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## CORE CURRICULUM

### ACTIONS AND EFFECTS OF THE POINTS OF CHANNELS I AND II

*Prerequisites for I: Traditional Chinese Medical Theory II, Point Location II; Corequisites for I: TCM Etiology & Pathology of Disease I, Clinical Skills of TCM; Prerequisite for II: Actions & Effects I; Corequisites for II: TCM Etiology & Pathology of Disease II, Introduction to Chinese Acupuncture Clinical Internship I, TCM Lab II*

Building upon the first year study of point location and meridian pathways, this course focuses on the energetic properties and functions of points and meridians. The points on each meridian are presented individually, as well as in comparison with other points on the same meridian and with points on other meridians sharing similar functions. Special groupings of points and their uses are discussed, and the general therapeutic domains of the channels are reviewed, including internal pathways and external meeting points. In addition, point prescriptions related to the conditions presented in the concurrent etiology and pathology courses are discussed in terms of individual and combined effects. Also reviewed are point categorizations, such as five phase functions, supplementation or dispersion, and cooling or warming. Finally, methods of combining points into effective treatment prescriptions are discussed in-depth and in reference to various systems of categorizing and relating points and meridians.

### CHINESE NUTRITION

*Prerequisite: TCM Theory II*

This introductory course gives students a basic understanding of the role that food and diet play in the healing process. The energetic nature of food, from a traditional Chinese medical perspective is explored, as is the influence that diet/nutrition have on the organ/meridian systems. Course topics include the influence of the five flavors, the thermal nature of foods, the effects of different cooking and preparation methods, and how these can enhance treatment of acute and chronic conditions. Although this course mainly focuses on the Eastern energetic view of food, certain practical, related Western holistic healing modalities are also presented. Additionally, specific, commonly encountered TCM patterns that can be directly affected by diet are discussed.

### CLINICAL ASSISTANTSHIP

*Pre/corequisite: Materials & Methods of TCM I. Must be completed before beginning any Clinical Internship*

The clinical assistantship program provides students the opportunity to observe the practice of acupuncture and Oriental Medicine within a clinical setting and exposes them to different practice styles and professional approaches. Students observe practitioners diagnose and treat patients using acupuncture, classical raw Chinese herbal formulas, as well as more modern preparations and combinations of Chinese herbal medicine. Students participate in the intake and evaluation process - looking at the tongue, palpating the pulse and discussing diagnosis, treatment plans, acupuncture point selection and herbal formula selection with the practitioner. During the first two years of the program, MAc students complete 150 hrs and MAOM students complete 180 hours (see course outline for recommended hours per term) observing and assisting licensed acupuncturists and Chinese herbal medicine practitioners in the NESAClinic and other clinical sites approved by NESAClinic.

### CLINICAL CASE MANAGEMENT I AND II

*Pre/corequisite for I and II: previous or current enrollment in Acupuncture Clinical Internship; Prerequisite for II: Clinical Case Management I*

Designed to address issues and experiences that arise during clinical internships, this course explores cases presented by students and faculty. Discussions focus on diagnoses, various treatment plan options or techniques, the patient-practitioner relationships, case management and referral, and general patient care issues. Students review methods and systems for planning, carrying out and evaluating treatments and prognoses.



## CORE CURRICULUM

### CLINICAL INTERNSHIP

**Prerequisites for CAS Clinical Internship:** *Introduction to Chinese Acupuncture Clinical Internship II, Traditional Chinese Medicine Etiology and Pathology of Disease III, CPR and Basic First Aid, Western Medical Pathophysiology and Pharmacology I and one additional term of Western Medical Pathophysiology and Pharmacology, Completed Clinical Assistantship Hours, Passing Grade on the Second Year Comprehensive Examination, attendance at Clinic Orientation in the Introduction to Chinese Acupuncture Clinical Internship II course. Psychological Issues of Patient Care is a pre/corequisite; Prerequisites for Japanese Acupuncture Clinical Internship:* *Introduction to Japanese Acupuncture Clinical Internship and passing grade on JAS Comprehensive Examination, in addition to prerequisites for CAS Clinical Internship; Prerequisites for combination acupuncture-herb Clinical Internships:* *CHM: Formulas II, in addition to prerequisites for CAS Clinical Internships; Prerequisites for CHM-only Clinical Internships:* *CHM Internal Medicine I, Introduction to CHM Clinical Internship and passing grade on CHM Comprehensive Examination, in addition to prerequisites for CAS Clinical Internships*

Having extensively practiced clinical assessment and treatment skills, student interns begin to work directly with patients in clinical settings. Under close supervision, student interns assume responsibility for patients' care, including intake evaluations, diagnoses, structuring treatment plans, carrying out the treatments, and assessing progress. Interns also advise patients on health practices, arrange follow-up care and make referrals. Clinical Internships take place in the NESA Clinic and at NESA satellite clinics. Clinics may be scheduled at various times during the academic year and interns will be responsible for some patient recruitment.

Student interns who have successfully completed the Japanese Acupuncture Styles: Introduction to Clinic course may begin to treat patients with Japanese techniques. Dual and Japanese Acupuncture Styles Track students must complete at least 3 (but no more than 6) Japanese style clinical internships.

