

Course Descriptions

ISci 632: Foundations of Health and Wellness 3.0

This course addresses modern, historical, and cross-cultural perspectives on health, wellness, and sickness. Health and wellness of the individual is discussed in a context ranging from the societal to the molecular level. Emphasis is placed on understanding the biological basis of health and wellness practices as well as the use of language in creating health-supportive narratives. As part of this course, students will engage in their own health-supportive practices and develop a deeper personal commitment to wellness.

HRB 530: Fundamentals of Herbal Medicine: Past to Present & Soil to Clinic 3.0

This survey course begins by looking at the past and present use of herbal medicine around the world, exploring how traditional systems influence modern herbal practice in the United States. The second part of this course introduces the foundational sciences relevant to researching and understanding herbal remedies. Students learn taxonomy and hands-on botanical identification during visits to Dr. James Duke's Green Pharmacy Garden. Classroom work will provide an introduction to materia medica, phytochemistry, pharmacology, ethnobotany, clinical trials, posology (the study of dosage), herbal preparations, and safety issues.

HRB 604: Frequently Used Herbs: Understanding for the Health Professional 3.0

This course investigates approximately 30 of the most commonly used herbal medicines and related supplements in the United States. Each herb will be discussed from the ethnobotanical perspective as well as the modern phytotherapeutic perspective, with a focus on pharmacological understanding and relevant clinical trials. Special emphasis will be placed on topics relevant to the contemporary clinician, including quality control, interactions, and other safety parameters of each herb covered. This course provides the student with the necessary skills to effectively research herbs not covered in the class.

HRB 618: Herbs for Home Use: Living in Harmony with the Seasons 3.0

This course looks in depth at approximately 30 herbs that are most appropriate for self-care and use in the home. Each herb will be discussed in terms of historical usage, modern research perspectives, and quality assessment. Seasonal influences

on health and disease will be explored as students learn to incorporate these 30 herbs into beverages and foods. Traditional herbal formulation also will be covered with a focus on creating seasonal blends. This course provides the student with the necessary skills to effectively research herbs not covered in class.

HRB 622: Herbal Pharmacy: Evaluating and Manufacturing Quality Herbal Products 3.0

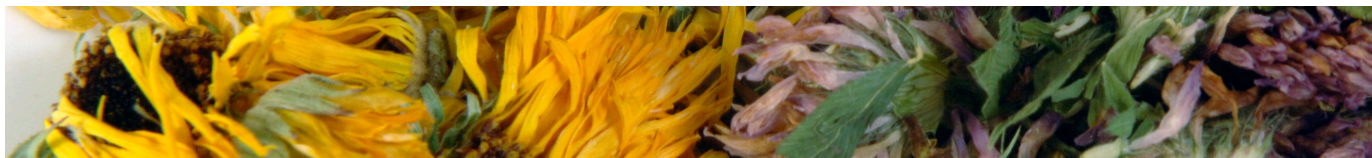
This is primarily a hands-on course providing techniques for harvesting and drying herbs, and incorporating them into herbal products and medicinal foods. It provides the basic theory and skills required to manufacture high-quality medicinal herb products for oral and topical application. Students learn the foundational principles of extraction, the properties of common solvents (e.g., water, alcohol and oils) and the solubility of various herbal constituents. Students apply their learning by creating herbal foods and extracts for display at a community herbal products show. In addition to making their own kitchen pharmacy preparations, students learn how to evaluate the quality of the wide range of herbal products manufactured by the natural products industry.

ISci 647a Physiology I: Healthy Function 3.0

This course explores human physiology relevant to the study of therapeutic herbalism. Students become familiar with foundational physiological processes including: digestion and assimilation, biotransformation and elimination, circulation, protection and defense, tissue repair and maintenance, and information flow. Physiological processes are discussed in relationship to behavioral and environmental inputs such as physical activity, social networks, herbs, diet, and sunlight. Circadian, seasonal and other chronobiological patterns in physiology are also discussed. Clinical trials with herbs are utilized to develop information literacy and demonstrate how an understanding of physiology facilitates greater understanding of the effects of herbs.

