

# ND COURSE DESCRIPTIONS

## Required Courses

### **ACMD 6010 Acupuncture and Chinese Medicine I: Theory & Fundamentals of Acupuncture and Chinese Medicine**

#### **2.5 Didactic Credits**

This course introduces the fundamental concepts of Chinese Medicine, including yin yang, five elements theory, zang-fu organ systems, qi, blood and body fluid, meridian systems, TCM etiology, treatment principles, and eight phases theory. This course lays a foundation for further study.

**Department:** Acupuncture and Chinese Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

### **ACMD 6020 Acupuncture and Chinese Medicine II: Traditional Chinese Medicine Diagnosis**

#### **2.5 Didactic Credits**

In this course, the basics of Traditional Chinese Medicine (TCM) and the Four Diagnostic Techniques are studied. TCM case-history taking, including the classic ten questions and the significance of elucidated symptoms, is explored, as well as classic diagnostic methods such as inspection, listening and smelling, and tongue and pulse diagnosis. Syndrome differentiation based on Eight Principle Theory is also introduced.

**Department:** Acupuncture and Chinese Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

### **ACMD 6030 Acupuncture and Chinese Medicine III: Meridians Points I**

#### **2 Didactic Credits**

This is the first of a two-course sequence that covers the Traditional Chinese Medicine acupuncture points and meridians. The location, function, and indications of acupuncture points of each meridian are studied. Practical, hands-on experience in point location occurs with the supervision of an experienced acupuncturist. This course has an accompanying lab.

**Department:** Acupuncture and Chinese Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** ACMD 6030L

### **ACMD 6030L Acupuncture and Chinese Medicine III: Meridians Points I Lab**

#### **1 Lab Credit**

This is the first lab of a two-course sequence that covers the Traditional Chinese Medicine acupuncture points and meridians. The location, function, and indications of acupuncture points of each meridian are studied. Practical, hands-on experience in point location occurs with the supervision of an experienced acupuncturist. This lab has an accompanying didactic course.

**Department:** Acupuncture and Chinese Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** ACMD 6030

### **ACMD 6040 Acupuncture and Chinese Medicine IV: Meridians & Points II**

#### **1.5 Didactic Credits**

This is the second of a two-course sequence that covers the Traditional Chinese Medicine acupuncture points and meridians. The location, function, and indications of acupuncture points of each meridian are studied. Practical, hands-on experience in point location occurs with the supervision of an experienced acupuncturist. This course has an accompanying lab.

**Department:** Acupuncture and Chinese Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** ACMD 6040L

### **ACMD 6040L Acupuncture and Chinese Medicine IV: Meridians & Points II Lab**

#### **1 Lab Credit**

This is the second lab of a two-course sequence that covers the Traditional Chinese Medicine acupuncture points and meridians. The location, function, and indications of acupuncture points of each meridian are studied. Practical, hands-on experience in point location occurs with the supervision of an experienced acupuncturist. This lab has an accompanying lecture course.

**Department:** Acupuncture and Chinese Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** ACMD 6040

### **ACMD 7057 Acupuncture and Chinese Medicine V: Traditional Chinese Medicine Pathology**

#### **4 Didactic Credits**

In this course, students will learn to identify key symptoms of Zang-Fu organ patterns and the method of syndrome differential diagnosis of TCM according to Zang-Fu organ system theory. Therapeutic principles and acupuncture treatment for individual patterns will also be studied.

**Department:** Acupuncture and Chinese Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

### **ACMD 7060 Acupuncture and Chinese Medicine VI: Acupuncture Techniques**

#### **1 Didactic Credit**

This course covers basic needling techniques used in acupuncture, such as needle insertion, removal, tonification, reduction, bleeding, intradermal needle, and electric stimulator; also cupping, moxibustion, and Gusha. Practical experience in needling technique occurs under the supervision of an experienced acupuncturist. Clean needle and safe needling techniques are discussed. Basic auricular acupuncture is introduced. This course has an accompanying lab.

**Department:** Acupuncture and Chinese Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** ACMD 7060L

**ACMD 7060L Acupuncture and Chinese Medicine VI Acupuncture Techniques Lab****1 Lab Credit**

This course covers basic needling techniques used in acupuncture, such as needle insertion, removal, tonification, reduction, bleeding, intradermal needle, and electric stimulator; also cupping, moxibustion, and Gusha. Practical experience in needling technique occurs under the supervision of an experienced acupuncturist. Clean needle and safe needling techniques are discussed. Basic auricular acupuncture is introduced. This lab has an accompanying lecture course.

**Department:** Acupuncture and Chinese Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** ACMD 7060

**ACMD 7070 Acupuncture and Chinese Medicine VII: Case Analysis and Management I****2 Didactic Credits**

In this course, a case analysis approach illustrates the disease entities commonly encountered in clinical practice. Students translate Western disease assessments into TCM syndromes. The differential diagnosis of syndromes is reviewed, along with the therapeutic principles required for acupuncture and Chinese-prepared medicines.

**Department:** Acupuncture and Chinese Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**ACMD 7084 Acupuncture and Chinese Medicine VIII: Case Analysis and Management II****2 Didactic Credits**

This course continues the exploration of case analysis and management of the disease entities commonly encountered in practice that began in ACMD 7070. The differential diagnosis of syndromes is reviewed, along with the therapeutic principles required for effective treatment. Acupuncture protocols are emphasized, along with Chinese-prepared medicines.

**Department:** Acupuncture and Chinese Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**ANAT 5014 Regional Anatomy, Embryology, and Histology I****5 Didactic Credits**

The first of three anatomy blocks, this course includes interactive didactic instruction to learn the gross anatomy, embryology, and histology of the human body as it relates to the practice of medicine. Lab instruction includes cadaver dissection. This systems-based approach starts with fundamental concepts and continues with organ system anatomy. This course is taught in coordination with the PHYS 5014 and ICSA 5014 courses. This course has an accompanying lab.

**Department:** Basic Medical Sciences

**Prerequisites:** Admission to the program

**Corequisites:** PHYS 5014 and ICSA 5014

**ANAT 5014L Regional Anatomy, Embryology, and Histology I Lab****3 Lab Credits**

The first of three anatomy blocks, this course includes interactive laboratory instruction to learn the gross anatomy, embryology and histology of the human body as it relates to the practice of medicine. Lab instruction includes cadaver dissection. This systems-based approach starts with fundamental concepts and continues with organ system anatomy. This course is taught in coordination with the PHYS 5014 and ICSA 5014 courses. This course has an accompanying lecture.

**Department:** Basic Medical Sciences

**Prerequisites:** Admission to the program

**Corequisites:** PHYS 5014 and ICSA 5014

**ANAT 5024 Regional Anatomy, Embryology, and Histology II****3 Didactic Credits**

The second of three anatomy blocks, this course includes interactive didactic instruction to learn the gross anatomy, embryology, and histology of the human body as it relates to the practice of medicine. Lab instruction includes cadaver dissection. This systems-based approach continues with organ systems anatomy. This course is taught in coordination with the PHYS 5024 and ICSA 5024 courses. This course has an accompanying lab.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHYS 5024 and ICSA 5024

**ANAT 5024L Regional Anatomy, Embryology, and Histology II Lab****3 Lab Credits**

The second of three anatomy blocks, this course includes interactive laboratory instruction to learn the gross anatomy, embryology, and histology of the human body as it relates to the practice of medicine. Lab instruction includes cadaver dissection. This systems-based approach continues with organ systems anatomy. This course is taught in coordination with the PHYS 5024 and ICSA 5024 courses. This course has an accompanying lecture.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHYS 5024 and ICSA 5024

**ANAT 5034 Regional Anatomy, Embryology, and Histology III****3 Didactic Credits**

The third of three anatomy blocks, this course includes interactive didactic instruction to learn the gross anatomy, embryology, and histology of the human body as it relates to the practice of medicine. Lab instruction includes cadaver dissection. This systems-based approach continues with organ system anatomy. This course is taught in coordination with the PHYS 5034 and ICSA 5034 courses. This course has an accompanying lab.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHYS 5034 and ICSA 5034

**ANAT 5034L Regional Anatomy, Embryology, and Histology III Lab**  
**3 Lab Credits**

The third of three anatomy blocks, this course includes interactive laboratory instruction to learn the gross anatomy, embryology, and histology of the human body as it relates to the practice of medicine. Lab instruction includes cadaver dissection. This systems-based approach continues with organ system anatomy. This course is taught in coordination with the PHYS 5034 and ICSA 5034 courses. This course has an accompanying lecture.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHYS 5034 and ICSA 5034

**ANAT 5048 Neuroanatomy**
**2 Didactic Credits**

This course incorporates the gross and microscopic anatomy of the nervous system, its circuitry, functions, pathophysiology, clinical correlations, and an introduction to imaging techniques used for the study of the nervous system. The course stresses the acquisition and use of concepts. Emphasis will be placed on the clinical relevance of the presented material.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**BIOC 5014 Biochemistry I**
**4 Didactic Credits**

This foundational course is the first of a three-quarter sequence in cell biology, medical biochemistry, and genetics. This course details the structure and function of the cell, as well as the molecules utilized within it, including but not limited to nucleic acids, carbohydrates, amino acids/proteins, and lipids. Structure and function relationships are stressed, with particular emphasis on enzyme and coenzyme function and regulation. Enzymatic regulation and cellular function are further explored within intermediary metabolism, including glycolysis, citric acid cycle, and oxidative phosphorylation. Particular emphasis is placed on the utilization of vitamins as coenzymes, their roles in mitochondrial energetics, and their physiologic sequelae.

**Department:** Basic Medical Sciences

**Prerequisites:** Admission to the program

**BIOC 5026 Biochemistry II**
**4 Didactic Credits**

This foundational course is the second course within a three-quarter sequence in cell biology, medical biochemistry, and genetics. This course focuses on the study of the body's metabolic processes, including but not limited to carbohydrates, fatty acids, lipids, nitrogen and amino acids, and nucleotides.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**BOTM 6010 Botanical Medicine I: Intro to Botanical Medicine**
**2 Didactic Credits**

This course lays the foundation for the Botanical Medicine component of the curriculum at Sonoran. The format is interactive lecture and question/answer. Course content includes the foundations of botanical medicine, introduction to materia medica and monograph study, herbal properties and actions, formulary, and posology. There is also an overview of plants found in our Southwest environment and adaptive techniques for survival.

**Department:** Botanical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**BOTM 6020L Botanical Medicine II: Pharmacy of Botanical Medicine Lab**
**2 Lab Credits**

This hands-on course familiarizes students with the preparation of herbal medicine. The format is lecture and interactive demonstration. Students actively participate in the preparation of aqueous extracts, tinctures, herbal oils and salves, syrups, capsules, ointments, poultices, and compresses. Students examine the comparable disadvantages of each type of preparation and identify the role pharmacognosy plays in determining optimal extraction and delivery for a variety of plants. Other topics presented include organoleptic assessment, quality assessment, ecological harvest of raw materials, storage, solubility of constituents, and botanical prescription writing. Monograph study is included for herbs commonly used in topical preparations. This course, along with BOTM 6010, provides the foundational information for further study in the following materia medica courses.