Student interns who have successfully completed the CHM: Formulas II course may begin to treat patients with patent herbal medicine in combination with acupuncture. Student interns who have successfully completed the CHM: Internal Medicine I course will complete herb-only and combination internships where they prescribe patent herbs or write raw herb or powdered herbal formula prescriptions individually tailored to the patients' condition. During follow-up visits, interns assess changes in the patients' condition and make appropriate modifications to the treatment.

### CLINICAL SKILLS OF TRADITIONAL CHINESE MEDICINE

*Prerequisites: Diagnostic Skills of TCM, Traditional Chinese Medical Theory II, Materials and Methods of TCM II, Point Location II, Internal Exercise; Corequisites: Actions & Effects of the Points & Channels I, TCM Etiology & Pathology of Disease I, and passing grade on the First Year Comprehensive Examination*

This course is designed to allow students to refine and expand their clinical skills. Practicing skills on each other in small groups under faculty supervision, students locate and needle various points. Students also practice

patient evaluation and diagnosis using The Four Examinations, learn to analyze and organize signs and symptoms of disharmony, and are introduced to the actions and effects of frequently used points.

### CPR AND BASIC FIRST AID

*Certification must be current throughout all Clinical Internships*

This course teaches basic emergency procedures used in first aid situations. Among topics covered are basic cardiopulmonary resuscitation (CPR), trauma, heat and cold injuries, burns, soft tissue injuries, bandaging and splinting techniques, and emergency childbirth. Upon successful completion of the course students receive certification in CPR and Basic First Aid.

### DIAGNOSTIC SKILLS OF TRADITIONAL CHINESE MEDICINE

*Corequisite: Traditional Chinese Medical Theory II*

One of the main tenets of the Taoist approach to healing is the close observation of nature. From this orientation comes the traditional emphasis on perceiving the patient through the Four Examinations. Through lectures and practice, students develop skills in the traditional methods of Chinese medical diagnosis: observation (*wang*), audio-olfaction (*wen*), enquiry (*wen*) and palpation including pulse diagnosis (*qie*). Students learn to record medical histories, note observations and present signs and symptoms on Oriental medical intake forms. After brief lectures, students work in groups under faculty supervision to develop their perceptual sensitivities and clinical assessment skills.

### HISTORY AND CULTURAL FOUNDATIONS OF CHINESE MEDICAL SYSTEMS

This course links the various healing arts of Chinese medicine with the underlying concepts from which they emanated. The major philosophies of the pre-Han period—Shamanism, Confucianism, Taoism, Buddhism—and the concepts of *qi*, *yin-yang*, microcosm-macrocosm, and Five-Element correspondences are examined in relation to the evolution of Chinese medical theory. The Nine Healing Arts of ancient China also are discussed. By studying the cultural, logical and theoretical foundations of Eastern medical systems, students explore how the culture in which a medical system evolves shapes theory and practice. Additionally, students are introduced to the major classic texts of traditional Chinese medicine, their effects on the evolution of medical theory, and their value today. With a focus on providing students with a foundation for understanding the evolution and pronunciation of Chinese medical terms, this course introduces the basic skills of Chinese character recognition and the *Pin Yin* system of Romanization. The recent evolution of acupuncture and Oriental medicine in China, the United States and other countries, the impact of Western science on Chinese medicine, and current professional trends in acupuncture are also covered.

## INTERNAL EXERCISE

Internal exercise techniques strengthen the body and build *qi*. Students are able to choose courses in Tai Chi or Qigong to complete the 2-credit requirement. These courses help students establish a regimen of health and cultivate a deeper awareness of the subtle *qi* within their own bodies.

## INTRODUCTION TO CHINESE ACUPUNCTURE CLINICAL INTERNSHIP I AND II

*Prerequisites for I: Clinical Skills of Traditional Chinese Medicine, passing grade on the First Year Comprehensive Examination, Actions & Effects of the Points & Channels I, TCM Etiology & Pathology I; Corequisites for I: Actions & Effects of the Points & Channels II, TCM Lab II, TCM Etiology & Pathology II; Prerequisite for II: Introduction to Chinese Acupuncture Clinical Internship I; Corequisite for II: TCM Etiology & Pathology III*

In this second phase of the clinical training program, students begin applying the theory and clinical skills they have learned in classrooms and observed during their clinical assistantships. Students refine their diagnostic skills by practicing differential diagnosis, researching cases, and presenting case analyses. After establishing accurate diagnoses, students articulate the treatment principles they are applying and identify appropriate treatment plans, including specific point prescriptions and other potential treatments. Under close faculty supervision, students refine their skills by practicing in small groups and on each other.

## INTRODUCTION TO CHINESE HERBAL MEDICINE

*Corequisite: Traditional Chinese Medical Theory II*

This course introduces the history, development and application of Chinese herbal medicine, as well as basic botany and plant taxonomy. Covered are important traditional and contemporary herbal texts, traditional Chinese medical theory as applied to herbal medicine, and the basic concepts underlying the properties and functions of herbs: the four *qis*, five tastes, channel entry, functional tendencies and combination theory. Also covered are clinical application issues, such as the importance of accurate diagnoses, combining Chinese herbal and acupuncture treatments, toxicity, side effects and preparation methods.

