

# Bulletin

2022-2023



## **Announcements and Notices**

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## **Bulletin Changes**

The administration of National University of Health Sciences reserves the right, without prior notice, to make changes at any time to the material contained in this bulletin, whether in entrance and graduation requirements, curriculum, education fees, or any rules and regulations.

National University of Health Sciences is not responsible for printing errors.

Rules in this bulletin apply to all students attending the University. Previous catalogs, bulletins, and announcements are hereby rescinded.

Students are subject to the rules and regulations made by the University and are held to have knowledge of all University requirements published in this bulletin or otherwise brought to their attention.

Information contained in this bulletin is applicable as of August 31, 2022. For more specific information, inquiries may be addressed to the Registrar of National University of Health Sciences.

The University is not responsible for any changes in admission requirements, advanced standing privileges or any other rule listed in this bulletin due to mandates by state boards, governmental agencies and/or accrediting agencies.

Disclaimer: Although this bulletin intends to reflect current policies or rules of the Board of Trustees and administration of National University of Health Sciences referred to or incorporated herein, students are cautioned that changes or additions to such policies or rules may have become effective since the publication of this material. In the event of such a conflict, the current statements of policy contained in official minutes and manual of policies and procedures, bylaws, and guidelines shall prevail. Thus, the provisions of this bulletin are not to be regarded as an irrevocable contract between the Board of Trustees of National University of Health Sciences (or any of its colleges) and the student. The University reserves the right to make changes as required in course offerings, curricula, academic policies, and other rules and regulations affecting students, these changes to be effective when determined by the appropriate authority within the University. These changes will govern current and formerly enrolled students. Registration of all students is accepted subject to these conditions.

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# Bulletin

## 2022-2023



THE UNIVERSITY

## **President's Message**



National University of Health Sciences has become a model and example of how to integrate health care education. With a rich history dating back to 1906, we have been training practitioners to deliver health care to their communities for generations. At this institution you will be provided the tools necessary to make a difference. You will be provided the tools necessary to change lives. You will be provided the tools that will make you a necessary member of the service profession that is health care. You will have the opportunity to learn from a wide variety of academics and members of the health care profession. You will have the opportunity to challenge yourself and be challenged in the classroom. You will share these challenges from day one with classmates and share your triumphs during your last days of clinical training.

No matter which program of study you choose, the focus of National University is to train the student to become a critical thinker and to become a productive member of their chosen field. And often, our graduates also go on to become leaders in their professions. There are many possibilities and alternatives on the health care horizon, but what is most important is that each practitioner focus on what is best for the patient. So, no matter what view you take on health care, stay focused on the patient. I wish you every best opportunity and hope that you take advantage of the opportunities available you.

Best regards,

A handwritten signature in black ink, reading "Joe Stiefel". The signature is fluid and cursive, with the first and last names being more prominent.

Joe Stiefel, MS, EdD, DC  
President  
National University of Health Sciences

# **National University of Health Sciences**

## **Mission Statement**

### **Because:**

- We value students as unique individuals seeking quality health sciences education through our service and support;
- We value being progressive, knowledgeable, adaptable, original, and academically sound in our academic programs;
- We value the substantive quality of our curricula through emphasis upon academic excellence;
- We value progress achieved by the development of new knowledge and its importance to chiropractic medicine and other complementary healing arts and sciences;
- We value quality training and practice in the clinical skills of all relevant programs with particular emphasis upon the physician/patient relationship within the first professional programs;
- We value complementary and alternative care for its emphasis upon holism and use of the least invasive therapeutic procedures necessary for optimizing human health;
- We value collegiality and cooperation among all members of the University community, the related professions, other health care systems, and the community;

### **Therefore:**

The mission of National University of Health Sciences is to provide and promote the necessary leadership, cultural diversity, management, and resources for the advancement of education, new knowledge, outreach, and the ethical practice of the healing arts and sciences as taught within the programs of this University.

# **National University of Health Sciences**

## **Institutional Goals**

### **PILLARS**

### **GOALS**

#### **Students:**

To provide quality education demonstrated by collaboration, innovation, evidence-informed practice, professionalism, a supportive environment, and a continued focus on student success, prior to and after graduation.

#### **Employees:**

To maintain and support a dynamic faculty and staff committed to the mission of the University—achieved through collaboration, development, and diversity.

#### **University:**

To ensure institutional stability, growth, and innovation through strategic planning and best practices, and to place institutional integrity at the forefront of all decisions and actions through transparency and honesty.

#### **Community:**

To remain a vital leader to all constituents through outreach, partnerships, engagement, and service.

*Approved by the NUHS Board of Trustees, November 2015*

## **Profiling the Practices of Complementary and Integrative Medicine**

National University of Health Sciences and its related colleges hold that the practice of the alternative and complementary healing arts and sciences must embrace the whole person, with emphasis upon conservative health care that facilitates the inherent potential of the human organism to develop and maintain a state of self-regulation and to invoke self-healing processes with minimal therapeutic risk at reasonable cost.

We recognize a diversity of factors that impact upon human physiology, among which are biomechanical dysfunction, altered energy patterns, genetics, trauma, hygiene, microorganisms, nutritional status, exercise, motion, posture, environment, stress, emotion, and human relationships.

### **College of Professional Studies**

#### **Chiropractic Medicine**

##### **Purpose Statement of Chiropractic Medicine**

The purposes of the Doctor of Chiropractic Medicine Program are to educate students in the basic and clinical sciences and related health subjects requisite for development of competent primary care chiropractic physicians, the development of new knowledge and other scholarship in the field of chiropractic medicine, and the provision of health care and other services to patients in University clinics and the community.

##### **Profile of Chiropractic Medicine**

Chiropractic physicians must be competently trained to diagnose, including the use of specific spinal and biomechanical evaluation of the relationship of human structure and function, to care for the human being in health and disease, and to consult with, or refer to, other health care providers when clinically indicated.

National University of Health Sciences holds that the practice of the chiropractic physician embraces the whole person with emphasis upon conservative health care that facilitates the inherent potential of the human organism to develop and maintain a state of self-regulation and to invoke self-healing processes with minimal therapeutic risk at reasonable cost.

The practice of chiropractic medicine embodies:

- recognition of a diversity of factors that impact upon human physiology, among which are biomechanical dysfunction, genetics, trauma, hygiene, microorganisms, nutritional status, exercise, motion, posture, environment, stress, emotion, and human relationships;
- primary care of patients based upon diagnostic evaluation including patient history, physical examination, clinical laboratory data, diagnostic imaging, and other special diagnostic measures, as well as those procedures that are unique to the chiropractic evaluation of human spinal and structural balance and integrity;
- the application of a diversity of spinal and other articular adjustments and manipulations for the treatment, correction, and prevention of neurologic, skeletal or soft tissue dysfunction, and for the production of beneficial neurologic and other physiologic effects as a central component of practice;
- use of other conservative means in the promotion of optimal health including, but not limited to, nutritional counseling, physiologic therapeutics, meridian therapy/acupuncture, trigger point therapy, exercise, life-style counseling, botanical medicine, homeopathic remedies, emotional support, and stress management.

The chiropractic physician is a primary care, first contact provider who practices within the legal scope of licensure, emphasizes the importance of the doctor-patient relationship, recognizes the need for other forms of therapy when



indicated, and interacts fully with other members of the health care delivery team, always in the best interest of the patient.

## **Naturopathic Medicine**

### **Purpose Statement of Naturopathic Medicine**

The purpose of the Doctor of Naturopathic Medicine Program at National University of Health Sciences is to create competent naturopathic physicians who are ethical, compassionate, and effective practitioners of the science and art of naturopathic medicine.

### **Program Outcomes of Naturopathic Medicine**

1. The naturopathic graduate will possess a thorough knowledge and comprehension of the biomedical sciences as they currently relate to diagnosis, treatment, and the determinants of health, along with lifelong learning skills to stay abreast of new and emerging developments in biomedical knowledge.
2. The naturopathic graduate will be proficient in the assessment of patient health status, diagnosis, referral, and case management of patients informed by appraisal of current evidence and application of naturopathic principles.
3. The naturopathic graduate will be skilled in creating treatment plans that address the determinants of health, follow a therapeutic hierarchy/order, are informed by evidence, and are congruent with naturopathic principles.
4. The naturopathic graduate will be ethical, compassionate, and professional in interactions with patients.
5. The naturopathic graduate will be proficient in working within the contemporary health care milieu, including working within health systems and integrative settings, and will be able to gather essential information about and adhere to local, state and federal regulations.

### **Profile of Naturopathic Medicine**

The practice of naturopathic medicine:

- embodies the recognition of those aspects of human health and disease detailed previously under the chapter heading, “Profiling the Practices of Alternative and Integrative Medicine”;
- is based on the following six principles: The Healing Power of Nature; Find the Cause; First Do No Harm; Doctor as Teacher; Treat the Whole Person; Prevention;
- is the primary care of patients based upon diagnostic evaluation including patient history, physical examination, clinical laboratory data, diagnostic imaging, and other special diagnostic measures as well as those procedures that are unique to the naturopathic evaluation of the human condition;
- promotes, as a central component of practice, the application of the principles of botanical medicine, homeopathy, proper nutrition, and hydrotherapy;
- includes the use of other means including but not limited to, physiologic therapeutics, meridian therapy/acupuncture, trigger point therapy, exercise, lifestyle counseling, emotional support, articular manipulation, and stress management.

The doctor of naturopathic medicine is a primary care, first contact physician who practices within the legal scope of licensure, emphasizes the importance of the doctor/patient relationship, recognizes the need for other forms of therapy when indicated, and interacts fully with other members of the health care delivery team, always in the best interest of the patient.

## **Acupuncture & Oriental Medicine**

The educational purpose of the National University of Health Sciences (NUHS) Masters of Acupuncture Program (MSAc) is to provide acupuncture in an Eastern and Western medicine integrative format. The program consists of supervising and guiding the students and facilitating professional and personal development in patient care and community service. The MSAc students completing this degree will learn the following:

- 1) Assess patients using Eastern and Western diagnostic techniques.
- 2) Utilization of Acupuncture, Cupping, Moxibustion, Tui Na, and Evidence-Based Research to administer treatments
- 3) The foundational theories and biomedical principles of Asian Medicine.
- 4) Advanced competencies in Patient Care, Collaborative Care, and Professional Development

The Masters of Oriental Medicine (MSOM) degree at NUHS offers courses that cover all aspects of Herbal Medicine: Acupuncture, Tui Na, Tai Chi, Qi Gong, Evidence-Based Research, and Contemporary Biomedicine. The students in the MSOM program completing this degree will learn the following:

- 1) Assess patients using Eastern and Western diagnostic techniques.
- 2) Utilization of Acupuncture, Cupping, Moxibustion, Tui Na, and Evidence-Based Research to administer treatments.
- 3) A thorough understanding of individual herbs and formulas, as well as their clinical and practical applications.
- 4) How to modify basic formulas according to different symptoms.
- 5) The foundational theories and biomedical principles of Asian Medicine.
- 6) Advanced competencies in Patient Care, Collaborative Care, and Professional Development.

The purpose of the MSAc and MSOM programs are to provide the highest quality comprehensive and professional education. The programs (MSOM and MSAc) emphasize the integrative and integrated approach to health care, incorporating instruction in clinical Western medicine so that our graduates may practice confidently in a wide range of clinical settings. We hold the core values of integrity and compassion in the practice of medicine in the greatest esteem and seek to graduate students who wish to engage in it at the highest levels.

The mission of National University of Health Sciences is to provide and promote the necessary leadership, management, and resources for the advancement of education, new knowledge, cultural diversity, outreach, and the ethical practice of the healing arts and sciences as taught within the programs of this university. It is the vision and purpose of National University of Health Sciences that the various members of complementary and alternative medicine shall study together, work together, and develop a keen sense of collegiality and integrated function.

## **College of Allied Health Sciences and Distance Education**

The College of Allied Health Sciences and Distance Education provides undergraduate, and graduate programs to those seeking increased knowledge in the sciences programs are available to those who wish to complete a bachelor of science degree in biomedical science. Graduate degrees in advanced clinical practice and diagnostic imaging are offered through in-class and distance education.

## **Undergraduate Programs**

### **Bachelor's Degree Completion Program**

The University offers a Bachelor of Biomedical Science Degree Program to prepare students for the first professional degree programs and other science-related occupations and professions. A component of the bachelor's program is the Prerequisite Program.

### **Prerequisite Program**

This program includes science courses required to enter the first professional degree programs at the University. Courses such as general and organic chemistry, biology, and physics are offered to help students meet specific professional entrance needs.

## **Graduate Programs**

### **Master of Science Degree – Advanced Clinical Practice**

The purpose of the Master of Science Degree in Advanced Clinical Practice (MSACP) Program is to allow first professional health care providers to: enhance, broaden and refine their diagnostic skills in a wide variety of primary care conditions; understand and manage a greater array of clinical conditions utilizing a variety of advanced therapeutic skills in scientific writing for potential publication in peer-reviewed journals; pursue life-long learning to better serve patients and communities and engage in:

- professional leadership
- collective efforts to expand and protect scope of practice
- educational appointments, and
- PhD level programs.

### **Master of Science Degree – Diagnostic Imaging**

The purpose of the Master of Science Degree in Advanced Diagnostic Imaging (MSDI) is to allow first professional health care providers to become proficient in the technical and diagnostic components of imaging.

## Seal, Logo, Motto, and Colors of National University of Health Sciences

*by President Emeritus James F. Winterstein, DC*

The seal of the National School of Chiropractic remained constant from the founding of the College in 1906 until 1920. Most prominently displayed was an American Bald Eagle facing to the left with wings spread, perched upon a sagittal section of the human vertebral column. These were superimposed upon a replica of the dome of the Capitol Building in Washington, D.C., suggesting an institutional objective to serve the entire nation; thus, the adjective “National” as part of the name. Under the eagle, were the words “Founded 1906.” The word “chiropractic” was superimposed across the ventral surface of the eagle’s wings and breast. While the College changed its geographic objective from that of serving the nation to that of serving the world, it did not alter its name.



In 1920, the name of the institution was changed from the National School of Chiropractic to The National College of Chiropractic. This change was reflected on the seal from that time until September 2000. Interestingly, although the official name of the institution was The National College of Chiropractic, the seal has never included the definite article “The.”

In 1963, the College relocated from Chicago to Lombard, Illinois, and again the seal was altered to include the words “Lombard, Illinois” at the lower center.



In 1987, the College undertook a study of the need for a College logo and concluded on the use of the lower case “ncc” with a particular artistic reverse slant. This logo was used in conjunction with the seal on letterheads and related materials.

In 1996, following more discussion and a broad-based request for opinions, the Board of Trustees, upon recommendation of the president, determined that the spine should be removed from the seal based upon the philosophic mandate that the mission of The National College of Chiropractic reaches far beyond the anatomical borders of the spinal column as might be suggested by the original seal. While spinal adjusting and concern for spinal integrity and especially the integrity of the nervous system remain at the center of chiropractic diagnostic and therapeutic efforts, this institution has always emphasized and continues to emphasize the integrative nature of the human mind, body and spirit, thus educating its graduates as holistic physicians who are not anatomically limited.



At that time, the bald eagle was changed from a perched position to a flying eagle to signify leadership and progress. In the eagle’s beak is a ribbon on which is inscribed the word “chiropractic.” The founding date was moved to the top center of the seal and the new logo “ncc” was incorporated beneath the Capitol steps.

Surrounding the center circle were three clearly defined rings that were in turn surrounded by a circular space that contained the words “National College of Chiropractic” around the top and the words “Esse Quam Videri” around the bottom. The outer margin of the seal consisted of an undulating ring.

In September 2000, following extensive planning and preparation, The National College of Chiropractic became National University of Health Sciences. Three Colleges were established as components of the University. These Colleges are the College of Professional Studies, Lincoln College of Postgraduate and Continuing Education, and the College of Allied Health Sciences and Distance Education.

As a result of these changes, the seal was changed to reflect the new name, with the words “National University of Health Sciences” replacing the former “National College of Chiropractic.” The small “ncc” was removed from the lower portion of the seal, but the word “chiropractic” remained on the ribbon in the mouth of the flying eagle as a tribute to the origins of this fine institution. A new rectangular logo also was created that incorporated the initials “NU” in a box to the left, a large “National” to the right with the smaller “University of Health Sciences” underneath.

After an extensive branding campaign in 2011, the University created a new brand message, a new tagline and a newly redesigned website, that emphasize the University’s key strengths of history, education, career, and philosophy. The new tag line – “Defining the Future of Integrated Health Care” – addresses both NUHS’ integrative program delivery and the University’s desire to create leaders in the increasingly integrated field of health care.

The revised logo, while similar to the old, now emphasizes “National University,” underscoring the University as a multi-purpose institution with a variety of program offerings.



The motto of the University is *Esse Quam Videri* that is literally translated, “to be rather than to seem to be.” This has been the motto of the institution since its founding in 1906.

The official University colors are maroon and goldenrod.



## **General Information**

### **History**

The University was founded by John Fitz Alan Howard, DC, in 1906 in Davenport, Iowa, as the National School of Chiropractic. It was moved to Chicago in 1908 for the purpose of providing a more scientifically rigorous academic culture in which to expand and develop the institution. The first home for the College in Chicago was at 1732 W. Congress St., across from the Presbyterian Hospital where it was chartered and incorporated under the laws of the state of Illinois.

In 1920, the student enrollment had increased to such an extent that larger quarters were required. A five-story stone and brick building was purchased at 20 N. Ashland Blvd. The name of the institution was then legally changed to The National College of Chiropractic. The Chicago General Health Service clinic was established in 1927 in connection with the College.

In 1942, National became a not-for-profit educational and research institution in accord with the corporate laws of Illinois and the requirements of the United States Department of the Treasury governing tax-exempt institutions. From 1936 to 1965, the professional training program at National College was four and one-half academic years. In 1965, the program was expanded to five academic years. In 1968, the two-year pre-professional requirement for admission became effective, a three-year pre-professional requirement was implemented in 1997, and a pre-professional baccalaureate requirement was instituted in 1999. Additional qualitative requirements for admission were adopted from time to time.

The Office of the Superintendent of Public Instruction of the State of Illinois granted official status to National as a degree-granting institution in 1966 for both the bachelor of science in human biology and the doctor of chiropractic degrees. Also in 1966, National was fully accredited by the Commission on Accreditation of the Council on Chiropractic Education of the American Chiropractic Association. The Doctor of Chiropractic Degree Program was approved by registration with the State Education Department of the State of New York in 1972. In 1974, the College was recognized as a Candidate for Accreditation by the North Central Association of Colleges and Secondary Schools and was accredited by North Central in 1981.

National has long been a leader in chiropractic education and has been at the forefront in: (1) introducing laboratory procedures into the teaching of the basic sciences; (2) originating the clinical approach to diagnosis; (3) incorporating broad scope therapeutic measures into chiropractic education and practice; (4) developing and researching various aspects of chiropractic practice through application of the scientific method; (5) initiating increased standards for pre-professional education; (6) researching and teaching acupuncture/meridian therapy to its professional students; (7) promoting the value of and various uses for soft tissue therapy; (8) teaching botanical medicine to its professional students; (9) initiating and using problem-based learning as a basis for its curriculum; and (10) pioneering efforts in seeking accreditation and/or approvals of the institution and its various programs by state, regional and federal accrediting bodies or agencies.

In 1963, The National College of Chiropractic moved to Lombard, Illinois, where on 20 acres, it developed facilities for the exclusive use of chiropractic educators. The campus has expanded to 35 acres, which includes five academic structures and four dormitories. Clinical facilities are also located in St. Petersburg, Florida.

Since 1978, National has published the only refereed, internationally and MEDLINE indexed, chiropractic scientific journal, *Journal of Manipulative and Physiological Therapeutics*. It also publishes the *Journal of Chiropractic Medicine*, and the *Journal of Chiropractic Humanities*, both peer-reviewed indexed journals.

National University was also the first institution with a chiropractic program to develop and use a specialized training and assessment center and the first to install and use an MRI for patient and research purposes.

The chiropractic college started evolving into a university concept between 1993 and September 2000, when the institution was officially changed from a college to a university and was renamed National University of Health Sciences. The Massage Therapy Certification Program was introduced in 1999 as part of the University plan to expand its program offerings. In 2006, National was accredited by the Higher Learning Commission to offer the Doctor of Naturopathic Medicine Degree Program, the Master of Science Degree Program in Acupuncture, the Master of Science Degree Program in Oriental Medicine, the Master of Science in Diagnostic Imaging, and the Master of Science in Advanced Clinical Practice. The first students entered the new programs in Fall 2006.

In June 2008, National University entered into a partnership with the University Partnership Center of St. Petersburg (Florida) College (SPC) to utilize SPC classroom space and support services to begin offering the Doctor of Chiropractic Degree Program in St. Petersburg, Florida, in Fall 2009.

National University of Health Sciences operates teaching clinics and various other clinical setting opportunities for its interns at: the National University Whole Health Center in Lombard, Illinois; the Caruth Health Center at St. Petersburg College and the Whole Health Center – Pinellas Park Florida; Scott Air Force Base, Belleville, Illinois; Bay Pines VA Medical Center, St. Petersburg, Florida; Indianapolis VA Medical Center, Indianapolis, Indiana, Illiana Veteran's Administration Health Care System, Danville, Illinois, Fargo VA Health Care System, Fargo, North Dakota, John Dingell VA, Detroit, Michigan, and Medical College of Wisconsin, Milwaukee, Wisconsin. Select interns participate in learning rotations at a Veteran's Administration Center in Danville, Illinois, and Ancillary Clinical Experiences.

## **Nature and Institutional Purposes**

### **General**

It is the vision and purpose of National University of Health Sciences that the various members of complementary and alternative medicine shall study together, work together, and develop a strong sense of collegiality and integrated function. To carry out this vision, it was decided in 1993, as part of the institution's long-range plan that it would begin to move toward expansion of its educational offerings. As part of this plan, the concept of a university was born and became a reality on September 1, 2000.

The University contains three Colleges, which administer their own programs:

- College of Professional Studies;
- College of Allied Health Sciences and Distance Education;
- Lincoln College of Postgraduate and Continuing Education.

### **Specific**

1. National University of Health Sciences provides academic programs that help students acquire and develop the knowledge, skills, attitudes, and values that are necessary to be competent and ethical practitioners of the complementary and alternative medical healing arts.
2. The University subscribes to the Standards and Criteria of the Higher Learning Commission, the Council on Chiropractic Education, and other specialized, programmatic accrediting agencies, for the purpose of receiving accreditation by these agencies and to ensure a high quality of education at the University.
3. The University seeks to employ faculty who support the mission of the University, have diverse academic and professional experiences, are dedicated to teaching and scholarship, are sensitive to the needs of students, and are committed to professional development.

4. The University provides well-designed and maintained facilities, adequate fiscal resources, faculty development, and competent instruction, and promotes sound scholarship in an institutional culture of civility and ethical behavior. The University strives to provide a safe and effective educational and working environment that fosters active student learning, collegiality, collaboration, and innovation.
5. Pertinent clinical experiences and related activities are designed to prepare students to participate as health care providers in the civic, social, cultural, ethical, and political aspects of community life, and to assume leadership positions, when appropriate.
6. The University promotes the value of inquiry and encourages the advancement of knowledge through active research and the involvement of faculty and students in varying forms of scholarship.
7. The University seeks to provide service to, and develop meaningful relationships with, the community, the health professions, graduates of the University, and patients of the University clinics.
8. The University seeks to provide a collegial environment in which students can learn a specific health care discipline, develop a better understanding of other complementary healing arts and sciences, and become better prepared for interaction and practice in an integrated health care environment.

National University of Health Sciences does not discriminate on the basis of race, color, religion, sex, gender, sexual orientation including gender identity, age, national origin, citizenship status, genetic information, marital status, parental status, disability, status as a veteran, or any other status protected by state and/or federal law in admission, access to treatment, or employment in its programs and activities that receive or benefit from federal financial assistance, in accordance with Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, or the Age Discrimination Act of 1975, and the Americans With Disabilities Act of 1990.

National University of Health Sciences is currently approved as a degree-granting institution for the doctor of chiropractic, doctor of naturopathic medicine and degrees, the master of science degrees in acupuncture and oriental medicine, the master of science in advanced clinical practice, master of science in diagnostic imaging and the baccalaureate of biomedical sciences under the Illinois statutes regulating degree-granting institutions.

## **Governance**

Control of National University of Health Sciences is vested in a 9-12 member Board of Trustees. The bylaws of the University provide that membership of the board shall include no fewer than three Illinois residents and no fewer than two public members who are not chiropractic physicians.

The Board of Trustees elects a president of the corporation who also holds the office of President of the University. The authority of the University is vested in the President, who is the chief executive officer. In such instances as the President deems proper, and subject to the President's reserved powers, the President may vest authority in the Vice President for Academic Services, Vice President for Administrative Services, Vice President for Business Services, the deans, assistant deans, directors, department chairs, the faculty, and the University Council, Faculty Senate, and various committees.