**Department:** Botanical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**BOTM 6934 Botanical Medicine in the Rocky Mountains**
**2 Didactic Credits**

This course is a four-day field study near Lyons, Colorado. Specific campsite information will be given to students, and students can either set up tents or car-camps. Day trips are planned to different locations and elevations in the local canyons and meadows for plant diversity. Approximately 30 to 40 plants will be available for plant identification, materia medica, and herbal therapeutics discussions including case studies, ethical wild-harvest, and medicine making. Discussions related to the clinical use of plants will take place throughout the field identification, harvesting, and medicine-making segments. Individual constituents, actions, energetics, extraction, delivery, and safety will be examined for each plant. Additional costs include campsite fees, food, transportation, and medicine-making supplies.

**Department:** Botanical Medicine

**Prerequisites:** Completion of quarters 1-3 (see the program of study for additional eligibility requirements for the 5-year track)

**BOTM 6954 Pharmacognosy and Phytochemistry**
**2 Didactic Credits**

This course is an overview of secondary metabolites found in medicinal plants. 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, as well as review biosynthetic pathways, absorption, metabolism, standardization, and concentration. The primary focus of the course is on the major categories and subcategories of phytochemicals relevant to botanical medicine and the physiological effects these constituents have on the human body.

**Department:** Botanical Medicine

**Prerequisites:** BOTM 6010

**BOTM 6996 Introduction to Medical Cannabis**
**1.5 Didactic Credits**

This course will cover the historical use of cannabis as medicine, pharmacology and chemistry of the cannabis plant, the endocannabinoid system, clinical uses of medical cannabis, and laws and processes for recommending medical cannabis in Arizona.

**Department:** Botanical Medicine

**Prerequisites:** BOTM 7030

**BOTM 6998 Botanical Medicine Therapeutics: Developing Clinical Proficiency**
**1.5 Didactic Credits**

This is an interactive case-based course focusing on the development of botanical formulations to treat common conditions. This course is designed to prepare students for the demands of a broad naturopathic practice and to gain expertise in phytotherapy. Case studies will be utilized to illustrate the complexity of botanical prescribing. The formulation will be emphasized as a clinical strategy in conditions of multifactorial etiologies and multi-organ system disease processes. The recognition of quality botanical medicine will also be addressed as well as materia medica review. The quality and value of this course largely depend on student participation in lectures and learning exercises. Be prepared to participate in this course.

**Department:** Botanical Medicine

**Prerequisites:** BOTM 7030, BOTM 7040, BOTM 7050

**BOTM 7030 Botanical Medicine III: Naturopathic Materia Medica Pharmacognosy/Therapeutics I**
**2 Didactic Credits**

This course is the first in a sequence of three botanical materia medica courses designed to give students the principles by which they will use plants as medicines safely and effectively. The course will provide information on taxonomy, description, habitat, part(s) used, pharmacognosy, historical and current medicinal actions and uses, dosing, toxicology, safety, and potential drug interactions, all of which are used to critically analyze the application of these botanicals individually and in formulation. The student will study the use of botanicals in the immune, EENT/respiratory, and cardiovascular systems. Emphasis is placed on recognizing the unique aspects of each plant in a system.

**Department:** Botanical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**BOTM 7044 Botanical Medicine IV: Naturopathic Materia Medica Pharmacognosy/Therapeutics II**
**2.5 Didactic Credits**

Part two of three consecutive courses that provide students with the necessary knowledge and skills to understand herbal medicine in the naturopathic materia medica. Students are taught materia medica from an organ system perspective including gastrointestinal, respiratory, immune, cardiovascular, EENT, reproductive, urinary, endocrine, musculoskeletal, and nervous systems. Material presented on each botanical includes taxonomy, description, habitat, part(s) used, pharmacognosy, actions, historical and current medicinal actions and uses, dosing, delivery, and safety, all of which are used to critically analyze the application of each botanical.

**Department:** Botanical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**BOTM 7050 Botanical Medicine V: Naturo Materia Medica Pharmacognosy/Therapeutics III**
**2 Didactic Credits**

This course is the third in a sequence of three botanical materia medica courses designed to give students the principles by which they will use plants as medicines safely and effectively. The course will provide information on taxonomy, description, habitat, part(s) used, pharmacognosy, historical and current medicinal actions and uses, dosing, toxicology, safety, and potential drug interactions, all of which are used to critically analyze the application of these botanicals individually and in formulation. The student will study the use of botanicals in the nervous, endocrine, and musculoskeletal systems. Emphasis is placed on recognizing the unique aspects of each plant in a system which informs students how to choose plants that best meet the needs of each patient they will treat.

**Department:** Botanical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**CAPS 5018 Basic Sciences Capstone (Weeks 1-4)**
**3 Didactic Credits**

This four-week block is a capstone for the basic sciences curriculum of the previous three quarters. The topics are integrative and include a review of the first-year basic science courses. The final exam is cumulative and covers all of the physiology sequence as well as all the anatomy, biochemistry, immunology, and microbiology of the first three quarters.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**CAPS 6024 NPLEX I Review (Weeks 1-3)**
**0 Didactic Credits**

This course guides and supports the student preparing for the NPLEX I exam. Through the administration of mock NPLEX exams, students identify strengths and weaknesses in their basic science knowledge. Students will develop a personalized content review plan. Content review will be provided in the following subject areas: anatomy, physiology, biochemistry, microbiology, and pathology.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**CAPS 8034 NPLEX II Review (Weeks 1-11)**
**0 Didactic Credits**

This course guides and supports the student preparing for the NPLEX II exam. It includes a review of general medical diagnosis and clinical practice disciplines. Emphasis will be placed on the diagnosis, naturopathic treatment, and principles of the following clinical modalities: nutrition, homeopathy, botanical medicine, mind-body medicine, oriental medicine, physical medicine, and emergency medicine.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study



**CLPR 5010 Introduction Clinical Practice I****2 Didactic Credits**

This is the first in a series of three courses introducing the art of practicing medicine. It begins with the development, enhancement, and exercise of cognitive analytical and evaluative thinking. Growth and professionalism will be practiced through effective skills, active listening, interviewing techniques, and the self-application of healthy behavior. Medical ethics, jurisprudence, and cultural and social considerations will be explored. Differential diagnosis, critical thinking, and case assessment will be introduced through case-based learning. Public health, epidemiology, and basic lab procedures will be addressed. Basic skills in phlebotomy and injection techniques will be practiced through hands-on lab exercises. Beginning clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will prepare the student for clinical observation opportunities and the required standardized clinical practice exam at the end of the first year. This course is accompanied by a lab.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** CLPR 5010L

**CLPR 5010L Introduction Clinical Practice Skills I Lab****2 Lab Credits**

This is the first lab in a series of three labs accompanying courses introducing the art of practicing medicine. It begins with the development, enhancement, and exercise of cognitive analytical and evaluative thinking. Growth and professionalism will be practiced through effective skills, active listening, interviewing techniques, and the self-application of healthy behavior. Medical ethics, jurisprudence, and cultural and social considerations will be explored. Differential diagnosis, critical thinking, and case assessment will be introduced through case-based learning. Public health, epidemiology, and basic lab procedures will be addressed. Basic skills in phlebotomy and injection techniques will be practiced through hands-on lab exercises. Beginning clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will prepare the student for clinical observation opportunities and the required standardized clinical practice exam at the end of the first year.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** CLPR 5010

**CLPR 5020 Introduction Clinical Practice II****2 Didactic Credits**

This is the second in a series of three courses introducing the art of practicing medicine. It begins with the development, enhancement, and exercise of cognitive analytical and evaluative thinking. Growth and professionalism will be practiced through effective skills, active listening, interviewing techniques, and the self-application of healthy behavior. Medical ethics, jurisprudence, and cultural and social considerations will be explored. Differential diagnosis, critical thinking, and case assessment will be introduced through case-based learning. Public health, epidemiology, and basic lab procedures will be addressed. Basic skills in phlebotomy and injection techniques will be practiced through hands-on lab exercises. Beginning clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will prepare the student for clinical observation opportunities and the required standardized clinical practice exam at the end of the first year. This course has an accompanying lab.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** CLPR 5020L

**CLPR 5020L Introduction Clinical Practice Skills II Lab****2 Lab Credits**

This is the second lab in a series of three labs accompanying courses introducing the art of practicing medicine. It begins with the development, enhancement, and exercise of cognitive analytical and evaluative thinking. Growth and professionalism will be practiced through effective skills, active listening, interviewing techniques, and the self-application of healthy behavior. Medical ethics, jurisprudence, and cultural and social considerations will be explored. Differential diagnosis, critical thinking, and case assessment will be introduced through case-based learning. Public health, epidemiology, and basic lab procedures will be addressed. Basic skills in phlebotomy and injection techniques will be practiced through hands-on lab exercises. Beginning clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will prepare the student for clinical observation opportunities and the required standardized clinical practice exam at the end of the first year.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** CLPR 5020

**CLPR 5030 Introduction Clinical Practice III****2 Didactic Credits**

This is the third in a series of three courses introducing the art of practicing medicine. It begins with the development, enhancement, and exercise of cognitive analytical and evaluative thinking. Growth and professionalism will be practiced through effective skills, active listening, interviewing techniques, and the self-application of healthy behavior. Medical ethics, jurisprudence, and cultural and social considerations will be explored. Differential diagnosis, critical thinking, and case assessment will be introduced through case-based learning. Public health, epidemiology, and basic lab procedures will be addressed. Basic skills in phlebotomy and injection techniques will be practiced through hands-on lab exercises. Beginning clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will prepare the student for clinical observation opportunities and the required standardized clinical practice exam at the end of the first year. This course has an accompanying lab.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** CLPR 5030L

**CLPR 5030L Introduction Clinical Practice Skills III Lab****2 Lab Credits**

This is the third in a series of three labs accompanying courses introducing the art of practicing medicine. It begins with the development, enhancement, and exercise of cognitive analytical and evaluative thinking. Growth and professionalism will be practiced through effective skills, active listening, interviewing techniques, and the self-application of healthy behavior. Medical ethics, jurisprudence, and cultural and social considerations will be explored. Differential diagnosis, critical thinking, and case assessment will be introduced through case-based learning. Public health, epidemiology, and basic lab procedures will be addressed. Basic skills in phlebotomy and injection techniques will be practiced through hands-on lab exercises. Beginning clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will prepare the student for clinical observation opportunities and the required standardized clinical practice exam at the end of the first year.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** CLPR 5030

**CLPR 6040 Clinical Practice I****2 Didactic Credits**

This is the first in a series of three courses in advanced clinical practice. In year 2 (year 3 in the 5-year track) the clinical practice coursework expands to include urogenital/prostate, gynecological, orthopedic, Head/Ears/Eyes/Nose/Throat (HEENT), abdominal, neurological, and the Complete Screening Physical Exams. It will refine the integration of subjective and objective information into an effective and realistic patient assessment. Clinical decision-making and case management will be exercised using case-based instruction. Cultural competencies and social diversities in private practice and community medicine will be explored. Preventative approaches and health screening standards will be addressed. Students will also review basic electronic health record skills. Skills in formulating and administering IV nutrients will be introduced. Clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will be more deeply explored in preparation for a clinic entry exam required at the end of year 2 (year 3 in the 5-year track) prior to beginning the year 3 (year 4 in the 5-year track) clerkships. This course has an accompanying lab.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** CLPR 6040L

