

## Subject Outline

<b>Subject Name:</b>	Herbal Medicine Materia Medica
<b>Subject Code:</b>	WHMF211
<b>Award(s):</b>	Bachelor of Health Science (Western Herbal Medicine) Bachelor of Health Science (Naturopathy)
<b>Core/Elective:</b>	Core – 4 credit points
<b>Pre/co-requisites:</b>	BIOH122, WHMF121
<b>Student Workload:</b>	78 hours face to face 72 hours self-directed study
<b>Delivery Mode:</b>	<b>Face to face</b> <ul style="list-style-type: none"> <li>2 x 2 hours lecture</li> <li>2 x 1 hour tutorial</li> </ul> <b>Full Time</b> <b>Part Time</b>
<b>Subject Coordinator:</b>	Elizabeth MacGregor

<b>Subject Rationale:</b>	Building on the foundations established in Herbal Botany and Manufacturing (WHMF121), this subject begins to explore plants that are used in the practice of Naturopathy and Herbal Medicine. Each herb is investigated from the perspective of its taxonomy and morphology, natural chemical constituents, therapeutic actions and applications, administration and dosage. This investigation considers both the traditional and historical use of the herbs as well as relevant research-based evidence. The <i>materia medica</i> is explored in relation to physiological systems and the herbs that exert a primary influence on particular systems. Students are introduced to herbal medicine management of clinical cases. This subject prepares students for the study of Herbal Pharmacology and Pharmacognosy and Clinical Herbal Medicine Management and Prescription.
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### Learning Outcomes:

1.	Compare and contrast the therapeutic applications of herbs from the perspective of traditional and empirical knowledge from different historical paradigms and on the basis of current research.
2.	Develop herbal monographs through investigation of available information on plant medicines.
3.	Apply knowledge of herbal <i>materia medica</i> to simple cases based on specific therapeutic action and clinical indications.
4.	Critically evaluate the benefits of herbal medicine in the management of human health conditions.

**Content:**

Week	Lecture	Tutorial
1.	<b>Session 1</b> <b>Introduction:</b> <ul style="list-style-type: none"> <li>Subject Outline, Subject Rationale, Subject Assessment, Student Resources</li> <li>History of <i>Materia Medica</i> (European, American, Indigenous Australian etc.), the origins and key figures throughout history who have contributed to its foundation (e.g. Dioscorides, Galen, Paracelsus).</li> </ul>	<ul style="list-style-type: none"> <li>Explore relevant concepts and expand on ideas with peer and lecture/tutor interaction</li> </ul>
	<b>Session 2</b> <b>Principles and Philosophies of Herbal Medicine:</b> <ul style="list-style-type: none"> <li>Principles and philosophies of natural medicine</li> <li>Choosing the most appropriate herb product</li> <li>Traditional and modern herbal preparations and derivatives (drug extract ratio).</li> </ul>	<ul style="list-style-type: none"> <li>Explore relevant concepts and expand on ideas with peer and lecture/tutor interaction</li> </ul>
2.	<b>Session 3</b> <b>Posology:</b> <ul style="list-style-type: none"> <li>Formulation Construction (synergy, supporting/stimulating etc. herbs)</li> <li>Traditional prescribing</li> <li>Dosing</li> <li>Case study deconstruction</li> </ul>	<ul style="list-style-type: none"> <li>Explore relevant concepts and expand on ideas with peer and lecture/tutor interaction</li> </ul>
	<b>Session 4</b> <b>Respiratory System Part I:</b> <ul style="list-style-type: none"> <li>Upper Respiratory Tract</li> <li><i>Materia Medica: Armoracia rusticana, Euphrasia officinalis, Albizia lebeck, Sambucus nigra, Solidago virgaurea, Tanacetum parthenium</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
3.	<b>Session 5</b> <b>Respiratory System Part II:</b> <ul style="list-style-type: none"> <li>Lower Respiratory Tract</li> <li><i>Materia Medica: Hedera helix, Marrubium vulgare, Plantago lanceolata, Prunus serotina, Verbascum thapsus, Drosera rotundifolia, Achillea millefolium, Althaea officinalis, Inula helenium, Viola odorata,</i></li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>

