



# Botanical Medicine *(buh-tan-i-kuhl)*

n. the use of plants or plant extract for medicinal purposes.

## Department of Botanical Medicine

The Department of Botanical Medicine directs the study of utilizing plants as medicine. Classes are offered in several venues: the field, laboratory, and classroom. Classes focus on the historical use of plants as medicine, current research, pharmacognosy, clinical application of knowledge, and case analysis and management. In accordance with the philosophy of Naturopathic medicine, emphasis is not only on the study of botanical medicine, but also on how combinations of botanicals, with other herbs, drugs, and foods create effects in people that promote health and prevent disease.

*18 credits / 180 hours*

### *Patricia Gaines, N.D., R.H. (AHG) - Department Chair, Assistant Professor*

Dr. Patricia Gaines graduated from Bastyr University with a doctorate degree in Naturopathic Medicine. She continued her training, completing a two-year family practice residency at Southwest College of Naturopathic Medicine with an emphasis on botanical medicine, homeopathy, and women's health. Dr. Gaines is currently the Chair of Botanical Medicine at SCNM as well as assistant professor and clinic supervisor. She developed and supervised a Naturopathic rotation at Sojourner Center, a domestic violence shelter for women and children from 2003-2007. Her passion is understanding patients from a constitutional perspective and teaching students to formulate based on the individual needs of each patient. Dr. Gaines treats acute and chronic disease using botanical medicine, homeopathy, nutrition, and lifestyle counseling.

Kim Engard, N.M.D., Adjunct Faculty  
 Lisa Ganora, B.A., Herbalist, Adjunct Faculty  
 Feather Jones, R. H. (AHG), Adjunct Faculty

Lynn Romero, B.S., Adjunct Faculty  
 JoAnn Sanchez, R.H. (AHG), Adjunct Faculty  
 Eric L. Yarnell, N.D., R.H. (AHG), Adjunct Faculty

SCNM's ND program offers a well balanced and comprehensive curriculum designed to offer the maximum number of credits in each Naturopathic modality. We believe this provides our students with the broadest education to become managers of total integrated Naturopathic medicine. As part of the required ND curriculum, students will take 15 didactic credits in the Department of Botanical Medicine. Four clinical credits are offered each quarter.



# COURSES

## **BOTM 610 Introduction to Botanical Medicine (Lecture 2)**

This is a foundational course introducing students to the use of plants as medicine. Students will receive an overview of botany, learn the history of herbal medicine, review the botanical and medicinal classification of plants, discuss ecological harvesting, and examine basic concepts in formulating and dosing. Specific adaptive techniques will be discussed in relationship to landmark Southwestern medicinal plants. This course sets the framework for students to build their knowledge throughout the remaining materia medica study.

*Prerequisites: None*

## **BOTM 680 Pharmacy of Botanical Medicine (Lecture 2)**

This is a hands-on course familiarizing students with the preparation of herbal medicine. Students actively participate in the preparation of herbal tinctures, teas, poultices, compresses, syrups, creams, ointments, emulsions, suppositories, and capsules. Students examine the comparable advantages and disadvantages of each type of preparation, and how pharmacognosy provides an understanding of optimizing medicinal preparations for each plant. Emphasis is also on prescription writing and utilizing organoleptic testing to assess medicinal preparation identity and quality.

*Prerequisite: None*

## **BOTM 700 Pharmacognosy & Phytochemistry (Lecture 3)**

This course is an overview of the study of natural plant substances. This topic will be explored through the major classes of plant constituents in order to understand the activity of plants and offer a framework for the clinical application of botanical medicine. It will cover basic plant chemistry and examine solubility and extraction, variability and synergy, review biosynthetic pathways, absorption, metabolism, standardization, and concentration. The major focus of the class is on the major categories and subcategories of phytochemicals relevant to botanical medicine and the physiological effects these constituents have on the human body.

*Prerequisites: BIOC 605, BIOC 606, BOTM 610*

## **BOTM 743 Naturopathic Materia Medica Pharmacognosy/Therapeutics I**

## **BOTM 744 Naturopathic Materia Medica Pharmacognosy/Therapeutics II**

## **BOTM 817 Naturopathic Materia Medica Pharmacognosy/Therapeutics III**

### **(Per Course Lecture 2)**

These consecutive courses provide students with the necessary knowledge and skills to understand herbal medicine in the Naturopathic materia medica. Students are taught botanicals from an organ system perspective. These include gastrointestinal, dermatological, respiratory, immune, cardiovascular, reproductive, urinary, endocrine, musculo-skeletal and nervous systems. Material presented on each botanical includes taxonomy, description, habitat, part(s) used, pharmacognosy, historical and current medicinal actions and uses, dosing, toxicology and potential drug interactions, all of which are used to critically analyze the application of these botanicals for therapeutic formulations. If not taking courses consecutively, consult department chair.

*Prerequisites: BOTM 610, BOTM 680, 700 and PATH 625; BOTM 743 and BOTM 744 for BOTM 817)*

## **BOTM 831 Botanical Medicine Therapeutics – Developing Clinical Proficiency (Lecture 2)**

This course prepares students to develop the botanical expertise needed to meet the demands of a broad-based Naturopathic practice. Students will be able to integrate the knowledge of botanical therapeutics and the assessment of individual case requirements into clinically based protocols. Emphasis is on botanical formulations and botanical case management.

*Prerequisites: BOTM 743, 744, 817; Eligibility to enter clinical training.*

## **BOTM 900 Botanical Medicine in the Appalachian Mountains - (Elective) (Lecture 3 credits)**

This is a hands-on course located in the North Carolina Mountains and conducted at the Gaia Herb Farm outside Brevard, North Carolina. It is designed to advance the knowledge of botanicals in all aspects of medicine. Students will learn about medicinal plants of the Appalachian Mountains and how to use them clinically. They will also learn about issues related to producing botanical products, including quality control, quality assurance, raw material processing/production, harvesting, and validation of strength, purity, and efficacy of botanical medicines. This should increase the student's ability to apply their knowledge in the clinical setting; enable them to make informed decisions about product quality; and provide them with knowledge to become better physicians, researchers, and teachers in the future. For those who are pursuing a future in research or product research, it is designed to enhance his/her knowledge and experience working with a state-of-the-art botanical company.

*Prerequisite: Completed one year of Naturopathic medical school or prior knowledge in botanical medicine with instructor's approval.*

## **CLTR 600 On-site Botanical Medicine Rotations: 4 credits offered/Quarter**

*SCNM occasionally offers electives in the Naturopathic medical degree program. Electives are courses that are not part of the total required curriculum credits and are not part of the required core-course curriculum.*

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NATUROPATHIC MEDICINE