**CLPR 6040L Clinical Practice Skills I Lab****2 Lab Credits**

This is the first in a series of three labs accompanying courses in advanced clinical practice. In year 2 (year 3 in the 5-year track) the clinical practice coursework expands to include urogenital/prostate, gynecological, orthopedic, Head/Ears/Eyes/Nose/Throat (HEENT), abdominal, neurological, and the Complete Screening Physical Exams. It will refine the integration of subjective and objective information into an effective and realistic patient assessment. Clinical decision-making and case management will be exercised using case-based instruction. Cultural competencies and social diversities in private practice and community medicine will be explored. Preventative approaches and health screening standards will be addressed. Students will also review basic electronic health record skills. Skills in formulating and administering IV nutrients will be introduced. Clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will be more deeply explored in preparation for a clinic entry exam required at the end of year 2 (year 3 in the 5-year track) prior to beginning the year 3 (year 4 in the 5-year track) clerkships.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** CLPR 6040

**CLPR 6050 Clinical Practice II****2 Didactic Credits**

This is the second in a series of three courses in advanced clinical practice. In year 2 (year 3 in the 5-year track) the clinical practice coursework expands to include urogenital/prostate, gynecological, orthopedic, Head/Ears/Eyes/Nose/Throat (HEENT), abdominal, neurological, and the Complete Screening Physical Exams. It will refine the integration of subjective and objective information into an effective and realistic patient assessment. Clinical decision-making and case management will be exercised using case-based instruction. Cultural competencies and social diversities in private practice and community medicine will be explored. Preventative approaches and health screening standards will be addressed. Students will also review basic electronic health record skills. Skills in formulating and administering IV nutrients will be introduced. Clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will be more deeply explored in preparation for a clinic entry exam required at the end of year 2 (year 3 in the 5-year track) prior to beginning the year 3 (year 4 in the 5-year track) clerkships. This course has an accompanying lab.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** CLPR 6050L

**CLPR 6050L Clinical Practice Skills II Lab****2 Lab Credits**

This is the second in a series of three labs accompanying courses in advanced clinical practice. In year 2 (year 3 in the 5-year track) the clinical practice coursework expands to include urogenital/prostate, gynecological, orthopedic, Head/Ears/Eyes/Nose/Throat (HEENT), abdominal, neurological, and the Complete Screening Physical Exams. It will refine the integration of subjective and objective information into an effective and realistic patient assessment. Clinical decision-making and case management will be exercised using case-based instruction. Cultural competencies and social diversities in private practice and community medicine will be explored. Preventative approaches and health screening standards will be addressed. Students will also review basic electronic health record skills. Skills in formulating and administering IV nutrients will be introduced. Clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will be more deeply explored in preparation for a clinic entry exam required at the end of year 2 (year 3 in the 5-year track) prior to beginning the year 3 (year 4 in the 5-year track) clerkships.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** CLPR 6050

**CLPR 6060 Clinical Practice III****2 Didactic Credits**

This is the third in a series of three courses in advanced clinical practice. In year 2 (year 3 in the 5-year track) the clinical practice coursework expands to include urogenital/prostate, gynecological, orthopedic, Head/Ears/Eyes/Nose/Throat (HEENT), abdominal, neurological, and the Complete Screening Physical Exams. It will refine the integration of subjective and objective information into an effective and realistic patient assessment. Clinical decision-making and case management will be exercised using case-based instruction. Cultural competencies and social diversities in private practice and community medicine will be explored. Preventative approaches and health screening standards will be addressed. Students will also review basic electronic health record skills. Skills in formulating and administering IV nutrients will be introduced. Clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will be more deeply explored in preparation for a clinic entry exam required at the end of year 2 (year 3 in the 5-year track) prior to beginning the year 3 (year 4 in the 5-year track) clerkships. This course has an accompanying lab.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** CLPR 6060L

**CLPR 6060L Clinical Practice Skills III Lab****2 Lab Credits**

This is the third in a series of three labs accompanying courses in advanced clinical practice. In year 2 (year 3 in the 5-year track) the clinical practice coursework expands to include urogenital/prostate, gynecological, orthopedic, Head/Ears/Eyes/Nose/Throat (HEENT), abdominal, neurological, and the Complete Screening Physical Exams. It will refine the integration of subjective and objective information into an effective and realistic patient assessment. Clinical decision-making and case management will be exercised using case-based instruction. Cultural competencies and social diversities in private practice and community medicine will be explored. Preventative approaches and health screening standards will be addressed. Students will also review basic electronic health record skills. Skills in formulating and administering IV nutrients will be introduced. Clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will be more deeply explored in preparation for a clinic entry exam required at the end of year 2 (year 3 in the 5-year track) prior to beginning the year 3 (year 4 in the 5-year track) clerkships.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** CLPR 6060

**CLTR 4304 Clinical Entry Skills Assessment****1.5 Clinical Credits**

This course is dedicated to preparation for the Clinic Entry Examination (CEE) in year 2 (year 3 in the 5-year track) and the beginning of clinical rotations. The exam simulates clinical encounters that are commonly found in a general clinical practice utilizing Standardized Patients (SPs) trained to act out the role of the patient in clinical scenarios. Students will be refining their intake, differential diagnosis, and assessment skills through group activities including practice cases performed in class. Included in the course will be a range of self-, peer-, and physician-rated assessments. Students will practice orally delivering a case in an appropriate and efficient manner and practice charting skills. In addition, they will review administrative skills such as coding, complete clinical training modules for entry into the clinic, and become familiarized with basic clinic procedures.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**CLTR 4508 Comprehensive Clinical Skills Assessment I****2 Clinical Credits**

This course comprises a global assessment of core competencies required to practice as a beginning naturopathic physician. Sonoran University's Objective Structured Clinical Examination (OSCE), the final milestone exam, will assess students' communication, interpersonal, clinical, and charting skills. The exam simulates clinical encounters that are commonly found in general clinical practice utilizing Standardized Patients (SPs). The course includes case review modules designed to familiarize students with the assessment process and expectations, covering skills of patient communication, history taking, physical examination, differential diagnosis, laboratory assessment, and treatment. This Course includes a range of self-, peer-, and physician-rated assessments.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**CLTR 4908 Comprehensive Clinical Case Study****2 Clinical Credits**

This course builds on the core competencies required to practice as a beginning naturopathic physician. The course includes case review modules designed to improve students' proficiency in differential diagnosis, laboratory assessment, patient communication, interpersonal skills, critical thinking, charting skills, treatment, and case management. Included in the course will be a range of self-, peer-, and physician-rated assessments. The case review modules will simulate clinical encounters that are commonly found in general clinical practice. The course also covers a Clinical Ethics module utilizing cases and group discussion and examination to assess competency.

**Department:** Pre-Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**CLTR 6004 Field Observation****4 Clinical Credits**

Field observation provides students with opportunities to observe established healthcare practitioners in their private clinical practices. Observation hours are completed during the first two years of the program (three years for students on the 5-year track) which allows students to gain early clinical experiences prior to beginning their clinical clerkships. Students are required to document 44 hours of observation and 40 patient contacts in the following categories: direct patient, indirect patient, and patient services/practice management.

**Department:** Clinical Sciences

**Prerequisites:** Completion of quarters 1-3, including CLPR 5030, and the successful completion of the Jurisprudence exam required for attainment of a clinical training certificate from the Arizona Naturopathic Physicians Medical Board (NPMB) (see program of study for additional eligibility requirements for the 5-year track).

**CLTR 6600 Laboratory Posts****1 Clinical Credit**

The laboratory post is an immersion course designed to introduce students to Sonoran University's Medical Center procedures with a focus on laboratory functions. Students will build an understanding of the requirements to set up a laboratory; compliance with OSHA, HIPAA, and CLIA; laboratory billing, insurance filing, accurate coding, and interpreting lab results. Students will enhance their skills in phlebotomy and capillary collection, specimen processing, and performing waived testing.

**Department:** Clinical Sciences

**Prerequisites:** Completion of quarters 1-3 (see the program of study for additional eligibility requirements for the 5-year track); valid OSHA and HIPAA certifications

**CLTR 6704 Medicinary /IV Post****1 Clinical Credit**

During the medicinary post section of this course, students gain a foundation for understanding the mechanics of a medicinary. Students learn skills related to maintaining the day-to-day functions of a medicinary including selecting quality supplements and botanical medicines, as well as ordering, receiving, stocking, and shipping products. Students are also introduced to MySonoran resources for the medicinary and business strategies for hiring and retaining employees and preventing fraud. During the IV section of the course, students will gain a basic foundation of the clinical practice of IV therapy. The information reviewed includes basic nutrients for infusion, IV room setup, IV administration, vaccination administration, and legal and safety aspects of having injectable therapy in your practice.

**Department:** Clinical Sciences

**Prerequisites:** Completion of quarters 1-3 (see the program of study for additional eligibility requirements for the 5-year track)



**CLTR 8000 Clinical Clerkships**
**4 Clinical Credits**

Clinical clerkships provide the student with practical clinical exposure, information, and additional medical knowledge in a clinical setting focusing on primary care medicine. Students will demonstrate skills in history taking and physical examinations, become skilled at differentiating between common medical conditions, and develop basic plans of treatment consistent with the principles of the naturopathic therapeutic order. Clerkships are completed at Sonoran University's Medical Center, Neil Riordan Center for Regenerative Medicine, and -affiliated clinical sites staffed by Sonoran University faculty. In addition, the student will have an opportunity to work with private physicians.

**Department:** Clinical Sciences

**Prerequisites:** Passing score on Clinic Entry Exam and, for the 4-year track, Completion of quarters 1-8; for the 5-year track, Completion of quarters 1-12

**ENVM 6010 Environmental Medicine**
**2.5 Didactic Credits**

The course will begin with the major families of chemical toxins and then will be divided into those whose primary routes of exposure are via indoor air, outdoor air, and food. Within each chemical family, the main health effects will be covered along with methods of testing. Biotransformation will then be addressed along with genetic polymorphisms in those pathways and nutrient impact. Cellular and systemic effects of toxins will then be covered to not only show the classic presentations but also the biochemical mechanisms for their effects. The classic presentation of environmental illness will be covered along with taking an environmental history. The course will be rounded out with methods of treatment.

**Department:** Mind-Body, Environmental Medicine, and Naturopathic Philosophy

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**ERMD 8014 Emergency Medicine**
**3 Didactic Credits**

This course provides students with experiences to differentially diagnose signs, symptoms, and situations in acute medical care. Students learn to recognize emergency signs and situations involving various organ systems. Emphasis is on the integration of current allopathic drugs and procedures and the complementary practice of acute care by naturopathic physicians.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMD 6014 General Medical Diagnosis I**
**7 Didactic Credits**

General Medical Diagnosis will be taught in a systems-based block format with integrated course content. Pathology will be aligned with instruction in clinical, physical, radiological, and laboratory diagnosis. This course will begin with the general study of cell injury, inflammation, tissue repair, neoplasia, and principles of diagnostic imaging. Hematology and dermatology will follow with integrated course content.