Within the NUHS learning community, the President draws upon the diverse academic and professional experiences of the faculty to promote a sense of shared governance using a policy-based "consultative decision-making" process. This model revolves around information sharing and discussion rather than joint decision-making. The American Association of University Professors (AAUP) describes this model in the association's Statement on Government of Colleges and Universities, wherein it concludes "the faculty has primary responsibility for such fundamental areas as curriculum, subject matter and methods of instruction, research, faculty status, and those aspects of student life that relate to the educational process, but where authority remains with the senior administrator and the Board of Trustees."



## University Financial Information

The public may obtain a copy of information dealing with the financial condition of the University by contacting the Vice President for Business Services. The document will be mailed to an address provided by the requester

## Accreditation

The University, National University of Health Sciences, is accredited by the Higher Learning Commission (HLC) to offer the following degrees/certificates: Doctor of Chiropractic, Doctor of Naturopathic Medicine, Master of Science in Acupuncture, Master of Science in Oriental Medicine, Master of Science in Advanced Clinical Practice, Master of Science in Diagnostic Imaging, Bachelor of Biomedical Science, Associate of Applied Science in Massage Therapy, and Certificate in Massage Therapy. HLC may be contacted at 230 S. LaSalle St., Suite 7-500, Chicago, IL 60604-1413; 800-621-7440, 312-263-0456.

The Doctor of Chiropractic Program is accredited at both the Illinois and Florida sites by the Council on Chiropractic Education (CCE), 8049 North 85th Way, Scottsdale, AZ, 85258-4321; Phone, 480-443-8877; Website, [www.cce-usa.org](http://www.cce-usa.org). Complaints regarding possible non-compliance with the standards of this body should be addressed to CCE at the contact information above.

Additionally, the Doctor of Chiropractic Program at the Florida site is licensed by the Commission for Independent Education (CIE) - Florida Department of Education, 325 W. Gaines St., Suite 1414, Tallahassee, FL 32399-0400; 888-224-6684.

The Doctor of Naturopathic Medicine Program is accredited by the Council on Naturopathic Medical Education (CNME). For information, contact: CNME, PO Box 178, Great Barrington, MA 01230; 413-528-8877.

The Master of Science Degree in Acupuncture and the Master of Science Degree in Oriental Medicine are accredited under the Master's Degree standards by the Accreditation Commission for Acupuncture and Herbal Medicine (ACAHM), located at 8941 Aztec Drive, Eden Prairie, Minnesota, 55347; phone, 952-212-2434; fax, 952-657-7068. NUHS graduates are eligible to sit for national board exams administered by the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM). Passing the appropriate board exams is a condition for obtaining state licensure in most states.

National University of Health Sciences plans to offer a new Doctor of Acupuncture (DAc) program. The graduate degree program is designed to accommodate students from across the United States and beyond to prepare its graduates for leadership in the field of acupuncture and integrative medicine.

NUHS has been approved to offer the DAc to students. It is the normal first step in the accreditation process. The program must be active with students before it can be reviewed for accreditation. Therefore, the following ACAHM statement is shared to be transparent with all students entering the new DAc program.

The following programs offered by National University of Health Sciences are accredited by the Accreditation Commission for Acupuncture and Herbal Medicine (ACAHM):

- (1) Master of Acupuncture [currently named Master of Science in Acupuncture]
- (2) Master of Acupuncture with a Chinese herbal medicine specialization [currently named Master of Science in Oriental Medicine]

Accreditation status and notes may be viewed on the ACAHM Directory. ACAHM is recognized by the United States Department of Education as the specialized accreditation agency for institutions/programs preparing acupuncture and Oriental medicine practitioners. ACAHM does not accredit any programs at the undergraduate/bachelor level. ACAHM is located at 8941 Aztec Drive, Eden Prairie, Minnesota 55347; phone 952/212-2434; [www.ACAHM.org](http://www.ACAHM.org)

The entry-level Doctor of Acupuncture program offered by National University of Health Sciences is approved to begin enrolling students but is not accredited or pre-accredited by ACAHM. This program is eligible for ACAHM accreditation, and NUHS is currently in the process of seeking ACAHM accreditation for the program. However, NUHS can provide no assurance that pre-accreditation or accreditation will be granted by ACAHM. Graduates of an unaccredited program are not considered to have graduated from an ACAHM-accredited or pre-accredited program and may not rely on ACAHM accreditation or pre-accreditation for professional licensure or other purposes.

Graduates of the Doctor of Acupuncture program can pursue the greatest level of training in the profession by earning a Doctor of Acupuncture degree. Students who participate in our DAc program graduate with a thorough knowledge of both traditional and contemporary applications of acupuncture as well as Chinese medical theory. Our program's hallmarks include rigorous academic training and early clinical exposure. The final year of the curriculum is taught exclusively online, asynchronously.

There are numerous advantages to becoming a doctor of acupuncture, but we've selected the top four:

- 1 - You will acquire degree parity with current acupuncture doctors and other medical specialists (DC, ND, DPT, OT.D, etc.).
- 2 - In the future, in order to teach in Doctor of Acupuncture programs and other doctorate programs, one will need to possess a doctoral level degree.
- 3 - Students with a Doctor of Acupuncture degree have an advantage over those with a Master's degree in terms of the job market.
- 4 - Become a published author and specialist in research. Research Focused courses are required of DAc students. Graduates will be equipped to add to the body of knowledge in the area of acupuncture.

The Massage Therapy Program is accredited by the Commission on Massage Therapy Accreditation (COMTA), 900 Commonwealth Place, Suite 200-331, Virginia Beach, VA 23464; Phone – 202-888-6790; [www.comta.org](http://www.comta.org).

The University has been accredited by the Higher Learning Commission (HLC) to offer distance education courses and programs.

Please visit our website for further information regarding accreditation:  
[www.nuhs.edu/about-us/our-profile/accreditation/](http://www.nuhs.edu/about-us/our-profile/accreditation/)

## Approvals and Listings

- Department of Professional Regulation of the State of Illinois
- Florida Department of Education Commission for Independent Education
- Approval Agency for Veterans' Education, U.S. Code for veterans' benefits
- Illinois Student Assistance Commission
- All state board examiners in chiropractic
- All composite boards of medical examiners
- Canadian and various other foreign chiropractic boards of examiners
- U.S. Immigration and Naturalization Service for attendance by non-immigrant students
- U.S. Department of Education
- Academic Directory Listings
- The American Association of Collegiate Registrars and Admissions Officers
- American Library Association

- Directory of Illinois Schools
- The Federation of Illinois Independent Colleges and Universities
- HEP Higher Education Directory
- Illinois Association of Collegiate Registrars and Admissions Officers
- Medical Library Association
- National Association of College Admissions Counselors

## Academic Records

National University of Health Sciences has become the trustee and curator of the records for the following healing arts institutions through a variety of relationships.

- American College of Naprapathy – June 1925
- American College of Mechano-Therapy, which became The Eclectic College of Chiropractic, which became The Peerless College of Chiropractic – January 1926
- Progressive College of Chiropractic, the corporate forerunner of the Lindlahr College of Natural Therapeutics – 1926
- University of Natural Healing Arts (originally Carver's Colorado Chiropractic University – June 1965
- Carver Chiropractic Institute, New York – September 1968
- Chiropractic Institute of New York – September 1968
- Cosmopolitan School of Chiropractic of New York – September 1968
- Eastern Chiropractic Institute – September 1968
- New York School of Chiropractic – September 1968
- Standard Institute of Chiropractic, New York – September 1968
- Detroit College of Chiropractic – December 1969
- O'Neil Ross Chiropractic College – August 1970
- International Chiropractic College – September 1971
- Lincoln Chiropractic College – September 1971
- Universal Chiropractic College – September 1971
- Kansas State Chiropractic College, Inc. – 1974
- Central States College of Physiatrics – February 1975

## Alumni Association

The National University of Health Sciences Alumni Association is an organization within the University that sponsors, encourages, and maintains professional advancement of National University of Health Sciences. The association is dedicated to serving the University by providing a program that enhances communication and support by alumni for the University. The alumni association provides student scholarships, supports student activities, homecoming activities, class reunions, area meetings, and campus development. For information, call 630-889-6701.

## Locations and Facilities

National is located at 200 E. Roosevelt Road, Lombard, IL 60148-4583, a western suburb of Chicago. At this campus site, National University of Health Sciences has a modern plant equipped with up-to-date facilities for education in the basic sciences. The main building, Janse Memorial Hall, is a tri-level structure housing administrative and faculty offices, classrooms, laboratories, campus store, communications, registrar, alumni services, student services, and financial aid. Housing facilities for students are available on campus: Isaac P. Tieszen Hall (1963); W.H. and Evelyn Buchholz Hall (1969); Otto J. Turek Hall (1971); and Lincoln Hall (1973). The Earl G. Liss Auditorium and George Morris Ogden Student Center were completed in Fall 1977. A 56,000-square-foot patient care and research center, the Howard-Schulze Building, became operational in early 1981. The building comprises the National University Whole Health Center for outpatient care, the Interdisciplinary Research Laboratory, the Biological Resources Laboratory, and the Training and Assessment Center. The Learning Resource Center opened in September 1993. Through the years, National has purchased adjacent land, enlarging the main campus to about 38 acres.

National became part of the University Partnership Center (UPC) of St. Petersburg College (SPC) in 2009. This innovative campus-sharing program allows NUHS to offer its Doctor of Chiropractic Program on-site at St. Petersburg College. The NUHS – Florida physical plant is composed of four SPC locations. Phase One of the academic program is housed at the Caruth Health Education campus, 7200 66th St. N., Pinellas Park, FL 33781-4005. This campus sits on a 15.8-acre site with the main building consisting of 194,123 square feet. NUHS has access to lecture and laboratory space including two radiology suites, a cadaver laboratory, biochemistry/physiology laboratory, and a technique laboratory that is housed in a newly refurbished 48'x50' re-locatable classroom. NUHS operates a clinic in the main building providing health services for the faculty, staff, and students of NUHS, all UPC partners, and SPC. The majority of the faculty is located on site. Phase Two of the academic program is housed at the Health Education Center Annex, 6698 68th Ave., N., Pinellas Park, FL 33781-5015. The Annex is located two blocks south of the Caruth Health Education campus on a 3.6-acre site and houses faculty offices, evaluation and management laboratory, technique laboratory, training and assessment center, lecture hall, radiology laboratory/computer lab, and an interactive classroom. The University Partnership Center on the Seminole campus, 9200 113th St. N., Seminole, FL 33772-2800, houses two administrative offices. No instruction is given at the Seminole campus. The NUHS Whole Health Center – Pinellas Park, Florida, opened in Fall 2012, provides a new clinical internship option for students in the university's doctor of chiropractic program. NUHS students also have access to all facilities on the SPC campuses including the six libraries in the St. Petersburg College library system, two of which are located at the Caruth Health Education and Seminole campuses respectively.

## **University Clinics**

At the conclusion of formal, didactic training, National's professional studies students (acupuncture and Oriental Medicine, chiropractic and naturopathic) are required to serve an internship, which is a practical application of concepts and methods gained by the care and handling of patients. Following their didactic training, students (chiropractic) may intern at an NUHS Whole Health Center (Lombard in Illinois/Caruth Health Education Center and Pinellas Park in Florida). Naturopathic students train during their internship at an NUHS Whole Health Center (Lombard) and the Center for Integral Health. In addition to the required internship, a residency in diagnostic imaging or research is available to those interested in a specific avenue of chiropractic practice. NUHS maintains a Preceptorship Program through which students (chiropractic and naturopathic) in the 9th and/or 10th trimesters of study may, if approved, participate in off-campus preceptorships or clerkships in specifically chosen health care clinics and/or hospitals.

Acupuncture and Oriental Medicine student internships begin in Trimester 4 on campus at the NUHS Whole Health Center – Lombard. AOM interns may, if approved, participate in off-campus preceptorships at approved locations during the last trimester of their clinical internships.

### **NUHS Whole Health Center – Lombard**

The National University of Health Sciences Whole Health Center – Lombard is situated on the east side of campus and provides a full range of patient and client services to Chicago's west suburban population. The 48,240 square-foot center has over 40 treatment and examination rooms.

### **NUHS Whole Health Center – Caruth Health Education Center**

The National University of Health Sciences Whole Health Center – Caruth Health Education Center opened in Fall 2009 on the St. Petersburg College (SPC) campus in Pinellas Park, Florida, to offer chiropractic care and acupuncture health care services to SPC students, faculty and staff and their families. This full-service clinic is staffed by a National faculty clinician and provides internship experience for doctor of chiropractic students at the Florida site and select doctor of chiropractic students from the Illinois campus who are approved to complete their internship credits in Florida.

## **NUHS Whole Health Center – Pinellas Park**

The National University of Health Sciences Whole Health Center–Pinellas Park, Florida, opened its doors in September 2012. The \$1.9 million facility offers comprehensive chiropractic care, acupuncture, and integrative medical services to the Tampa Bay community. It also provides a dynamic new clinical internship option for students in the university's Doctor of Chiropractic Medicine program. The 7,000-square-foot clinic contains 10 treatment rooms, a physical rehabilitation room, and a classroom.

## **Laboratories**

### **Teaching Laboratories**

Laboratory instruction serves as an important adjunct to the student's learning environment. The facilities for this include the single purpose as well as multipurpose laboratories listed below.

### **Biochemistry, Neuroanatomy and Physiology Laboratory**

The Standard Process Biochemistry, Neuroanatomy, and Physiology Laboratory on the Illinois campus and the biochemistry and neuroanatomy laboratory at the Florida site contain fume hoods, reagent tables and chemical resistant epoxy-topped tables that are equipped with drawers and cabinets for the storage of apparatus. The tables and fume hoods are provided with hot and cold water and electrical outlets. The drawers and cabinets contain standard equipment used in teaching biochemistry and are assigned to individual students. The laboratory also serves the neuroanatomy course where gross dissection and observation of the brain and brainstem are conducted.

### **Chiropractic Laboratories**

There are six laboratories completely equipped for teaching chiropractic technique located at the Illinois campus. A dedicated fully equipped technique laboratory is located at the Florida site. Each laboratory is designed for teaching groups of approximately 25 students and is equipped with all necessary hygienic facilities.

### **Diagnosis, Physiological Therapeutics and Emergency Care Laboratories**

Housed at both campuses are facilities for learning and practicing diagnostic skills. A separate laboratory is equipped with tables designed for microscopy and use with clinical instruments utilized in the processing and analysis of blood and urine specimens in the clinical laboratory diagnosis course. The physiological therapeutics laboratory provides space for teaching the utilization of various modalities. In addition, equipment and models for CPR, triage, bandaging, etc. are available for the needs of the emergency care and first aid procedures course. Dedicated laboratory space at the Florida site for the practicing diagnostic and therapeutic interventions is located in the Health Education Center Annex building.

### **Gross Anatomy Laboratory**

The National University of Health Sciences' anatomy lab at the Illinois site contains 33 clamshell tables each with its own LED lighting unit, video cameras that broadcast to thirteen 42" monitors spaced around the room, and SMART Board technology. The lab also incorporates energy-efficient heating, ventilation, and air conditioning systems designed to provide a consistent flow of fresh air, limit temperature loss, and save energy. Hygienic features consist of stainless steel sinks operated by foot-pedal controls, and hospital-grade sheet vinyl that is heat-welded to the floor to create an impermeable membrane throughout the lab.

The gross anatomy laboratory at the Florida site contains a dissecting area with downdraft tables capable of accommodating nine cadavers. A high-definition camera is located within the dissecting area allowing for group viewing during lecture periods.

### **Histology Laboratory**

Within the Illinois and Florida histology labs, students are taught using interactive computer laboratory software with images and audiovisual aids. In addition, the Illinois lab has microscopes and associated slides.

### **Hydrotherapy Laboratory**

A fully equipped hydrotherapy teaching laboratory on the Illinois campus gives naturopathic medicine students the opportunity to learn immersion, steam, constitutional, and other hydrotherapy techniques.

### **Physiology Laboratory**

The Florida site laboratory contains student laboratory tables provided with drawers, trays, water, gas, forced air, and electrical outlets. Standard laboratory equipment and instruments are supplied for each student station. Computer stations provide advanced electronic technology for human subject data collection and to complement the wet labs.

### **Radiological Learning Laboratory**

This laboratory in Room 117A in Janse Hall on the Illinois campus is used for individual and group study of an extensive teaching file. This laboratory is available for student use as well as for use by those doctors from the field who wish to improve their diagnostic skills. A similar lab at the Florida site is located in the Health Education Center Annex building.

### **Radiological Technology Laboratory**

The radiological technology laboratory, located in the Whole Health Center – Lombard, houses two energized and one non-energized radiographic units. Non-energized units are available for student use after normal class hours. These units are used to demonstrate the practical aspects of radiography. Students learn to position classmates, calculate exposure factors, and simulate exposures in order to develop competency in radiographic positioning. Radiation safety is stressed. Radiological technology laboratory space at the Florida site is located within the Caruth Health Education Center.

### **Training and Assessment Center**

The Training and Assessment Center in Illinois is a multi-functional center that provides the resources for formal interpersonal skill training, clinical skill development, small group learning, and measurement of clinical competence. This 10-room facility is housed on the second floor of the Howard-Schulze Building. It functions independently of, but in concert with, the clinic and academic divisions of the University and provides an additional means to integrate the academic program with the clinical program. The University's comprehensive Standardized Patient Program is based here. A digital video recording studio is also housed in the center for clinical performance assessment and for faculty teaching productions. A similar lab at the Florida site is located within a diagnostic lab center at the Health Education Center Annex building.

## **Research Laboratories**

### **Biological Resources Laboratory**

The biological resources laboratory is located at the Illinois campus on the lower level of Howard-Schulze Building. The laboratory is equipped for dissection of cadaveric sections, necropsy of small rodents, auxiliary isolation, and testing of subcellular components, and for whole animal experiments.

### **Interdisciplinary Research Laboratory**

The interdisciplinary research laboratory is located at the Illinois campus on the lower level of Howard-Schulze Building. This is a traditional wet laboratory equipped for cellular, biomechanical, physiological, and molecular experiments. In addition, the laboratory is equipped to conduct spinal morphometry.

## **WEBCO Laboratory**

The Wellness, Endurance, Biomechanics, and Clinical Outcomes Laboratory (WEBCO) is located at the Illinois campus on the lower level of the Howard-Schulze Building. Many NUHS studies and clinical trials include a variety of outcomes that are collected in this lab. Examples of past outcome measures include treadmill tests, dynamic motion, strength analysis, Optical (infrared) motion analysis, load analysis of chiropractic adjustments, and motion simulation. The following equipment is currently available in this lab: treadmill, portable accelerometry cart with equipment to measure vibration data (e.g. joint crepitus and cavitation, and a mobile computer work station for data gathering.

## **Specialized Classrooms**

### **Computer Classroom,**

National University Room 117A in Janse Hall on the Illinois campus is a computer classroom to be utilized for faculty and staff development, computer software training and computer-oriented classes and labs. The room includes 15 dual-boot iMac computers, as well as state-of-the-art SMART board technology. The SMART board is especially effective for radiology classes in which instructors can highlight pertinent areas of interest directly onto digital projections of X-rays, record each step of a lesson activity, and then save the lesson as a digital file that can be distributed to students for review at a later time.

## **James F. Winterstein Library**

The James F. Winterstein Library (the Library) works to promote health information literacy and offers easy access to biomedical information in print and electronic formats. Its website portrays a collection of approximately 14,000 books, a wide variety of print journal subscriptions. It offers an array of links to scientific and biomedical electronic databases, websites and growing numbers of journals, many of which are full text. The library's collections reflect the University's emphasis on chiropractic medicine, naturopathic medicine, acupuncture and oriental medicine, nutrition, massage therapy, orthopedics, neurology, radiology, sports medicine, and alternative health care.

Previously located in the Library, a new, updated Anatomage Table is planned for the gross anatomy laboratory at the Illinois site. The Anatomage Table, a life-size 3-D interactive unit, is one of today's most technologically advanced digital visualization systems for anatomy education. It will be available for individual, clinical, and group study.

The Library's faculty and professional staff assist students by helping them to locate and use information effectively. They also serve health care practitioners requesting information from the specialized collections.

A computer center, located within the Library, is equipped with 22 computers – 20 PCs and 2 iMacs with specialized programs. In addition to high-speed Internet access, there is also a wireless network for personal laptops. Natural and indirect lighting enhance the function of the spacious work areas.

The James F. Winterstein Library was built in 1993. It houses an inviting interior with comfortable furnishings designed for both relaxed conversation and serious group and individual study. In May of 2022, the (former) Learning Resource Center (LRC) was rededicated to past university president James Winterstein.

The Library is a member of the Medical Library Association (MLA), Chiropractic Library Collaboration (CLC), Reaching Across Illinois Library System (RAILS), the National Network of Libraries of Medicine, the Consortium of Academic and Research Libraries of Illinois, and the Fox Valley Health Sciences Library Consortium.

A full-service Health Sciences Library is located at the Caruth Health Center at the NUHS Florida site. NUHS-Florida students also have complete access to the electronic reserves of the James F. Winterstein Library located on the Illinois campus.

# **University Academic Policies, Regulations & Procedures**

## **The University Year**

The University's academic year begins on September 1 and ends on August 31. Within these time parameters, the University operates on a trimester basis. The fall trimester begins approximately September 1; the spring trimester begins approximately January 1; the summer trimester begins approximately May 1. New classes for all programs are admitted at the beginning of each trimester.

## **Changes**

The University reserves the right to revise the requirements regarding admission and/or re-admission, to change the arrangement of courses, the requirements for graduation, degrees, tuition and fees, and other regulations affecting the student body. Such changes may affect both new and continuing students and will be effective at a time or times determined by the needs of the University or the students or both. The National University of Health Sciences Bulletin appears on the university website in a digital format ([www.nuhs.edu/academics/bulletin/](http://www.nuhs.edu/academics/bulletin/)). Changes will be considered effective and become an integral part of the bulletin after notice of the change has been posted on the Bulletin website page under "Errata." Changes instituted during the current fiscal year will not appear in the official Bulletin document until the following fiscal year. Each student must assume personal responsibility for becoming informed of the content of all Bulletin changes published on the university website.

## **General**

Each person whose registration has been completed is considered a student of National University of Health Sciences during the trimester for which the registration was completed, unless that connection becomes officially severed by approved withdrawal, suspension, or expulsion. No student registered at National University of Health Sciences will at the same time be registered in any other school, college, or other educational institution without the written consent of the appropriate dean.

The continuance of each student upon the rolls of the University and the conferring of any degrees are strictly subject to the authority of the University, which is free to cancel registration at any time on grounds that are deemed advisable.

## **Course Numbering**

The institution follows an independent course numbering system to assign courses in accordance with program requirements. The system is designed to identify courses and differentiate the level of study. Courses are numbered sequentially and assigned a letter prefix depicting the program title.

## **Grading System**

The grading system at National University of Health Sciences is designed to (1) provide academic incentive, (2) reward achievement of cognitive levels of learning and clinical skills competence, (3) encourage professionalism, and (4) assist in identifying students with academic problems.

Since different courses lend themselves to different evaluation procedures, individual course managers or their designee have the responsibility for explaining their method of evaluating academic achievement in each course or laboratory. At the end of each trimester, course managers provide the Registrar with a grade report indicating the level of the student's achievement in the course or laboratory. This final trimester grade is determined from the student's performance in a combination of the comprehensive final examination, midterms, laboratory examinations, quizzes, peer and self-evaluations, assignments, classroom and laboratory work, participation in and contribution to class and group discussions, attendance, decorum, and professionalism.



## Regular Grades

**A** The grade of A indicates achievement of distinction. It is earned by those students who demonstrate exceptional interest in and mastery of the subject matter, who display initiative and creativity as well as superior insight in analyzing and synthesizing subject matter, and who manifest exceptional ability in integrating and applying this knowledge.

**B** The grade of B connotes evidence of intelligent fulfillment of course requirements. It is earned by those students who demonstrate marked ability to communicate and apply more than merely the basic elements of the course, whose initiative reveals unusual ability to generalize about course material, and who display a marked degree of independence.

**C** The grade of C indicates satisfactory grasp of course content. It is earned by those students who can apply and express basic concepts intelligibly, and who have shown no measurable deficiency in meeting requirements of the coursework.

**D** The grade of D indicates only passable achievement in coursework and indicates areas in basic course content where the student is deficient. It is earned by those students who have fulfilled no more than the minimum requirements of the course, thus making a failing grade unwarranted.

**F** The grade of F indicates deficiency in elements of the course to an extent that completely impairs the student's understanding of the course content.

In addition to the regular grades of A, B, C, D and F, the following irregular grades may be used.

## Irregular Grades

**AU** The irregular grade of AU indicates that the auditing of a course or laboratory has been completed. No credits or clock hours are granted.