	<i>Euphorbia hirta</i> , <i>Grindelia camporum</i> & <i>Thymus vulgaris</i> from traditional and research literature.	
	<b>Session 6</b> <b>Immune System (Immunomodulators) Part I:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Echinacea</i> spp, <i>Andrographis paniculata</i>, <i>Scutellaria baicalensis</i>, <i>Handroanthus inpetiginosus</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
4.	<b>Session 7</b> <b>Immune System (Immunomodulators) Part II:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Astragalus membranaceus</i>, <i>Eleutherococcus senticosus</i>, <i>Uncaria tomentosa</i>, <i>Baptisia tinctoria</i>, <i>Hemidesmus indicus</i>, <i>Tylophora indica</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li><b>Quiz #1</b></li> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
	<b>Session 8</b> <b>Integumentary System (Skin-topical) Part I:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Arnica montana</i>, <i>Capsicum minimum</i>, <i>Calendula officinalis</i>, <i>Commiphora myrrh</i>, <i>Hamamelis virginiana</i>, <i>Stellaria media</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
5.	<b>Session 9</b> <b>Integumentary system (Lymphatic) Part II:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Arctium lappa</i>, <i>Galium aparine</i>, <i>Phytolacca americanum</i>, <i>Smilax ornata</i>, <i>Trifolium pratense</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
	<b>Session 10</b> <b>Circulatory System (Cardiovascular) Part I:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Allium sativum</i>, <i>Coleus forskohlii</i>, <i>Crataegus monogyna</i>, <i>Panax notoginseng</i>, <i>Salvia miltiorrhiza</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
6.	<b>Session 11</b> <b>Circulatory System (Peripheral) Part II:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Aesculus hippocastanum</i>, <i>Ginkgo biloba</i>, <i>Tilia</i> spp, <i>Vaccinium myrtillus</i>, <i>Zanthoxylum clava-herculis</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
	<b>Session 12</b> <b>Digestive System Part I:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Angelica archangelica</i>,</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>

	<i>Artemisia absinthum, Cinnamomum verum, Foeniculum vulgare, Filipendula ulmaria, Hyssopus officinalis, Matricaria recutita</i> from traditional and research literature.	
7.	<b>Session 13</b> <b>Digestive System Part II:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Melissa officinalis, Mentha piperita, Pimpinella anisum, Trigonella foenum-graecum, Ulmus fulva, Zingiber officinale</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li><b>Quiz #2</b></li> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
	<b>Session 14</b> <b>Digestive System (Colon) Part III:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Agrimonia eupatorium, Rheum palmatum, Frangula purshiana, Rumex crispus</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
8.	<b>MID SEMESTER BREAK</b> Semester 1 – The mid semester break varies year to year in relation to Easter so it may fall between weeks 6 to 8. Please refer to the student calendar for exact dates. Semester 2 – Week 8	
9.	<b>Session 15</b> <b>Hepato-biliary System Part I:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Bupleurum falcatum, Berberis vulgaris, Chelidonium majus, Curcuma longa, Cynara scolymus</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
	<b>Session 16</b> <b>Hepato-biliary System Part II:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Gentiana lutea, Hydrastis canadensis, Picrorrhiza kurroa, Silybum marianum, Taraxacum officinale</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
10.	<b>Session 17</b> <b>Urinary System Part I:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Arctostaphylos uva-ursi, Elymus repens, Agathosma betulina, Crataeva nurvala, Equisetum arvense</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
	<b>Session 18</b> <b>Urinary System Part II:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Eupatorium perfoliatum, Juniperus spp., Taraxacum officinale folia, Vaccinium macrocarpon, Zea mays</i> from</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>

	traditional and research literature.	
11.	<b>Session 19</b> <b>Nervous System Part I:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Avena sativa</i>, <i>Bacopa monniera</i>, <i>Lavandula angustifolia</i>, <i>Hypericum perforatum</i>, <i>Passiflora incarnata</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li><b>Quiz #3</b></li> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
	<b>Session 20</b> <b>Nervous System Part II:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Rosmarinus officinalis</i>, <i>Scutellaria laterifolia</i>, <i>Turnera diffusa</i>, <i>Leonurus cardiaca</i>, <i>Verbena officinalis</i>, <i>Withania somnifera</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
12.	<b>Session 21</b> <b>Nervous System Part III:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Eschscholzia californica</i>, <i>Humulus lupulus</i>, <i>Piper methysticum</i>, <i>Valeriana officinalis</i>, <i>Ziziphus jujube</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
	<b>Session 22</b> <b>Musculoskeletal System:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Apium graveolens</i>, <i>Boswellia serrata</i>, <i>Corydalis ambigua</i>, <i>Harpagophytum procumbens</i>, <i>Salix alba</i>, <i>Viburnum opulus</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
13.	<b>Session 23</b> <b>Female Reproductive System Part 1:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Cimicifuga racemosa</i>, <i>Chamaelirium luteum</i>, <i>Dioscorea villosa</i>, <i>Rubus idaeus</i>, <i>Asparagus racemosa</i>, <i>Vitex agnus-castus</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
	<b>Session 24</b> <b>Female Reproductive System Part 2:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Angelica sinensis</i>, <i>Paeonia lateriflora</i>, <i>Viburnum prunifolium</i> from traditional and research literature.</li> </ul> <b>Male Reproductive system:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Tribulus terrestris</i>, <i>Urtica dioica (radix)</i>, <i>Serenoa serrulata</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
14.	<b>Session 25</b>	<ul style="list-style-type: none"> <li><b>Quiz #4</b></li> </ul>