**Department:** General Medicine

**Prerequisites:** Completion of CAPS 5014 and all previous quarters' courses as outlined in students' prescribed program of study

**GNMD 6024 General Medical Diagnosis II**
**9 Didactic Credits**

General Medical Diagnosis will be taught in a systems-based block format with integrated course content. Pathology will be aligned with instruction in clinical, physical, radiological, and laboratory diagnosis. The course will include EENT, endocrinology, male and female reproductive disorders, and musculoskeletal disorders. Naturopathic strategies for diagnosis will be included. Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMD 6034 General Medical Diagnosis III**
**9 Didactic Credits**

General Medical Diagnosis is taught in a systems-based block format with integrated course content. Pathology will be aligned with instruction in clinical, physical, radiological, and laboratory diagnosis. This course will include cardiovascular, respiratory, urinary disorders, and behavioral health.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMD 6044 General Medical Diagnosis IV**
**8 Didactic Credits**

General Medical Diagnosis will be taught in a systems-based block format with integrated course content. Pathology will be aligned with instruction in clinical, physical, radiological, and laboratory diagnosis. This course will include gastrointestinal and neurological disorders. Naturopathic strategies for diagnosis will be included.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 6011 General Medical Practice: Dermatology**
**1 Didactic Credit**

The clinical presentations discussed in the course include malignancies and benign masses, infections and inflammation, burns, hair and nail disorders, pruritus, skin ulcers, and skin rashes.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 6014 General Medical Practice: Eyes, Ears, Nose, and Throat (EENT)**
**2 Didactic Credits**

This course provides an introductory exploration of common and high-risk EENT conditions seen in general naturopathic practice. Symptoms, assessment, diagnosis, and therapeutic considerations will be examined.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 7020 General Medical Practice: Gastroenterology****2.5 Didactic Credits**

This course is a comprehensive study of the gastrointestinal tract. Students will gain an understanding regarding the pathophysiology, diagnosis, clinical presentation, management of emergent situations, and standard and naturopathic treatment of conditions of the esophagus, stomach, pancreas, gallbladder, liver, small intestine, large intestine, rectum, and anus, as well as beneficial bacteria and pathogens found in the gut. Student competency will be assessed through examination and literature analysis of emergent topics in gastroenterology.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 7030 General Medical Practice: Endocrinology****2.5 Didactic Credits**

This course focuses on the complex interactions of the human hormonal system, including the causes and effects of hormonal imbalance and dysregulation. Principles and methods of naturopathic endocrinology are discussed, including functional assessments, prevention of disease, and restoration of endocrine function, as well as hormone replacement protocols. Class instruction will focus on basic patient management of the most common endocrine disorders seen in a general medical practice, including the appropriate use of prescription hormones and complementary therapeutics.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 7031 General Medical Practice: Hematology****1 Didactic Credit**

The clinical presentations discussed in this course include different types of anemia and leukemia, Hodgkin's and non-Hodgkin's lymphomas, myeloproliferative disorders, plasma cell dyscrasias, and clotting disorders. It will provide students with current guidance on the diagnosis and naturopathic treatment of blood diseases and on consultative problems in hematology.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 7040 General Medical Practice: Cardiology and Vascular Medicine****1.5 Didactic Credits**

The clinical presentations discussed in the course include differentiation of chest pain, syncope, and dyspnea; infections, inflammations, acute coronary syndrome, peripheral vascular disease, hypotension, hypertension, valvular disorders, arrhythmias, heart failure, malignancies, transient ischemic attack, cerebrovascular accident, and cardiovascular shock.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 7041 General Medical Practice: Pulmonology****1.5 Didactic Credits**

This course will begin with a review of the anatomy and physiology of the respiratory system. Evaluation of patients with symptoms including cough, dyspnea, and chest pain will introduce various disorders. Allopathic and naturopathic treatments for various conditions will be presented. Some of the conditions included will be obstructive and restrictive disorders, infections, cancer, pulmonary embolism, ARDS, and respiratory failure.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 8050 General Medical Practice: Rheumatology****2 Didactic Credits**

The clinical presentations discussed in the course include autoimmune and inflammatory conditions primarily affecting the musculoskeletal system. Emphasis is placed on the etiology, diagnosis, management, and treatment of monoarticular, polyarticular, and autoimmune disorders.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 8051 General Medical Practice: Musculoskeletal/Orthopedic Conditions****1 Didactic Credit**

This advanced course addresses the clinical management of musculoskeletal and orthopedic conditions of joints and bones. Areas of focus include the spine and upper and lower extremities. The management of patients presenting with comorbidities, including infection, inflammation, malignancies, masses, injuries, and trauma, is discussed.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 8060 General Medical Practice: Neurology****2 Didactic Credits**

The clinical presentations discussed in the course include masses and malignancies, cognitive disorders, infections and inflammations, vascular disorders, weakness/paralysis, sleep disorders, headache, pain modulation, movement disorders, dizziness, vertigo, gait disturbances, syncope, seizures, neurodegenerative diseases, and trauma.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 8061 General Medical Practice: Oncology****1.5 Didactic Credits**

The clinical presentations discussed in the course include cancer cell biology, pathology, screening, and prevention guidelines. The principles and conventional therapies for cancer will be covered in addition to in-depth integrative naturopathic oncology for the most commonly observed cancers.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 8070 General Medical Practice: Urology/Kidney/Male Conditions**
**1.5 Didactic Credits**

The clinical presentations discussed in the course include generalized edema, electrolyte imbalances, metabolic acidosis, metabolic alkalosis, hypertension, hematuria, polyuria, urinary frequency, dysuria, renal mass, proteinuria, acute renal failure, urinary obstruction, renal colic, nephrolithiasis, and chronic renal failure. The male reproductive system will include cancers and masses, male infertility, testicular conditions, prostate conditions, sexual dysfunction, erectile dysfunction, and trauma.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 8074 General Medical Practice Men's Health**
**1 Didactic Credit**

This course focuses on the etiology, diagnosis, management, and treatment of male health problems. Students will learn evidence-based, effective naturopathic treatment protocols. Criteria for referral to specialists and integration of naturopathic medicine with conventional medicine are also covered.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GNMP 8076 General Medical Practice: Geriatrics**
**2 Didactic Credits**

This course focuses on the physiology of aging as well as the assessment and treatment of common disorders in the elderly, including dementia, musculoskeletal disorders, nervous system disorders, circulatory disorders, and ocular disorders. Emphasis is placed on symptoms and concerns commonly associated with aging, including social and functional limitations, nutritional issues, elder abuse, and medication management.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GYNE 7010 Gynecology I**
**3 Didactic Credits**

This course focuses on the etiology, diagnosis, management, and treatment of gynecological problems. Students will learn evidence-based, effective naturopathic treatment protocols. Criteria for referral to specialists and integration of naturopathic medicine with conventional medicine are also covered. This structure of the course includes lectures, assigned readings, quizzes, cases, group discussions, and examinations. Attendance is required, and each student is expected to come to class prepared by reading the assignments and PowerPoints a day or two before the corresponding class.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**GYNE 7020L Gynecology I Lab**
**2 Lab Credits**

This laboratory course teaches examination and procedures associated with gynecological diagnosis and treatment. This is part lecture, part hands-on laboratory experience performing exams and gynecological procedures on models. Attendance is required, and each student is expected to come to class prepared by reading the assignments and PowerPoints before class.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**HMEO 6010 Homeopathy I**
**2 Didactic Credits**

Homeopathy I, II, III, and IV are an integrated series of courses that sequentially introduce the student to the art and practice of homeopathy. They will draw on and utilize the knowledge and skills gained in each of the previous homeopathy department courses. These courses are primarily designed to impart the knowledge of homeopathy necessary for the student to pass the homeopathic portion of the NPLEX licensing exam. In addition, these courses lay the foundation for further study and mastery of homeopathy on clinical homeopathy clerkships. Topics include Materia Medica of all the homeopathic medicines tested by NPLEX, homeopathic philosophy, and theory including a detailed examination of the Organon of Medicine, review of current research literature, case taking and case analysis, computer repertorization, treatment and management of acute and chronic disease states, and integrating homeopathy with other naturopathic treatment options. These courses will utilize both lecture and case-based teaching methods, along with team-based and other active forms of learning.

**Department:** Homeopathy and Pharmacology

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**HMEO 6991 Advanced Case Management**
**1 Didactic Credit**

Students focus on advanced topics in homeopathic medicine and how to integrate homeopathy with general naturopathic practice. This course is, in large measure, case-based. This course emphasizes sharpening skills in case analysis and repertorization, advanced study of materia medica, and managing patients with acute and chronic conditions.

**Department:** Homeopathy and Pharmacology

**Prerequisites:** HMEO 7040

**HMEO 7020 Homeopathy II**
**2 Didactic Credits**

Homeopathy I, II, III, and IV are an integrated series of courses that sequentially introduce the student to the art and practice of homeopathy. They will draw on and utilize the knowledge and skills gained in each of the previous homeopathy department courses. These courses are primarily designed to impart the knowledge of homeopathy necessary for the student to pass the homeopathic portion of the NPLEX licensing exam. In addition, these courses lay the foundation for further study and mastery of homeopathy on clinical homeopathy clerkships. Topics include Materia Medica of all the homeopathic medicines tested by NPLEX, homeopathic philosophy, and theory including a detailed examination of the Organon of Medicine, review of current research literature, case taking and case analysis, computer repertorization, treatment and management of acute and chronic disease states, and integrating homeopathy with other naturopathic treatment options. These courses will utilize both lecture and case-based teaching methods, along with team-based and other active forms of learning.

**Department:** Homeopathy and Pharmacology

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**HMEO 7030 Homeopathy III**
**2 Didactic Credits**

Homeopathy I, II, III, and IV are an integrated series of courses that sequentially introduce the student to the art and practice of homeopathy. They will draw on and utilize the knowledge and skills gained in each of the previous homeopathy department courses. These courses are primarily designed to impart the knowledge of homeopathy necessary for the student to pass the homeopathic portion of the NPLEX licensing exam. In addition, these courses lay the foundation for further study and mastery of homeopathy on clinical homeopathy clerkships. Topics include Materia Medica of all the homeopathic medicines tested by NPLEX, homeopathic philosophy, and theory including a detailed examination of the Organon of Medicine, review of current research literature, case taking and case analysis, computer repertorization, treatment and management of acute and chronic disease states, and integrating homeopathy with other naturopathic treatment options. These courses will utilize both lecture and case-based teaching methods, along with team-based and other active forms of learning.

**Department:** Homeopathy and Pharmacology

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**HMEO 7040 Homeopathy IV**
**2 Didactic Credits**

Homeopathy I, II, III, and IV are an integrated series of courses that sequentially introduce the student to the art and practice of homeopathy. They will draw on and utilize the knowledge and skills gained in each of the previous homeopathy department courses. These courses are primarily designed to impart the knowledge of homeopathy necessary for the student to pass the homeopathic portion of the NPLEX licensing exam. In addition, these courses lay the foundation for further study and mastery of homeopathy on clinical homeopathy clerkships. Topics include Materia Medica of all the homeopathic medicines tested by NPLEX, homeopathic philosophy, and theory including a detailed examination of the Organon of Medicine, review of current research literature, case taking and case analysis, computer repertorization, treatment and management of acute and chronic disease states, and integrating homeopathy with other naturopathic treatment options. These courses will utilize both lecture and case-based teaching methods, along with team-based and other active forms of learning.