## INTRODUCTION TO JAPANESE ACUPUNCTURE STYLES

*Corequisite: Point Location II*

This course presents an overview of the historical and theoretical roots of Japanese acupuncture styles, along with their diagnostic and treatment techniques. Students also learn Japanese techniques for palpating the abdomen, identifying diagnostic patterns and assessing pulse qualities. Students work in small, supervised groups to practice these clinical skills and develop a basic understanding of the application of Japanese acupuncture.

## LIVING ANATOMY AND STRUCTURAL ANALYSIS

*Prerequisites: 6 credits of Human Anatomy & Physiology, and two additional science course requirements; Corequisites: Point Location I, Materials and Methods of TCM I*

This course covers the main components of the musculoskeletal system, combining lecture with extensive hands-on practice. Students learn the location, origin, insertion and action of all the major muscles, as well as the bones, bony landmarks, and ligaments. Basic structural analysis is introduced, so students can begin to see the postural patterns that often precede and underlie musculoskeletal imbalances and pain syndromes. In addition, some basic principles of orthopedic assessment are discussed and demonstrated.

## MATERIALS AND METHODS OF TRADITIONAL CHINESE MEDICINE I AND II

*Prerequisites for I: 6 credits of Human Anatomy & Physiology, and two additional science course requirements; Corequisites for I: Point Location I, Living Anatomy & Structural Analysis; Prerequisite for II: Materials and Methods of TCM I; Corequisite for II: Point Location II*

Combining classroom lecture, demonstration and supervised practice in small groups, this two-term course lays the foundation for acquiring clinical acupuncture skills. First, the basic concepts of microbiology are reviewed to promote an understanding of infection control. Students then practice Clean Needle Technique (CNT) and universal precautions, including the proper use of personal protective equipment. Proper sterilization procedures and maintenance of medical equipment and environments also are covered. Students develop the basic therapeutic skills of needle insertion, removal and manipulation for tonification and dispersion; direct and indirect moxibustion techniques; cupping; gua sha; plum blossom; electrical stimulation; and bloodletting. Special emphasis is placed on developing sensitivity to the patients' reactions to these procedures and responding to adverse treatment reactions. The importance of safe techniques and awareness of precautions and contraindications for various treatment methods are also covered.

## MICROSYSTEMS OF ACUPUNCTURE TREATMENT

*Prerequisite: Materials and Methods of TCM II*

This course provides an overview of auricular and scalp acupuncture with a focus on the therapeutic potential within an overall acupuncture treatment program or when each modality is used alone. The physical structure of the body as it relates to each microsystem is studied in detail. Students learn how to locate microsystem acupuncture points and how points are linked physiologically with the internal organs. Students practice needling techniques and point location under faculty supervision.

## CORE CURRICULUM

### **ORIENTAL BODYWORK THERAPY**

*Prerequisite: Point Location II*

This course trains students to perform and apply a range of massage techniques in specific areas. Such techniques extend acupuncturists' treatment options for many problems and help develop palpation skills. The course consists of lecture, demonstration and practice.

### **ORTHOPEDIC ACUPUNCTURE**

*Prerequisites: Living Anatomy and Structural Analysis, Actions & Effects of the Points and Channels II; Co/prerequisites: TCM Etiology & Pathology of Disease II, Western Pathophysiology & Pharmacology II*

This course focuses on the most common injuries and pain syndromes encountered in clinical practice. Diagnoses and treatment strategies are discussed for such conditions as low back pain, neck pain, frozen shoulder, tennis elbow, carpal tunnel syndrome, sciatica, hip pain, iliotibial band syndrome, knee and ankle injuries, and plantar fasciitis. By the end of this course, students have a basic understanding of the mechanisms and treatment of musculoskeletal trauma. For those who wish to specialize in this area, this course serves as a foundation for further study.

### **POINT LOCATION I AND II**

*Prerequisites for I: 6 credits of Human Anatomy & Physiology, and two additional science course requirements; Corequisites for I: Living Anatomy and Structural Analysis, Materials and Methods of TCM I; Prerequisite for II: Point Location I; Corequisite for II: Materials and Methods of TCM II*

Through a combination of lectures, demonstrations and supervised practice in small groups, students learn the precise location of all acupuncture points on the twelve main channels, as well as the conception (*ren*) and governing (*du*) channels. A number of extra points not located on the major channels also are identified. Students locate points by palpating anatomical landmarks and applying a body measurement system based on the anatomical Chinese inch (*cun*). Also covered are proper needle depth, angle of insertion and contraindications. Students learn the English terms for the meridians and point numbers—a system of nomenclature adopted by the World Health Organization.

### **POINT LOCATION TUTORIALS I AND II (OPTIONAL)**

*Corequisite: Point Location I and II*

These tutorials provide students working in small groups with an opportunity for additional supervised review and practice of point location skills (fee).