**I** The grade of I indicates satisfactory work, some part of which, however, is incomplete as of the date of the final examination. The student who does not complete the work may not take the final examination. The student may also be granted the grade of I if the make-up or a repeat final exam is missed. The student who does not complete the work or misses the make-up or repeat final exam due to verified death of an immediate family member, grave personal illness or injury, personal catastrophe, or non-reschedulable military service may be granted the grade of I by the course manager or laboratory faculty after consulting with the appropriate dean. The grade of I is not commonly issued for a single course or lab. This temporary grade of I must be removed from the student's record by completion of the incomplete portion(s) of the work prior to the make-up or repeat final exam of the following trimester to be allowed to sit for the make-up administration of the final exam. The student who misses the make-up or repeat exam fails the course (subject to the grade of I being continued by the course manager after consulting with the appropriate dean). Enrollment in a new course will not be continued if the student has not converted this irregular grade to a regular passing grade by the first calendar day of the second calendar week of the next trimester of attendance. If the student does not return in the following trimester, the removal of the I must be accomplished within the maximum of one calendar year. Otherwise, the I becomes an F automatically.

**T/K** The irregular grade of T or K signifies that the student has received National University credit for a course or laboratory by having presented evidence to the satisfaction of the appropriate dean of having satisfactorily completed a course equivalent in content and quality at another institution.

**S/U** Some courses at National University of Health Sciences have as their objective the development of a student's competency that does not lend itself to the refinements of quantification identified with the regular grades of A, B, C, D, and F. Thus, a student is judged by the instructor to be competent or incompetent. Competency is indicated by the award of the grade S. Incompetency is indicated by the grade U.

**W** The irregular grade of W signifies an authorized withdrawal from a course and will be counted in the attempted hours but is not calculated in the GPA.

**WX** The irregular grade of WX signifies an unauthorized withdrawal from a course by a student whose work is unsatisfactory and will be calculated into both the attempted hours and GPA.

### **Grade Point Average**

A student's level of achievement is evaluated through a grade point average (GPA). This is an average of the student's grades that gives proportionate weight to individual courses based on the credit hours (trimester credits) assigned to them. Course and laboratory credit values at National University range from .25 to 18 credit hours. The GPA is computed in the following manner:

1. A grade of A is valued at 4 grade points; B = 3; C = 2; D = 1; I = 0; and F = 0.
2. The number of grade points for the grade of each course is multiplied by the respective trimester course or laboratory credit hours to arrive at a number of quality points.
3. The quality points are calculated for each course. The quality points for each course are summed.
4. This sum is divided by the sum total of the trimester credit hours attempted. The resulting quotient is the GPA of the student for that trimester.

The cumulative grade point average (CGPA) indicates the level of achievement in all courses attempted as of the last trimester in which the student received grades.

The GPA is the basis for identifying those students to be placed on the Dean's List and the Honor Roll. The CGPA is a basis for identifying those students to be awarded degrees with distinction.

Courses that are graded on a satisfactory/unsatisfactory basis, although they have trimester credit value, are not included in the calculation of either the GPA or the CGPA. The GPA and CGPA calculation involving repeated courses uses the grade received last. The initial and repeat grades for a repeated course are not averaged.

### **Attendance (in Person)**

Students are permitted 10% absenteeism in each class after which they will be issued a grade of F for that course. Students are admonished to maintain a record of attendance for themselves, although the record of the faculty member will be the official record. These absences are to be used for emergencies, not to just be used and then plead for mercy when an emergency takes absences over the 10% limit. Faculty members will notify each student if the attendance record indicates that the student is in jeopardy. The instructor of record for said class, in consultation with the appropriate dean, may make excused absences on a case-by-case basis. Exceptions to the 10% rule cannot exceed the equivalent of 20% of course work in a given class during a trimester. Excused absences must be submitted prior to the day of the class, however, where extenuating circumstances prohibit prior notice, the request must be made without delay. The instructor of record may require that excused absence requests be made in writing, with documentation supporting the request.

### **Attendance (Online)**

Students are expected to attend all online course sessions through class participation. The method of participation (such as discussion board posts or submission of assignments) is defined by each faculty member, and these requirements can be found in each course syllabus. Online class posts are date- and time-stamped upon receipt on the university servers, which operate on Central Time. Each course syllabus will define due dates. Typically, the online course week starts on Sunday at midnight. For absence due to illness or personal emergency, the student is expected to contact the faculty as soon as possible. Emergency closing of either campus may revert to an online education format, and participation in online activities may be required for attendance in some classes.

## **Excused Absence**

An excused absence is official permission given by the instructor of record to the student to make up class work missed as a result of extenuating circumstances beyond the student's control. The student is to inform the faculty member of these circumstances in a timely manner.

Students who have a planned extenuating circumstance beyond their control, such as major organized religious holidays of the student's belief, are to inform the faculty member at the beginning of the trimester and just prior to the absence.

If the student does not complete the required make-up work assigned by the instructor, the excused absence will not give exception to the 10% rule of attendance.

Disputes regarding the student attendance record will be referred to the appropriate dean.

## **Tardiness**

Students are expected to be on time and prepared for class. A student will be marked as tardy (T) or left early (Y) if they are not in attendance at the start of the class or leave prior to the class ending up to a maximum of 15 minutes. A tardy (T) or left early (Y) designation does not count as an absence. Students who enter class after the 15-minute mark or leave prior to the regularly scheduled class time will be counted as absent, which does count towards the 10% rule. The instructor keeps the official class time. Students who have a legitimate excuse for being late greater than 15 minutes may appeal to the instructor for an excused absence.

Clinic Internship policy is contained in the Intern Manual.

## **Auditing**

Audit is a registration status allowing students to attend a course without receiving credit or clock hours. Audited courses do not count toward full-time status or satisfactory progress and do not qualify as a prerequisite. Students currently registered in courses for credit in a program at National University of Health Sciences may enroll to audit a course in any of the University's colleges, if space is available.

Students may select this option to gain more knowledge and understanding of content as well as greater insight into the practical aspects of the field. Auditors must adhere to the Student Code of Conduct and attend classes as specified by the attendance policy. Assignments and exams are not required. Auditors have the right to participate in class discussions.

Students must seek approval and register through the office of the appropriate dean after having met all requirements such as prerequisites. Thus, an audit will be documented on the student transcripts with a grade of AU (audit completed) or WA (attendance requirement not met). No credits or clock hours are granted. The registration status of the course (repeat or audit) cannot be changed after the add-drop date. The tuition and fees for auditing a course are the same as when taking it for credit. The tuition and fees do not apply if the student has successfully completed the exam or received advanced standing transfer credit for the course. A student may audit a course up to three times.

## **Dean's List and Honor Roll**

At the end of each trimester, recognition of the Dean's List of Students for Distinguished Academic Achievement is awarded to those full-time students who have achieved a GPA of at least 3.5 on a 4.0 scale for the trimester with no grade lower than a S/C. Recognition on the Honor Roll of Students for Exemplary Academic Achievement is awarded to those full-time students who have achieved a GPA of at least 3.0 (on a 4.0 scale) for the trimester with no grade lower than a C.

## Program Specific Academic Policies

Each college has separate academic policies and procedures that will be applied to their students as warranted. Students are responsible for individual program academic policies and procedures.

## Student Costs

### 2022-2023 Tuition Rates

Tuition rates are in effect for the fall, spring, and summer trimesters. New tuition rates are established each year beginning with the Fall Trimester; tuition and fees are subject to change annually. Refer to each program for tuition, course, lab, and other costs associated with that program. Postgraduate course and seminar fees are posted under each program. Refer to Admission fees within applicable individual programs.

### University Fees – Charged to all students in all programs as applicable.

Add/drop fee .....	\$25.00
Commencement ceremony fee .....	\$85.00
Emergency loan fee .....	\$30.00
Finance charges per month .....	1.5%
Payment plan per trimester.....	\$20.00
Late payment fee .....	\$15.00
Late registration fee .....	\$75.00
Replacement ID card fee .....	\$5.00
Returned check fee .....	\$25.00
Transcript fee.....	\$7.00
Parking fee per year (See Campus Parking section in Student Life) .....	\$12.00
Proof of Immunity Non-compliance fee.....	\$50.00

### Program Fees – Vary by program as listed below.

### College of Professional Studies – DC, ND, DAc-C, MSAc, MSOM,

Tuition: new, repeat, audit, elective (DC, ND, DAc-C) - per credit hour.....	\$583.00
Tuition: new, repeat, audit, elective (AC, OM) - per credit hour.....	\$524.00
Non-degree Student: new, repeat, elective (DC, ND) – per credit hour.....	\$583.00
Non-degree Student: new, repeat, elective (AC, OM) – per credit hour.....	\$524.00
Diagnostic Kit Fee (Tri 1 DC-IL, ND).....	\$1,150.00
Diagnostic Kit Fee (Tri 1 DC-FL).....	\$1,297.00
Diagnostic Kit Fee (Tri 1 AC, OM).....	\$590.00
Tuition deposit, not refundable.....	150.00
Laboratory fee for each course audited.....	\$125.00
Application fee, not refundable.....	\$55.00
Reservation fee, not refundable.....	\$75.00
Student activity fee per credit hour.....	\$1.50
Technology fee – per trimester.....	\$141.00
EM6304* / EC6313** (DC) laboratory fee.....	\$540.00
EM6304N* / EC6313N** (ND) laboratory fee.....	\$540.00
EC6303* / EC6311** (DC) laboratory fee.....	\$45.00
RA6409* / RA6424** (DC) laboratory fee.....	\$125.00
AN5102 (DC, ND) laboratory fee.....	\$125.00
AN5202 (DC, ND) laboratory fee.....	\$125.00

AN5303 (DC, ND) laboratory fee.....	\$125.00
FR6307* / FR6318** (DC, ND) laboratory fee.....	\$110.00
MM6220* / MM6122** (DC only) laboratory fee.....	\$220.00
Challenge exam fee.....	\$100.00
Exam retake fee.....	\$100.00
Malpractice insurance fee.....	\$114.00
Degree verification fee.....	\$7.00
Postgraduate transcript fee .....	\$40.00
Certificate fee (each).....	\$15.00
Application fee for readmission after one calendar year of non-attendance .....	\$25.00
Managed care verification fee .....	\$7.00
Postgraduate course and seminar fees are posted for each program.	

## **College of Allied Health Sciences and Distance Education**

### **Bachelor of Science Program including Prerequisite Program**

Tuition: new, repeat, elective (BS) - per credit hour.....	\$443.00
Non-degree Student: new, repeat, elective (BS) – per credit hour.....	\$443.00
Technology fee per trimester .....	\$79.00
Application fee, not refundable .....	\$55.00
Student activity fee per credit hour.....	\$1.50
CHEM116 lab fee.....	\$180.00
CHEM118 lab fee.....	\$180.00
CHEM206 lab fee.....	\$180.00
CHEM207 lab fee.....	\$180.00
PHYS115 lab fee.....	\$50.00
PHYS117 lab fee.....	\$50.00
Lab fee for audited course .....	\$115.00
Application fee for readmission (after one calendar year of non-attendance).....	\$25.00
Degree verification fee .....	\$7.00

### **Master of Science in Advanced Clinical Practice**

Tuition: new, repeat, elective - per credit hour.....	\$583.00
Tuition deposit, not refundable.....	\$150.00
Application fee, not refundable.....	\$55.00
Reservation fee, not refundable.....	\$75.00
Technology fee per trimester.....	\$56.00
Exam retake fee.....	\$100.00
Application fee for readmission (after one calendar year of non-attendance).....	\$25.00

## **University Payment Policy**

- All tuition and fees are due and payable as indicated on the fee schedule furnished each term. The student must make arrangements for payment of tuition and fees in full prior to the first day of class through one of the Payment Options below.
- Payment Options include: cash, personal check, money order, cashier's check, traveler's checks, Visa, Mastercard, Discover, American Express, Payment Plan, financial assistance through the Financial Aid Office, or Veterans Education benefits.
- Students wishing to use Veterans education benefits to cover tuition costs must provide the VA official at their campus location with a certificate of eligibility. Students who provide the certificate and are determined eligible for education benefits under Chapter 31, Chapter 33, Yellow Ribbon and Vocational

Rehabilitation will not be subject to late fees, fines or holds during the waiting period for their VA tuition payments to arrive.

They do have the right to borrow loan money if they choose.

- Payment Plan: Pay one-fourth of the tuition prior to the first day of class and one-fourth each of the next three months due on the first day of the month.
- Finance charges are assessed on past due student account balances at 1.5% per month. Students are responsible for payment of all tuition and fees. Failure to make timely payments will result in finance charges to their accounts. In the event of non-payment, students will be responsible for all collection costs.
- Breakage charges in courses where special equipment is used: Payment must be made for breakage or loss before grade in course can be issued.

Diploma, state boards credentials, official transcripts, etc. are not issued to students and former students unless all fees and any other obligations to the University are paid or met in full. Official transcripts will be released to a current or potential employer regardless if the student or former student owes a debt.

## Refund Policy

1. Refunds for tuition paid to the University may be made only in the case of formal voluntary approved withdrawal of the student for a course(s). Fees are not refundable. To be eligible for a refund, the student must fill out an official withdrawal form from the Registrar, obtain appropriate departmental signatures, and submit the completed withdrawal form to the Registrar. Refund eligibility is contingent on the official approved withdrawal being submitted in accordance within the time frames as stated below.

Prior to Week 1 .....	100% tuition refund
Week 1 .....	100% tuition refund
Week 2 .....	75% tuition refund
Week 3 .....	50% tuition refund
Week 4 .....	25% tuition refund
Week 5-15 ... ..	0% tuition refund

2. Refund eligibility for accelerated courses in the BS/Prerequisite Program is contingent on the official approved withdrawal being submitted in accordance within the time frames as stated below for each mini-semester.

Prior to Week 1 or 9 .....	100% tuition refund
Week 1 or Week 9 .....	100% tuition refund
Week 2 or Week 10 .....	50% tuition refund
Week 3 or Week 11 .....	0% tuition refund

3. Refunds resulting from dropping a course(s) will be returned to the borrower's Direct Loan or GradPLUS lender (unless tuition was paid from private, non-federal sources) to reduce educational debt, and not to the student. Adjustments to federal or state grant programs may be necessary depending on when the course is dropped. Refunds due to non-Title IV borrowers will be made within 30 days of the date that the institution determines that the student has withdrawn.
4. A 100% refund is granted for course(s) in which advanced standing is received prior to the end of the first eight weeks of the first trimester of attendance. Since all advanced standing credit is to be determined within the first trimester of attendance, no special refund consideration is available in subsequent trimesters of attendance.

5. Elective refund policy: Elective course payments are non-refundable unless the course is cancelled due to insufficient enrollment.
6. Complete withdrawal from the University may result in a pro-rated housing refund. See the Housing License Agreement for more information.
7. For students called to active military duty, tuition and fee charges will be fully refunded for courses not yet completed at the time the student is called to active duty. Any financial aid funds that a student is determined not eligible to retain after the Return of Title IV Fund calculation shall be the debt of the student.
8. All first time, first trimester College of Professional Studies students registered full time in first trimester courses (as listed in the current Bulletin) may receive a 100% tuition refund in weeks one through five for up to half of the enrolled credits as long as they remain on full time status (minimum of 10 credits). Student financial aid will be recalculated and refunds resulting from the drop(s) will be returned to the lender. The student MUST meet with the Chair of the Basic Sciences and acquire approval from both the Chair and the Dean of the College of Professional Studies. It is preferred, but not mandatory that students stay on a defined flex track within their program. If the student chooses to withdraw from the University or drop more than the 50% allowed while maintaining the required full-time enrollment status, they will adhere to the policy stated as number 1 above.

## **Return of Title IV Funds Policy/Withdrawal from NUHS**

The Higher Education Amendments of 1998 (HEA98) changed the method of returning Title IV federal financial aid when a student totally withdraws from the University. The policy governs all federal grant and loan programs (Pell Grant, SEOG, Direct Loans, Perkins loans and PLUS), but does not include the Federal Work Study program.

This regulation assumes that a student “earns” federal financial aid in proportion to the number of days in the term completed. The University must calculate, according to a specific formula, the portion of financial assistance that the student earned and is therefore entitled to retain, until the time that the student totally withdrew. If a student receives (or the University receives on the student’s behalf) more assistance than the student earns, the unearned funds must be returned. Students who have not completed the verification process are ineligible to receive any financial aid.

The portion of the federal grants and loans that the student is entitled to receive is calculated on a percentage basis. For example, if a student completes 30% of the trimester, the student earns 30% of the approved federal aid that was originally scheduled for the term. This means that 70% of the student’s scheduled or disbursed aid remains unearned and must be returned. However, a student who withdraws after the 60% point in a trimester is considered to have earned 100% of the aid awarded for that trimester, and funds will not be returned to any federal Title IV financial aid programs.

This federal policy does not affect the student’s charges. The University’s withdrawal policy will be used to determine the reduction, if any, in the student’s tuition and fee or room and board charges. The student is responsible for paying any outstanding charges to the University

The student’s official withdrawal date will be determined by the University as:

1. the date the student began the University’s withdrawal process (the date the student gave official notification of intent to withdraw);
2. the midpoint of the trimester if the student withdraws without notifying the University; or
3. the student’s last date of attendance at an academically-related activity as documented by the University.

If it is determined that a portion of the financial aid received on the student's behalf is unearned, the University shares with the student the responsibility of returning those funds. Any grant funds that the student is required to return to the federal programs are considered an overpayment. The student must either repay the amount in full or make satisfactory payment arrangements with the Department of Education to repay the amount. If the student fails to repay or make payment arrangements to repay an overpayment, the student will lose eligibility to receive future federal financial aid at any institution.

### **Financial Aid Post-Withdrawal Disbursement Policy**

The student may be entitled to a post-withdrawal disbursement of federal financial aid if the return of funds calculation indicates that the student earned more aid than the amount that was disbursed prior to withdrawal. Post-withdrawal disbursements will be credited first toward unpaid institutional charges. Any portion of a post-withdrawal disbursement that exceeds unpaid institutional charges will be offered as a disbursement to the student. Students must accept this disbursement within 14 days of the offer. If a response is not received, or if the offer is declined, these excess funds will be returned to the appropriate Title IV program.

NUHS will return its share of unearned Title IV grant funds no later than 45 days after determination of withdrawal and Title IV loan funds no later than 30 days after determination of the withdrawal date.

### **Financial Aid Unofficial Withdrawal Policy**

Unofficial withdrawal occurs when a student registers for a class and never attends, or a student stops attending courses without completing and submitting the withdrawal form. Confirmation of the last date of attendance in an academic activity will be obtained and for those receiving federal aid, NUHS will adjust aid in the same manner as an official withdrawal.

### **Financial Aid Repeated Coursework Policy**

Current Department of Education regulations impact students who repeat courses. Repeated courses may impact financial aid eligibility and Federal Title IV financial aid awards. In order for a repeated course to count toward the student's enrollment status for financial aid purposes, the student may only repeat a previously passed course once (a total of two attempts). If the student enrolls in a previously repeated course for a third time, this course will not count towards their enrollment for financial aid purposes. A student may receive aid when repeating a course for the first time.

- A student may receive aid when repeating a course that was previously failed or withdrawn from regardless of the number of times the course was attempted and failed. However, students should be aware that university policy regarding repeated coursework may limit their ability to retake courses.
- A student may receive aid to repeat a previously passed course one additional time. If a student fails the second attempt, no more financial aid will be given to repeat the course a third time. If the second attempt is a withdrawal, then it is allowed for a third attempt.
- Once a student has completed any course twice with a grade, they are no longer eligible to receive aid for that course. If a student retakes a course that is not aid-eligible, the credit hours will be excluded from the financial aid enrollment for that trimester. When counting credits to determine aid eligibility for that trimester, repeated classes will be excluded from the financial aid eligible credit count.
- Note: All repeated courses affect Financial Aid Satisfactory Academic Progress (SAP) calculations. Regardless of whether the student received financial aid or not, all repeated coursework must be counted as attempted credits in SAP calculations.



## Financial Aid

National University of Health Sciences maintains a Financial Aid Office to assist students in the financing of their education. Students must plan their financing very carefully. The federal role in paying for higher education exists only when there is a gap between educational costs and the ability of students to pay. Students should be aware that the principal responsibility is theirs.

The primary sources of financial aid available at National University of Health Sciences are federal loans and grants, followed by institutional grants and scholarships. Work study positions and fellowships also are available to qualified students. The official FY2013 three-year Cohort Default Rate reported in September 2019 for NUHS is 0.9%.

### How to Apply

The Financial Aid Office will email financial aid information to all applicants when notified of the student's admission to the University. New students are accepted every trimester and should submit the appropriate FAFSA at least eight weeks prior to the start of the intended term of enrollment. Continuing students must submit next year's FAFSA no later than June 1. Complete information about program costs are available online at [www.nuhs.edu](http://www.nuhs.edu) under 'Admissions' and the 'Finance' tab for each program.

### Required Forms

All students seeking financial aid must have the following forms filed with the University's Financial Aid Office:

1. The "Free Application for Federal Student Aid" (FAFSA) that is processed by the Department of Education is required. This document is used to determine how much financial assistance the student will need during the academic period for which assistance is being requested. Complete the FAFSA form online at [www.fafsa.gov](http://www.fafsa.gov).
2. If selected for verification by the federal processor or the Financial Aid Office, the student (and spouse and parent(s) if applicable) must submit an IRS tax return transcript(s) for the appropriate year and any other requested documents.

To avoid late charges from the Financial Services Office, students should adhere to applicable deadlines when submitting requested financial aid forms to the Financial Aid Office.

### Award Offer

First-time students applying for financial aid will be sent an award offer via U.S. postal mail. Included will be the amount and source of awarded funds, along with additional required steps to receive the aid offered.

Continuing students will be informed when aid for the award period is entered and viewable at [my.nu.nuhs.edu](http://my.nu.nuhs.edu). The Financial Services Office sends estimated billing statements to all students 3 weeks prior to the start of the upcoming term.

## Loans

### Federal Direct Loan (DL) Program

Direct Loans are processed directly through the U.S. Department of Education. National University of Health Sciences will apply a student's Direct Loan toward the student's tuition and other University charges and provide any remaining excess funds to the student to assist with living expenses.

### **Federal Direct Subsidized Loan**

The Direct Subsidized Loan is a need-based loan where the federal government pays the interest (other than time that may exceed the Usage Period) that accrues for undergraduate students attending school on at least a half-time basis and during the grace period. The loan has a variable fixed rate based on the rate announced each July 1.

### **Federal Direct Unsubsidized Loan**

The Direct Unsubsidized Loan is not based on financial need. The loan has a variable fixed interest rate based on the rate announced each July 1. Interest accrues while in school and throughout repayment. Repayment is required beginning 6 months after ceasing half-time enrollment at which time the accrued interest is capitalized. The repayment period varies from 10 to 25 years and the borrower works with the servicer to arrange a suitable repayment plan.

### **Federal GradPlus Loan**

The GradPlus Loan is a credit-based non-need loan for graduate students where the student is responsible for all interest that accrues from the date of disbursement. The loan has a variable fixed interest rate based on the rate announced each July 1. Interest accrues while in school and throughout repayment. The maximum amount cannot exceed the approved cost of education (including all other aid) for the loan period. Repayment begins immediately following degree completion or less than half-time enrollment.

### **Federal Parent PLUS Loan**

Parents of a dependent undergraduate student may apply for low-interest loans to help pay for college expenses. The student must be enrolled at least half-time and is encouraged (but not required) to submit the FAFSA to determine eligibility for Subsidized Loan eligibility first. However, parents may apply for the Direct PLUS loan without the student completing the FAFSA. Parents may borrow up to the cost of education (less other financial aid) for the year. Parents will generally be required to pass a credit check, or obtain another eligible person to endorse the loan, in order to receive the loan. The loan has a variable fixed interest rate as announced each July 1 with interest accruing from the date of the first disbursement until the loan is paid in full.

### **Private Student Loans**

Students enrolled at least half-time in a degree-seeking program may be eligible to borrow up to the total cost of attendance less other aid. The loan is not based on financial need; rather, eligibility is based on subtracting other financial aid assistance from the student's approved cost of attendance. Eligibility is also based on the student borrower and/or co-borrower's credit history and ability to repay the loan. Information about private loans is available at [www.nuhs.edu](http://www.nuhs.edu); enter 'Alternative Loan' in the search bar.

## **Institutional Scholarships and Grants**

### **President's Excellence Award**

Any student entering the DC, ND, MSOM, and MSAC program at National University for the first time who has earned a cumulative undergraduate grade point average of 3.50 or greater (on a 4.0 scale) will receive a \$6,000 scholarship. Scholarship recipients must enroll in at least 15 credit hours in each trimester and have a CGPA of 2.0 or greater to receive the remainder in the second or subsequent trimester. Recipients who violate the Code of Conduct forfeit any remaining disbursement. The President's Excellence Award is a one-time scholarship paid in two equal installments — \$3,000 in each of the first two trimesters of professional studies.