**Department:** Homeopathy and Pharmacology

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**ICSA 5014 Integrated Case Studies Application I**
**1 Didactic Credit**

This team-taught course, in conjunction with the ANAT 5014 and PHYS 5014 courses, utilizes cooperative learning and provides clinical correlations to the basic sciences. Critical thinking and problem-solving skills are emphasized.

**Department:** Basic Medical Sciences

**Prerequisites:** Admittance to the 4-year ND program

**ICSA 5024 Integrated Case Studies Application II**
**1 Didactic Credit**

This team-taught course, in conjunction with the ANAT 5024 and PHYS 5024 courses, utilizes cooperative learning, and provides clinical correlations to the basic sciences. Critical thinking and problem-solving skills are emphasized.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**ICSA 5034 Integrated Case Studies Application III**
**1 Didactic Credit**

This team-taught course, in conjunction with the ANAT 5034 and PHYS 5034 courses, utilizes cooperative learning and provides clinical correlations to the basic sciences. Critical thinking and problem-solving skills are emphasized.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**IMMU 5024 Immunology**
**3 Didactic Credits**

This course is designed to familiarize students with cellular, molecular, and biochemical aspects of the development of the immune system and the immune response. The course focuses on the development of the immune system and the function of its major components. The course explores the basic principles of the immune system, including tolerance, the development and differentiation of lymphocyte subsets, the regulation of immune responses, memory, cell-cell interactions, antigen presentation and recognition, vaccination, and immune-associated diseases.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**MGEN 5038 Medical Genetics**
**3 Didactic Credits**

This course focuses on molecular biology and genetics. The topics focus on biosynthesis of nucleic acids, DNA replication, transcription, regulation of translation, and post-translational modifications. Emphasis is on the human genome and Mendelian inheritance, as well as cellular differentiation, immunogenetics, oncogenetics, nutritional genomics, and pharmacogenetics.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**MICR 5026 Microbiology I**
**3 Didactic Credits**

This is the first of a two-quarter sequence in microbiology and immunology and includes lecture and laboratory sessions. In this course, students identify and examine the bacteria that are associated with human disease. This includes the evaluation of virulence factors, modes of transmission, epidemiology, general pathology, and the basis of the human immune response to these factors. This course has an accompanying lab.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** MICR 5026L

**MICR 5026L Microbiology I Lab**
**2 Lab Credits**

This is the first of a two-quarter sequence in microbiology and immunology and includes lecture and laboratory sessions. In this course, students identify and examine the bacteria that are associated with human disease. This includes the evaluation of virulence factors, modes of transmission, epidemiology, general pathology, and the basis of the human immune response to these factors. This lab has an accompanying lecture course.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** MICR 5026



**MICR 5034 Microbiology II****4 Didactic Credits**

This course is the continuation of MICR 5024. In this course, students identify and examine other microorganisms that are associated with human disease. This includes the evaluation of virulence factors, modes of transmission, epidemiology, and general pathology of viruses, parasites, and fungi and the human immune defense against them.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**MNGT 6010 Practice Management I: Operations****1 Didactic Credit**

This course focuses on providing practical business foundations where students are introduced to naturopathic industry concepts and operations. Skills and techniques are presented that can be applied in any working environment (entrepreneur, associate, or independent contractor). Topics covered include naturopathic degree career tracks, CV and cover letter creation, interview skills, business plan basics, practice models, clinical and business pearls (as they apply to second-year medical students), vocational skill self-assessments, and what students can do now to help prepare for their future careers.

**Department:** Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**MNGT 7020 Practice Management II: Marketing****1 Didactic Credit**

This is the second course in the management series where marketing foundations are introduced. Marketing tools and strategies are examined with emphasis on building a successful naturopathic practice. Focus is given to authentically promoting and maintaining a practice and personal brand through online and offline systems, professionalism, and the integration of naturopathic philosophy. This course provides various strategies to support marketing, build a successful practice, or prepare yourself to work as an employee or contractor in the healthcare industry.

**Department:** Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**MNGT 7030 Practice Management III: Leadership****1 Didactic Credit**

This is the third course in the management series where leadership foundations are introduced. Leadership competencies and character are examined with emphasis on inspiring, influencing, and impacting communities and populations at large. Focus is given to the creation of mission and vision statements; setting goals and planning for success; mastering the heart, mind, and skill of the naturopathic leader; and creating a "culture of care" in one's practice, patient programs, and career. This class provides ideas and examples to model across the spectrum of practitioners, consultants, researchers, and others.

**Department:** Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**MNGT 8040 Practice Management IV: Administration****1 Didactic Credit**

This course focuses on providing practical business foundations for students' post-graduate success. Skills and techniques will be presented that can be applied in any working environment (entrepreneur, associate, or independent contractor). Topics covered include licenses/certifications, necessary insurance(s), entity and tax structures, financial basics, and administrative fundamentals.

**Department:** Clinical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**MSRG 7010 Minor Surgery I: Introduction to Minor Surgery****1.5 Didactic Credits**

This course introduces the naturopathic medical student to the fundamentals and principles of conducting minor surgical procedures in an office setting. Basic surgical techniques for the removal and/or treatment of various skin lesions, subcutaneous tissues, and laceration repair will be presented with hands-on practice in the laboratory. Principles of anesthesia, knot tying, instrumentation, diagnostics, clinical and patient evaluation, sterile field, aseptic technique, and emergency care will be discussed with emphasis on appropriate referral. At the termination of the course, students should be proficient in the diagnosis and treatment by surgical means of common epidermal, dermal, and subdermal lesions. Students will also be able to do a focused intake in relation to minor surgical procedures as well as give patient education regarding diagnosis and aftercare instructions. This course has an accompanying lab.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** MSRG 7010L

**MSRG 7010L Minor Surgery I Lab****1 Lab Credit**

This course introduces the naturopathic medical student to the fundamentals and principles of conducting minor surgical procedures in an office setting. Basic surgical techniques for the removal and/or treatment of various skin lesions, subcutaneous tissues, and laceration repair will be presented with hands-on practice in the laboratory. Principles of anesthesia, knot tying, instrumentation, diagnostics, clinical and patient evaluation, sterile field, aseptic technique, and emergency care will be discussed with emphasis on appropriate referral. At the termination of the course, students should be proficient in the diagnosis and treatment by surgical means of common epidermal, dermal, and subdermal lesions. Students will also be able to do a focused intake in relation to minor surgical procedures as well as give patient education regarding diagnosis and aftercare instructions. This lab has an accompanying lecture course.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** MSRG 7010



**MSRG 8020 Minor Surgery II: Advanced Techniques in Minor Surgery****1 Didactic Credit**

This course will review the fundamentals of conducting basic and advanced minor surgical procedures in the office setting. Basic surgical techniques from MSRG 7010 will be reviewed and expanded upon. Advanced suture techniques and minor surgical procedures for the removal and/or treatment of various integumentary and mucosal lesions will be presented weekly with hands-on practice in the laboratory. This course has an accompanying lab.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** MSRG 8020L

**MSRG 8020L Minor Surgery II Lab****1 Lab Credit**

This course will review the fundamentals of conducting basic and advanced minor surgical procedures in the office setting. Basic surgical techniques from MSRG 7010 will be reviewed and expanded upon. Advanced suture techniques and minor surgical procedures for the removal and/or treatment of various integumentary and mucosal lesions will be presented weekly with hands-on practice in the laboratory. This lab has an accompanying lecture course.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** MSRG 8020

**NTMD 5010 Philosophical and Historical Foundations of Naturopathic Medicine I****2 Didactic Credits**

This is a three-quarter course sequence designed to introduce beginning medical students to the history and philosophy of naturopathic medicine. This is a team-taught course with emphasis given to the applied principles and historical milestones as well as the origins and development of naturopathic therapeutics including botanical medicine, homeopathy, hydrotherapy, mind-body medicine, nutrition, pharmacology, physical medicine, and Traditional Chinese Medicine. The intention of this course is for students to (1) actively engage in the exploration and discovery of their personal relationship to naturopathic medicine by critically examining both controversial and widely-accepted issues and ideas within the naturopathic profession; (2) identify, strengthen, and cultivate the human dimension of the practice of medicine, including reflection and communication; and (3) clarify a personal commitment to the principles of naturopathic medicine.

**Department:** Mind-Body, Environmental Medicine, and Naturopathic Philosophy

**Prerequisites:** Admission to the program

**NTMD 5020 Philosophical and Historical Foundations of Naturopathic Medicine II****2 Didactic Credits**

This is a three-quarter course sequence designed to introduce beginning medical students to the history and philosophy of naturopathic medicine. This is a team-taught course with emphasis given to the applied principles and historical milestones as well as the origins and development of naturopathic therapeutics including botanical medicine, homeopathy, hydrotherapy, mind-body medicine, nutrition, pharmacology, physical medicine, and Traditional Chinese Medicine. The intention of this course is for students to (1) actively engage in the exploration and discovery of their personal relationship to naturopathic medicine by critically examining both controversial and widely-accepted issues and ideas within the naturopathic profession; (2) identify, strengthen, and cultivate the human dimension of the practice of medicine, including reflection and communication; and (3) clarify a personal commitment to the principles of naturopathic medicine.

**Department:** Mind-Body, Environmental Medicine, and Naturopathic Philosophy

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**NTMD 5030 Philosophical and Historical Foundations of Naturopathic Medicine III****2 Didactic Credits**

This is a three-quarter course sequence designed to introduce beginning medical students to the history and philosophy of naturopathic medicine. This is a team-taught course with emphasis given to the applied principles and historical milestones as well as the origins and development of naturopathic therapeutics including botanical medicine, homeopathy, hydrotherapy, mind-body medicine, nutrition, pharmacology, physical medicine, and Traditional Chinese Medicine. The intention of this course is for students to (1) actively engage in the exploration and discovery of their personal relationship to naturopathic medicine by critically examining both controversial and widely-accepted issues and ideas within the naturopathic profession; (2) identify, strengthen, and cultivate the human dimension of the practice of medicine, including reflection and communication; and (3) clarify a personal commitment to the principles of naturopathic medicine.

**Department:** Mind-Body, Environmental Medicine, and Naturopathic Philosophy

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**NUTR 6014 Nutrition I: Macronutrients and Nutritional Science****2 Didactic Credits**

This course examines cellular nutrition and metabolism, gastrointestinal function, and the role of macronutrients (fats, carbohydrates, proteins, and fiber) in health and disease. Nutritional science and the philosophies of nutritional protocols to create, maintain, and restore health are discussed. The structure of this course includes hands-on culinary lab instruction in the teaching kitchen as well as interactive lectures and discussions.

**Department:** Nutrition

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**NUTR 6024 Nutrition II: Micronutrients and Therapy Dynamics****2.5 Didactic Credits**

This course examines the human body's need for specific micronutrients, the science of determining basic nutritional requirements, the role of each micronutrient, their availability in food, and the factors that influence absorption and utilization, including genetics, diseases, drug interactions, environment, exercise, and lifestyle. Effective dosing, safety considerations, and contraindications are discussed. The structure of this course includes hands-on culinary lab instruction in the teaching kitchen as well as interactive lectures and discussions.