### **PRACTICE DEVELOPMENT AND BUSINESS MANAGEMENT**

*Must be completed in the final Spring term of the program*

From the planning stages to daily business affairs, this course focuses on practical issues that arise in establishing and maintaining an acupuncture and/or Chinese herbal medicine practice. Scope of practice, business management, record keeping, accounting systems, marketing strategies, public speaking, office information systems and liability insurance are

covered. Professional, ethical and legal issues relating to the practice of acupuncture and Chinese herbal medicine also are discussed. Experts discuss practice management issues and share their expertise.

### **PSYCHOLOGICAL ISSUES OF PATIENT CARE**

*Prerequisite: Psychology, Introduction to Chinese Acupuncture Clinical Internship*

This course covers major diagnostic categories of psychological issues. Students learn to evaluate psychological health and identify cases in which referral for further assessment or treatment is indicated. Topics covered include basic assessment techniques, suicide risk, substance abuse, and survivors of trauma or abuse. Students learn skills for building rapport and trust, and for communicating effectively. Fundamental self-awareness tools are identified, fostering self-care of the healer.

### **RESEARCH I: DESIGN AND EVALUATION**

Through lecture, discussion and group projects, this course examines different approaches of qualitative and quantitative research. The assumptions underlying the broad traditions of research design selection and methodological considerations are discussed. Current literature on acupuncture research is discussed to provide students with an understanding of the special problems and requirements of modern acupuncture research. Students learn important research concepts, the vocabulary of research, various methods for conducting research, how to synthesize research literature, and how to formally report research findings.

### **RESEARCH II: MENTORED PRACTICUM**

*Required for students who are granted an exemption from the Research I: Design and Evaluation. For other students, this course can be taken as an elective following successful completion of Research I: Design and Evaluation. Students may take up to 2 terms to complete this course. Due to the independent study nature of this course, it is 2 credits and 90 hours.*

This course provides first-hand experience in working on a research project. The first two 3-hour meetings refresh students' understanding of the fundamentals of research and special issues associated with research in complementary and alternative medicine (CAM), and to assist in the choice of the term research project. Students may work in small groups and are assigned a supervisor/mentor who is a faculty member from either NESA or one of the collaborating institutions. The choice of a research topic is made in collaboration with the Research Faculty Advisor. The Research Department maintains opportunities for students to be involved in the forefront of exciting areas of CAM research. Students are expected to attend all NESA research seminars during the terms that they undertake this course (approximately one per month), and to participate in regular group meetings involving the review of relevant research literature. The primary assessment tools include a written paper of publication standard and the presentation of a seminar.

## **SURVEY OF CHINESE CLASSIC MEDICAL TEXTS IN TRANSLATION**

*Prerequisite: History and Cultural Foundations of Chinese Medical Systems*

By comparing Chinese medical texts, students begin to develop familiarity with the origins of Chinese medical practice. Through selected readings, students explore the development of acupuncture and Oriental medicine strategies. These readings form the basis for examining treatment strategies in modern clinical settings, and for understanding the conceptual basis of modern Oriental Medicine.

## **TRADITIONAL CHINESE MEDICAL THEORY I AND II**

*Prerequisite for II: Traditional Chinese Medical Theory I; Corequisite for II: Diagnostic Skills of Traditional Chinese Medicine*

As an essential foundation for understanding Chinese medical theory and its use in the diagnosis and treatment of disharmony and disease, this course first covers the basic concepts of Chinese medicine—*Tao, qi, yin* and *yang*, the Five Element correspondences and their cycles known as *wu xing*—and how they relate to human health. Building on this foundation, students learn the significance of Signs and Symptoms of Disease by studying various approaches to diagnoses. These approaches include the Eight Principles (*ba gang*), the Fundamental Substances (*qi, jing, shen, xue*, and *jin-ye*), the functions and interrelationships of *yin (zang)* and *yang (fu)* organs, meridian theory, the Five Elements, the Six Stages and the four levels of disease progression. Among other topics covered are the etiology of disease—including the Six External Evils (*liu yin*), Seven Emotions (*qi qing*) and the Neither Internal nor External Causes (*bu nei wai yin*)—as well as syndrome differentiation, the four methods of diagnosis, treatment principles and the functional categories of points.

## **TRADITIONAL CHINESE MEDICINE ETIOLOGY AND PATHOLOGY OF DISEASE I, II, AND III**

*Corequisites for I: Actions & Effects of the Points and Channels I, Clinical Skills of TCM; Corequisites for II: Actions & Effects of the Points and Channels II, TCM Lab II, Introduction to Chinese Acupuncture Clinic I; Corequisite for III: Introduction to Chinese Acupuncture Clinic II*

This three-course series integrates the theoretical information presented in Traditional Chinese Medical Theory I and II through the study of the etiology of disharmony within several common categories of illness. Students focus on differential diagnosis within each category and learn to organize signs and symptoms theoretically and understand organ relationships and the underlying causes and progression of disease. Treatment principles and strategies for each diagnosis are reviewed. Emphasis is placed on developing the ability to proceed logically from signs and symptoms to formulating a clear diagnosis, and on understanding the etiology of the condition, treatment principles and point prescriptions.

