowledge required to conduct nutritional assessments at an individual and population level. It explores the various methods available for assessing dietary intake and nutritional status, discusses how to interpret the information obtained and then how to apply the information when developing meal plans for individuals or groups.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcomes**

- L01 Obtains a diet history and is able to conduct nutritional and anthropometric assessments.
- L02 Quantifies intake of energy, macronutrients, water and micronutrients as related to nutrient reference values and dietary guidelines.
- L03 Constructs nutritionally optimal diets/meal plans utilising nutrient reference values and government-endorsed dietary guidelines and provides client education to facilitate behavioural change.
- L04 Describes characteristics of government-endorsed dietary guidelines, diets recommended by healthcare practitioners (e.g. Mediterranean diet) and popular diets (e.g. raw, low-carbohydrate) and uses evidence to explore strengths and weaknesses of the diets.

## **LN: Lifespan Nutrition**

### **Descriptor**

This subject area covers the issue related to key lifecycle stages; preconception, pregnancy, foetal, postnatal and lactation, infancy, childhood, adolescence, adulthood, ageing. It focuses on the normal developmental stages and physiological demands and nutritional requirements of those stages to maintain health and prevent the development of disease then or later degenerative diseases.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcomes**

- L01 Applies knowledge of the science of nutrition to human health according to oncogenic status
- L02 Critically evaluates and applies evidence to a contemporary nutritional health issue (e.g. eating patterns in adolescents, obesity and pregnancy.)
- L03 Develops a dietary plan to address nutritional deficiencies or excesses according to the physiological and health needs of individuals relative to age, developmental and disease status.

## **NB: Nutritional Biochemistry**

### **Descriptor**

This subject area relates to the metabolism of macronutrients and micronutrients, major metabolic pathways and cellular energy production and associated nutrient co-factors and enzymes.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcomes**

- L01 Describes major pathways for the metabolism of macronutrients.
- L02 Describes the role of nutrients in the optimal functioning of key biochemical pathways such as methylation, liver detoxification, eicosanoid synthesis and function and neurotransmitter synthesis and function (Note: this list is indicative only.)
- L03 Explains the process of liver detoxification.
- L04 Explains function of enzymes and hormones.
- L05 Discusses scope of current knowledge of nutrigenomics and possible applications.

## **NP: Nutritional Pharmacology**

### **Descriptor**

The purpose of this subject area is to promote an understanding of the pharmacology of food. The medicinal value of dietary phytochemicals are to be explained and detailed, with encouragement to include practical applications of dietary knowledge in a clinical context. This subject area also focuses on safety, quality and commercial issues in food as medicine.

### **Delivery methodology**

F2F &/or Online

### **Learning Outcomes**

- L01 Demonstrate an understanding of the history and methods of dietary phytochemistry, and importance of this field in health care.
- L02 Explain the chemistry, medicinal activity, clinical application and toxicology of various dietary constituents.
- L03 Detail the key characteristics of each food based medicine studied, including - but not limited to - Latin binomial, common names, part(s) used, primary relevant constituents, actions, indications, cautions, contraindications, regulatory status in Australia, clinically relevant herb/drug/nutrient interactions, preparation forms, and dosage.

## Electives

Electives have been included in the NHAA CAS to allow individual education institutions to develop their courses that comply with the NHAA CAS, but enable independent focus and unique character - largely relating to the flexibility required for Naturopathy courses. Subject outlines are to be supplied, informing content, hours and delivery, akin to detailed CAS subject area.

Examples may include:

- Nominated herbal medicine and nutrition electives detailed in NHAA CAS.
- Common Naturopathy associated modalities, such as:
  - Iridology.
  - Mineral therapy.
  - Flower essences.
  - Homeopathy.
  - Aromatherapy.
  - Hydrotherapy (balneotherapy)
- Body work modalities, such as massage, reflexology, etc.
- Meditation and relaxation therapies.
- Practice management (advanced.)
- Marketing (including development of website and material.)
- Mini research project.
- External subjects: for example, recognition of prior learning for other health-related subjects such as biostatistics, physiotherapy or occupational therapy subjects. Note, this is not for subjects where RPL has been granted such as Anatomy and Physiology, but rather, it is for subjects not included in the Western Herbal Medicine or Naturopathy degree program.



# Clinical Performance

| SUBJECT ARERA       | HOURS   | DELIVERY MODE     |
|---------------------|---------|-------------------|
| Clinical assessment | 100     | F2F Assessed Only |
| Clinical practicum  | 500/400 | F2F Assessed Only |

## CLA: Clinical assessment

### Descriptor

This key subject area develops competency in performing relevant clinical assessments, eliciting and interpreting a thorough client history, determining the indications for further investigations and analysing and synthesising the collected information. This enables an accurate and valid assessment of the client condition as well as informs the identification of appropriate and justifiable therapeutic interventions.

### Hours

100 hours

### Delivery methodology

F2F Only. This domain may be a stand-alone subject/module but it is expected that it will also as be integrated into other subjects and competency developed throughout the course.

### Learning Outcomes

- LO1 Understands and is competent performing the various methods of client assessment.
- LO2 Determines the most relevant and rationale tests for the client.
- LO3 Obtains a through clinical history with a diversity of subjects (e.g. different ages, gender and presenting issues.)

## CLP: Clinical practicum

### Descriptor

Clinical practicum represents the fundamental end-point for learning. The practical experience gained in the Practicum facilitates the integration of theoretical learning of disparate subjects and the application of that knowledge in real-life clinical cases within a supported learning environment. Ultimately, the clinical practicum provides the opportunity to assess the student's ability to practice in a safe and clinically competent manner.