**Department:** Nutrition

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**NUTR 7034 Nutrition III: Clinical Nutrition****2.5 Didactic Credits**

This course introduces the clinical evaluation of diet and the diagnosis of nutritional needs. Specialized therapeutic diets and nutritional supplements will be explored for health maintenance and select populations. This course stresses therapeutic nutrition and diet as it is used to treat various diseases and conditions seen clinically in naturopathic medical practices.

**Department:** Nutrition

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**NUTR 7044 Nutrition IV: Advanced Strategies for Clinical Nutrition****2 Didactic Credits**

This case-based course will discuss strategies in clinical evaluation and protocol implementation for complex conditions. Implementation strategies for clinical scenarios that involve comorbidities, socio-economic challenges, and age-related issues will be included. Nutritional testing, meal planning, recipes, food education, and supplementation for preventative care and acute and chronic conditions will be explored for individualized treatment.

**Department:** Nutrition

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**OBST 7010 Obstetrics****2.5 Didactic Credits**

This course prepares the student to provide basic health care appropriate for the pregnant woman. Topics include diagnosis of pregnancy, initiating prenatal care, therapeutics for early complications of pregnancy, management of spontaneous abortion, infertility, overview of normal and complicated labor/delivery, and the postpartum care of mothers and infants. The student is prepared to screen for risks and to offer patients referrals and informed choices related to hospital or out-of-hospital birthing options.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**PEDS 7010 Pediatrics I****2 Didactic Credits**

This course focuses on the assessment of common problems in infancy, childhood, and adolescence. Emphasis is on normal developmental milestones, disease prevention, and the treatment of common childhood conditions. Appropriate referral is addressed. Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**PEDS 8020 Pediatrics II****2 Didactic Credits**

This course will be a continuation of common and complex problems in infancy, childhood, and adolescence. Disease prevention, treatment, and appropriate referral will be addressed.

**Department:** General Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**PHAR 6010 Pharmacology and Pharmacotherapeutics I****3 Didactic Credits**

This course focuses on the principles and mechanisms of drug action and the purpose of pharmaceutical interventions. Emphasis is placed on drugs that act on neurotransmitter systems, including autonomics, hypnotics, and medications used in the treatment of pain, seizure, depression, anxiety, bipolar, psychosis, Parkinson's, and dementia, as well as drugs of abuse. It includes overviews of the pharmaceutical environment, legal and statutory issues, and basic terminology.

**Department:** Homeopathy and Pharmacology

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**PHAR 6020 Pharmacology and Pharmacotherapeutics II****3 Didactic Credits**

This course continues the discussion of drug therapeutics, their mechanisms, and their uses. Side effects, toxicity, interaction, and contraindications are included in this course.

**Department:** Homeopathy and Pharmacology

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**PHAR 6030 Pharmacology and Pharmacotherapeutics III****3 Didactic Credits**

This course continues the discussion of drug therapeutics, their mechanisms, and their uses. Side effects, toxicity, interaction, and contraindications are included in this course.

**Department:** Homeopathy and Pharmacology

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**PHMD 6010 Physical Medicine I: Introduction to Physical Medicine and Orthopedics****1 Didactic Credit**

This course examines the study of physical medicine as a diagnostic and therapeutic tool. Emphasis is given to regional physical assessment using palpation, orthopedic tests, and orthopedic muscle testing. The theory of injury, inflammation, and the fibrosis of repair and joint end feel are examined along with a review of joint range of motion and trigger points.

This course has an accompanying lab.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHMD 6010L

**PHMD 6010L Physical Medicine I Lab**
**1 Lab Credit**

This course examines the study of physical medicine as a diagnostic and therapeutic tool. Emphasis is given to regional physical assessment using palpation, orthopedic tests, and orthopedic muscle testing. The theory of injury, inflammation, and the fibrosis of repair and joint end feel are examined along with a review of joint range of motion and trigger points. This lab has an accompanying lecture course.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHMD 6010

**PHMD 6020 Physical Medicine II: Naturopathic Manipulative Treatment – Assessment and Application I**
**2 Didactic Credits**

This is part one of a two-course sequence that covers the evaluation of normal and abnormal findings of the spine through static palpation assessment of normal and positional deviations, assessment of joint mobility through motion palpation, grading of orthopedic muscular strength, joint range-of-motion, differential diagnosis of common and special disorders, and evaluation of common disease conditions and injury of the musculoskeletal patient. Emphasis is on regional orthopedic physical assessment and osseous manipulation (HVLA). Manipulative evaluation and treatment include the sacroiliac, lumbosacral, lumbar, thoracic, ribs, cervical, and occipital spinal areas. Students demonstrate the application of Naturopathic Manipulative Treatment and patient management of the musculoskeletal patient. Naturopathic philosophy and principles are integrated into the course presentation. This course has an accompanying lab.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHMD 6020L

**PHMD 6020L Physical Medicine II Lab**
**2 Lab Credits**

This is part one of a two-course sequence that covers the evaluation of normal and abnormal findings of the spine through static palpation assessment of normal and positional deviations, assessment of joint mobility through motion palpation, grading of orthopedic muscular strength, joint range-of-motion, differential diagnosis of common and special disorders, and evaluation of common disease conditions and injury of the musculoskeletal patient. Emphasis is on regional orthopedic physical assessment and osseous manipulation (HVLA). Manipulative evaluation and treatment include the sacroiliac, lumbosacral, lumbar, thoracic, ribs, cervical, and occipital spinal areas. Students demonstrate the application of Naturopathic Manipulative Treatment and patient management of the musculoskeletal patient. Naturopathic philosophy and principles are integrated into the course presentation. This lab has an accompanying lecture course.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHMD 6020

**PHMD 6030 Physical Medicine III: Naturopathic Manipulative Treatment – Assessment and Application II**
**2 Didactic Credits**

This is part two of a two-course sequence which covers the evaluation of normal and abnormal findings of the extremities through static palpation assessment of normal and postural deviations. The students will learn assessments of joint mobility through motion palpation, grading of orthopedic muscle strength and joint range of motion, differential diagnosis of common and special disorders, and evaluation of disease and injury of the musculoskeletal patient, including concussion. Emphasis is on regional orthopedic physical assessment with orthopedic testing, muscle testing, and osseous manipulation. Manipulative treatment includes the upper and lower extremities, temporomandibular joint (TMJ), and specialty visceral manipulative techniques. Patient management of the musculoskeletal patient, including exercise, will be introduced; types of pain and mechanoreceptor stimulation with movement will be discussed; and orthopedic biomechanics of posture and gait will be examined. Students are introduced to neuromuscular technique, muscle energy technique, and craniosacral technique. Also included is a review and refinement of spinal manipulative techniques. Naturopathic philosophy and principles are integrated into the course presentation. This course has an accompanying lab.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHMD 6030L

**PHMD 6030L Physical Medicine III Lab**
**2 Lab Credits**

This is part two of a two-course sequence which covers the evaluation of normal and abnormal findings of the extremities through static palpation assessment of normal and postural deviations. The students will learn assessments of joint mobility through motion palpation, grading of orthopedic muscle strength and joint range of motion, differential diagnosis of common and special disorders, and evaluation of disease and injury of the musculoskeletal patient, including concussion. Emphasis is on regional orthopedic physical assessment with orthopedic testing, muscle testing, and osseous manipulation. Manipulative treatment includes the upper and lower extremities, temporomandibular joint (TMJ), and specialty visceral manipulative techniques. Patient management of the musculoskeletal patient, including exercise, will be introduced; types of pain and mechanoreceptor stimulation with movement will be discussed; and orthopedic biomechanics of posture and gait will be examined. Students are introduced to neuromuscular technique, muscle energy technique, and cranio-sacral technique. Also included is a review and refinement of spinal manipulative techniques. Naturopathic philosophy and principles are integrated into the course presentation. This lab has an accompanying lecture course.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHMD 6030

**PHMD 6040 Physical Medicine IV: Physiotherapy Modalities**
**1 Didactic Credit**

This is a course in physical therapy modalities. A variety of modalities will be explored, including ultrasound, electric muscle stimulation, microcurrent, TENS, cold laser, diathermy, iontophoresis, and others. The modalities will be studied in terms of the mechanism by which they function and how to physically apply the modalities to the patient. Students will have hands-on experience in a lab setting learning how to appropriately apply modalities. A variety of clinical applications will be discussed. This course has an accompanying lab.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHMD 6040L

**PHMD 6040L Physical Medicine IV Lab**
**1 Lab Credit**

This is a course in physical therapy modalities. A variety of modalities will be explored, including ultrasound, electric muscle stimulation, microcurrent, TENS, cold laser, diathermy, iontophoresis, and others. The modalities will be studied in terms of the mechanism by which they function and how to physically apply the modalities to the patient. Students will have hands-on experience in a lab setting learning how to appropriately apply modalities. A variety of clinical applications will be discussed. This lab has an accompanying lecture course.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHMD 6040

**PHMD 6054 Physical Medicine V: Principles of Hydrotherapy**
**1 Didactic Credit**

This course will cover the physiology, clinical applications, and practice management of Naturopathic Hydrotherapy. By the conclusion of this course, students will be able to demonstrate written, verbal, and practical knowledge of hydrotherapy theories and skills; the physiologic response to different water treatments, temperatures, and associated applications; and how to apply techniques in acute and chronic disease safely and effectively. The use of constitutional hydrotherapy, sauna, and other methods will be taught and practiced. This course has an accompanying lab.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHMD 6054L

**PHMD 6054L Physical Medicine V Lab**
**2 Lab Credits**

This course will cover the physiology, clinical applications, and practice management of Naturopathic Hydrotherapy. By the conclusion of this course, students will be able to demonstrate written, verbal, and practical knowledge of hydrotherapy theories and skills; the physiologic response to different water treatments, temperatures, and associated applications; and how to apply techniques in acute and chronic disease safely and effectively. The use of constitutional hydrotherapy, sauna, and other methods will be taught and practiced. This lab has an accompanying lecture course.

**Department:** Physical Medicine

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHMD 6054

**PHYS 5014 Human Physiology and Endocrinology I**
**4 Didactic Credits**

The first of three physiology blocks, this course includes interactive didactic and laboratory instruction to examine the physiology and endocrinology of the human body. The first block includes general concepts in cell and membrane biology and begins the organ systems physiology. This course is taught in coordination with the ANAT 5014 and ICSA 5014 courses. This course has an accompanying lab.

**Department:** Basic Medical Sciences

**Prerequisites:** Admission to the program

**Corequisites:** PHYS 5014L

**PHYS 5014L Human Physiology and Endocrinology I Lab**
**1 Lab Credit**

The first of three physiology blocks, this course includes interactive didactic and laboratory instruction to examine the physiology and endocrinology of the human body. The first block includes general concepts in cell and membrane biology and begins the organ systems physiology. This course is taught in coordination with the ANAT 5014 and ICSA 5014 courses. This lab has an accompanying lecture course.