	<b>Endocrine System Part I:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Glycyrrhiza glabra</i>, <i>Panax ginseng</i>, <i>Rehmannia glutinosa</i>, <i>Rhodiola rosea</i>, <i>Schisandra chinensis</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
	<b>Session 26</b> <b>Endocrine System Part II:</b> <ul style="list-style-type: none"> <li>Materia Medica: <i>Fucus vesiculosus</i>, <i>Lycopus virginicus</i>, <i>Gymnema sylvestre</i>, <i>Galega officinalis</i>, <i>Salvia officinalis</i> from traditional and research literature.</li> </ul>	<ul style="list-style-type: none"> <li>Discussion of related clinical scenarios and appropriate herbal therapeutic approaches.</li> </ul>
<b>15-16</b>	<b>Study Week / Practical Exam Period</b>	
<b>17-18</b>	<b>Study Week / Final Exam Period</b>	

#### Set Text Requirements:

1.	Fisher, C 2009, <i>Materia medica of Western Herbs</i> , 2 <sup>nd</sup> edn, Vitex Medica, New Zealand.
2.	Braun, L & Cohen, M 2010, <i>Herbs and natural supplements: an evidence-based guide</i> , 3rd edn, Elsevier Australia, Chatswood, NSW.

#### Recommended readings:

1.	Tobyn, G, Denham, A & Whitelegg, M 2011, <i>The Western herbal tradition: 2000 years of medicinal plant knowledge</i> , Churchill Livingstone Elsevier, Edinburg.
2.	Barnes, J, Anderson, LA & Phillipson, JD 2012, <i>Herbal Medicine</i> , Pharmacology Press, < <a href="http://www.medicinescomplete.com.ezproxy.endeavour.edu.au:2048/mc/herbals/current/">http://www.medicinescomplete.com.ezproxy.endeavour.edu.au:2048/mc/herbals/current/</a> >.
3.	Blumenthal, M 2000, <i>Herbal medicine: expanded commission E monographs</i> , Integrative Medicine Communications, Newton, MA, < <a href="http://cms.herbalgram.org/herbstream/library/homePage/">http://cms.herbalgram.org/herbstream/library/homePage/</a> >.
4.	Bone, K 1996, <i>Clinical applications of ayurvedic and Chinese herbs: monographs for the western herbal practitioner</i> , Phytotherapy Press, Warwick, QLD.
5.	Mills, S & Bone, K 2013, <i>Principles and practice of phytotherapy: modern herbal medicine</i> , Churchill Livingstone, Edinburgh.

#### Assessments:

Assessment Item	Topic	Learning Outcomes Assessed	Session Content Delivered	Session Due	Weighting
<b>Quizzes</b> Progressive quizzes under test conditions	Multiple choice questions, short answer questions	2, 3, 4 & 5	1 – 6	7	20%
			1 – 12	13	
			1 – 18	19	
			1 - 24	25	
<b>Materia Medica</b>	Students research an herb from	1, 2, 3 & 5	1 - 25	End of	40%

<b>Report</b> (1500-2000 words)	the SO and are required to produce an up-to-date materia medica.			Week 14	
<b>Examination:</b> 1.5 hours	Multiple choice questions, short answer questions, extended response questions and case study questions, under exam conditions *	2, 3, 4 & 5	1 - 26	Final Exam week	40%
<p>Formative assessment will be undertaken early in the subject and then on a regular basis throughout the duration of the subject to provide students and staff with feedback on the learning. It may take the form of quizzes, small group and classroom presentations, writing activities, peer review where appropriate.</p> <p>Early formative assessment would be used to determine any necessary intervention strategies to ensure students are able to complete the program in the normal subject duration.</p> <p>Feedback will also be provided on summative assessment undertaken during semester.</p>					