### **President's Achievement Award**

Any student entering the DC, ND, MSOM, and MSAC program at National University for the first time who has earned a cumulative undergraduate grade point average of 3.25 to 3.49 (on a 4.0 scale) will receive a \$4,000 scholarship. Scholarship recipients must enroll in at least 15 credit hours each trimester and have a CGPA of 2.0 or greater to receive the remainder in the second or subsequent trimester. Recipients who violate the Code of Conduct forfeit

any remaining disbursement. The President's Achievement Award is a one-time scholarship paid in two equal installments — \$2,000 in each of the first two trimesters of professional studies.

### **Dean's Award**

Any student entering the DC, ND, MSOM, and MSAC program at National University for the first time who has earned a cumulative undergraduate grade point average of 3.0 to 3.24 (on a 4.0 scale) will receive a \$2,000 scholarship. The Dean's Award is paid in two equal installments--\$1,000 in each of the first two trimesters of professional studies. Scholarship recipients must enroll in at least 15 credit hours each trimester and have a CGPA of 2.0 or greater to receive the remainder in the second or subsequent trimester. Recipients who violate the Code of Conduct forfeit any remaining disbursement. The Dean's Award is a single award, payable one time only to each recipient.

### **Phi Theta Kappa Scholarship**

The Phi Theta Kappa Scholarship is awarded to community college students who are members of the Phi Theta Kappa International Honor Society and who have earned a cumulative transfer grade point average of 3.50 on a 4.00 scale and completed a minimum of 33 credit hours. The \$2,000 scholarship will be awarded in two disbursements of \$1,000 each, one in each of the student's first two trimesters. Recipients must be enrolled in 12 or more credits in each trimester to receive this scholarship. To qualify for the award, students must provide an official college transcript indicating PTK membership, a copy of their PTK membership certificate or membership card, or a statement written by current or previous PTK chapter advisor or president on chapter letterhead that includes their date of induction and states they are a member in good standing. PTK members who have already earned a BA or BS degree are still eligible.

### **Presidential Bright Stars Scholarship**

NUHS offers an institutional scholarship to Florida residents who would otherwise qualify for the Bright Stars Graduate Study scholarship by attendance at the Florida site. This scholarship is equal to the amount the student would have otherwise received as either a Florida Academic Scholar (FAS) or Florida Medallion Scholar recipient during the first trimester of enrollment.

To be eligible for this scholarship, students must meet current Florida Department of Education criteria, which includes: (1) the student must graduate with a baccalaureate degree earned in the 2010-11 academic year or thereafter, in seven or fewer semesters; (2) must have remaining eligibility for Florida Grant funding; and (3) must submit a FAFSA. Complete information is found by calling 1-888-827-2004 or through their website at [www.floridastudentfinancialaid.org](http://www.floridastudentfinancialaid.org). Eligible students must be registered for 15 or more credits at NUHS.

### **Black Naturopathic Opportunity Scholarship**

The Black Naturopathic Opportunity Scholarship was created to nurture the field of naturopathic medicine, particularly in communities of color, and to increase the representation of Black/African-American physicians in complementary and alternative medicine (CAM). Recipients of the scholarship will receive 50 percent off tuition for their first and second trimesters of study in the naturopathic medicine program. Recipients will also receive one-on-one mentoring with a senior ND student. The scholarship will be awarded to a limited number of qualified Black/African-American applicants who are first-time, first-professional degree seeking students. Students must be admitted to the ND program and meet all other scholarship criteria to be eligible for the award. Effective to May 2023.

### **Illinois Minority Student Scholarship**

The purpose of the Illinois Minority Student Scholarship is to make the professional degree programs (DC, ND, MSOM, and MSAC) at National University of Health Sciences more accessible to Illinois residents who are minorities (identified by the Illinois Health Services Education Act as Black/Non-Hispanic, American Indian/Alaskan Native, and Hispanic), by offering a scholarship award of \$1,000 per trimester during their enrollment at NUHS. In order for a student to continue to receive the award, the student must maintain satisfactory academic progress, maintain a CGPA of at least 2.0, and be enrolled for 15 hours or more. Eligibility is determined at the time of matriculation into a professional program.

### **International Student Scholarship**

The International Student Scholarship provides financial assistance to international students (including Canadian students) who desire to study in the DC, ND, MSOM, and MSAC program at National University of Health Sciences. Any international student who is not a citizen of the United States of America is eligible for the International Student Scholarship. The award is \$1,000 per trimester beginning with the third trimester and lasting through the standard end of the student's program. Eligible recipients of this award must enroll in at least 15 credits per trimester, and have a cumulative grade point average of no less than 2.50. Other restrictions may apply, and the student is ineligible if he or she is also receiving U.S. Federal Title IV financial aid.

### **Prerequisite Tuition Waiver**

Undergraduate students who apply for a professional program at NUHS and who take required coursework at NUHS for acceptance, will be granted a 50% tuition waiver on those courses specifically required for admission. This waiver will be applied after confirmation by the Office of Admissions of both required coursework and application to a professional program is received in Financial Aid.

### **Campus Visit Day and Student-for-a-Day Grant**

Individuals who signed up and attended either a Campus Visit Day or Student-for-a-Day event (at either Illinois or Florida, virtually or on-site) will receive a one-time grant that is applied to their first-trimester of enrollment. Graduate students will receive \$500 to \$1,000, and BS students will receive \$250 to \$500.

### **Endowed Institutional Scholarships**

National University is proud to offer 26 endowed scholarships funded by alumni, friends, and supporters of NUHS. The scholarships have different criteria and may be awarded based on an evaluation of a student's financial need, academic achievement, character, extracurricular participation, or special area of interest. Scholarship amounts range from \$1,000 to \$2,500. Enrolled students will be informed when the scholarship applications are available. Further information is available from the Financial Aid Office and online at [www.nuhs.edu](http://www.nuhs.edu) by entering 'Institutional Scholarship' in the search bar.

### **Alumni Legacy Benefit**

Spouses or children of NUHS graduates, who have been active members of the National University of Health Sciences Alumni Association for a minimum period of the five consecutive years immediately preceding the date of matriculation of spouse/child, shall receive a 50% discount on remaining tuition due, after other NUHS gift aid has been credited to the student's account, for the first term of study in any program within the College of Professional Studies or the College of Allied Health Sciences and Distance Education. Contact the Admissions Office for further information and for verification of eligibility.

### **Multi-Family Benefit**

Students attending NUHS who are from the same family household and concurrently enrolled are each entitled to a discount. Each student will receive a discount of their tuition based on 15% of the lower tuition charge as long as all family members are in good academic standing and are attending classes as full-time students in a degree-seeking program. An application must be completed by each family member when both meet the stated criteria in the same trimester; it is not retroactive to prior trimesters. Applications are available from the Financial Aid Office.

### **Federal Work Study**

A limited number of on-campus federally subsidized jobs are available to eligible students. University work study positions are awarded to students who have financial need and whose skills can be matched with job requirements. Priority is given to those students who have worked in a University work study position and wish to be reinstated in the same department. Preference is also given to students who apply early. Jobs for students ineligible to receive federal financial aid are limited.

### **Federal Work Study Fellowships**

Teaching, research, and service fellowships are available to qualified students who are eligible for federal work study. Fellowships are awarded through individual departments and require a specified amount of time from the student for assisting in instruction, research, or University service. Requests for information regarding fellowships should be made directly to the appropriate academic dean.

### **Veterans Affairs Educational Benefits**

National University is approved to offer assistance to students using Veterans Administration benefits for educational purposes. Any students interested in determining for which benefits they may be eligible must speak with the Registrar. All veterans must provide a copy of their DD214 and complete VA form 22-1995, or 22-1990 if they have attended college previously.

### **Yellow Ribbon Program**

National University participates in the Yellow Ribbon Program. The Yellow Ribbon Program ensures that students receiving benefits at the 100% rate under the Post 9/11 GI Bill® (Chapter 33) will receive full tuition and fees paid while pursuing their education at NUHS.

### **VA Pending Payment Compliance**

In accordance with Title 38 U.S. Code 3679 subsection (e), National University of Health Sciences adopts the following provisions for any students using U.S. Department of Veterans Affairs (VA) Post 9/11 G.I. Bill® (Ch. 33) or Vocational Rehabilitation & Employment (Ch. 31) benefits, while payment to the institution is pending from the VA. NUHS will not:

- Prevent the student's enrollment;
- Assess a late penalty fee to the student;
- Require the student to secure alternative or additional funding;
- Deny the student access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

To qualify for this provision, such students may be required to:

- Produce the VA Certificate of Eligibility (COE) by the first day of class;
- Provide a written request to be certified;
- Provide additional information needed to properly certify the enrollment as described in other institutional policies.

### **Satisfactory Academic Progress (SAP)**

The Higher Education Act (HEA) requires that a student maintain satisfactory progress in their program of study to be eligible to receive Title IV funds. Under the HEA and current federal regulations, a school is required to periodically evaluate if the student is successfully meeting both qualitative and quantitative academic standards specified by the school.

A student's academic performance is monitored following each trimester to determine if they are meeting minimum standards. If the student does not meet certain standards the student will lose eligibility for federal financial aid. One of these standards is the (qualitative) cumulative grade point average (CGPA), which measures for a minimum academic performance. The second standard is the pace of progression (quantitative), the measurement a school uses to make certain a student is on track to complete their degree in a reasonable amount of time.

## Pace – Coursework Completion

The student must successfully complete all required coursework and the clinic internship program as listed below:

Program	Minimum Completion Time*	Maximum Completion Time
DC and ND*	10 trimesters (3 years, 1 tri)	24 trimesters (8 years)
Doctor of Acupuncture Degree Completion (DAc-C)*	3 trimesters (1 year)	6 trimesters (2 years)
Acupuncture*	7 trimesters (2 years, 1 tri)	14 trimesters
Oriental Medicine/Chinese Herbal Medicine*	9 trimesters (3 years)	18 trimesters
Post-professional Masters*	6 trimesters	9 trimesters
Bachelor of Science**	4 trimesters	6 trimesters

\*The student must successfully complete 50% of all hours attempted each trimester.

\*\*The student must successfully complete 67% of all hours attempted each trimester.

Successful completion is indicated by grades of A, B, C, D, and S.

1. Hours attempted include grades of A, B, C, D, F, S, U, I, W, or WX.
2. Hours attempted include repeated courses.
3. Withdrawals will be included as attempted, except those dropped within allowable add/drop period.
4. Any transferred hours for credit will be included in attempted hours.

Students will be measured for course work completion at the end of the each trimester.

## GPA – Academic Standing

A student must maintain a minimum CGPA (cumulative grade point average) of 2.0 out of a 4.0 scale for each trimester of enrollment.

1. Incompletes are not to be calculated in the GPA.
2. The grade from the repeated course will be included in the GPA.

## Financial Aid Warning – SAP

A student who fails to meet either the 50% coursework completion in graduate programs or 67% coursework completion in undergraduate programs, or a 2.0 CGPA at the end of a trimester will be placed on Financial Aid Warning.

1. A Financial Aid Warning letter will be sent indicating that the student is eligible to receive one more trimester of aid only.
2. Included will be a statement that if SAP is not met in the subsequent trimester, no further federal aid will be allowed until SAP is again achieved – except through appeal.

## Financial Aid Probation – SAP

A student who fails to meet either the 50% coursework completion in graduate programs or 67% coursework completion in undergraduate programs, or 2.0 CGPA for the second consecutive trimester will be placed on Financial Aid Probation.

1. A Financial Aid Probation letter will be sent indicating that the student is no longer eligible for federal aid in the subsequent trimester.
2. The student may submit an appeal for continuation of federal aid.
3. The letter will include the instructions to appeal and the SAP Appeal Form.

## Appeals

Students, who feel there are extenuating circumstances to their situation, may appeal for reconsideration to have federal financial aid re-established through submission of the SAP Appeal Form and supporting documentation.

An appeal may be submitted for any of the following reasons:

1. the death of a relative,
2. an injury or illness of the student, or
3. other special circumstances.

In addition, the appeal must include:

1. an explanation of the reason(s) the student failed to maintain SAP,
2. a statement of the student's personal plan of action, and
3. what has changed in the student's situation to enable the student to demonstrate SAP at either:
  - a. the end of the next trimester, or
  - b. at the end of a specified academic plan designed by the academic department.

Students whose appeal is approved are placed on Financial Aid Probation. Students whose federal aid has been reinstated under the terms of an academic plan will be considered to be making satisfactory progress as long as they continue to fulfill the requirements of the academic plan.

Students who do not make SAP will lose federal Title IV aid eligibility until SAP is again achieved.

Appeals are reviewed by the Financial Aid Satisfactory Academic Progress Committee, whose decision is final.

## **Student Life**

### **Student Council**

The Student Council meets frequently to discuss matters concerning upcoming University events and other topics of interest to the entire student body. Attending Student Council meetings enables students to keep informed and to have a representative voice within several important University forums. The Student Council shares student concerns at various committees and in turn, relays information back to the student body.

The Student Council receives its operating funds from the student activity fee assessed against the account of every student who enrolls at NUHS. These funds support some of the activities of the Student Council, numerous campus-based clubs, and several other social, professional, and athletic events.

All University students are welcome to attend Student Council meetings and events. For more information relative to the time and location of meetings and Student Council activities, contact the Student Council or the Office of Student Services.

### **Student Clubs**

The University encourages students to join or form organizations and to assume responsibility for their effective operation. Student groups seeking official recognition and approval must be guided by a purpose that is compatible, supportive, and clearly related to the mission and goals of National University of Health Sciences.

The following organizations represent some of the NUHS student groups that have been registered with the Office of Student Services.

Depending on the social, athletic, and professional interests of particular groups of students, additional organizations and clubs may be formed with the approval of the Dean of Students. In addition to group activities, many of our student organizations promote special events, lectures, and activities for the entire NUHS community.

- AOM Student Association (AOMSA)
- Applied Kinesiology
- Basketball
- Black Naturopathic Medical Student Association (BNMSA)
- Community Wellness Club (St. Petersburg)
- Fellowship of Christian University Students (FOCUS)
- Functional Neurology
- Homeopathy
- Lambda Chi Sorority
- Latin Medical Club
- Mixed Martial Arts
- Motion Palpation
- Naturopathic Professional Student Association (NPSA)
- NUHS Garden Club
- Pride Medical Alliance
- Sigma Phi Kappa Fraternity
- Soccer
- Sports Council
- Student American Black Chiropractic Association (SABCA)
- Student American Chiropractic Association (SACA)
- Tai Chi
- Yoga

### **Recreational and Athletic Activities**

The student organizations of the University support and organize wide-ranging recreational and intramural athletic programs on a year-round basis at both campus sites. Facilities exist to provide convenient participation in these activities and to complement the intent of the University to mold and challenge the minds and bodies of future physicians. In addition to the on-campus gymnasium, outdoor basketball and volleyball courts, and fitness center, students residing in Illinois may participate in Lombard Park District programs and utilize Park District facilities, including the outdoor pool in Lombard Common Park. NUHS students have access to the recreational facilities on



two sites at St. Petersburg College: the Seminole campus recreation center with outdoor pool, weight room, and intramural athletic fields; and the Gibbs campus workout facility.

## **Campus Housing**

The University offers convenient student housing on the suburban Lombard, Illinois, campus. Tieszen Hall is composed of efficiency, studio, and one-bedroom apartments. Buchholz Hall offers studio and one-bedroom apartments, and Turek and Lincoln halls offer a limited selection of studios and one- and two-bedroom facilities. First-time matriculants will be notified of the availability of housing four or five weeks prior to the opening of the new trimester. No housing applications will be acted upon prior to this time.

## **Food Service**

The Illinois campus offers vending machines in the James F. Winterstein Library, as well as an array of beverages, snacks, and fresh food items in the Campus Store. The St. Petersburg College campus offers vending machines and a cafeteria for student convenience.

## **Textbooks**

There are numerous resources available online where you can purchase or rent textbooks needed for your classes. When purchasing textbooks online, please be observant and do your research before committing to a purchase. A list of several top websites for buying or renting textbooks online is provided at orientation.

## **Living Expenses and Employment**

The cost of living in the Chicago and Tampa Bay areas are comparable to any large metropolis. Part-time employment opportunities are plentiful. Students interested in obtaining part-time employment should arrive at the University before the opening of any trimester. Student employment schedules should not interfere with class attendance nor encroach upon study time.

## **Student ID Card**

Each student must possess a current, validated student ID card for the utilization of the University facilities. ID card distribution is managed by the Office of Student Services. Students attending the NUHS Florida site will be issued an additional ID from the St. Petersburg College University Partnership Center. All students are issued a new student ID annually.

## **Student Health Service**

All students whose programs result in a license are given required physical examinations at the National University Whole Health Center, with the cost of such examination included as part of the first trimester student fees. Health care provided to the student, student's spouse and children is coordinated through the NUHS Whole Health Centers. All new students are encouraged to schedule their new student physical at their earliest convenience during their first trimester of attendance. NUHS Florida students will be seen at the NUHS Whole Health Center clinic in the Caruth Health Education Center.

## **Student Health Insurance**

The Affordable Care Act requires nearly everyone to purchase health insurance. NUHS students may purchase health insurance through the Affordable Care Act marketplace exchanges. The law allows young adults under the age of 26 to stay on their parent's insurance. For coverage options, please visit: <https://www.healthcare.gov/choose-a-plan/>

At the NUHS Whole Health Center, health care is available at both the Florida and Illinois sites for all students, as well as their immediate families, at little or no cost. Upper trimester interns render care under the supervision and license of attending physicians.

## Peer Tutoring

Peer tutoring is a free service offered to any student who is currently enrolled in the University. Based on requests, tutoring is available for a variety of courses. Given tutor availability, this type of academic assistance is provided by students who have already demonstrated proficiency within specific subjects. These students are assigned to tutor other students who have requested assistance with a subject, topic, or concept within a course.

Peer tutoring is intended to supplement, not replace, class attendance and personal study time. Tutors may help clarify points from lectures, labs, group discussions, or assigned readings. Tutors act as facilitators for student learning; they will not write papers, do homework, complete other assignments for students or charge students for tutoring services. Peer Tutors are paid by the university via federal work study funds. Based on the availability of tutors, one-on-one or small group tutoring will be offered in an environment conducive to learning. Restrictions regarding tutoring, tutoring locations, dates, and times may apply based on the number of tutors available with the proficiency to help within a particular subject.

The tutoring program is coordinated through the Office of Student Services.

In Illinois, contact Student Services via email at [studentservices@nuhs.edu](mailto:studentservices@nuhs.edu), or by phone at 630-889-6542.

In Florida, contact Student Services via email at [studentservices@nuhs.edu](mailto:studentservices@nuhs.edu), or by phone at 727-803-6121.

Keep in mind that the first place to turn for academic assistance is the faculty member responsible for instruction in the course. Full-time faculty members have regular office hours usually posted outside their offices and on their syllabi. Students should arrange appointments to see their faculty members during these office hours. Part-time faculty are usually available before or after class or by appointment.

## Counseling Center Resources

The curriculum at NUHS is rigorous regardless of the program or credit-hour load. Depression, helplessness, anxiety, homesickness, marital conflicts, and many other personal issues are common student dilemmas. The Office of Student Services is available to offer basic help with some of these problems but, very often, more intensive professional counseling succeeds at regaining daily functionality and longer lasting developmental change through insights guided by a trained professional.

The University is able to provide referrals for clinical counseling services for NUHS students from an independent counselor not affiliated with the University's other clinical services. The provider will accept most insurance coverage programs. Sessions are strictly confidential; records are not shared with NUHS personnel. To secure a local referral in Illinois or Florida, stop by the Office of Student Services where personnel are on duty to answer your questions and provide the assistance you need, or email [studentservices@nuhs.edu](mailto:studentservices@nuhs.edu).

## Substance Abuse & Addiction Recovery Support Groups

Links to a variety of self-help support groups for people trying to recover from alcoholism and drug addiction are listed in the next paragraph. These groups are not formally affiliated with nor specifically endorsed by NUHS. Each, however, has been shown to be helpful for certain types of people seeking recovery help. As noted, some of these groups have online meetings available. If you are a student from a state other than Illinois or Florida, contact Student Services for help.

### Illinois Resources

#### Alcoholics Anonymous

- [www.chicagoaa.org](http://www.chicagoaa.org)
- [www.chicagoaa.org/meetings](http://www.chicagoaa.org/meetings)
- <http://aa-intergroup.org>

### SMART Recovery

- [www.smartrecovery.org](http://www.smartrecovery.org)
- [www.smartrecovery.org/meetings\\_db/view](http://www.smartrecovery.org/meetings_db/view)

### Marijuana Anonymous

- [www.ma-online.org/chat.php](http://www.ma-online.org/chat.php)

**Al-Anon**

- [www.niafg.org](http://www.niafg.org)
- [www.ola-is.org](http://www.ola-is.org)

**Cocaine Anonymous**

- [www.illinoisareaca.org/](http://www.illinoisareaca.org/)
- [www.illinoisareaca.org/meetings](http://www.illinoisareaca.org/meetings)
- [www.ca-online.org/](http://www.ca-online.org/)

**Adult Children of Alcoholics**

- [www.adultchildren.org](http://www.adultchildren.org)

**Narcotics Anonymous**

- <https://chicagona.org/meetings/>

**Florida Resources****Alcoholics Anonymous**

- [www.aapinellas.org](http://www.aapinellas.org)
- [www.aapinellas.org/meetings/](http://www.aapinellas.org/meetings/)

**SMART Recovery**

- [www.smartrecovery.org](http://www.smartrecovery.org)
- [www.smartrecovery.org/meetings\\_db/view](http://www.smartrecovery.org/meetings_db/view)

**Marijuana Anonymous**

- <https://ma-online.org/>

**Al-Anon**

- [www.al-anon.alateen.org](http://www.al-anon.alateen.org)
- [www.al-anon.org/local-meetings](http://www.al-anon.org/local-meetings)
- [www.al-anon.org/electronic-meetings](http://www.al-anon.org/electronic-meetings)

**Cocaine Anonymous**

- [www.caflorida.org/](http://www.caflorida.org/)

**Adult Children of Alcoholics**

- [www.adultchildren.org](http://www.adultchildren.org)

**Narcotics Anonymous**

- <https://naflorida.org/meetings/>

## Resources for Veteran Students and their Families

For veterans, their friends and families, the return home is often just the first step in a longer re-adjustment process.

This site (<http://www.mentalhealth.va.gov/college/students.asp>) provides resources on a wide range of issues to help vets following deployment — topics such as transitioning to life at home, uncovering signs of emotional problems and dealing with war trauma.

For more information, contact Student Services at 630-889-6542, or email [studentservices@nuhs.edu](mailto:studentservices@nuhs.edu).

## Inclement Weather Closing – Illinois

When weather conditions warrant it, the University and its public clinics will either close or implement a modified schedule instead of closing. When that happens, the University will send a notification using Omnilert, our emergency alert system. This system allows notification by text, email, and voicemail, and posts a message to the NUHS website homepage. Students' names are added at orientation and they receive an email that must be responded to in order to enable the system. If for some reason a student does not receive an email or needs to be added to the system, they should contact the Registrar.

## Inclement Weather Closing – Florida

Students enrolled in the NUHS Florida program on the St. Petersburg College (SPC) campus will be required to observe the governance required by SPC in the event of inclement weather for this location in addition to observing weather alerts produced by NUHS Illinois administrators using Omnilert. During severe weather conditions in Lombard, Illinois, website administrators shall post updates for e-programming to aid with re-establishing class times and make-up sessions. Students enrolled in this program will be required to enroll in the mass notification program developed by SPC administrators to receive weather/school closing alerts in the Florida region. Any e-programming adjustments made due to weather conditions in Florida or Illinois shall be posted on the NUHS website by website administrators to keep the campus community informed.

## Academic Contingency Plan for Catastrophic Events

The National University of Health Sciences retains specific procedures regarding catastrophic events and other crisis or emergency situations in order to minimize the disruption of students' education. In the event of a crisis, affected students and personnel will be notified by university administration as needed and alternate educational plans will be described. For example, certain courses may be moved to distance education and will be leveraged through the CygNet learning management system. University administration will provide further updates to affected students and personnel primarily through NUHS email.

## Campus Parking

All vehicles on the Illinois campus, whether faculty, staff, or student vehicles, must be registered for security purposes and properly display a current vehicle tag. Registration forms are available in the Financial Services Office in Janse Hall, between the hours of 8:30 a.m. and 5:00 p.m., Monday through Friday. Applicants should be prepared to provide their name and telephone number as well as the make, model, color, year, and license plate number of the vehicle(s). Inaccurate or incomplete applications cannot be processed. Vehicle tags expire August 31 each year. All vehicles must be completely reregistered for the following 12-month period.

## Campus Parking Regulations – Florida

NUHS Florida students should refer to the St. Petersburg College Student Handbook for current parking regulations.

## Registration Fees – Illinois

Student parking fees are charged through the student's account and are payable at the Cashier's window.