**Department:** Basic Medical Sciences

**Prerequisites:** Admission to the program

**Corequisites:** PHYS 5014

**PHYS 5024 Human Physiology and Endocrinology II**
**4 Didactic Credits**

The second of three physiology blocks, this course includes interactive didactic and laboratory instruction to examine the physiology and endocrinology of the human body. This systems-based approach continues with organ system physiology. This course is taught in coordination with the ANAT 5024 and ICSA 5024 courses. This course has an accompanying lab.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHYS 5024L

**PHYS 5024L Human Physiology and Endocrinology II Lab**
**1 Lab Credit**

The second of three physiology blocks, this course includes interactive didactic and laboratory instruction to examine the physiology and endocrinology of the human body. This systems-based approach continues with organ system physiology. This course is taught in coordination with the ANAT 5024 and ICSA 5024 courses. This lab has an accompanying lecture course.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHYS 5024

**PHYS 5034 Human Physiology and Endocrinology III**
**4 Didactic Credits**

The third of three physiology blocks, this course includes interactive didactic and laboratory instruction to examine the physiology and endocrinology of the human body. This systems-based approach continues with organ system physiology. This course is taught in coordination with the ANAT 5034 and ICSA 5034 courses. This course has an accompanying lab.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHYS 5034L



**PHYS 5034L Human Physiology and Endocrinology III Lab**  
**1 Lab Credit**

The third of three physiology blocks, this course includes interactive didactic and laboratory instruction to examine the physiology and endocrinology of the human body. This systems-based approach continues with organ system physiology. This course is taught in coordination with the ANAT 5034 and ICSA 5034 courses. This lab has an accompanying lecture course.

**Department:** Basic Medical Sciences

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**Corequisites:** PHYS 5034

**PSYC 6010 Mind-Body Medicine: Fundamentals of Mind-Body Medicine**
**2 Didactic Credits**

This course provides the foundation necessary to understand the fundamental dynamics of mind-body medicine, including psychosocial and spiritual dimensions in healing. Students will learn how to facilitate in themselves and other people mind-body practices for disease prevention and treatment. Mind-body processes and techniques such as grounding skills, mindfulness practices, breathing exercises, biofeedback, and tapping therapies are discussed and critically examined for their potential role in integrative naturopathic healthcare.

**Department:** Mind-Body, Environmental Medicine, and Naturopathic Philosophy

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**PSYC 6024 Mind-Body Medicine: Introduction to Medical Psychotherapy**
**1.5 Didactic Credits**

An overview of developmental and behavioral theory, counseling skills, and techniques is presented, along with stages in the healing process. The multi-modal model of a physician as a counselor in the healing relationship is critically examined. Students will critically explore the roles of patient education, patient motivation for change, and medical ethics in the doctor/patient relationship. Clinical cases will provide opportunities to develop healthy communication and counseling skills. Students will be introduced to the Diagnostic and Statistical Manual of Mental Health Disorders (DSM) with a focus on the recognition and diagnosis of mental health disorders commonly encountered in the naturopathic primary care setting, including how to assess risk and identify appropriate community referrals.

**Department:** Mind-Body, Environmental Medicine, and Naturopathic Philosophy

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**PSYC 7034 Mind-Body Medicine: Affect Psychotherapy and Crisis Intervention**
**2 Didactic Credits**

Students will develop the necessary foundation and general strategies to recognize, intervene, and refer patients who are experiencing transitional, traumatic, and acute psychiatric disorders. Elements of family dynamics, domestic violence, abuse, death and dying, homocidal, bullying, and suicidality are critically explored. Medical ethics issues related to these behavioral health dimensions are discussed. The use of agencies and referral sources is emphasized, as are crisis intervention and other strategies for dealing with emergency situations.

**Department:** Mind-Body, Environmental Medicine, and Naturopathic Philosophy

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**PSYC 8040 Mind-Body Medicine: Medical Management of Addiction**  
**1.5 Didactic Credits**

This course provides a naturopathic model for the care and treatment of people suffering from addiction. Students will explore the health impacts of drug, food, and other addictions with a focus on interactive medical, psycho-social, spiritual, and biochemical/nutritional influences. This course will present a multi-modal approach to the practice of naturopathic addiction medicine, including patient motivation to change. Students will have opportunities to interact with guest speakers experienced in the field of addiction care.

**Department:** Mind-Body, Environmental Medicine, and Naturopathic Philosophy

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**RSCH 5016 Research I**
**1 Didactic Credit**

This is the first of a two-quarter sequence of research courses. This course discusses the scientific method, scientific technology, and the analysis of scientific data in general as it relates to naturopathic medicine.

**Department:** Research

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

**RSCH 5024 Research II**
**1 Didactic Credit**

RSCH 5024 Research II is the continuation of RSCH 5014. This course discusses the types and aids in the evaluation of journals and other scientific publications in which medical literature can be found. Students will be exposed to methods for evaluating the varying significance of research findings.

**Department:** Research

**Prerequisites:** Completion of all previous quarters' courses as outlined in students' prescribed program of study

## Selective Courses

**ACMD 6980 Chinese Prepared Medicines**
**2.5 Didactic Credits**

This course explores Chinese-prepared medicines for common syndromes and disorders because acupuncture practitioners in North America commonly use pill or tincture forms for adjunctive therapy. This course trains the student in the skills necessary to critically evaluate the many products available. Classical Chinese patent medicines and contemporary North American Chinese-prepared formulas are discussed.

**Department:** Acupuncture and Chinese Medicine

**Prerequisites:** ACMD 6010, ACMD 6020, ACMD 6030, ACMD 6040, ACMD 7054, ACMD 7055, and ACMD 7070

**BSSD 5014 Basic Sciences Skill Development I**
**0 Didactic Credits**

This course provides an amalgamation of the basic science content from Q1 with an integration of study and time management strategies. Instruction is provided through the Basic Sciences Faculty, DDC tutors, and the Learning Specialist. Specific content is tailored to the needs of the individual students enrolled in this course.

**Department:** Basic Medical Sciences

**Prerequisites:** Failure of one or more of the first three basic sciences courses: ANAT 5014, PHYS 5014, BIOC 5014



**BSSD 5024 Basic Sciences Skill Development II**
**0 Didactic Credits**

This course provides an amalgamation of the basic science content from Q2 with an integration of study and time management strategies. Instruction is provided through the Basic Sciences Faculty, DDC tutors, and the Learning Specialist. Specific content is tailored to the needs of the individual students enrolled in this course.

**Department:** Basic Medical Sciences

**Prerequisites:** Failure of one or more of the second set of basic sciences courses: ANAT 5024, PHYS 5024, BIOC 5026

**CLTR 9901 Advanced Topics in Pediatrics - Honors**
**1 Didactic Credit**

The advanced topics selective course in Pediatrics is intended for clinic students and required for those in the Pediatrics honors track program. The objective is to advance discipline-specific knowledge. Students will critically review and interpret pediatric medicine research and utilize this knowledge for weekly debates with classmates. The debates will advance the student's ability to verbally communicate their knowledge, increase leadership confidence, and direct future evidence-informed clinical care.

**Department:** Clinical Sciences

**Prerequisites:** Completion of quarters 1-8 (quarters 1-12 in the 5-year track) and eligibility for clinic

**CLTR 9902 Advanced Topics in Community Medicine - Honors**
**1 Didactic Credit**

The advanced topics selective course in Community Medicine is intended for clinic students and required for those in the Community Medicine honors track program. The first objective is to advance discipline-specific knowledge. Students will learn how to critically review and interpret clinical/health research and apply this knowledge to evidence-informed clinical care. Secondly, leading a discussion of their research will advance the student's ability to verbally communicate their knowledge and increase leadership confidence.

**Department:** Clinical Sciences

**Prerequisites:** Completion of quarters 1-8 (quarters 1-12 in the 5-year track) and eligibility for clinic

**CLTR 9903 Advanced Topics in Regenerative Medicine - Honors**
**1 Didactic Credit**

The advanced topics selective course in regenerative medicine is intended for clinic students and is required for those in the regenerative medicine honors track program. The first objective is to advance discipline-specific knowledge. Students will learn how to critically review and interpret clinical/health research and apply this knowledge to evidence-informed clinical care. Secondly, leading a discussion of their research will advance the student's ability to verbally communicate their knowledge and increase leadership confidence.

**Department:** Clinical Sciences

**Prerequisites:** Completion of quarters 1-8 (quarters 1-12 in the 5-year track) and eligibility for clinic

**CLTR 9905 Advanced Topics in Nature Cure - Honors**
**1 Didactic Credit**

The advanced topics selective course in Nature Cure is intended for clinic students and required for those in the Nature Cure honors track program. The first objective is to advance discipline-specific knowledge. Students will learn how to critically review and interpret clinical/health research and apply this knowledge to evidence-informed clinical care. Secondly, leading a discussion of their research will advance the student's ability to verbally communicate their knowledge and increase leadership confidence.

**Department:** Clinical Sciences

**Prerequisites:** Completion of quarters 1-8 (quarters 1-12 in the 5-year track) and eligibility for clinic

**ENVM 6940 Heavy Metals**
**1.5 Didactic Credits**

This selective course will cover the most commonly found and most toxic heavy metals (arsenic, cadmium, lead, and mercury). Sources, health effects, and methods of diagnosis and treatment will be covered for each of these toxicants. Research articles on these topics will be made available by the instructor for review and in-class discussion. The accurate interpretation of heavy metal test results will be required for satisfactory completion of this course.

**Department:** Mind-Body, Environmental Medicine, and Naturopathic Philosophy

**Prerequisites:** ENVM 6010 and Completion of the GNMD course sequence through quarter 7 (quarter 11 in the 5-year track)

**NTMD 6933 Nature Cure**
**2 Didactic Credits**

To prepare for the role of primary care physician, the student of naturopathic medicine must become skilled in correlating and presenting histories, subjective symptoms, physical signs, and appropriate lab tests with a detailed evaluation of the body's level of health. The purpose of this course is for students to become familiar with the traditional methods of naturopathic medicine and to be able to apply them in clinical practice. Each class will focus on discussions of actual cases and specifically evaluate the application of each of the naturopathic principles to those cases.

**Department:** Mind-Body, Environmental Medicine, and Naturopathic Philosophy

**Prerequisites:** Admission to the program

**NTMD 6936 The Human in Nature**
**2 Didactic Credits**

This course will explore the concepts, theories, and research behind the benefits of nature exposure. Pertinent research on health conditions in all populations will be discussed and analyzed. The ultimate intent of this course is to impress upon the student the need for continued exposure to nature and play throughout human life cycles in school, work, and community settings.

**Department:** Mind-Body, Environmental Medicine, and Naturopathic Philosophy

**Prerequisites:** Admission to the program

**NTMD 6950 Advanced Application of Nature Cure**
**2 Didactic Credits**

Advanced Application of Nature Cure expands and deepens the student's experience with many nature cure techniques. A particular emphasis is given to variations for specific diseases and conditions while exploring the effects of the techniques on all levels of the body, mind, and spirit.