## **TRANSITIONAL CAREER MANAGEMENT LAB I**

*Corequisite: TCM Theory I*

This 0.5-credit lab is the cornerstone for the curricular and extra-curricular opportunities NESA offers students to assist in planning for their future professional success. Through discussion and exercises, students begin to specifically formulate how to shape their careers as acupuncturists. Panel discussions provide exposure to acupuncturists practicing in a variety of settings. TCM Lab I informs students' choices on assistantship and internship sites to best shape their educational experiences and ultimately, their careers.

## **TRADITIONAL CHINESE MEDICINE LAB II**

*Prerequisites: Actions & Effects of the Points and Channels II, TCM Etiology & Pathology of Disease I; Corequisite: TCM Etiology & Pathology of Disease II*

This interactive course serves to further prepare students for Clinical Internship. Students refine their diagnosing and point prescribing abilities through review of *zang-fu* pattern differentiation, actions and effects of the points, TCM pathology and tongue, pulse and asking diagnosis. This review is done in part by the instructor demonstrating intakes on patients during class, with student participation.

## **WESTERN NUTRITION**

In this introductory course, students receive an overview of the healing properties of foods, nutrients such as vitamins and minerals and specific diets. The functions of various nutrients, in what food they are found, and how they impact health are discussed. Students gain a better understanding of the clinical uses of specific diets and nutritional supplements used by many holistic practitioners.

## **WESTERN PATHOPHYSIOLOGY & PHARMACOLOGY I-IV**

*Western P&PI is prerequisite to all other courses in the series. All other courses in the series may be taken out of sequence*

A survey of Western medical history and its major areas of specialization are essential for appropriate referrals to Western medical providers and for effective communication. Throughout this course series, students survey each of the major body systems to develop an understanding of the physiological process, as well as the signs and symptoms of illnesses as diagnosed and treated from a Western medical perspective. The nature and clinical relevance of various conditions, as well as Western medicine's clinical diagnostic techniques are discussed. Pharmaceuticals used in treatment are covered according to their category, effect on physiological functions and possible interactions and side effects. Students learn to recognize signs and symptoms that differentiate emergency and life-threatening conditions—which should be referred to a Western medical practitioner—from other conditions properly treated with Oriental medicine.

## JAPANESE ACUPUNCTURE TRACK AND DUAL TRACK

### JAPANESE ACUPUNCTURE STYLES TRACK

The following courses are required for students in the Japanese Acupuncture Styles Track and Dual Track.

#### JAPANESE ACUPUNCTURE STYLES: CLINICAL INTERNSHIP

See description under Core Curriculum

#### JAPANESE ACUPUNCTURE STYLES: DIVERGENT CHANNELS AND MUSCLE MERIDIANS

*Prerequisite:* JAS: Root Treatment Strategies I and II

Divergent Channels are introduced in Chapter 11 of the Ling Shu. They are internal channels, which complete the network of *yin/yang* relationships between meridians. The Divergent Channels expand the range of indication for the regular meridians. Divergent Channels pass through the heart; clinically they can be used to address disorders of the heart such as manic-depression, insomnia and dream-disturbed sleep. The Muscle Meridians (not actual meridians) are written about in the Ling Shu Scroll 4, Section 13. The Muscle Meridians are superficial; they flow between the skin and flesh, control protection from, and response to, the external environment. They are circulated by *wei qi* and *jing qi*. Diagnostically, Akabane testing of the jing well points and testing of the meeting points of *wei qi* and *jing qi* will lead practitioners to a unique treatment strategy. This course has both didactic and practical components.

#### JAPANESE ACUPUNCTURE STYLES: INTRODUCTION TO CLINIC

*Prerequisites:* Introduction to Chinese Acupuncture Clinical Internship II, JAS: Root Treatment Strategies I and II, JAS: Local Treatment

In preparation for using Japanese acupuncture modalities in Acupuncture Clinical Internship, this course includes practice in meridian style five phase and Manaka ion pumping cord style diagnosis and treatment. Students practice intake, diagnosis and treatment skills and practice on each other in small, supervised clinical groups, which imitate an actual clinical setting. This intensive practice allows students to refine their Japanese acupuncture and treatment planning skills.

#### JAPANESE ACUPUNCTURE STYLES: LOCAL TREATMENT

*Prerequisites:* JAS: Root Treatment Strategies I and II

Based on classical theories of Oriental Medicine and modern information about disease and healing, this course focuses on the application of techniques used to resolve symptoms. Through the practice of careful palpation and the consideration of diagnostic and treatment points, students learn the most appropriate techniques for achieving symptomatic change.

#### JAS: ROOT TREATMENT STRATEGIES 1 (HONCHIHO)

*Prerequisite:* Introduction to Japanese Acupuncture Styles.

*Point Location II, Materials and Methods of Traditional Chinese Medicine II; may be taken as an elective by Chinese Herbal Medicine students on a space-available basis.*

This course provides students with the theoretical foundations and application of two predominant therapeutic styles of Japanese Acupuncture: Meridian 5 Phase and the Extraordinary Vessels (one form of polarity treatment). Students will learn to diagnose using pulse and abdominal palpation in combination with visual and verbal signs and symptoms, which form specific treatment strategy patterns. This course helps students refine their diagnostic skills and increase sensitivity and ability to distinguish patterns. Extensive hands-on practice in small groups is included. Students will learn more about Japanese style materials and methods such as needling with an insertion tube, tonification and dispersion needling techniques and various moxibustion techniques.