Yearly Registration (Sept. 1-Aug. 31) .....	\$12.00
8th Tri student at Yearly Registration .....	\$8.00
9th Tri student at Yearly Registration .....	\$4.00
10th Tri student at Yearly Registration.....	No Charge
(Registration/Tag Required)	
New Student (Jan. 1-Aug. 31) .....	\$8.00
New Student (May 1-Aug. 31) .....	\$4.00
Additional Tag* .....	\$4.00
Replacement for Lost/Damaged Tag .....	\$4.00
*Required for campus resident with more than one registered vehicle	
*Commuting students may use one tag between registered vehicles	

## Vehicle Rules and Regulations – Illinois

1. Registration tags must be hung from the rearview mirror of the vehicle facing out.
2. The person to whom the vehicle is registered and/or tag is issued is responsible for all vehicle violations.
3. Motorcycles must be registered.
4. Motorcycles are not permitted to park in bicycle racks.
5. Two motorcycles may park in one spot only if approved by Security.
6. Vehicle and/or license plate changes must be communicated to the Parking Coordinator immediately. There is no charge for updating information.
7. Student vehicle tags are issued based on the residency type of the registrant: On-Campus or Off-Campus. If the registrant's residency type changes, the current tag must be brought to the Parking Coordinator and exchanged. There is no charge for the change.
8. No overnight or extended parking is permitted for guests, oversized vehicles, vans, buses, etc., unless it has been approved by Security or the Parking Coordinator. A temporary tag will be issued.
9. If a vehicle becomes inoperable, notify Security or the Parking Coordinator. A temporary tag will be issued.
10. A replacement tag must be purchased for all lost or damaged tags.

11. Police and/or service vehicles may stop, stand, or park irrespective of the parking regulations while performing necessary official business.

### **Designated Parking Areas – Illinois**

1. Handicapped: Vehicle must display state issued handicapped placard
2. Patient: Clinic patients only
3. Visitor & Admissions: No current faculty, staff, or students
4. Faculty/Staff: Numbered spaces are assigned parking for Full-time Faculty and
5. Staff only
6. Apartment Area: Apartment residents and their guests only

### **Fines – Illinois**

The following fines have been established for parking violations:

Parking in Handicapped or Patient Designated Areas .....	\$250
**No appeal available for above violation**	
Parking on Sidewalk / Grass .....	\$100
Obstructing Traffic/Failure to Observe Posted Traffic Signs .....	\$50
No tag / Improperly Displayed Tag / Expired Tag .....	\$25
Parking in Faculty/Staff (numbered) Areas .....	\$25
Parking in Visitor/Admissions Designated Areas .....	\$25
Parking in Loading/Unloading Zone .....	\$25

Fines may be paid at the Cashier's window, located on the 2nd floor of Janse Hall, between the hours of 8:30 a.m. and 4:30 p.m., Monday through Friday.

### **Appeal Process – Illinois**

Anyone who receives a vehicle violation notice has the right to an appeal for all violations except: Parking in Handicapped or Patient Designated Areas. A completed appeal form must be submitted to the Parking Coordinator within 3 business days of the violation date. Forms can be found on the wall across from the Cashier's window.

### **Visitor Parking – Illinois**

Parking for campus visitors is available in the designated area west of Janse Hall, Building D. Visitors should obtain a Visitor Pass from the Admissions Office. Passes are available at no charge. If a visitor is issued a citation, all fines will be waived upon notification to the Parking Coordinator.

### **Responsibility of the University**

National University of Health Sciences assumes no responsibility, nor is it liable for any damage done to vehicles when parked on the University campus.

### **Code of Student Conduct**

A University is an academic community. Like any other community, it relies upon "core" values that reflect the collective beliefs, governing principles and boundaries of deportment that guide its individual members. These are the virtues and obligations usually referred to as "standards of conduct" that any society must rely upon if it is to function and remain viable. The most basic expression of these community values includes "the abstract virtue of justice, a community consensus to mutually aid and protect others from deliberate injury, and an earnest effort to honor the virtue of honesty in all community relationships. At NUHS, we also believe that civilized conduct and an atmosphere conducive to intellectual and personal development are vital if learning is to flourish. To achieve these ends, students are expected to uphold and abide by certain standards of conduct that form the basis of the *NUHS Code of Student Conduct*. The *NUHS Code of Student Conduct* has been formulated to promote and fortify optimal learning conditions that advance the University Mission Statement, while balancing the interests of individual

student liberties with the collective interests and cherished freedoms of all other members of the NUHS academic community.

A fundamental obligation that each community member must accept and support, holds that students, staff, faculty and administrators share the collective responsibility to maintain the “standards of conduct” within our community and to discipline those who violate its standards, policies and/or procedures. This responsibility, however, is premised upon an assumption that community cohesion and stability cannot be maintained by threat of punishment alone. Instead, we believe that learning and personal development flourishes within academic communities where students are automatically enjoined to share responsibility and collective ownership for the welfare of our University, by abiding by its standards, rules and policies and by assuming reasonable responsibility for the behavior of other individual community members and their student organizations.

For over a century, NUHS has asserted a leading role in healthcare education by maintaining a learning community firmly grounded in a tradition of progressive, science-based thought, high academic standards, and a steadfast belief in the inherent strength and viability that accrues to an organization when it draws from a diverse talent pool of student applicants. Our University is deeply committed to the principle of equality in access to its facilities and programs and in the fair and unbiased treatment of individual differences in age, disease or disability, creed, ethnic origin, gender, nationality, political affiliation, race, sexual preference or orientation, social standing or any other diverse human quality. Thus, NUHS does not discriminate in the admission, housing and education of students or in policies governing discipline, extracurricular life or student activities.

## **Student Records Policy (FERPA)**

### **Directory Information Notice**

The Family Educational Rights and Privacy Act (FERPA), a federal law, requires that National University of Health Sciences, with certain exceptions, obtain written consent from students prior to the disclosure of personally identifiable information from their education records. However, the University may disclose appropriately designated “directory information” without written consent, unless students have advised the University to the contrary in accordance with University procedures. The primary purpose of directory information is to allow the University to include this type of information from students’ education records in certain University publications. Examples include: student contact directory, student recognition lists (eg, dean’s list, club membership, service/volunteer achievements), graduation programs, alumni directory, and Homecoming reunion programs.

Directory information, which is information that is generally not considered harmful or an invasion of privacy if released, can also be disclosed to outside organizations without prior written consent. Outside organizations include, but are not limited to, companies that manufacture class rings or publish yearbooks.

Students who do not want the University to disclose directory information from their education records without prior written consent must notify the Registrar in writing at the start of each trimester. NUHS has designated the following information as directory information: student’s name, address, telephone listing, e-mail address, ID photo, as well as any degrees, certificates, honors, and awards received, date and place of birth, dates of attendance at NUHS, highest trimester completed, and the most recent educational agency or institution attended.

### **Notification of Rights Under FERPA**

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review education records within 45 days of the day the University receives a request for access. Students should submit to the Registrar, written requests that identify the record(s) they wish to inspect. The Registrar will make arrangements for access and notify the student of the time and place where the records may be inspected.

2. The right to request the University to amend a record that students believe is inaccurate. Students should clearly identify the part of the record they want changed, and specify why it is inaccurate. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of their right to a hearing regarding the request for amendment.
3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or complaint committee, or assisting another school official in performing their tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

NOTE: Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202-4605.

## **Student Complaint Procedures**

### **Complaint Processes**

The U.S. Department of Education Regulation 34 CFR § 668.43(b) requires institutions of higher education authorized under Title IV of the Higher Education Act to make available to enrolled or prospective students upon request, documents describing the institution's accreditation and its state, federal, or tribal approval or licensing. The institution must also provide its students or prospective students with contact information for filing complaints with its accreditor and with its state approval or licensing entity.

### **Internal Complaint Processes**

Students must first exhaust all internal complaint processes before beginning most external complaint processes. NUHS expects that any student complaint will be filed in accordance with the procedures currently in place at the institution before seeking a resolution from a state or federal agency or any of the University's accreditation bodies. In the absence of or unfamiliarity with a procedure, the complaint should be filed with the Student Services Office in Janse Hall on the Illinois campus or in the Caruth Health Education Center Annex in Florida.

Note: No student will be subjected to any form of retaliation as a result of an earnest, good faith filing of a complaint. See NUHS Non-Retaliation Policy: [http://www.nuhs.edu/extras/policies/Non-Retaliation\\_Policy.pdf](http://www.nuhs.edu/extras/policies/Non-Retaliation_Policy.pdf)

### **Filing an Internal Academic or Non-Academic Complaint**

In order to ensure an effective response, initial complaints should be prepared in a typed or written format. Complainants should describe the issue in their own words, and include their full name and contact information. Complainants should also include dates and any college officials that were involved or have been contacted. Any supporting documentation, such as emails or other correspondence should be included in order to help others understand the nature, context, actions, or events that lead to the complaint. Finally, the complainant should state what, if any, remedy is sought.

NUHS is committed to resolving complaints at the earliest and most informal level, conducting internal investigations in a timely and effective manner, adhering to the procedures as outlined, and providing prompt corrective action if discrimination is believed to have occurred. The date upon which a written complaint is received shall be referred to as the date of complaint. NUHS will make every reasonable attempt to resolve all complaints within 60 days.

In order to file an internal academic or non-academic complaint, contact the following:

- Complaints regarding the Financial Aid Program: Director of Financial Aid, 630-889-6517.
- Complaints regarding College of Professional Studies Programs/Illinois: Dean of the College of Professional Studies-Illinois, 630-889-6461.
- Complaints regarding College of Professional Studies Programs/Florida: Dean of the College of Professional Studies-Florida, 727-394-6058,
- Complaints regarding College of Allied Health Sciences and Distance Education: Dean of the College of Allied Health Sciences and Distance Education, 630-889-6853.
- Complaints regarding Lincoln College of Postgraduate and Continuing Education Programs: Dean of Lincoln College, 630-889-6620.
- Complaints regarding non-academic university Issues (discipline, discrimination, sexual misconduct, harassment, disabilities, privacy, misuse of computing resources, mental health concerns, student safety and security, etc.): Dean of Students, 630-889-6546 or email [studentservices@nuhs.edu](mailto:studentservices@nuhs.edu) or via the online complaint form: <https://www.nuhs.edu/student-services/support-services/complaints/student-complaint-form/>

### **Filing a Complaint with a Program's Accrediting Agency**

In order to file a complaint with a program's accrediting agency, contact the following:

- Doctor of Chiropractic Program (Illinois and Florida): The Council on Chiropractic Education (CCE) complaint process is located on the CCE website at [www.cce-usa.org](http://www.cce-usa.org) under the keywords "CCE Policy 64."
- Doctor of Chiropractic Program (Florida only): The Commission for Independent Education, Florida Department of Education, has also licensed NUHS' DC program in Florida. To file a complaint with this body, contact the Commission at 325 W. Gaines Street, Suite 1414, Tallahassee, FL 32399, 888-2243-6684.
- Naturopathic Medicine Program: The ND program has been accredited by the Council on Naturopathic Medical Education (CNME). To file a complaint with this body, contact CNME, 342 Main Street, P.O. Box 178, Great Barrington, MA 01230, 413-528-8877.
- Acupuncture and Oriental Medicine Program: The complaint process for the Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM) is located on the ACAOM website at [www.acaom.org/students/](http://www.acaom.org/students/).
- Master of Science in Advanced Clinical Practice, Master of Science in Diagnostic Imaging, Bachelor of Science in Biomedical Science programs: The complaint process instructions for the Higher Learning Commission (HLC) can be found at: <http://www.hlcommission.org/Student-Resources/complaints.html>

### **Filing a State Licensing Complaint**

In order to file a state licensing complaint for programs at both the Illinois campus and Florida site, contact the following:

- Illinois Board of Higher Education, 1 N. Old State Capitol Plaza, Suite 333, Springfield, IL 62701-1377; 217-782-2551; [www.ibhe.org](http://www.ibhe.org).

### **Disability Support Services**

The Americans with Disabilities Act (ADA) allows for more people and more types of disabilities to be included under the law. However, the law also formalized the proof required (documentation) to be eligible to receive accommodations, support services, or academic adjustments. At the university level, a student cannot be accommodated for a disability until they have obtained proper documentation, submitted the documentation to the Dean of Students in the Student Services Office, and obtained a letter from the Dean of Students that describes the



accommodations the student will be granted due to a documented disability. It is a student's responsibility to provide a copy of the Dean's letter to the instructor of any course that will require the accommodation(s) authorized by the Dean.

Students who need to be accommodated for any national certification exam or state licensing board requirement will be required to submit the same detailed documentation that is required by NUHS. Also, disability law generally requires documentation that is no older than three years.

### **Obtaining Disability Accommodations**

- Students with disabilities who wish to receive accommodations or services must formally request services, including accommodations from the Dean of Students, and submit the appropriate documentation for their disability. Documentation submitted must be current (i.e., 3 years or less), comprehensive, and complete, in order to avoid any unnecessary delays in granting the accommodations. The proper disability form may be downloaded from the NUHS Student Services webpage or is available as a hard copy from the Student Services Office.
- Requests for services or accommodation should be made early (prior to the start of the trimester or very early in the trimester) to allow time to review requests and documentation and make proper arrangements. Accommodation arrangements may be compromised or denied if a request is not made in a timely manner.
- Accommodations are determined on a case-by-case basis taking into account the learning needs of the student, the requirements of the learning task, the course standards and essential requirements, and the educational environment.
- The Dean will issue a letter describing accommodations the University will provide. Students are responsible for giving a copy of the Dean's letter to their instructor and for scheduling any accommodated exams in the Testing Center with Student Services.
- The University reserves the right to deny services or accommodations in the event that documentation does not comply with its published guidelines for service eligibility, e.g., the student does not meet the criteria of ADA or Section 504, or documentation is out-of-date or incomplete. Students will be given the opportunity to supplement the initial documentation with more information from an appropriately licensed or credentialed authority.
- The University is not required to provide an accommodation that compromises the essential requirements of a course or program, imposes an undue financial burden based upon the University's overall institutional resources, or poses a threat to the health or safety of the student or to others.

### **Accident/Incident Reporting**

Students should report all accidents, incidents, building hazards, or criminal activity to the Campus Security Office, the Dean of Students or to personnel in the Student Services Office.

### **Sexual Assault Resources and Support Services**

#### **Title IX (Sexual Discrimination)**

National University of Health Sciences (NUHS) is committed to providing equal access to educational and employment opportunities regardless of race, color, religion, national origin, physical or mental disability, pregnancy, age, sex, sexual orientation, gender identity status, or ancestry. As required by Title IX and its implementing regulations, 34 C.F.R. Part 106, NUHS does not discriminate on the basis of sex in its educational programs and activities. In addition, the University is committed to providing a work and student environment that is free of sexual harassment, and will not tolerate sexual harassment activity by any University employee, University student, or third

party. We will act promptly and impartially to address claims of sexual misconduct and discrimination and remedy the effects of discrimination.

### **NUHS Statement on the Violence Against Women Act (VAWA)**

NUHS prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking, as defined by federal law, applicable local law, and University policy, and reaffirms its commitment to maintain a campus environment emphasizing the dignity and worth of all members of the University community.

### **NUHS Title IX Officials and Contact Information**

If you or someone you know has been the victim of sexual misconduct by a member of the University community, you are encouraged to report such misconduct to the Title IX Coordinator via the Sexual Misconduct (Title IX) Complaint Form at [www.nuhs.edu/titleixform](http://www.nuhs.edu/titleixform), or by phone at 630-889-6607.

The University has also assigned three Deputy Title IX Coordinators to receive sexual misconduct complaints and conduct investigations under the supervision of the Title IX Coordinator. They are:

- Director of Human Resources: Phone: 630-889-6878
- Dean of Students: Phone: 630-889-6546
- Florida Site Coordinator: Phone: 727-394-6217

For more information about complaint management, see the NUHS Title IX and Sex Discrimination Policy: [https://www.nuhs.edu/extras/policies/Title\\_IX\\_and\\_Sex\\_Discrimination\\_Policy.pdf](https://www.nuhs.edu/extras/policies/Title_IX_and_Sex_Discrimination_Policy.pdf)

Further information about Title IX and sex discrimination in education is available from:

Office of Civil Rights, 400 Maryland Ave., SW, Washington, DC 20202-1100

Customer Service Hotline: 800-421-3481; Fax: 202-453-6012; TDD: 877-521-2172

Email: [OCR@ed.gov](mailto:OCR@ed.gov); or on the web, at <https://www2.ed.gov/about/offices/list/ocr/index.html>

NUHS strictly prohibits retaliation against any individual who brings a good faith complaint under this policy or participates in any portion of a Title IX investigation. Retaliatory conduct violates not only the University's Non-Retaliation Policy and Title IX, but may also violate state and federal law.

### **Resources for Victims of Sexual Misconduct**

The University urges anyone who has been sexually assaulted to seek support as soon as possible to minimize and treat physical harm, assist with processing the unique and complex emotional aftermath, and help preserve and understand options for pressing charges. Even for someone who does not wish to report the event to the police or pursue disciplinary action, seeking medical attention as soon as possible is important. At any point that an individual is ready to come forward, the University is prepared to help her or him.

#### **POLICE**

- Illinois or Florida (Emergency): 911
- Lombard, Illinois: 630-873-4400
- Pinellas Park, Florida: 727-369-7864
- Pinellas County Sheriff's Office, Florida: 727-582-6200

#### **CAMPUS SECURITY**

- NUHS-Illinois Security: 630-927-9957
- NUHS-Illinois Security Office: 630-889-6683
- NUHS-Florida, Security from on-campus phone: Ext. 2560
- NUHS-Florida, Security from an outside phone: 727-791-2560

**RAPE CRISIS/SEXUAL ASSAULT**

- National Sexual Assault Hotline: 1-800-656-HOPE (4673); <http://www.rainn.org>
- National Sexually Transmitted Disease Hotline: 800-232-4636
- AIDS National Hotline (CDC Info): 800-232-4636, [www.aids.org](http://www.aids.org)
- Illinois: Coalition Against Sexual Assault: 217-753-4117
- Resilience (formerly Rape Victim Advocates): 312-443-9603
- Florida: Suncoast Center 24-hour Rape Crisis Hotline: 727-388-1220, [www.suncoastcenter.org](http://www.suncoastcenter.org)  
Suncoast Center Abuse Hotline: 727-388-1220  
Florida Council Against Sexual Violence: [www.fcasv.org](http://www.fcasv.org)

**SEXUAL ABUSE OUTREACH & ADVOCACY**

- Illinois: Domestic Violence Family Shelter/Counseling: 630-469-5650  
Child Abuse Hotline: 1-800-25A-BUSE  
Victim Service Unit: 630-407-8008
- Florida: Abuse Outreach & Advocacy Shelters  
CASA (Community Action Stops Abuse), 24-hour hotline: 727-895-4912  
Suncoast Center Abuse Hotline: 727-388-1220  
Florida Domestic Violence Hotline: 800-500-1119  
Florida Department of Children and Families Abuse Hotline: 800-962-2873  
Haven of RCS, 24-hour hotline: 727-442-4128  
Abuse Hotlines: Statewide Abuse Hotline: 800-500-1119  
Pinellas County Clerk of Court: 727-464-7000

**STALKING RESOURCES**

- National Sexual Violence Resource Center: [www.ncvc.org](http://www.ncvc.org)
- Illinois Stalking Laws:  
<http://www.victimsofcrime.org/our-programs/stalking-resource-center/stalking-laws/criminal-stalking-laws-by-state/illinois>
- Florida Stalking Laws:  
<http://www.victimsofcrime.org/our-programs/stalking-resource-center/stalking-laws/criminal-stalking-laws-by-state/florida>

**COUNSELING/MENTAL HEALTH SERVICES**

- 988 Suicide & Crisis Lifeline: 988 (1-800-273-TALK (8255) is still active); <https://988lifeline.org/>
- National Alliance on Mental Illness (NAMI): 800-950-6264; [www.nami.org](http://www.nami.org)
- Illinois: DuPage Mental Health Services, Ltd: 630-690-2222  
NAMI of DuPage County: [www.namidupage.org](http://www.namidupage.org); 630-752-0066  
Health and Human Services Helpline-Customer Response Center (IL and FL): 800-368-1019  
YWCA – Sexually assaulted women & children: 630-790-6600  
24-Hour Rape Crisis Hotline: Chicago – 888-293-2080  
DuPage County Rape Crisis Hotline: 630-971-3927
- Florida:  
Suncoast Center: 727-388-1220  
University of South Florida Psychological Services Center, Public Resources:  
<http://psc.usf.edu/PublicResources.aspx>; 813-974-2496

**VICTIMS RIGHTS & RESOURCES**

- National Domestic Violence Helpline: 800-799-7233; <http://www.thehotline.org>

**Campus Security**

National University strives to ensure a safe and welcoming environment for all students, faculty, staff, and visitors. This is accomplished through the visibility of security personnel, preventive patrols, 24-hour accessibility, conflict resolution, and crime prevention and awareness programs.

The Illinois campus employs security officers to patrol the campus grounds and parking lots on a 24-hour basis. These officers can assist with special needs such as gaining entry to a locked room, apartment or building, and help starting a car with a dead battery. Campus security will also honor requests for an escort to or from a building or vehicle at any time of the day or night. NUHS-Illinois Security: 630-927-9957; NUHS-Illinois Security Office: 630-889-6683.

In Florida, each of the St. Petersburg College campuses has security officers to help provide a safe environment. Security officers patrol the campus grounds and parking lots during the hours that the campuses are open to students and staff. College-wide security also provides a full range of services including crime prevention, traffic/parking enforcement, safety and security inspections, safety escorts, and crowd control for special events. NUHS-Florida, Security from on-campus phone: Ext. 2560; NUHS-Florida, Security from an outside phone: 727-791-2560.

## **Combined Annual Report: Campus Security and Fire Safety**

NUHS is committed to assisting all members of the University community in elevating their awareness and responsibility for their own safety and security. The **NUHS Combined Annual Report: Campus Security and Fire Safety** (also known as the *Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act* (20 U.S.C. § 1092(f)) is available on the University website: [www.nuhs.edu/student-services/campus-life/campus-security/](http://www.nuhs.edu/student-services/campus-life/campus-security/) under the “Reports” tab. A hard copy of the Combined Annual Report is also available upon request from the Student Services Office at both the Illinois and Florida sites.

The Combined Annual Report provides an overview of campus security, support services, policies, and emergency response and evacuation procedures. The Fire Safety Report details fire safety compliance required by the *Higher Education Opportunity Act (HEOA)*. This disclosure is intended to inform students and employees of the fire safety programs and policies in place at NUHS and the institution's state of readiness to detect and respond to fire-related emergencies. The report also contains information about University crime statistics for the three previous calendar years concerning reported crimes. Statistics for NUHS are available online at: <https://ope.ed.gov/campussafety/#/>

The *Campus Sex Crimes Prevention Act* requires notice as to where lists of registered sex offenders may be accessed. The Illinois Sex Offender Registry (<http://isp.state.il.us/sor/>) is updated daily by the Illinois state police and is searchable by city, county, and zip code. The Florida Sexual Offenders and Predators Registry (<https://offender.fdle.state.fl.us/offender/homepage.do>) is updated daily by Florida state police and is searchable by a variety of information. Summaries of key crime statistics for the Illinois and Florida sites have been extracted from the **2021 NUHS Combined Annual Report: Campus Security and Fire Safety** and are printed on the following pages.

NUHS CRIME STATISTICS - Lombard, IL Site – Main Campus				
<u>January 1, 2018 – December 31, 2020</u>	2018	2019	2020	
<u>Criminal Offenses</u>	---	---	---	
Criminal Homicide	---	---	---	
Murder/ Non-negligent manslaughter	0	0	0	
Negligent manslaughter	0	0	0	
Sex Offenses	---	---	---	
Rape	0	0	0	
Fondling	0	0	0	
Incest	0	0	0	
Statutory Rape	0	0	0	
Robbery	0	0	0	
Aggravated Assault	1 <sup>#1</sup>	0	0	
Burglary	0	0	0	
Motor Vehicle Theft	0	0	0	
Arson	0	0	0	
<b>Total Offences</b>	<b>1<sup>#1</sup></b>	<b>0</b>	<b>0</b>	
<u>Hate Crimes</u>	---	---	---	
Larceny – Theft	0	0	0	
Simple Assault	0	0	0	
Intimidation	0	0	0	
Destruction/damage/vandalism of property	0	0	0	
<b>Total Crimes</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<u>VAWA Offenses</u>	---	---	---	
Domestic Violence	0	0	0	
Dating Violence	0	0	1 <sup>#2</sup>	
Stalking	0	0	0	
<b>Total Incidents</b>	<b>0</b>	<b>0</b>	<b>1<sup>#2</sup></b>	
Liquor Law: Referral/Arrest	0	0/11 <sup>#4</sup>	0/4 <sup>#4</sup>	
Drug Violations: Referral/Arrest	0/6 <sup>#4</sup>	0/4 <sup>#4</sup>	0/3 <sup>#4</sup>	
Weapons Possessions: Referral/Arrest	0	0/0	0/0	
<b>Total Arrests</b>	<b>0/6<sup>#4</sup></b>	<b>0/15<sup>#4</sup></b>	<b>0/7<sup>#4</sup></b>	

#1 On-campus, #2 On-campus housing, #3 Non-campus property, #4 Public property

2018 – 6 arrests on public property by local police, 1 on-campus arrest by local P.D. for battery – Clery counted as Aggravated Assault because attacker inflicted bodily harm w/fists on face & ribs while pulling victim's hair. Severe injuries prevented by restraining & handcuffing attacker.