HRB 634c. I Field Trip/Nature Intensive 1.0

This course emphasizes the relationship between herbal medicine and plants in the natural environment. The development of rudimentary identification skills of wild and cultivated medicinal plants will be reinforced through the immersion of students in the native environment of some of the most important indigenous North American herbs. Students will understand the importance of wilderness areas while learning



to work intimately and ethically with natural plant communities including how to appropriately gather and process plants in the field.

HRB 654b Herbal Pharmacology & Phytochemistry 3.0

This course covers the fundamentals of pharmacology as applied to herbal medicine in addition to more advanced aspects of pharmacology, including the concepts of synergy and hormesis. The course will explore the major constituent groups relevant to herbal medicine. Students develop a basic understanding of both modern and traditional pharmacological principles through activities in critical thought and discussion relating to herbal actions, phytochemistry, pharmacology, toxicology and drug-herb interactions. The identification of chemical structures and basic information regarding major constituent groups of medicinal plants is a core aspect of this course. Traditional classifications of pharmacology based on concepts of taste and energetics will also be covered.

ISci 647b Physiology II: Movement away from Health 3.0

Building on Physiology I, this course explores key physiological processes involved in movement away from organ system and whole body health. Fundamental processes to be explored include: inflammation, oxidative stress, neuro-hormonal dysregulation, immune dysregulation, impaired detoxification, impaired digestion, and malabsorption. These processes will be understood in relationship to behavioral and environmental inputs such as xenobiotics, microorganisms, diet, and overall coping strategies. Stress physiology also is discussed with an emphasis on the concepts of allostasis and allostatic load. Clinical trials with herbs are utilized to develop information literacy and demonstrate how an understanding of physiology facilitates greater understanding of the effects of herbs.

HRB 620a Herbal Therapeutics I 3.0

Examining the principles and practice of modern herbal medicine, this course provides a foundational framework for understanding how herbs can be used to support health and wellness. Central to the course is a comprehensive review of both modern pharmacological actions and traditional herbal actions that are applicable to the support of healthy biological structure and function. The concepts of natural rhythms of the living world and an integrated model of physiology are used to provide context for the therapeutic application of herbs. Traditional and modern approaches to formulation are discussed, and students gain practical experience in formulating with herbs covered in materia medica courses.

HRB 605c Materia Medica II 3.0

Materia Medica II is an expansion and continuation of HRB 604 and HRB 618. This course is a comprehensive review of the available information and resources that address the use of individual herbal remedies. The study of the properties and uses of individual herbs from both the traditional and modern research perspective will be covered. Herbs will be compared and contrasted to facilitate understanding of commonalities and differences between key herbal remedies. The course continues to develop information literacy skills with an emphasis on finding and interpreting clinical studies and traditional herbal literature.

HRB 634c.2 Field Trip/Nature Intensive 2.0

This course emphasizes the relationship between herbal medicine and plants in the natural environment. The development of rudimentary identification skills of wild and cultivated medicinal plants will be reinforced through the immersion of students in the native environment of some of the most important indigenous North American herbs. Students will understand the importance of wilderness areas while learning to work intimately and ethically with natural plant communities including how to appropriately gather and process plants in the field.

HRB 620b Herbal Therapeutics II 3.0

In this continuation of Herbal Therapeutics I, traditional and modern approaches to compensating for pathophysiological processes are discussed. Further emphasis is placed on issues of formulation, dosage, appropriate preparation and safety. Critical thinking is emphasized as students learn to develop a deeper understanding of the dynamic and individualized nature of herbal therapeutics.

Elective 3.0

Students can explore a particular area of interest to complement their studies. They may choose to design an individual project with a faculty advisor, complete an internship, or take an elective offered at Tai Sophia in a variety of areas.