#### JAS: ROOT TREATMENT STRATEGIES 2 (HONCHIHO)

*Prerequisite:* JAS: Root Treatment Strategies I; may be taken as an elective by Chinese Herbal Medicine students on a space-available basis.

This course provides students with an expanded and continued outlook of root treatment strategies, and incorporates an in-depth study of detailed clinical applications in Case Review. The hands-on portion of this course will promote the ability to diagnose JAS Meridian 5 Phase, Extraordinary Vessels and Extra Channel Polarizations.



## CHINESE HERBAL MEDICINE TRACK

The following are required for students in the Chinese Herbal Medicine Track and Dual Track.

### CHINESE HERBAL MEDICINE: CLINICAL INTERNSHIP

See description under Core Curriculum

### CHINESE HERBAL MEDICINE: CLINICAL PHARMACOLOGY

*Prerequisite:* CHM: Internal Medicine II

This course introduces some basic principles of pharmacology in major Chinese herbs and traditional formulas that are used in clinical practice. In addition, toxicology in Chinese herbal medicine is discussed and drug-herb interaction issues are presented. This course provides students with general understanding of pharmacotherapy as it relates to clinical application. The course highlights major herbal classifications with emphasis on the general therapeutic rationale for herbal therapy, mechanisms of action, pharmacokinetic concepts and pharmacodynamic principles. Students gain a preliminary understanding of pharmacological properties of some selected Chinese herbs and classical formulas, as well as some potential adverse reactions and drug-herb interactions.

### CHINESE HERBAL MEDICINE: FORMULAS I AND II

*Prerequisite for I:* CHM: Pharmacopoeia II; *Prerequisite for II:* CHM: Formulas I; *Corequisite for II:* CHM: Patent Herbal Medicine

Having achieved a solid foundation in the properties and functions of individual herbs, students begin studying traditional Chinese herbal formulas and their clinical applications. Students learn more than 150 formulas by their *Pin Yin* and English names, constituent ingredients, how those ingredients relate and interact, the primary and secondary functions of each prescription, and possible modifications. Formulas readily available as patent medicines are covered. Ingredients, form, effects, range of traditional applications, dosage, indications and contraindications also are discussed.

### CHINESE HERBAL MEDICINE: INTERNAL MEDICINE I AND II

*Prerequisites for I:* CHM: Formulas II, CHM: Patent Herbal Medicine; *Prerequisite for II:* CHM: Internal Medicine I

This course explores the theoretical bases for herbal treatments of various conditions in internal medicine, such as cough, asthma, diarrhea, constipation, jaundice, hypertension, diabetes, edema and others. Special emphasis is placed on understanding the theoretical bases of diagnoses and selecting and modifying formulas.

### CHINESE HERBAL MEDICINE: INTRODUCTION TO CLINICAL INTERNSHIP (FORMULA WRITING)

*Prerequisites:* CHM: Formulas II, CHM: Patent Herbal Medicine; *Co requisite:* Internal Medicine I

This course introduces students to writing individual formulas. Students begin by working with more simple formulas and progress to more complex formulas throughout the course. Building on the base formulas learned in CHM: Formulas I and II, students learn the elements of formula modification; including such criteria as herb dosages, chronicity and severity of patients' pathology, etc.



## CHINESE HERBAL MEDICINE TRACK AND DUAL TRACK

### CHINESE HERBAL MEDICINE: PATENT HERBAL MEDICINE

*Prerequisite: CHM Formula I; Corequisite: CHM Formulas II*

This course covers the patent formulas most commonly used in the United States today, including modern adaptations of classic formulas produced by several American and European companies, and newer formulas developed in China which are available in the United States. Discussion focuses on the composition of these patent herbal medicines, actions and effects of the classic formula bases, and on a comparison of the modifications used in various brands. Students learn to select the most appropriate products to achieve optimum treatment results.

### CHINESE HERBAL MEDICINE: PHARMACOPOEIA I AND II

*Prerequisites: Introduction to Chinese Herbal Medicine and Pharmacopoeia I, respectively*

As a basic foundation for the study of Chinese herbal medicine, students study more than 300 individual herbs. To gain a comprehensive understanding of each herb, students learn its name in *Pin Yin* and English, as well as its botanical name, character, taste, channels, main functions, precautions and methods of preparation. Recent research pertaining to individual herbs is also covered.

### CHINESE HERBAL MEDICINE: DISPENSARY ASSISTANTSHIP

*Prerequisite: Introduction to CHM; must be completed before the start of CHM: Formulas II; Pre/corequisites: CHM: Pharmacopoeia I, CHM: Pharmacopoeia I and/or CHM Formulas I*

By assisting in the NESAs Herbal Dispensary, students become familiar with the properties of individual raw herbs, and practice preparing herbal combinations prescribed by practitioners. Students also learn proper herb storage and handling techniques, how to assess the quality of raw herbs, and how to use powdered herbs.