**Department:** Mind-Body, Environmental Medicine, and Naturopathic Philosophy

**Prerequisites:** PHMD 6054

**NUTR 6910 Self-care: Role-modeling Health Behaviors**
**2 Didactic Credits**

This course improves self-care in students to promote personal sustainability and prevent burnout for their well-being as well as for the benefit of their future clients and team members. Through a combination of didactic and experiential learning, students gain an understanding of the importance and impact of self-care practices. An emphasis will be placed on hands-on, practical approaches for making sustainable changes in diet, exercise, stress management, and sleep hygiene to reduce the risk of disease and promote health. As students are empowered with an enhanced capacity for self-care, it is expected that they will be more inclined, and better equipped, to implement these strategies when counseling future clients and/or when leading teams.

**Department:** Nutrition

**Prerequisites:** Admission to the program

**NUTR 6930 Nutrigenomics and Personalized Nutrition**
**2 Didactic Credits**

This course provides students with a foundational knowledge of nutritional genomics and guidance on how to apply nutrigenomics when developing a personalized nutrition plan. Students will explore current evidence on clinical applications of genetics, epigenetics, and nutrigenomics and the impact of personalized genomics on nutritional biochemistry and human physiology. Upon successful completion of the course, students will receive a Certificate in the Principles of Nutritional Genomics from the American Nutrition Association.

**Department:** Nutrition

**Prerequisites:** NUTR 6024

**NUTR 6940 Probiotics from Research to Market**
**2 Didactic Credits**

This course brings students along the supply chain and value chain of probiotics and explores this rapidly evolving field from the perspective of the scientist, the clinician, the manufacturer, and the consumer. Students will gain an understanding of the scientific basis for these products, evidence-based clinical applications, and key regulatory and manufacturing considerations. Instruction will also be provided on the basics from research and development, formulating products, and QA/QC, to manufacturing, labeling, and commercialization.

**Department:** Nutrition

**Prerequisites:** GNMP 7020, NUTR 6014, NUTR 6024

**PHMD 6940 Introduction to Neuro Emotional Technique (NET)**
**1 Didactic Credit**

This course serves as an introduction to Neuro Emotional Technique (NET) as taught by Drs. Scott & Deborah Walker (Founder & Co-Developer of NET). It is intended to give students a basic understanding of the methods utilized in this modality and instruction on how to apply these skills in clinical practice. Students who desire to study NET in further depth are encouraged to enroll in the NET certification course.

**Department:** Physical Medicine

**Prerequisites:** Admission to the program

**PHMD 6970 Introduction to Applied Kinesiology**
**2 Didactic Credits**

This course serves as an introduction to applied kinesiology (AK) as taught by its founder, Dr. George Goodheart, and gives students a basic understanding of the methods utilized in this modality and instruction on how to apply these skills in clinical practice. Students who desire to study AK in depth are encouraged to enroll in the certification course.

**Department:** Physical Medicine

**Prerequisites:** PHMD 6030, ACMD 6030

**PHMD 6980 Orthopedic and Sports Medicine**
**3.5 Didactic Credits**

In this course, students evaluate sports and orthopedic injuries. Emphasis is on exercise, soft tissue therapies, physiotherapy, and manipulative techniques used in the treatment of sports and orthopedic injuries.

**Department:** Physical Medicine

**Prerequisites:** PHMD 6030

**PHMD 6981 Advanced Hydrotherapy**
**1 Didactic Credit**

This course and lab expands and deepens the student's experience with many hydrotherapy techniques. Emphasis is given to variations for specific diseases and conditions. This course has an accompanying lab.

**Department:** Physical Medicine

**Prerequisites:** PHMD 6054

**Corequisites:** PHMD 6981L

**PHMD 6981L Advanced Hydrotherapy Lab**
**2 Lab Credits**

This course and lab expands and deepens the student's experience with many hydrotherapy techniques. Emphasis is given to variations for specific diseases and conditions. This lab has an accompanying lecture course.

**Department:** Physical Medicine

**Prerequisites:** PHMD 6054

**Corequisites:** PHMD 6981

**PSYC 6940 Mindfulness-Based Stress Reduction**
**2.5 Didactic Credits**

This highly experiential, group process-based, psychoeducational course guides motivated learners through an in-depth exploration of coping with emotional stress, psychological injury, pain conditions, and chronic illness using the patented, evidence-based principles and tools of MBSR®, specifically developed for use in healthcare settings around the world. This uniquely immersive and trauma-sensitive curriculum promotes lasting health changes in participants, which extends to the people they serve, by incrementally building both formal and informal mindfulness habits designed to be used in daily life and encouraging the embodiment of course concepts through direct experience. Upon completion of this course, participants will have the tools needed to independently develop and continue their own personalized, unguided, MBSR® practice as well as resources for ongoing support as desired. The skills and concepts emphasized in this course extend far beyond the classroom and may contribute to increased compassion and sense of belonging, improved emotional regulation, wiser choices, healthier relationships, and/or enhanced overall well-being throughout the lifespan. This course is appropriate for beginners as well as experienced learners.

**Department:** Mind-Body, Environmental Medicine and Naturopathic Philosophy

**Prerequisites:** Admission to the program

**PSYC 6970 Foundations of Neurofeedback****3 Didactic Credits**

Students receive training in the principles and applications of neurofeedback (EEG biofeedback). Neurofeedback is a clinical process for changing the electrical activity, of either cortical or sub-cortical origin, of the Central Nervous System using electroencephalography-based biofeedback and/or electrical stimulation. The neurofeedback process teaches self-regulation of neural activity and related "state change," with promising therapeutic benefits in ADD, migraine, anxiety, depression, head injury, insomnia, and a host of other neuro-cognitive disorders. This course includes neurofeedback history and research, EEG and electrophysiology, instrumentation, treatment planning, and experiential modules designed to familiarize the student with electrode placement and clinical applications. This course also provides an introduction to quantitative EEG interpretation. The integration of neurofeedback as a complementary approach with other therapeutic procedures to enhance health and wellness will be emphasized. This course fulfills didactic requirements for certification from the two major certification boards in neurofeedback and biofeedback.

**Department:** Mind-Body, Environmental Medicine and Naturopathic Philosophy

**Prerequisites:** Completion of quarters 1-3 (see the program of study for eligibility requirements for the 5-year track)

**PSYC 6980 Naturopathic Treatments for Mental Illness****2.5 Didactic Credits**

This course involves an in-depth exploration of specific naturopathic approaches to the most common psychiatric disorders seen in general practice, including depression, bipolar, anxiety, and sleep disorders. This course will allow students to assess, synthesize, prioritize, and implement therapies consistent with naturopathic principles. Course content will include an introduction to laboratory and other useful assessments, plus naturopathic treatments including nutrients, herbs, amino acids, biofeedback, homeopathy, and other evidence-based alternative therapies. Indications and treatment options using conventional drugs and methods are explored alongside alternative approaches. Students will recognize drug/herb and drug/nutrient interactions and specific protocols for safely weaning patients off conventional drug medications when appropriate.

**Department:** Mind-Body, Environmental Medicine and Naturopathic Philosophy

**Prerequisites:** Completion of CLPR 6060

**PSYC 6993 Practicum in Mind-Body Healing****2 Didactic Credits**

Students begin utilizing a variety of current methodologies and techniques of mind-body healing. Intervention techniques are applied within a clearly outlined treatment plan. The use and effectiveness of various process-oriented techniques are critically evaluated. Primary focus is given to mind/body healing techniques selected for their potential relevance to naturopathic practice. Students practice and develop their skills and have opportunities for feedback. The instructor, TA, and/or guest speakers will supervise skill-building sessions and provide effective role models.

**Department:** Mind-Body, Environmental Medicine and Naturopathic Philosophy

**Prerequisites:** Admission to the program

**PSYC 6995 Basic Medical Hypnosis****2 Didactic Credits**

Students learn practical tools and general strategies of hypnotic suggestion for different kinds of patients and problems. Both traditional and informal approaches to hypnosis will be taught, with emphasis placed on general day-to-day applications. Students learn to work with psychologically complex patients who are otherwise resistant to treatment. Accordingly, there will be instruction on how to adapt different techniques to a client's individual needs, and how to use hypnosis for specific clinical problems such as pain control, depression, anxiety, stress management, weight loss, childbirth, and preparation for surgery. General guidelines for other problems that occur in a physician's practice will also be discussed. Ethical issues related to medical hypnosis will be addressed.

**Department:** Mind-Body, Environmental Medicine and Naturopathic Philosophy

**Prerequisites:** Admission to the program

**RSCH 6600 Directed Research Project****.5 - 3 Lab Credits**

This course is oriented towards independent medical student projects under the direction of the research faculty. Projects may involve the design, implementation, and analysis of clinical and/or bench-top research. Prerequisites, credits, and number of students will be determined by the instructor(s). Admittance to this course is in order of registration within the Registrar's Office until the course size limit has been attained.

**Department:** Research

**Prerequisites:** RSCH 5016

**RSCH 6914 Research Studies: Case Reports and Meta-Analysis I**  
**1 Lab Credit**

This is the first of a two-quarter sequence of research courses. Each quarter is worth 1 credit hour, making the entire course worth 2 credit hours. Upon completing and passing the two-quarter sequence, students may re-take the complete two-quarter course one additional time. During this entire course, students will prepare research data for publication. Upon completion of the entire course, students will submit a report to a peer-reviewed journal for review and potential publication. Authorship of the report will include the student, faculty mentor, and other significant contributors. Two options are available for this course: Option A (Meta-analysis): In this option, 1st, 2nd, 3rd, or 4th year students will prepare a meta-analysis report. This meta-analysis report will involve the analysis of a large collection of results from individual studies for the purpose of integrating the findings. The topic of the meta-analysis will be chosen by the student under the supervision and guidance of a faculty mentor. Option B (Case report): In this option, 4th year students will prepare a case report. This case report will involve the preparation of a narrative that describes a medical problem and treatment experienced by one or more patients. The topic of the case study will be chosen by the student under the supervision and guidance of a faculty mentor.

**Department:** Research

**Prerequisites:** RSCH 5016 or approval of instructor based on research experience

**RSCH 6924 Research Studies: Case Reports and Meta-Analysis II**  
**1 Lab Credit**

This is the second of a two-quarter sequence of research courses. Each quarter is worth 1 credit hour, making the entire course worth 2 credit hours. Upon completing and passing the two-quarter sequence, students may re-take the complete two-quarter course one additional time. During this entire course, students will prepare research data for publication.

Upon completion of the entire course, students will submit a report to a peer-reviewed journal for review and potential publication. Authorship of the report will include the student, faculty mentor, and other significant contributors. Two options are available for this course: Option A (Meta-analysis): In this option, 1st, 2nd, 3rd, or 4th year students will finish a meta-analysis report that was begun during the first quarter of this course.

This meta-analysis report will involve the analysis of a large collection of results from individual studies for the purpose of integrating the findings.

The topic of the meta-analysis was chosen by the student under the supervision and guidance of a faculty mentor during the first quarter of this course, and the report will be completed during this second quarter. Option B (Case report): In this option, 4th year students will prepare a case report.

This case report will involve the preparation of a narrative that describes a medical problem and treatment experienced by one or more patients. The topic of the case study was chosen by the student under the supervision and guidance of a faculty mentor during the first quarter of this course, and the report will be completed during the second quarter.

**Department:** Research

**Prerequisites:** RSCH 6914