2019 – 15 arrests on public property by local police.

2020 – 1 incident of Dating Violence in on-campus housing reported to Security & Police. 7 arrests on public property by local police.

NUHS CRIME STATISTICS - Health Education Center, FL Site				
<u>January 1, 2018 – December 31, 2020</u>	2018	2019	2020	
<u>Criminal Offenses</u>	---	---	---	
Criminal Homicide	---	---	---	
Murder/ Non-negligent manslaughter	0	0	0	
Negligent manslaughter	0	0	0	
Sex Offenses	---	---	---	
Rape	0	0	0	
Fondling	0	0	0	
Incest	0	0	0	
Statutory Rape	0	0	0	
Robbery	0	0	0	
Aggravated Assault	0	0	0	
Burglary	0	0	0	
Motor Vehicle Theft	0	0	0	
Arson	0	0	0	
<b>Total Offenses</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<u>Hate Crimes</u>	---	---	---	
Larceny – Theft	0	0	0	
Simple Assault	0	0	0	
Intimidation	0	0	0	
Destruction/damage/vandalism of property	0	0	0	
<b>Total Crimes</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<u>VAWA Offenses</u>	---	---	---	
Domestic Violence	0	0	0	
Dating Violence	0	0	0	
Stalking	0	0	0	
<b>Total Incidents</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Liquor Law: Referral/Arrest	0/0	0/0	0/0	
Drug Violations: Referral/Arrest	0/0	0/0	0/0	
Weapons Possessions: Referral/Arrest	0/0	0/0	0/0	
<b>Total Arrests</b>	<b>0</b>	<b>0</b>	<b>0</b>	

#1 On-campus, #2 On-campus housing, #3 Non-campus property, #4 Public property

## Fire Safety Statistics

The data presented in the following table summarizes the reported fires that occurred in on-campus housing facilities for the 2021 calendar year. Fire statistics from off-campus housing is not included in this report. This data is also available online at <https://ope.ed.gov/campussafety/#/institution/details>

### Summary of 2021 Fire Safety Statistics

Residence Hall	Number of Fires	Causes	Injuries	Fatalities	Value Prop. Damage
Lincoln Hall	0	N/A	N/A	N/A	N/A
Turek Hall	0	N/A	N/A	N/A	N/A
Tieszen Hall	0	N/A	N/A	N/A	N/A
Buchholz Hall	0	N/A	N/A	N/A	N/A



# Bulletin

## 2022-2023



### COLLEGE OF PROFESSIONAL STUDIES

- Doctor of Chiropractic
- Doctor of Naturopathic Medicine
- Doctor of Acupuncture Degree Completion
- Master of Science in Acupuncture
- Master of Science in Oriental Medicine



## **College of Professional Studies**

*Dean – Professor Sandra Rogers, PhD – Illinois*

*Dean – Associate Professor Daniel Strauss, DC – Florida*

At National University of Health Sciences, we offer more than an education, we prepare our students to have the necessary credentials that are required to excel in their professional field. We are preparing leaders in chiropractic medicine, naturopathic medicine, acupuncture and oriental medicine.

### **Programs of Study**

All first professional programs are offered at the National University Illinois site. Only the Doctor of Chiropractic Program is offered at the Florida site.

### **Doctor of Chiropractic Medicine – Illinois and Florida**

*Assistant Dean – Associate Professor Jeffrey Ware, MS, DC, DABCI*

As a school of healing, chiropractic medicine may be defined as the diagnosis and treatment of human ailments. Chiropractic medicine emphasizes the ability of the body to self-regulate and self-heal. Any interference with the basic physiological components of optimal health may result in disease.

While manipulation is the centerpiece of chiropractic medicine, a number of therapies may be utilized including physical and manual therapy, functional medicine, nutritional and lifestyle counseling, and acupuncture. Chiropractic medicine does not profess to be the only method of healing. Conditions that are beyond the scope of chiropractic medicine are referred to the appropriate health care professional for treatment.

### **Doctor of Naturopathic Medicine – Illinois**

*Assistant Dean – Associate Professor Fraser Smith, MA, ND*

Naturopathic medicine is a distinct method of primary health care — an art, science, philosophy, and practice of diagnosis, treatment, and prevention of illness. Naturopathic physicians seek to restore and maintain optimum health in their patients by emphasizing nature's inherent self-healing process, (what Hippocrates referred to as the *vis medicatrix naturae*). This is accomplished through education about lifestyle — determining factors of health — and the rational use of natural therapeutics such as clinical nutrition, botanical medicine, physical medicine, manipulation, acupuncture, homeopathy, and hydrotherapy.

### **Doctor of Acupuncture Degree Completion Online (DAc-C) – Illinois**

*Assistant Dean – George G. Stretch, DN, DAOM, LAc, DAAPM, DNBAO*

The Doctor of Acupuncture consists of a one-year professional program that is offered in a 91% asynchronous, fully online format. The program consists of eight courses equaling 23 credits and a community based clinical experience which will only run for NUHS alumni completing the MSAc/MSOM prior to Spring of 2023). Students in the DAc program will be immersed in a patient-centered, evidence-based program that will prepare you to work in a team environment with other doctoral/professional healthcare providers.

### **Master of Science in Acupuncture – Illinois**

(As of Spring 2023, this program will be referred to as Master of Acupuncture).

*Assistant Dean – George G. Stretch, DN, DAOM, LAc, DAAPM, DNBAO*

The Master of Science in Acupuncture is a 121-credit, seven-trimester program. Students will be immersed in the same comprehensive training as in the oriental medicine program, except for the study of Chinese herbal medicine. This program is ideal for health care professionals — chiropractors, nurses, physician, physical therapists, and others

— who wish to study oriental medicine comprehensively but who are not necessarily interested in becoming herbalists at this point. Master of science in Acupuncture graduates may have the option of returning to NUHS to complete the Chinese herbal medicine training later should they choose to do so. In addition, students also have the option of returning to complete their Doctorate of Acupuncture (DAc-C).

## **Master of Science in Oriental Medicine – Illinois**

(As of Spring 2023, this program will be referred to as Master of Acupuncture with a Chinese herbal medicine specialization).

*Assistant Dean – George G. Stretch, DN, DAOM, LAc, DAAPM, DNBAO*

This nine-trimester program culminating in the Master of Science in Oriental Medicine provides comprehensive training in the five branches of oriental medicine. It provides a solid foundation in classical Chinese medical theory and practice, incorporating Eight Principle and Five Element theory as well as modern oriental medical theories and techniques from China, Japan, Korea, France, etc.

The 167.5 credit program covers the history, theory, and philosophy of oriental medicine as well as rigorous training in diagnosis, treatment planning, and the highest standards in the practice of acupuncture and Chinese herbal medicine.

Students will also graduate with a solid foundation in the basic sciences of western medicine, having developed the skills necessary for integrative and collaborative practice within hospitals and health care settings of their choosing. This comprehensive curriculum combined with extensive and sustained clinical training throughout the nine trimesters ensures program success. In addition, student have the option of returning to complete their Doctorate of Acupuncture (DAc-C).

## **Admission Information**

### **General Guidelines**

National University of Health Sciences admits new classes each fall (September), spring (January), and summer (May). Class sizes are limited, and prospective students are urged to contact the Admissions Office for official application deadlines. All applicants are encouraged to apply 9-12 months in advance.

Applicants can apply to National University while completing the prerequisite courses at their own institution. All prerequisite courses will need to be completed prior to the first day of classes. National University offers its own accelerated Prerequisite Program, which includes the required science courses.

### **Selection of Candidates**

The Committee on Admissions approves applicants for matriculation. In addition to meeting National University's admission standards, the Committee on Admissions will admit only those candidates who in the judgment of the University are of good character, possess the physical, behavioral, emotional, and cognitive criteria regarded as essential requirements needed to participate and complete the entire spectrum of study, training, and experiences within the educational program they are seeking to be admitted by the University, and who show promise of becoming a credit to the related profession and the University. Telephone or personal interviews are required.

National University of Health Sciences has set its entrance requirements beyond the minimum standards and criteria established by federal and professional accrediting agencies. A National University applicant should be academically disciplined and personally motivated to undertake the challenges of a curriculum that is patient-focused, and evidence-based in its clinical orientation. National University's College of Professional Studies seeks active, life-long learners prepared to diagnose, treat, and manage the full range of human conditions as broad-based primary care physicians and other practitioners.

### **Application Procedure for DC, ND, DAc-C, MAc-CHM and MAc Programs**

All students are strongly encouraged to apply 9-12 months in advance. Application for admissions must include:

1. A properly completed Application for Admission. Applications for admission should be completed online or mailed to the Admissions Office.
2. An application fee of \$55. The fee is not refundable.
3. Transcript of college record(s) to be sent directly to the NUHS Admissions Office by all colleges and universities attended. Failure to submit all transcripts for all credits earned from all colleges and universities may render a student ineligible for admission.
4. Two-character reference forms, one preferably from an appropriately degreed health professional for the intended program, and one preferably from a current instructor or pre-professional advisor, submitted directly to the Admissions Office by the persons providing the reference. (Reference forms from relatives will not be accepted.) Character reference forms are furnished by the Admissions Office.
5. Written essays are required for DC, ND, DAc-C, MAc-CHM and MAc applicants.
6. An informal interview (by phone, or in-person) with an Admissions counselor.

### **Admission Decisions**

Applicants for admission are not fully approved by the Committee on Admissions until it receives documentation of completion of all requirements for admission. However, an early decision conditional approval may be granted to

students who have not yet completed one or more of the required components of their admissions file. Conditionally approved students will be held to the following regulations and timelines:

1. Accepted students will be notified upon entry to the program that the matriculation file must be completed by the end of the 30th day of the term. Students whose application files are not complete by the end of the sixth week of the term will not be allowed to remain enrolled in the University.
2. If applicable, financial aid awards shall not be certified or released to students until the matriculation file is complete.
3. Students who demonstrated continuing attempts to complete the application file in a timely manner but are not able to do so through no fault of their own, may be granted an extended period to complete the file. The granting of the extended period must be approved by the Director of Admissions.
4. Students who do not complete the matriculation file by the end of the term will be required to start over from the beginning of the first trimester.
5. University policy on tuition and refunds will be adhered to for such students.
6. The University will attempt to help students with the completion of the matriculation file; however, it is the responsibility of students to do so.

## **Admission Requirements for the AOM Program**

### **Admissions Requirements for the MSAc**

While a bachelor's degree is preferred, applicants must have satisfactorily completed a minimum of 60 semester credit hours or 90 quarter credit hours of baccalaureate level education appropriate for graduate level work, or the equivalent from an institution, or institutions, accredited by an agency recognized by the U.S. Department of Education (USDE). Only classes for which a grade of "C" (2.0), "Pass," or better was earned can be considered to meet admissions requirements. A grade of "C-" is not satisfactory unless it is equivalent to a 2.00 on a 4.00 scale. Classes for which transfer credit is granted cannot be considered as part of the 60 semester / 90 quarter credits required for admission. NUHS reserves the right to make a professional judgement as to whether a student needs to retake a course and/or take supplemental training in order to maintain the rigor of the college curriculum.

### **Admissions Requirements for the MSOM and DAc-C**

While a bachelor's degree is preferred, applicants must have satisfactorily completed a minimum of 90 semester credit hours or 120 quarter credit hours of baccalaureate level education appropriate for graduate level work, or the equivalent from an institution, or institutions, accredited by an agency recognized by the U.S. Department of Education (USDE). Only classes for which a grade of "C" (2.0), "Pass," or better was earned can be considered to meet admissions requirements. A grade of "C-" is not satisfactory unless it is equivalent to a 2.00 on a 4.00 scale. Classes for which transfer credit is granted cannot be considered as part of the 90 semester / 120 quarter credits required for admission. NUHS reserves the right to make a professional judgement as to whether a student needs to retake a course and/or take supplemental training in order to maintain the rigor of the college curriculum.

## **Notification of Acceptance**

Those applicants accepted by the University will be notified promptly. Upon receipt of notice of acceptance, applicants shall remit a matriculation fee of \$225. This includes a \$150 tuition deposit (applicable toward the first trimester tuition) and a \$75 reservation fee. Generally, the deposit is due within 20 days from the date posted on the applicant's official letter of acceptance to the program. However, if the application is received close to the application deadline date(s), the deposit may be due before the 20-day time period. The matriculation deposit is required to reserve a seat in the desired class and is paid with the understanding that it will not be refunded if the applicant fails to report for registration to the University.

## Special Requirements

### Immunization

Pursuant to Illinois law, students enrolled in all Illinois pre-secondary institutions, who were born on or after January 1, 1957, must provide proof of immunity to “vaccine-preventable diseases.” All applicants, whether enrolled in Illinois or Florida, are required to submit all required forms and appropriate documentation to the Student Services Office at or before orientation. Students with any questions or concerns should contact Student Services. Students who fail to submit the required documentation will not be allowed to continue their enrollment at the University.

### Fingerprinting

Pursuant to Illinois law, students enrolling in all Illinois medical schools, “must submit to a fingerprint-based criminal history records check for violent felony convictions and any adjudication of the matriculant as a sex offender conducted by the Department of State Police.” The fingerprinting process will be conducted as part of the University’s orientation of new professional program students on both the Florida and Illinois campuses.

## Degree and GPA Requirements

DC and ND applicants will be required to have a baccalaureate degree and a minimum cumulative GPA of 3.00 (on a 4.0 scale). Those between a 2.75 and 2.99 may be admitted under an Alternative Admissions Track Plan (AATP). The DAc-C applicants will be required to have 90 semester credits from an accredited undergraduate program, a masters in Acupuncture and/or a masters in Oriental Medicine from NUHS completed prior to Summer 2023, and a minimum cumulative GPA of 2.50 (on a 4.0 scale). No prerequisite courses are required for the DAc-C program. Please contact the Assistant Dean of the AOM program, Dr. George Stretch, at (630) 889-6421 or [gstretch@nuhs.edu](mailto:gstretch@nuhs.edu) for more detailed information about the program.

### Specific Course Requirements: DC and ND Programs

Students are expected to have completed a total of 24 credit hours in life and physical science coursework before entering the chiropractic or naturopathic programs.

The 24 credits of life and physical science coursework should include both lecture and laboratory components in each of the following areas:

- Biology
- Physics
- General Chemistry
- Organic Chemistry

All courses must be taken at an accredited institution and must be transferable at the baccalaureate level. All courses must be completed with a "C" grade (2.00 on a 4.00 scale) or higher. A grade of "C-" is not satisfactory unless it is equivalent to a 2.00 on a 4.00 scale.

Please contact the Admissions Office at 1-800-826-6285 or [admissions@nuhs.edu](mailto:admissions@nuhs.edu) for more detailed information on required prerequisites.

### Beneficial Courses

Taking the following courses may help you to prepare for academic success in the first professional programs at NUHS. These courses are not required and taking or not taking them will not affect admissions decisions in any way. The beneficial courses are biochemistry, anatomy and physiology (human or comparative anatomy), and cell biology.

## Dual Enrollment

Students may dually enroll in two first professional programs. Students are not eligible to begin dual enrollment until the third trimester of study in their initial or primary program of entry. Students must have a 2.50 GPA in their

primary program, complete the dual enrollment form, and obtain all required signatures in order to be granted dual enrollment status.

### **Concurrently Enrolled Degree Students**

Students who enroll in more than one program (DC, ND, MSAC, MSOM) should be aware that they must meet the requirements of both programs, and that these programs will be tracked separately (e.g., separate enrollment agreements, course codes, curriculum progress tracking). Financial aid may not be available for both programs. Upon matriculation, certain undergraduate level co-requisite coursework must be completed to advance in the program.

### **Credit by Proficiency Examination**

A portion of an applicant's pre-professional education may be acquired through institutional proficiency exams or coursework such as the College Level Examination Program (CLEP), Advanced Placement Program (AP), International Baccalaureate (IB), Defense Action for Non-Traditional Educational Support (DANTES), American College Testing Program (ACT), Program Evaluation Procedure (PEP), New York Board of Regents College Examinations, or through challenge courses.

Equivalence will only be acceptable if the applicant has had certification of the credits by an institution that is accredited at the college level by an accrediting organization that is listed as nationally recognized by the Secretary of Education of the U.S. Department of Education.

### **Technical Standards for Admission**

All applicants accepted to National University of Health Sciences' College of Professional Studies must be able to meet the University's technical standards of the College and/or the program in which they enroll. Technical standards are those physical, behavioral, emotional, and cognitive criteria that an applicant must already possess as personality traits, life skills, or acquired abilities before enrolling in the program. These qualities are regarded as essential requirements needed to participate and complete the entire spectrum of study, training, and experiences within the educational program they are seeking to be admitted by the University. These standards are applied in addition to, and separate from, academic standards of qualification.

Applicants must review the technical standards that apply to the educational program in which they intend to enroll and sign a form certifying they have read, understand, and are able to meet the standards (with or without reasonable accommodations) of that program. This information is provided to help every student be more aware of the types of performance and expectations associated with different educational programs that the University offers. The use of technical standards is derived from Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. These laws provide a framework for individuals with documented disabilities to request reasonable accommodations to fulfill their educational objectives. Reasonable accommodations are defined as any change or modification in the way things are usually done that enables an individual with a disability to participate as fully as possible in an educational program. An effective accommodation for a disability can ensure that an otherwise qualified student with a disability is able to perform and be assessed on their ability rather than by their disability.

Candidates with documented disabilities who wish to request accommodations under the Americans with Disabilities Act must follow the University's procedure for requesting an accommodation. This procedure, in summary, requires submitting a written request for accommodations and supporting documentation of a life-limiting disability to the Dean of Students. The Dean will review the request and determine whether a reasonable accommodation can be made.

National University of Health Sciences does not discriminate against qualified individuals with disabilities in recruitment or admission to its programs, services, or activities. Any information disclosed by an applicant regarding disabilities will not adversely affect admissions decisions nor eligibility to remain enrolled.

The University reserves the right to reject requests for accommodations that would fundamentally alter the nature of a University educational program, lower the academic standards, cause an undue hardship on the University, or endanger the health or safety of a student with a disability, other students, clinic patients, or any other member of the University community.

Students must have abilities and skills of five varieties:

### **Sensory/Observation**

A student must be able to observe demonstrations and experiments in the basic sciences including, but not limited to, demonstrations on human cadavers, animals, microbiologic cultures, and microscopic studies of microorganisms and tissues in normal and pathologic states. A student must be able to observe a patient accurately at a distance and close at hand. Observation necessitates the functional use of the senses of vision and somatic sensation. It is enhanced by the functional use of the sense of smell. Therefore, a student must have sufficient sense of vision, hearing and touch to perform the customary techniques in a physical examination such as auscultation (listening with a stethoscope), percussion (tapping of the chest or abdomen to elicit a sound indicating the relative density of the body part), palpation (feeling various body parts such as the breast or abdomen with the ability to discern the size, shape, and consistency of masses), and visual observation sufficient to note changes in skin and eye color, as well as to use such instruments as an otoscope (magnifying device for examining the ear) and ophthalmoscope (magnifying device for examining the eye).

### **Communication**

A student must be able to speak, to hear, and to observe patients in order to elicit information, describe changes in mood, activity and posture, and perceive nonverbal communications. A student must be able to communicate effectively and sensitively with patients. Communication includes not only speech, but also reading and writing. The student must be able to communicate effectively and efficiently in oral and written form. In summary, a student must have verbal and written communication skills sufficient to conduct patient interviews and record clinical histories, read all forms of diagnostic imaging, and make assessments and plans known to patients and other members of the health care team.

### **Motor/Strength/Coordination**

A student must have sufficient motor function to elicit information from patients by palpation, auscultation and percussion, perform basic laboratory tests (urinalysis, CBC, etc.), carry out diagnostic procedures (digital rectal, otoscopic, etc.), and read EKGs and X-rays. A student must also be able to coordinate both gross and fine muscular movements, equilibrium, and provide general manual therapy care and emergency treatment to patients. Examples of minimal emergency treatment required of primary health care providers include the ability to perform quickly and effectively such emergency procedures as CPR, the application of pressure to stop bleeding, the opening of obstructed airways, and venipuncture (inserting a needle into a vein). Examples of manipulative therapy care involve the requisite strength and dexterity to be able to perform basic procedures such as static and dynamic palpation of joints, movement of diagnostic and therapeutic equipment, and sufficient motor function to coordinate and balance the hands and body while manually delivering the high velocity, low amplitude thrusting action associated with the controlled manipulative therapy that complementary and alternative medicine (CAM) practitioners frequently apply to the spine or extremities of a patient.

### **Conceptual, Integrative, and Quantitative Abilities**

These abilities include measurement, calculations, reasoning, analysis, and synthesis. Additionally, a student must be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. Problem solving in group and individual settings requires all these intellectual abilities. Testing and evaluation of these abilities in the College of Professional Studies employs periodic examinations as an essential component of the curriculum. Successful completion of these examinations is required of all candidates as a condition for continued progress through the curriculum. Examples of these tests include essay, oral and/or multiple-choice tests, typewritten papers, oral presentations, and lab practicals designed to assess a variety of cognitive and non-cognitive skills in a simulated or supervised clinical setting.

## **Behavioral and Social Attributes**

A student must possess the emotional health required for full utilization of his or her intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive and effective relationships with patients. A student must be able to function effectively under stress. A student must also be able to adapt to change, display poise and flexibility in the face of uncertainties and stressful situations, and to independently demonstrate empathy, integrity, compassion, motivation, and commitment commensurate with the habits and mannerisms of professional training to become a professional health care provider.

## **International Students**

National University of Health Sciences is authorized under federal law to enroll non-immigrant alien students. Because of difficulties inherent to overseas communications, international students should expect the application procedure to require at least several months. It is strongly recommended that international students apply to the University at least one year in advance. International students seeking admission to the University must provide the following documentation:

1. A properly completed Application for Admission including a non-refundable \$55 fee.
2. Transcript(s) of college records (or equivalents acceptable to National University) mailed directly to National University from the college(s) attended or evaluation agency. For all international students needing foreign transcript evaluation, educational records must be evaluated by an evaluation agency approved by the University, such as World Education Services Inc., P.O. Box 745, Old Chelsea Station, New York, NY 10113-0745.
3. Students for whom English is not their primary language must submit proof of proficiency in the English language. For all first professional program applicants (DC, ND, DAc-C, MSAc-CHM, MAc) taking the TOEFL exam, a minimum total score of 80 is required. Additionally, a minimum score of 26 on the Speaking section and 22 on the Listening section is required. The University's institution code is 1567. Students who successfully complete coursework in English Composition at a regionally accredited U.S. school may be eligible for a waiver of the TOEFL exam.
4. Evidence that adequate provisions have been made to meet financial needs during the first academic year of study. The United States Department of Immigration does not permit international students to be employed during their first nine months of attendance by anyone other than the National University, which has limited employment opportunities for its students.

## **Transfer Students and Advanced Standing for DC and ND Programs**

National University of Health Sciences will award advanced standing credits from institutions fully accredited by specialty professional health care accrediting commissions such as the Commission on Accreditation of the Council on Chiropractic Education, the Council on Naturopathic Medical Education, or credits from another accredited professional college(s), in those instances where the credits are germane and equivalent to the credits of the curriculum of NUHS. Because there is not total universality between various chiropractic, naturopathic, and professional colleges regarding curricula, transfer students should expect to lose some credit given at institutions attended previously. The following regulations apply to transfer students:

1. Transfer students must follow the application procedure for new students, must meet the current entrance requirements for admission to the University, and must be approved by the Committee on Admissions.
2. The applicant must remit official transcripts to National University from another professional college(s) prior to submission of their file to the Committee on Admissions.



3. Students may be granted advanced standing for coursework taken at another professional college. Students must initiate this process through the Admissions Office. Advanced standing will be determined by the appropriate assistant dean/dean.
4. Courses considered for advanced standing must be equivalent in content and quality to those of National University, and must be satisfactorily completed with C grades or higher 2.0 (on a 4.0 scale).
5. Students must be competent in the courses for which advanced standing is sought. This may require passing course competency examinations.
6. Students wishing to be granted additional advanced standing after matriculation to National University must submit this request within one calendar year of matriculation.
7. Not more than the equivalent of two academic years of credit may be granted to applicants who have taken professional work in a medical or osteopathic college, and then only when the colleges from which credit is offered are accredited by the accrediting agencies of the respective professions.
8. Students who have interrupted their professional studies for a period in excess of five calendar years shall be allowed no credit on re-enrollment and no credit in transfer for chiropractic and other professional studies courses taken previously. Such students must reapply for admission and must meet all current admission requirements.
9. For the acupuncture and oriental medicine programs, transfer students granted advanced standing must complete a minimum of 30 credits within no less than one calendar year (or 1.5 academic year) of resident study in order to graduate from National University of Health Sciences.