## ELECTIVES

Students in the Acupuncture Track are required to complete 6 credits of elective coursework. Students in the CHM Track graduating in 2008 must complete 2 credits, CHM Track students graduating after 2008 take 4 credits, and elective courses are optional for Dual Track and Pain Management students. These electives are offered to third-year students. Second year students who meet the prerequisites may take electives on a space-available basis. Elective offerings may vary from year to year and are 2 credits unless otherwise indicated. A sampling of recently offered electives follows:

**ACUPUNCTURE TREATMENT OF INFERTILITY**

*Prerequisites: TCM Etiology and Pathology III*

This one-credit course focuses on creating a simple and effective approach to treatment, improving diagnostic skills and giving the student a sense of confidence when dealing with the challenges and complexities surrounding infertility.

**ACUPUNCTURE TREATMENT OF PREGNANCY DISORDERS**

*Prerequisite: TCM Etiology and Pathology of Disease III*

This 1-credit course first gives students an understanding of the normal changes in *Qi* and Blood that occur during pregnancy. Various pathologies that arise during pregnancy, their treatment with acupuncture, and acupuncture treatment contraindications during pregnancy are also presented.

**EXPERIENCE, EXPERIMENTS AND THE SOUL**

*Prerequisite: Third year standing*

This 1-credit elective course is a series of lectures, discussions and exchanges on some of the fundamental philosophic, epistemological and clinical care questions of Oriental medicine. It explores how the practitioner of Oriental medicine "knows" what the optimal and "correct" treatment is, evaluates efficacy and understands how treatments influence human life. This perspective of Oriental medicine is contrasted with how Western biomedicine grapples with such issues of fact and values, body and mind, disease and illness, experience and experiments, objectivity and subjectivity. The question of how the Oriental medical concept of "soul" (*ling-hun*) provides the framework for the psycho-spiritual perspective of Oriental medicine is examined. The impact of this framework is practically evaluated in some very common herbal and acupuncture prescriptions so that students will have an opportunity to re-conceptualize previously mastered material. The traditional Oriental perspective on the patient-physician relationship and its impact on healing is studied. The course also critically inspects biomedicine and scientific research methods from the perspective of Oriental medicine. This is an opportunity for students to develop and reflect upon their own

understanding of Oriental medicine and to self-examine their own "knowing" and "feelings." It is assumed that such a deliberate reflexive process will provide the basis for students to become more competent and powerful healers.

**ADVANCED NEEDLE TECHNIQUES**

This course explores advanced Chinese needle techniques, with didactic presentations as well as needling practice. Special needling techniques presented and practiced include those used for tonification and dispersion, complicated needling technique and electroacupuncture. The course also covers acupuncture techniques, point combinations and ancient acupuncture cases from the classic "Great Compendium of Acupuncture and Moxibustion".

**INTRODUCTION TO SHAKUJU**

*Prerequisite: Introduction to Japanese Acupuncture Styles. This course is not restricted to JAS track students*

Based on the lifelong work of Shoji Kobayashi, Shakuju encompasses the palpation of both the radial pulse and abdomen as derived from the classic Nan Jing. Treatment strategy focuses on the back shu points, specific sequences, and needle techniques. This class has both didactic and practical components.

**JAPANESE ACUPUNCTURE STYLES: ADVANCED TREATMENT STRATEGIES**

*Prerequisite: JAS: Local Treatment*

This course covers advanced uses of Japanese acupuncture and includes presentations by senior practitioners on their areas of expertise. Students further develop their sensitivity in working with patients and expand their repertoire of techniques. Topics include advanced training in various traditional styles.

**ORTHOPEDIC PHYSICAL ASSESSMENT I AND II**

*Prerequisites for OPA I and II: Living Anatomy and Structural Analysis, Orthopedic Acupuncture: familiarity with muscle actions, origins and insertions required. OPA I is not a prerequisite to OPA II*

This course focuses on performing an orthopedic physical assessment of the upper body. A review of dermatomes, myotomes and structural anatomy is included. Emphasis is placed on taking a history, palpation skills, manual muscle testing and performing special tests. This course includes a lab component. Where applicable, acupuncture methods are discussed.

## ELECTIVES

### RESEARCH II: MENTORED PRACTICUM

See description under Core Curriculum. Offered as a 2-credit, 90-hour elective to those who have completed Research I.

### RESEARCH III: OFF-SITE MENTORED PRACTICUM

*This 2-credit, 90-hour elective research experience may be completed over two terms after completing Research I: Design and Evaluation. This course can be taken as an elective following successful completion of, or exemption from, Research I: Design and Evaluation. Please note that students who are granted an exemption from Research I: Design and Evaluation must take the Research II: Mentored Practicum course*

During the Research III: Off-site Mentored Practicum, students spend some of the required hours in the field and some of the required hours doing background research and preparation. The exact distribution of field or background hours is dependent upon the specific nature of each project. The student must submit a two-page proposal and letter of support from the proposed off-site supervisor of the project at least one month before the beginning of the term when the OMP will begin. The student will then be assigned a co-supervisor from the NESAs Research Department who will meet regularly with the student and monitor progress of the project. The primary assessment tools will be a written paper of publication standard and the presentation of a seminar.