The key feature of clinical practice is layered complexity. Any given presentation may represent innumerable conditions and disease states, and likewise, the one condition or disease state may present in significantly different ways. Add to that the influence of different ages, lifestyles, gender, co-morbidities etc. of clients and the complexity builds. To be able to integrate theoretical knowledge and then apply it safely and competently thus requires considerable hours of appropriately supervised undergraduate clinical practice.

## Hours

500 hours (Naturopathy course) or 400 hours (Western Herbal Medicine only course).

## Delivery methodology

F2F Only. Various delivery models are considered for appropriateness.

### A. Direct Clinical Practice

Within Direct Clinical Practice the student is in the role of (supervised) practitioner, managing the client case. This component can be delivered either entirely within the provider institution, or as a combination of internal placements and external placements. Provider institutions of NHAA Accredited Courses are required to have adequate student clinic facilities and dispensary at each campus offering the course(s), these may be subject to inspection for new applications, extensions of relocations.

The emphasis must be on the student operating as a practitioner, and thus being responsible for gathering patient information, applying any relevant clinical assessment methods, clinical decision-making, and development of treatment plans and specific treatment prescriptions, all within a supervised environment. External placements can offer valuable experience in a real-life clinic and allows students to gain a practical understanding of private clinical practice. To be a positive and constructive learning experience, external placement must be facilitated by an appropriate supervisor (i.e. someone with a minimum of 5 years clinical experience) and must be held in an appropriate clinical site (i.e. a registered business).

External placements must be with appropriately qualified practitioners (i.e. someone with a minimum of 5 years clinical experience), who have the requisite professional indemnity coverage to supervise students and who have current professional association membership. In addition, it is expected that the educational institutions provide the external supervisor with information about the course structure and content, expectations of the supervisor and of the student, desired learning outcomes, student assessment and the relevant procedural information (e.g. documentation requirements, notification on concerns etc.)

Ideally, the educational institution provides training for external supervisors on the role of supervisors. Further, the site of the external placement must be evaluated for appropriateness - for example, compliance with WH&S requirements, PLI&PI insurance, proper records management systems etc. References in this domain to performing as the primary practitioner relate to the student being the sole person acting as practitioner in a consultation, where other students and/or supervisors are a silent observer in attendance only.

### B. In-direct Clinical Practice

In-direct clinical practice encompasses the range of clinic functions and skills students require and includes:

- Written or audio-visual cases and review.
- Simulated clinic within a classroom environment.
- Observation:
  - Of other WHM and/or Naturopathy students
  - Of experienced WHM and/or Naturopathy practitioners (i.e. someone with a minimum of 5 years clinical experience)

- Of other health professionals, e.g. general medical practitioner, physiotherapist, acupuncturist (these health professionals also need to have a minimum of 5 years clinical experience in their field).
- Clinic management, including dispensary and reception duties.
- Relevant work experience.

All in-direct clinical practice requires the oversight of an appropriately qualified professional. Written/ audio-visual cases, simulated clinic and on-site student observation will be managed by staff of the educational institution. External observation placements and work experience must be supervised by an appropriately qualified professional (i.e. someone with a minimum of 5 years clinical experience).

NHAA encourages placements with other health disciplines to facilitate a greater understanding of the roles and scope of other health professions, to understand the broader health system and to develop professional relationships. Examples of placements include within a community health service, with medical practitioners, Chinese Medicine practitioner, Physiotherapist, and any other health care professional or institution.

NHAA encourages educational institutions to be innovative and creative in establishing relationships for external placements as well as providing student clinic services. For example, provision of an outreach clinic within a refuge (for women, for homeless), with organisations working with people who are at risk, for residents of care facilities or drug and alcohol services. The benefits of this include:

- Providing services to people who are typically disadvantaged in many areas and are unlikely to access complementary health services otherwise.
- Increasing the variety of clinical presentations for the students.
- It is likely the students will require advanced skills in being flexible and creative in finding strategies appropriate to the needs and lives of these clients.
- Providing exposure to a diversity of clients unlikely to present to clinic.
- The students will be providing a valuable community service.

### **Learning Outcomes**

- L01 Elicit a comprehensive health history from a variety of clients: different ages, genders, races, acute and chronic presentations as well as different health complaints.
- L02 Develops and implements effective treatment strategies appropriate to the client context.
- L03 Provides a rationale and evidence for the therapeutic strategies/approach.
- L04 Manages clients with on-going care needs (evaluating and modifying treatment accordingly.)
- L05 Dispenses supplements and herbal medicine in a manner compliant with Therapeutic Goods Agency and Work, Health & Safety requirements (hygiene, documentation, labelling.)
- L06 Communicates effectively; explains assessment and treatment to the client and ensures the client understands, facilitates change and encourages feedback and client engagement.
- L07 Conducts meaningful self-appraisal and audits on performance and case management.

### **Compulsory Assessment Requirements**

Formal and final assessment of clinical competence is the responsibility of the educational institution and cannot be undertaken by external supervisor unless that supervisor has been trained and assessed in their ability to do so by the educational institution.

**CLP\_01 Primary Practitioner Consultations:**

- Individual logging of number of consultations which the student has completed as primary consulting practitioner, specifying location, initial and follow-up consultations. (Minimum 50 clients.)
- Documentation of participation and competency in the areas of: case history taking, patient communication, clinical reasoning and diagnosis, forming treatment plans for short and long term management of patients, herbal medicine prescribing.

**CLP\_02 Observations:**

- Logging of number of consultations observed, specifying location, initial and follow-up consultations.

**CLP\_03 Case Analysis/Home Cases:**

- Individual logging of number of case studies which the student has completed.

**CLP\_04 Work Experience:**

- Logging of hours and type of work experience activities (not to exceed 20% of total CLP hours.)

**CLP\_05 Clinic Management:**

- Individual logging of clinic management hours completed (not to exceed 30% of total CLP hours.)