### **Non-Degree Students**

National University makes a limited number of courses available to individuals who wish to take classes as non-degree seeking students. Students taking coursework in this capacity do not go through the normal admission process and are not admitted to a degree program. Interested individuals should contact the Admissions Office for guidance and course availability. Course enrollment is handled through the Registrar. The Registrar, in consultation with the appropriate dean, will determine if a student can enroll in any specific course as a non-degree seeking student. To obtain credit for courses, non-degree students must complete the entire trimester and successfully pass all required examinations. Tuition is paid by the non-degree student by the per credit hour fee. Non-degree seeking students cannot take more than a total of 12 credits within any programs unless they have a suitable rationale for not enrolling in the program and approval from the Dean.

## **College of Professional Studies**

### **Academic Policies, Regulations & Procedures**

#### **Academic and Clinical Competencies**

In the College of Professional Studies, students will be expected to meet a minimum performance standard in the following competencies:

1. **Medical Knowledge**  
Before graduation, the competent student must be able to demonstrate knowledge about established and evolving biomedical, clinical, and cognitive sciences and the application of this knowledge to patient care.
2. **Interpersonal and Communication Skills**  
Before graduation, the competent student must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, patients' families, and professional associates.

**3. Patient Care**

Before graduation, the competent student must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

**4. Professionalism**

Before graduation, the competent student must be able to demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

**5. Practice-based Learning and Improvement**

Before graduation, the competent student must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices.

**6. Systems-based Practice**

Before graduation, the competent student must be able to demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

## **Student Course Load**

A full-time student at National University of Health Sciences is one who: (1) enrolls in no less than two of the three trimesters that the University offers during its fiscal year (September 1 through the succeeding August 31); and (2) during each trimester of attendance, enrolls in no less than 10 credit hours of coursework.

Full-time DC and ND students also have the option of taking a reduced course load through the Flexible Track Option. This allows students to take fewer credits per trimester, lengthening Phase I and II of the program from four to five or six trimesters depending on the track selected. Illinois and Florida DC students have separate Flexible Track curriculums.

Full time AOM students in the DAC-C, MSAC, and MSOM programs have the option of taking a reduced course load (resulting in taking fewer credits per trimester, lengthening their time at NUHS depending on how many courses are taken). More detailed information can be provided on a case-by-case basis once meeting with the students' academic advisor.

## **Proactive Advising**

With student success being a driving force for National University of Health Sciences, and to ensure that the students are progressing in a positive manner toward their careers in primary care, the advisors have the authority to initiate schedule changes with the student's best academic interest at heart. The advisor may, after consultation with the Dean, require that a student be "academically withdrawn" from one or more courses, who is not meeting the expectations for the trimester. Any appeals should be made to the Dean of the College of Professional Studies.

## **Academic Advising**

To foster academic success, all students are assigned a faculty advisor to assist them in course load selection and decisions related to their program of study. The faculty advisor also acts as a liaison to the other academic and general student support through the office of the Dean of the College and through the Student Services Office.

Faculty advisors are provided access to their advisee's academic records for courses in progress. Based upon a comprehensive early assessment review of a student's performance, the faculty advisor may, after consultation with the Dean, initiate an academic remediation action that would include withdrawal from one or more courses, coupled with a support plan for assisting the student's successful completion of remaining courses that trimester. Such action would be triggered by poor performance in one or more courses and may consider both the course instructor's prognosis for either failing or passing the course, and the student's academic history to date, including any previous academic sanctions. The rationale for such actions is the long-term success of the student, while maintaining

appropriate progress through the curriculum based upon established priorities for course completion in each trimester, which arise from the structured sequence of courses in each phase of the curriculum. A student may appeal an academic remediation action to the Dean of the College of Professional Studies.

Students admitted under the Alternative Admissions Track Plan (AATP) will require closer performance tracking, which may generate increased contact with academic advising and an individual plan to modify course schedules.

## **Trimester Credit**

The University operates on a trimester schedule. A trimester has a duration of not less than 15 weeks. The trimester hour is the unit of credit. A trimester hour of credit is defined as one didactic period or two laboratory periods of learning each week during the trimester. The class period is 50 minutes in duration. In addition, each credit hour in class includes two hours of study or homework outside of the class. The program is made up of lecture, scheduled group facilitation, and self-directed didactic learning hours that are given credit on a one-to-one basis (one didactic learning hour equals one credit). Laboratory hours are given credit on a two-to-one basis (two laboratory learning hours equals one credit). Clinic hours are given credit on a two-to-one basis (two clinic hours equal one credit). A student may receive 0.5 credits during a trimester in which there are an odd number of laboratory hours per week. The formal hours of the program are generally scheduled Monday through Friday from 8 a.m. to 5 p.m. except for clinic duty, or an occasional intensive learning experience.

The didactic course hours of the AOM program are generally scheduled Monday through Friday from 5 p.m. to 10:30 p.m. However, some of the courses will be offered during the weekend as well. The clinical training of the AOM program will be scheduled Monday through Friday from 8 a.m. to 5 p.m. and Saturday from 8 a.m. to 12 noon.

## **Academic Standing**

Academic standing is based upon the cumulative GPA (CGPA). A student is in good academic standing if the CGPA, which is calculated at the completion of each trimester, is 2.00 or greater. In addition, good academic standing requires a passing grade in Clinical Internship for students in Phase 3 of the curriculum.

Continued progression through the Professional Studies curriculum requires good academic standing. If the CGPA falls below 2.00, and/or a student fails Clinical Internship, then that student shall be issued a notice of Academic Probation, and that student is no longer in good academic standing. Continued progression through the curriculum stops when a student is placed on Academic Probation. The student is instead required to complete a prescribed plan for academic remediation, which offers the student an opportunity to restore good standing through grades earned at the completion of the remediation term. An individualized remediation plan is established through academic advising and supervised by the Dean.

If a student remains in good academic standing, a final grade of *D* will be considered as a passing grade, satisfying successful completion of that course. However, this may not apply for a student who is on academic probation. The plan for academic remediation may typically include the requirement to repeat certain courses with a grade of *D* for the purpose of eliminating that grade from the CGPA calculation, as the means to restore academic standing by raising the CGPA back above the 2.00 minimum.

## **Course Withdrawal Policy**

The first week of the trimester is considered the add/drop week. Students may add or drop courses during this period with an advisor's signature. Courses that are dropped during this period will not appear on the transcript as an attempted course.

Starting in the second week, and continuing through the twelfth week of the trimester, a student may still withdraw from courses. These courses will be listed on the transcript as attempted with a grade of *W*, and these course hours will add to the attempted hours for that trimester, as well as to the cumulative attempted hours. The GPA will not be affected by withdrawals during this period, as GPA is calculated by dividing grade hours by quality points. This will, however, negatively impact academic progress, which is measured as earned hours divided by attempted hours.

Advisors may therefore assess both academic progresses, as well as academic performance. Students are allowed to withdraw from any course with approval of their advisor.

The first week of the trimester is considered the add/drop week. Students may add or drop courses during this period with an advisor's signature. Courses that are dropped during this period will not appear on the transcript as an attempted course. However, first time, first trimester students in the College of Professional Studies can drop classes through week 5 with approval from the Basic Science Chair and Dean of the College of Professional Studies. Courses that are dropped during this period, with the appropriate approvals and signature from the Chair and Dean, will not appear on the transcript as an attempted course.

For first time, first trimester students in the College of Professional Studies, starting in the sixth week, and continuing through the twelfth week of the trimester, a student may still withdraw from courses. Students may not withdraw from courses in weeks thirteen through seventeen. These courses will be listed on the transcript as attempted with a grade of W, and these course hours will add to the attempted hours for that trimester, as well as to the cumulative attempted hours. The GPA will not be affected by withdrawals during this period, as GPA is calculated by dividing grade hours by quality points. This will, however, negatively impact academic progress, which is measured as earned hours divided by attempted hours. Advisors may therefore assess both academic progresses, as well as academic performance. Students are allowed to withdraw from any course with approval of their advisor.

All students may withdraw or repeat a course two additional times from the first attempt for a total of three attempts. Students may appeal to the appropriate academic dean to have the course withdrawal deadline extended in cases of documented medical/family emergency.

## Repeated Course

Students must repeat any required courses in which a grade of *F*, *W*, or *WF* is received. Students will only be allowed to repeat courses in which they received a *D* or below. In the case of a *D* or *F*, the most recent grade received will replace the grade received for the previous attempt and be calculated into the Cumulative GPA. The initial grade is flagged with an RPT indicating that the course has been repeated. All original and repeated courses will be counted as attempted credits in satisfactory academic progress calculations. Students may withdraw or repeat a course two additional times from the first attempt for a total of three attempts. Failure to pass a course after three attempts shall result in expulsion.

## Make-up Final Examination Policy

Missed final examinations may be made up if an excused absence has been granted by the appropriate [academic dean](#). The make-up examination will be scheduled by the faculty member within two weeks of the missed final examination but never later than the first day of class of the following trimester. If examinees are not present at the scheduled make-up exam time, they will receive the grade of *F* for the course or lab unless the grade of *I* is reissued. Enrollment in any new courses will not be continued if students have not converted the grade of *I* to a regular passing grade by the first calendar day of the second calendar week of the next trimester of attendance. If the student does not return in the following trimester, the removal of the *I* must be accomplished within the maximum of one calendar year. Otherwise, the *I* becomes an *F* automatically.

## Final Comprehensive Examinations

Final examinations are an integral part of the course evaluation and are scheduled at the end of the course. Each examination is scheduled at a specific time. Students who present themselves to the exam site late (greater than 15 minutes or after the first student leaves the exam site, whichever comes first) may be required to follow the make-up exam policy. Final examinations may not be given at times other than the regularly scheduled periods or the make-up periods.

Passing the final comprehensive examination is required to pass a course. Laboratory final examinations are given during their last regularly scheduled time.

The nature of each course and laboratory requires various means of evaluation. Course managers and laboratory instructors have the responsibility for developing appropriate evaluation criteria. Course managers must explain them to their students at the beginning of the trimester and must stipulate them in the course syllabi filed with the appropriate [academic dean](#).

No student will be permitted to sit for a final examination who has not completed all the work, including tests, practical examinations, class assignments, attendance, etc., required by the course manager and laboratory instructor prior to the final examination.

To receive the grade of *I*, a student who has not completed all the required work prior to the time of the final examination must seek the permission of the course manager who must consult with the appropriate [academic dean](#).

Unexcused (no grade of *I* granted) absence from or failure of the second administration of the final examination will be noted as a grade of *F* for the course or laboratory.

The format of the final comprehensive examinations will be determined by the course manager and specified in the syllabus.

## Clinical Competency Assessment

Both MSAC and MSOM students are required to take the Internship Foundational Examination by the end of Trimester 3 in order to start their internship. Each program requires the Senior Intern Advanced Examination at the end of Trimester 5 for MSAC and Trimester 7 for MSOM. Students of both programs must successfully complete the Comprehensive Graduation Examination by the end of the final trimester of their program.

## Co-Curricular Learning (CCL)

National University of Health Sciences graduates are called to take their place as health professionals and leaders in their communities. While at National, all degree-seeking students are required to participate in community service activities that support both the University and the public, providing excellent training for future leadership roles.

Co-curricular Learning, or CCL, is a mission-driven service requirement. CCL encompasses community service activities that support the University and the public, while focusing on leadership and management, cultural diversity and ethics, and advancement of education. CCL incorporates learning experiences that complement, in some way, what students are learning in their programs.

Students are asked to submit short written assignments reflecting on their own learning experiences therein. A master list of volunteer opportunities will be maintained by the Office of Student Services. All first professional students (College of Professional Studies) must complete the last 3 assignments while in clinic.

<u>Program Requirements</u>	<u>Required Assignments</u>
Chiropractic/Naturopathic	10
Oriental Medicine	9
Acupuncture	7

## Academic Difficulty

There are three categories of academic difficulty: Academic Deficiency, Academic Warning, and Academic Probation.

### Academic Deficiency

Academic Deficiency occurs whenever a grade of *F* or *U* is received in one or more courses, regardless of the trimester or cumulative grade point average. Courses with a grade of *F* or *U* must normally be repeated in the following trimester.

### **Academic Warning**

Academic Warning occurs whenever the trimester grade point average is less than 2.00. A single academic warning does not typically trigger remedial actions. Repeated academic warnings may cause remedial actions in the form of load reduction and/or repeating courses with a grade of *D*.

### **Academic Probation**

Academic Probation occurs whenever the cumulative grade point average is less than 2.00. Students on Academic Probation are no longer in good academic standing and are subject to remedial actions intended to improve academic performance. The probationary period is one trimester in length. During the probationary period, students shall not be allowed to participate in off-campus extracurricular activities or receive excused absences to attend activities supported by the University. Students within the College of Professional Studies may receive only two academic probations, cumulatively. A third probation causes academic separation from the program.

Remedial actions are typically prescribed for students as a result of being placed into one of these categories. Such actions are administered through the office of the Dean, in consultation with designated academic advisors. Academic sanctions in the form of suspension or expulsion from the program may also result from an accumulation of academic warnings and probations. Such decisions are made by the Dean and may be appealed to the Committee on Academic Standards, Grades, and Records through the Dean's office.

### **Probation with Extenuating Circumstances**

Probation with extenuating circumstances is a status that informs students that their academic record is sufficiently poor to warrant permanent separation from the program. However, due to extenuating circumstances brought forward via written appeal by the student to the Committee on Academic Standards, Grades and Records through the office of the appropriate dean, they will be allowed to continue at the discretion of the appropriate dean or the committee.

### **Academic Separation**

There are two designations for academic separation from the program: academic suspension and academic expulsion. Academic separation requires the Committee on Academic Standards, Grades, and Records to submit a recommendation to the Dean, who will make the final decision. The recommendation may be to continue in the program following a prescribed plan for remediation or expulsion. Expulsion is permanent separation from the program.

A student who receives a third academic probation (cumulative) is placed on academic separation. Should the recommendation be to continue in the program following a prescribed plan for remediation, this shall occur after a mandatory suspension from the program for one to three trimesters.

When the decision is to allow a student who has been separated from the program to continue, that student becomes eligible for reinstatement by agreeing to a remediation plan within the current program. Alternatively, or in addition, students may be required to complete further academic development in the form of higher education courses of learning while they are on suspension from the program. The Dean, in consultation with the Committee on Academic Standards, Grades, and Records shall approve the remediation plan, and shall also define and approve any further academic development in the form of higher education courses of learning. Once reinstated, these students shall normally be allowed one trimester in which to restore good academic standing. Failure to restore good academic standing by raising the cumulative grade point average to 2.00 or greater at the completion of the remediation trimester will normally result in expulsion from the program. In addition to the above, the accumulation of multiple academic warnings in combination with academic probations can provide cause for an academic review through the Committee on Academic Standards, Grades, and Records that may lead to a recommendation for academic separation from the program. Such a review would be initiated by the Dean.

## **Expulsion**

Expulsion of a student represents permanent separation from the program. There is no opportunity for re-enrollment or re-instatement in that program. Those wishing to consider enrollment in another program at NUHS may do so by contacting the appropriate academic dean in writing. Expulsion may represent permanent separation from the institution where deemed appropriate by the dean. Appeals to any expulsion reside with the Vice President for Academic Services.

A student who has been expelled from a professional program of another institution or the institution itself, if it is a single purpose institution, may be considered for admission to an equivalent program or a different program offered by NUHS. In both instances, the student must meet all admission requirements for entry plus be approved for entry by the appropriate academic dean in writing. Appeals to any decision made by the dean reside with the Vice President for Academic Services.

## **Remedial Actions**

To provide students in academic difficulty with an opportunity to restore good academic standing, the following remedial actions may be prescribed: limit the course load to a restricted number of credits; and/or repeat courses with a grade of *D*, in addition to those with a grade of *F* or *U*. Remedial actions may also include registration in repeat courses only with no new subjects, mandatory counseling with individuals on or off campus, and mandatory tutorial in specified subjects

## **Re-enrollment and Re-instatement**

A student interested in re-enrolling in a program from which they previously withdrew or wishing to be re-instated after suspension must submit a completed re-enrollment/re-instatement form to the Registrar. The appropriate dean, in consultation with the proper committee, will determine a student's eligibility to rejoin the institution and will consider the following guidelines.

## **Returning After Suspension**

If a student has been suspended from the University, a student may petition the appropriate dean for re-instatement. This process will be dependent upon the student meeting the dean's written terms for re-instatement.

## **Returning After Withdrawal**

Students who left the University in good academic standing and now wish to re-enroll within a year (three trimesters) of their withdrawal date may be allowed to resume academic studies where they finished at the discretion of the appropriate assistant dean. However, if a student leaves in poor academic standing, the resumption of academic studies will be at the discretion of the appropriate assistant dean. The appropriate assistant dean may consult with other relevant personnel regarding this request. In either case, the student may be required to follow a remedial academic plan approved by the appropriate assistant dean.

A student who left the University in good academic standing and now wishes to re-enroll more than a year (four or more trimesters) after their withdrawal date will be assessed by the appropriate dean in conjunction with the Admissions Office, which will process the potential reinstatement. The student may apply for advanced standing to receive credit for prior coursework. The awarding of advanced standing is made at the discretion of the appropriate dean. If the student left in poor academic standing, they may possibly receive no credit for prior coursework and must start over.

In all circumstances, a student must complete the first professional doctoral program within eight (8) calendar years from the date of their first matriculation in coursework applicable to the doctoral degree they are pursuing.

## **Dean's List and Honor Roll**

At the end of each trimester, recognition of the Dean's List of Students for Distinguished Academic Achievement is awarded to those full-time students who have achieved a GPA of at least 3.5 on a 4.0 scale for the trimester with no

grade lower than a S/C. Recognition on the Honor Roll of Students for Exemplary Academic Achievement is awarded to those full-time students who have achieved a GPA of at least 3.0 (on a 4.0 scale) for the trimester with no grade lower than a C.

## **Graduation Honors**

At National University of Health Sciences, degrees granted with distinction, Latin honors (cum laude, magna cum laude and summa cum laude), are based primarily on the student's cumulative grade point average. To be eligible to receive a degree with distinction, a student must have earned 90% of the credits required for graduation in courses taken at National University. Degrees with distinction are conferred upon students in all degree programs other than the AAS. Certificate programs do not qualify.

A degree summa cum laude is conferred upon the student who has attained a cumulative grade point average of 3.7-4.0.

A degree magna cum laude is conferred upon the student who has attained a cumulative grade point average of 3.6-3.69.

A degree cum laude is conferred upon the student who has attained a cumulative grade point average of 3.5-3.59.

## **Valedictorian/Salutatorian**

The valedictorian and salutatorian are respectively the first and second highest ranking scholars in the graduating class of each program. The students must have earned at least 90% of their core curriculum credits at National University of Health Sciences. The rankings are determined by the cumulative grade point average of the core courses.

If there is a tie, elective courses will be used to calculate the cumulative GPA. In the event there is a tie for the valedictorian position, there will be no salutatorian. In the event there is a tie for the salutatorian position, there may be more than one. In the DC program, only those students who participate in commencement three trimesters after beginning their clinic internship may be named as valedictorian or salutatorian.

## **Graduation Requirements**

The Doctor of Chiropractic, the Doctor of Naturopathic Medicine, the master of science in acupuncture, and the master of science in oriental medicine degrees are conferred on individuals who:

1. Meet all stipulated academic requirements for the degree and have been a resident student at National University of Health Sciences for at least the last two academic years of study;
2. Have successfully completed all the required courses, laboratories, and clinic internships in the degree curriculum within the eight-calendar-year limit for the chiropractic, naturopathic, and oriental medicine programs and within six calendar years for the acupuncture program;
3. Are in good academic standing and are clinically competent;
4. Are recommended for graduation by the faculty of the University;
5. Are free of all indebtedness and other obligations to the University;
6. Have attained the age of 21;
7. Have successfully completed all required Co-Curricular Learning assignments
8. Have submitted a completed and signed Petition for Degree Completion Form;



9. Have participated in the commencement ceremony. (Graduates of the NUHS Florida program are required to attend commencement on the main campus in Illinois.)
10. DC program only: has completed a minimum of the last 25% of the NUHS required program credit hours.

## **Graduation Rate for the Chiropractic Degree**

National University of Health Sciences is pleased to provide the following information regarding our institution's graduation/completion rates. The information is provided in compliance with the Higher Education Act of 1965, as amended. The most recent two-year average graduation rate at 150% time (cohorts starting in FA15 through SU17) is 93.0%.

While reviewing this information, please bear in mind:

- The DC graduation/completion rate is based on enrollment up to 150% normal time, meaning up to 15 trimesters rather than the standard 10 trimesters. This period is used to account for our Flexible Track Option that allows students to complete their degree requirements at a slower pace.
- We have elected not to report our transfer-out rate because our University's mission does not include providing substantial preparation for students to enroll in other institutions.
- The graduation/completion rate does not include students who had a non-reschedulable military service requirement, were permanently disabled, or died.

## **Placement Rate for Chiropractic Graduates**

89.00% of National University graduates, from 2018 through 2021, were licensed, or license eligible, within six months of graduation.

## **Departments of Instruction**

The faculty of National University of Health Sciences has developed an innovative and active process of learning with problem-based learning methodologies and competencies being placed at its core.

Courses are identified by course number, title, and designations that indicate hours devoted to lecture/group/self-directed and laboratory formats and its respective credit value. Specific prerequisites also are listed.

The course content for the student who is seeking to earn the professional degree comprises five major components: basic sciences, clinical sciences, research, nutrition and biochemical therapeutics, and internship. The basic science content includes the disciplines of (1) anatomy, (2) pathology, microbiology and public health, and (3) physiology and biochemistry. The clinical science content includes the areas of (1) diagnosis, (2) diagnostic imaging and laboratory methods, and (3) therapeutics.

Although the teaching of basic sciences, based upon clinical patient cases, and the clinical sciences, steeped in the mechanisms of basic science, is integrated throughout the curriculum, there is a difference in emphasis. Basic science content is emphasized during the early trimesters and clinical science content is emphasized during the latter part of the curriculum at National University of Health Sciences.

The research component of the instructional content of the professional degree includes the critical review of the clinical literature, scholarly independent study, journal clubs, etc.

The internship component is required of all students seeking the first professional degree.

## Department of Basic Sciences

*Illinois: Assistant Professor, Moira Jenkins — Chair*

*Florida: Professor, Mackenzie Ott — Chair*

Learning the normal structure and function of the human body is the first step toward becoming a competent physician. At NUHS, students learn and study the basic sciences to develop an applied understanding of how the presentation of normal health is dependent upon structure and function at all levels of organization, from biomolecules to the genome, from cells to tissues, and from individual organs to organ systems. Such learning is accomplished through the disciplines of biochemistry, histology, anatomy, and physiology. Of equal importance is learning that normal health is also a reflection of balanced and coordinated signaling and communication between biomolecules and organelles within cells, between cells within tissues and organs, and between tissues and organs throughout the body. Pathways and mechanisms of signaling and communication are learned through the context of homeostatic regulation via the nervous and endocrine systems, as well as through the emerging concepts of epigenetics at the genomic level, and neuroendocrinology at the intercellular and systems levels.

The application of basic science to human health and medicine must also consider the biological structure and function of the immune system and its role in defending against pathogens, as well as learning, through the disciplines of microbiology, virology and mycology, the biology of the major classes of pathogens that threaten human health. Mastery of the basic sciences culminates with the discipline of pathology, which integrates and applies the individual science disciplines towards understanding mechanisms that underlie the symptomatic and diagnostic presentations of disease, as well as explaining the basis of disease in terms of abnormal structure and function within the body.

## Department of Clinical Sciences

*Illinois: Associate Professor, Nakeisha Pearson — Chair*

*Florida: Assistant Professor, Steven Freeman — Chair*

The clinical sciences are taught by the faculty of the disciplines of (1) chiropractic medicine, (2) diagnosis, (3) diagnostic imaging, (4) naturopathic medicine, (5) acupuncture and oriental medicine, and (6) nutrition and biochemical therapeutics. The clinical sciences augment the training and knowledge gained through basic science content and bring them into clinical perspective.