The primary difference between this course and the Research II: Mentored Practicum is that this course is for research that is undertaken completely separately from any NESAs-associated research projects. The NESAs research department will, however, maintain a supervisory involvement with projects undertaken through the Research III: Off-site Mentored Practicum.

### RESEARCH ASSISTING

*No credit awarded*

Students who would like to get first-hand research experience without enrolling in a formal course are encouraged to inquire about the possibility of becoming a volunteer research assistant. Even though this is not a formal course it requires dedication and responsibility. In exchange you will receive instruction and involvement that is compatible with your available level of commitment. Volunteer Research Assistants receive no financial remuneration or credits towards their master's degree at NESAs.

### SHIATSU

This course is an introduction to the principles of Shiatsu—moving from one's center, applying appropriate pressure, and sensing an energetic change. This hands-on course helps to develop palpation skills. The aim is to develop an awareness of the sensitivity of the hands in feeling the *qi*, in discerning imbalances in the meridians and in promoting energetic flow in the meridians. This course concentrates on working the yang meridians through Shiatsu techniques using the palm, thumb, elbow and knee. Acupressure point combinations are taught for releasing the neck, shoulders and back.

### SOTAI

This course gives the student a theoretical and practical understanding of the basic application of Sotai Therapy for self and clients. Students, upon completion of this course, should have the skills and knowledge to apply basic Sotai techniques in clinical situations to enhance the effectiveness of their treatments.

## SCIENCE COURSES

Completion of Anatomy and Physiology I and II plus two other science courses are required prior to beginning any full-time NESAs degree program.

Program corequisite science courses are typically offered during the academic year as follows:

**Fall Term:** Anatomy and Physiology I, General Chemistry, Organic Chemistry, Physics, and Microbiology.

**Spring Term:** Anatomy and Physiology II, Organic Chemistry, Biochemistry, and Physics.

**Summer Term:** Anatomy and Physiology Intensive, Biochemistry, General Biology, General Chemistry, General Psychology, and Microbiology.

### ANATOMY AND PHYSIOLOGY I AND II

*Prerequisite for Anatomy and Physiology II: Anatomy and Physiology I*

Using a systematic approach to human anatomy and physiology, this course focuses on the normal functioning of the human body. Students study the skeletal, muscular, endocrine, respiratory, cardiovascular, digestive, reproductive, urinary and nervous systems. The two-part course is offered during the fall and spring terms or as a 12-week summer intensive.

### BIOCHEMISTRY

*Prerequisite: Organic Chemistry*

This course applies the concepts presented in general and organic chemistry to living organisms, and relates them to the pathophysiology of nutrition disorders and major metabolic syndromes. The course begins with the study of cell biochemistry and homeostasis, the transmission of information via hormones and neurotransmitters, regulation of osmolarity and pH balance of body fluids. Focusing on the structure, function, synthesis and degradation of carbohydrates, proteins, lipids and nucleic acids, students also develop an understanding of how bio-molecules interact to provide the organism with the nutrition, homeostasis and energy necessary for health.

### GENERAL BIOLOGY

This survey of life systems lays the foundation for the study of human anatomy, physiology and health. The course begins with the study of cellular structure, metabolism and reproduction, and proceeds to the study of tissues and more complex organisms, such as plants and vertebrates. Also covered are genetics, evolution, ecology and the interrelationships between organisms and their environments.

### GENERAL CHEMISTRY

This course is the first in a series of three chemistry courses that delve into the molecular basis of life, which is the foundation (from a Western medical perspective) for the study of human physiology and the mechanisms of health and disease. Topics covered include the structure and properties of atoms, and how different interatomic forces create and stabilize different types of molecules. Basic concepts such as chemical equations, equilibria, the law of mass action, the properties of solutions, and acid-base and redox reactions which are key reactions for the survival of organisms are covered.

### GENERAL PHYSICS

This introductory course follows the historical evolution of physics. After an introduction to mechanics, students investigate electrostatics, electricity, magnetism, light and contemporary physics. Through demonstrations and experiments, students develop an understanding of how physical laws relate to the world. Students also learn assessment techniques, including quantitative reasoning and conceptual problem solving.

### GENERAL PSYCHOLOGY

This course surveys historical and contemporary approaches to the scientific study of human behavior. It provides an introduction to sensation, perception, and emotion; human development and learning; and personal and social influences on behavior, personality and psychopathology.

### MICROBIOLOGY WITH LAB

*Prerequisite: General Biology*

This practical course for health care practitioners focuses on the microorganisms relevant to clinical practice, the body's defense responses and methods of preventing disease transmission. Combining lecture and laboratory study, this course also covers the characteristics, activities, distribution, and effects of specific pathogenic organisms on the body. (Lab included.)

### ORGANIC CHEMISTRY

*Prerequisite: General Chemistry*

This course, the second in the chemistry series, covers characteristic structures, physical properties, functional groups, and reactions of the different families of compounds. Reactions with acids, bases and redox agents as they occur in carbon-based life forms are also studied.



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