Through content objectives in the discipline of diagnosis emphasizing physical, laboratory and special procedures, students are prepared to examine patients and understand the problems of diseases that present in practice. Through the study of biomechanics and the discipline of diagnostic imaging, students add to their special knowledge, which is particularly related to the physician's discipline. Content in chiropractic, nutrition, botanicals, homeopathy, naturopathic medicine, oriental medicine, and physiological therapeutics trains students not only in the mechanics of treatment but also in the rationale of natural therapy. As a primary care physician/practitioner, the Doctor of Chiropractic, the Doctor of Naturopathic Medicine, the practitioner of acupuncture and the practitioner of oriental medicine serve as portals of entry for patients into the health care system. The clinical sciences, therefore, present material in both diagnosis and therapeutic management beyond that which is strictly germane to the practice of chiropractic medicine, naturopathic medicine, acupuncture, and Oriental medicine, but which is essential for interaction with other health care professionals.

The clinical science objectives also emphasize practical training. During laboratories for courses in evaluation and management, physical diagnosis, radiology, physical medicine techniques, hydrotherapy, acupuncture and accessory techniques, and physical rehabilitation, the student learns by doing as well as by lecture. Students receive further practical training in the Training and Assessment Center with simulated patient encounters. The examination and treatment of patients begins with the clinic internship, which occupies much of the student's time thereafter. Starting with observation students expand their clinical knowledge and skills by treating patients, with increasing responsibility throughout the course of their education.

## Department of Clinical Practice

*Illinois: Professor, Theodore L. Johnson Jr. — Dean of Clinics*

*Instructor, Frank Frydrych, Jr., DC, MSACP — Chief Clinician, Chiropractic Medicine*

*Assistant Professor, Jennifer Green, ND, DC — Chief Clinician, Naturopathic Medicine*

*Assistant Professor, Hyundo Kim, PhD — Chief Clinician, Acupuncture and Oriental Medicine*

Internship must be taken as one unit. Successful completion without interruption of the internship represents the culmination of the clinical phase of the program. The AOM program can be taken as a shift unit individually.

The final internship program of patient management is essential preparation for private practice and includes the recruitment of patients. Application of the techniques, instrumentation, and procedures studied previously in the program forms the nucleus of the internship. Interns participate in case management under the supervision and instruction of the attending faculty physicians. Students must be available to cover the assigned clinic shift at the specified NUHS Whole Health Center and/or other assigned clinic facility, as hours vary at each location, in order to serve the needs of patients and the community.

During their internship, students, under the supervision of a licensed health care provider, provide health care to patients as their main duty. The internship also provides students other clinical opportunities, such as clerkships and rotations at other clinical sites outside of their primary clinical assignment.

A clinical competency exam must be passed to enter the acupuncture and oriental medicine internships. In addition to patient care, interns participate in clinic business operations, in-service seminars on a variety of topics, community service, quality assurance, and advanced diagnostic procedures.

At all times, the intern must demonstrate professionalism in patient and colleague interactions as well as evidence of clinical efficiency and competence. While learning to apply didactic and laboratory knowledge gained in the earlier trimesters, it is important to strive for efficiency and quality in patient care. This is particularly relevant in today's atmosphere of increasing competitiveness for the ambulatory-care patient. National University of Health Sciences provides its students (interns) with the opportunity to meet all the quantitative (as well as qualitative) requirements set forth in the respective programmatic clinic syllabus. These requirements meet the Educational Standards for Chiropractic Colleges, published by the Council on Chiropractic Education, and the educational standards for naturopathic medicine colleges, published by the Council on Naturopathic Medicine Education, and the educational standards for acupuncture and oriental medicine colleges published by the Accreditation Commission for Acupuncture and Oriental Medicine. The opportunity for students to serve in more than a single clinic provides a variety of cases to a greater degree than might be expected in private practice. Interns are required, as part of their education in patient recruitment, service and leadership to accumulate Co-Curricular Learning experiences.

The National University of Health Sciences Preceptorship Program is designed to offer first professional students the opportunity to gain valuable clinical experience in the private practice setting under the supervision and guidance of experienced, ethical, and successful physicians. The Clinical Preceptorship Program functions within the parameters established by the Council on Chiropractic Education (CCE), the Council on Naturopathic Medical Education, the Accreditation Commission for Acupuncture and Oriental Medicine and the state licensing board for the respective state in which the supervising doctor is located. The program allows eligible interns to spend part of their clinical training in this off-campus educational experience. The supervising doctors participating in the program are considered as adjunct faculty of National University of Health Sciences.

Clinic Observation, as compared to a preceptorship, is strictly observational and does not allow for hands-on experiences, but does provide the student with the opportunity to gain valuable insights into the operations of a professional practice.

## **Department of Research**

*Dean — Professor Gregory D. Cramer*

As professional health care practitioners, it is critical that chiropractic and naturopathic physicians, acupuncture and oriental medicine practitioners, massage therapists, and other complementary and alternative medicine (CAM) providers continually strive to improve the application of their art. Research findings provide the knowledge base essential to sound clinical judgment in both diagnosis and treatment.

The faculty and staff of the Department of Research conduct research of their own and also provide support for research conducted by faculty outside of the Research Department. Through a wide variety of research activities, the research programs at NUHS provide students, faculty, and health care providers with objective data that may be used to improve the quality of patient care. The faculty of the department provides expertise in analysis of the clinical literature and research fundamentals embedded in many aspects of the curriculum. In addition, several required and elective courses are also taught by faculty of the department.

The department coordinates the use of facilities and resources and supports a variety of fundamental and clinical studies. Special attention is directed to studies of pathophysiological changes that are believed to occur as a result of abnormal function and the effects (including mechanisms of action) of CAM therapies on such abnormal function and related changes. Research on specific neuromusculoskeletal and non-neuromusculoskeletal conditions thought to respond to CAM therapies, and research on other topics related to primary care is also conducted. Current areas of investigation include clinical and fundamental research related to mechanisms of action of treatments used by CAM practitioners (including studies that use advanced diagnostic imaging, electrophysiologic and biomechanical testing, and other methods), clinical studies of treatment for specific conditions, research exploring neurovisceral and neurosomatic relationships, and anatomic research.

## **Training and Assessment Center**

*Department of Institutional Effectiveness*

The Training and Assessment Center (TAC) is housed on the second floor of the Howard-Schulze Building on the Illinois campus. It functions independently of, but in concert with, the clinic and academic divisions of the University and provides an additional means to integrate the academic program with the clinical program.

The TAC is a multi-functional center that provides the resources for formal interpersonal and communication skills training, clinical skills development, small group learning, measurement of clinical competence, and individualized environments for students with special testing needs. Students demonstrating diagnostic and therapeutic management procedures as well as clinical reasoning and justification for these procedures are assessed for clinical performance in cognitive, affective, and psychomotor areas of learning.

The University's Comprehensive Standardized Patient (SP) Program is based here. Standardized patients are trained performers and observers with simulated symptoms and complaints. The SPs allow students to interact with them as "real" patients in order to develop students' clinical and communication skills. SPs allow students to practice and learn from them without the responsibility of working with a real patient. This is a very valuable tool for the interim step of a student transitioning from the basic sciences into clinical care.

## Fall 2021: Courses of the Doctor of Chiropractic (DC) Curriculum

The following course, schedule descriptions and credits are effective for students who **began** the DC program from the Spring 2019 term through the Fall 2021 term.

		Lecture Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total Clock Hours	Total Credits
<b>DC Phase I: Term One (T1)</b>						
AN5101	Spine & Extremities Anatomy	75	0	0	75	5.00
AN5102	Spine & Extremities Anatomy Lab	0	105	0	105	3.50
AN5107	Histology & Embryology I	30	15	0	45	2.50
BC5104	Human Biochemistry	60	30	0	90	5.00
BU5116	Professionalism, Ethics & Law	15	0	0	15	1.00
MM5120	Introduction to Palpation Skills and Landmark Identification	0	30	0	30	1.00
FH5106	Fundamentals of Natural Medicine & Historical Perspectives	15	0	0	15	1.00
PH5103	Cellular Physiology & Hematology	45	30	0	75	4.00
<b>Total</b>		<b>240</b>	<b>210</b>	<b>0</b>	<b>450</b>	<b>23.00</b>

<b>DC Phase I: Term Two (T2)</b>						
AN5201	Head & Neck Anatomy	45	0	0	45	3.00
AN5202	Head & Neck Anatomy Lab	0	60	0	60	2.00
AN5203	Neuroanatomy	75	15	0	90	5.50
EM5207	Evaluation & Management of the Chest & Thoracic Spine	30	30	0	60	3.00
MI5215	Fundamentals of Microbiology	30	0	0	30	2.00
MM5220	Manipulation of the Thoracic Spine	0	30	0	30	1.00
PA5204	Fundamentals of Pathology	45	0	0	45	3.00
PH5208	Neurophysiology	45	15	0	60	3.50
RA5206	Normal Radiographic Anatomy & Variants	15	15	0	30	1.50
<b>Total</b>		<b>285</b>	<b>165</b>	<b>0</b>	<b>450</b>	<b>24.50</b>

		Lecture Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total Clock Hours	Total Credits
<b>DC Phase I: Term Three (T3)</b>						
AN5304	Thorax, Abdomen & Pelvic Anatomy	30	0	0	30	2.00
AN5305	Thorax, Abdomen & Pelvic Anatomy Lab	0	60	0	60	2.00
AN5307	Histology & Embryology II	30	15	0	45	2.50
BC5308	Nutritional Biochemistry I	30	0	0	30	2.00
EM5309	Evaluation & Management of the Abdomen, Pelvis & Lumbar Spine	30	30	0	60	3.00
FH5310	Whole Health Concepts & Philosophical Perspectives	15	0	0	15	1.00
MI5303	Medical Microbiology I	68	0	0	68	4.50
MM5320	Manipulation of the Lumbo-Sacral Spine, T/L Junction & Pelvis	0	30	0	30	1.00
PA5302	Systems Pathology I	60	0	0	60	4.00
PH5306	Neuroendocrinology, GI & Reproductive Physiology	60	0	0	60	4.00
<b>Totals</b>		<b>323</b>	<b>135</b>	<b>0</b>	<b>458</b>	<b>26.00</b>

<b>DC Phase I: Term Four (T4)</b>						
BC5409	Nutritional Biochemistry II	15	0	0	15	1.00
DH5411	Public Health	30	0	0	30	2.00
EM5408	Evaluation & Management of the Head, Neck & Cervical Spine	30	30	0	60	3.00
EP5401	Evidence-Based Practice: Critical Appraisal of the Biomedical Literature	15	0	0	15	1.00
MI5403	Medical Microbiology II	75	0	0	75	5.00
MM5420	Manipulation of the Cervical Spine, CT Junction & First Rib	0	30	0	30	1.00
NN5406	Science of Diet & Nutrition	45	0	0	45	3.00
PA5402	Systems Pathology II	90	0	0	90	6.00
PH5405	Cardiovascular, Respiratory & Renal Physiology	60	30	0	90	5.00
RA5407	Radiation Physics & Technology	15	0	0	15	1.00
<b>Totals</b>		<b>375</b>	<b>90</b>	<b>0</b>	<b>465</b>	<b>28.00</b>

		Lecture Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total Clock Hours	Total Credits
<b>DC Phase II: Term One (T5)</b>						
EM6103	Evaluation & Management of the GI/GU & Reproductive Systems	60	0	0	60	4.00
EM6104	Evaluation & Management of the Cardiovascular & Respiratory Systems	45	0	0	45	3.00
EM6105	Evaluation & Management of the EENT	45	0	0	45	3.00
EM6106	Evaluation & Management of the Neurological System	45	0	0	45	3.00
EM6112	Evaluation & Management of the Musculoskeletal System I	30	0	0	30	2.00
EM6120	Evaluation & Management of the Extremities	30	60	0	90	4.00
MM6110	Soft Tissue Management	0	15	0	15	0.50
NN6107	Pharmacology I	45	0	0	45	3.00
NN6108	Botanical Medicine I	45	0	0	45	3.00
RA6109	Fundamentals of Imaging: Arthritides & Trauma	30	15	0	45	2.50
<b>Totals</b>		<b>375</b>	<b>90</b>	<b>0</b>	<b>465</b>	<b>28.00</b>

<b>DC Phase II: Term Two (T6)</b>						
BU6221	Patient Communication & Marketing	30	0	0	30	2.00
EM6202	Physical Diagnosis	45	45	0	90	4.50
EM6203	Clinical Laboratory Diagnosis	45	0	0	45	3.00
EM6207	Pediatrics, Geriatrics & Female Health Issues	45	0	0	45	3.00
EM6210	The Clinical Encounter	15	15	0	30	1.50
EM6212	Evaluation & Management of the Musculoskeletal System II	30	0	0	30	2.00
EM6213	Phlebotomy & Specimen Collection	0	15	0	15	0.50
FR6204	Functional Rehabilitation I: Introduction to Therapeutic Exercise & Spinal Rehabilitation	30	30	0	60	3.00
MM6208	Orthopedic Musculoskeletal Imaging	15	0	0	15	1.00
MM6220	Advanced Manual Therapy Techniques I	0	45	0	45	1.50
MM6221	Diversified Technique	0	30	0	30	1.00
NN6206	Pharmacology II	45	0	0	45	3.00
RA6205	Fundamentals of Imaging: Skeletal Dysplasia, Tumors, Endocrine, & Hematopoietic Disorders	30	15	0	45	2.50
<b>Totals</b>		<b>330</b>	<b>195</b>	<b>0</b>	<b>525</b>	<b>28.50</b>

		Lecture Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total Clock Hours	Total Credits
<b>DC Phase II: Term Three (T7)</b>						
BU6309	Starting a Practice	30	0	0	30	2.00
BU6314	Billing, Coding & Documentation	30	0	0	30	2.00
EC6303	Ambulatory Trauma Care	15	15	0	30	1.50
EM6304	Advanced Diagnosis & Problem Solving	0	60	0	60	2.00
EM6305	Psychopathology & Health Psychology	45	0	0	45	3.00
EP6310	Evidence-Based Practice: Applied EBP	15	0	0	15	1.00
FR6307	Physiological Therapeutics: Modalities	60	15	0	75	4.50
FR6309	Functional Rehabilitation II: Extremity Rehabilitation	30	30	0	60	3.00
MM6320	End Range Loading & Flexion/Distractive Technique	0	30	0	30	1.00
NN6301	Clinical Nutrition	60	0	0	60	4.00
NN6308	Botanical Medicine II	60	0	0	60	4.00
RA6302	Fundamentals of Imaging: Chest & Abdomen	30	15	0	45	2.50
<b>Totals</b>		<b>375</b>	<b>165</b>	<b>0</b>	<b>540</b>	<b>30.50</b>

<b>DC Phase II: Term Four (T8)</b>						
BU6411	Managing a Practice	30	0	0	30	2.00
EM6403	Clinical Natural Medicine	30	0	0	30	2.00
EM6405	Doctor-Patient Relationship	30	0	0	30	2.00
EM6406	Dermatology	15	15	0	30	1.50
EP6410	Evidence-Based Practice: Journal Club	8	0	0	8	0.50
EM6411	Clinical Skills Seminar	15	0	0	15	1.00
FR6412	Sports Medicine	30	0	0	30	2.00
IC7000	Clinic Internship I	0	0	330	330	11.00
MM6420	Advanced Manual Therapy Techniques II	0	15	0	15	0.50
RA6408	Report Writing & Advanced Imaging	0	30	0	30	1.00
RA6409	Radiographic Positioning & Radiology Management	15	30	0	45	2.00
<b>Totals</b>		<b>173</b>	<b>90</b>	<b>330</b>	<b>593</b>	<b>25.50</b>



		Lecture Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total Clock Hours	Total Credits
<b>DC Phase III: Term One (T9)</b>						
IC7100	Clinic Internship II	0	0	525	525	17.00
<b>Total</b>		<b>0</b>	<b>0</b>	<b>525</b>	<b>525</b>	<b>17.00</b>
<b>DC Phase III: Term Two (T10)</b>						
IC7200	Clinic Internship III	0	0	525	525	17.00
<b>Total</b>		<b>0</b>	<b>0</b>	<b>525</b>	<b>525</b>	<b>17.00</b>
<b>Grand Total</b>		<b>2476</b>	<b>1140</b>	<b>1380</b>	<b>4996</b>	<b>248.00</b>

*Note: This document reflects the current courses and credit hours in the Doctor of Chiropractic Medicine curriculum **through and including Fall 2021**. However, the University reserves the right to make changes as required and may have modified the curriculum since the publication of this material. The most up-to-date information can be found on the University's website at [www.nuhs.edu](http://www.nuhs.edu).*

## Spring 2022: Courses of the Doctor of Chiropractic (DC) Curriculum

The following course descriptions and credits are effective for students beginning the DC program in the Spring 2022 term or later.

<b>DC Phase I: Term One (T1)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
AN5101	Spine & Extremities Anatomy	75	0	0	75	5.00
AN5102	Spine & Extremities Anatomy Lab	0	105	0	105	3.50
AN5107	Histology & Embryology I	30	15	0	45	2.50
BC5104	Human Biochemistry	60	30	0	90	5.00
BU5116	Professionalism, Ethics & Law	15	0	0	15	1.00
FH5108	Introduction to Clinical Medicine	15	0	0	15	1.00
MM5121	Technique I: Palpation and Landmarks	0	30	0	30	1.00
PH5103	Cellular Physiology & Hematology	45	30	0	75	4.00
<b>Total</b>		<b>240</b>	<b>210</b>	<b>0</b>	<b>450</b>	<b>23.00</b>

<b>DC Phase I: Term Two (T2)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
AN5201	Head & Neck Anatomy	45	0	0	45	3.00
AN5202	Head & Neck Anatomy Lab	0	60	0	60	2.00
AN5203	Neuroanatomy	75	15	0	90	5.50
EM5213	Evaluation & Management Thoracic Spine & Chest	30	30	0	60	3.00
MI5215	Fundamentals of Microbiology	30	0	0	30	2.00
MM5221	Technique II: Principals & Practice of Chiropractic	30	0	0	30	2.00
NN5222	Technique III: Manipulation of the Thoracic Spine & Ribs	0	30	0	30	1.50
PA5204	Fundamentals of Pathology	45	0	0	45	3.00
PH5208	Neurophysiology	45	15	0	60	3.50
RA5205	Radiation Physics & Technology	15	0	0	15	1.00
<b>Total</b>		<b>315</b>	<b>150</b>	<b>0</b>	<b>465</b>	<b>26.50</b>

<b>DC Phase I: Term Three (T3)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
AN5304	Thorax, Abdomen & Pelvic Anatomy	30	0	0	30	2.00
AN5305	Thorax, Abdomen & Pelvic Anatomy Lab	0	60	0	60	2.00
AN5307	Histology & Embryology II.	30	15	0	45	2.50
BC5308	Nutritional Biochemistry I.	30	0	0	30	2.00
EM5309	Examination & Management of the Abdomen, Pelvis & Lumbar Spine	30	30	0	60	3.00
MI5303	Medical Microbiology I.	68	0	0	68	4.50
MM5322	Technique IV: Manipulation of the Lumbo-sacral Spine, T/L Junction & Pelvis	0	45	0	45	1.50
PA5302	Systems Pathology I.	60	0	0	60	4.00
PH5306	Neuroendocrinology, GI & Reproductive Physiology	60	0	0	60	4.00
<b>Totals</b>		<b>308</b>	<b>150</b>	<b>0</b>	<b>458</b>	<b>25.50</b>

<b>DC Phase I: Term Four (T4)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
BC5409	Nutritional Biochemistry II.	15	0	0	15	1.00
DH5411	Public Health	30	0	0	30	2.00
EM5417	Examination & Management of the Head, Neck & Cervical Spine	30	30	0	60	3.00
EP5410	Evidence-Based Practice: Critical Appraisal of the Biomedical Literature	15	0	0	15	1.00
MI5403	Medical Microbiology II.	75	0	0	75	5.00
MM5422	Technique V: Manipulation of the Cervical Spine, C/T Junction & First Rib	0	45	0	45	1.50
NN5418	Human Metabolism & Nutrition	15	0	0	15	1.00
PA5402	Systems Pathology II.	90	0	0	90	6.00
PH5405	Cardiovascular, Respiratory & Renal Physiology	60	30	0	90	5.00
RA5416	Normal Radiographic Anatomy & Variants	15	15	0	30	1.50
<b>Totals</b>		<b>345</b>	<b>120</b>	<b>0</b>	<b>465</b>	<b>27.00</b>

<b>DC Phase II: Term One (T5)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
EM6113	Chiropractic Practice: Musculoskeletal I.	30	0	0	30	2.00
EM6116	Clinical Evaluation & Diagnosis	45	45	0	90	4.50
EM6118	Phlebotomy and Point-of-Care Testing	0	15	0	15	0.50
EM6119	Psychopathology & Health Psychology	45	0	0	45	3.00
EM6121	Examination & Management of the Upper & Lower Extremities	30	60	0	90	4.00
EM6117	Laboratory Diagnosis	45	0	0	45	3.00
MM6114	Myofascial Treatments	0	30	0	30	1.00
MM6122	Technique VI: Advanced Adjustments	0	45	0	45	1.50
NN6107	Pharmacology I.	45	0	0	45	3.00
NN6108	Botanical Medicine	45	0	0	45	3.00
RA6115	Radiology: Arthrides & Trauma	30	15	0	45	2.50
<b>Totals</b>		<b>315</b>	<b>210</b>	<b>0</b>	<b>525</b>	<b>28.00</b>

<b>DC Phase II: Term Two (T6)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
BU6221	Patient Communication & Marketing	30	0	0	30	2.00
EM6211	Chiropractic Clinical Encounters	15	15	0	30	1.50
EM6216	Chiropractic Practice: Musculoskeletal II.	30	0	0	30	2.00
EM6214	Differential Diagnosis & Management I: Abdominal & Pelvic Disorders	60	0	0	60	4.00
EM6215	Differential Diagnosis & Management II: Cardio-Pulmonary Disorders	45	0	0	45	3.00
EM6218	Differential Diagnosis & Management III: Neurology	45	0	0	45	3.00
EM6225	Differential Diagnosis & Management IV: EENT	30	0	0	30	2.00
FR6216	Sports Medicine & Functional Rehabilitation I.	30	30	0	60	3.00
NN6206	Pharmacology II.	45	0	0	45	3.00
RA6217	Radiology: Tumors & Displasias	30	15	0	45	2.50
<b>Totals</b>		<b>360</b>	<b>60</b>	<b>0</b>	<b>420</b>	<b>26.00</b>

<b>DC Phase II: Term Three (T7)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
BU6309	Starting a Practice	30	0	0	30	2.00
BU6314	Billing, Coding & Documentation	30	0	0	30	2.00
EC6311	Emergency Management: Chiropractic Practice	15	15	0	30	1.50
EC6313	Advanced Diagnosis & Clinical Reasoning	0	90	0	90	3.00
EM6324	Clinical Approach to Special Populations	45	0	0	45	3.00
EP6316	Research--Evidence-Based Clinical Applications	15	0	0	15	1.00
FR6318	Physiotherapies & Advanced Modalities	15	30	0	45	2.00
FR6319	Sports and Musculoskeletal Functional Rehabilitation II.	30	30	0	60	3.00
MM6321	Technique VII: Manipulation Systems	0	30	0	30	1.00
NN5114	Homeopathy I: First Aid	15	0	0	15	1.00
NN6322	Evidence Based Nutritional Therapies	60	0	0	60	4.00
RA6323	Radiology: Chest & Abdomen	30	15	0	45	2.50
<b>Totals</b>		<b>285</b>	<b>210</b>	<b>0</b>	<b>495</b>	<b>26.00</b>

<b>DC Phase II: Term Four (T8)</b>						
BU6411	Managing a Practice	30	0	0	30	2.00
EM6406	Dermatology	15	15	0	30	1.50
EM6411	Clinical Skills Seminar	15	0	0	15	1.00
EP6413	Literature Research and Review (Evidence-Based Practice: Journal Club)	8	0	0	8	0.50
FR6412	Sports Medicine	30	0	0	30	2.00
FR6421	Rehabilitation of the Athlete	0	45	0	45	1.50
IC7010	Clinic Internship I.	0	0	330	330	10.00
MM6422	Technique VIII: Manipulation Clinical Application	0	15	0	15	0.50
NU6404	Nutritional Therapies in Functional Medicine	45	0	0	45	3.00
RA6423	Radiological Clinical Thinking	0	30	0	30	1.00
RA6424	Advanced Radiology & Positioning	15	30	0	45	2.00
RA6425	Radiology: Orthopedic & Musculoskeletal Imaging	15	0	0	15	1.00
<b>Totals</b>		<b>173</b>	<b>135</b>	<b>330</b>	<b>638</b>	<b>26.00</b>
Concentration Elective*		30	0	0	30	2.00
<b>Total, with Elective</b>		<b>203</b>	<b>135</b>	<b>330</b>	<b>668</b>	<b>28.00</b>

DC Phase III: Term One (T9)		Lecture Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total Clock Hours	Total Credits
IC7100	Clinic Internship II.	0	0	525	525	17.00
	Concentration Elective*	30	0	0	30	2.00
<b>Total</b>		<b>30</b>	<b>0</b>	<b>525</b>	<b>555</b>	<b>19.00</b>
DC Phase III: Term Two (T10)		Lecture Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total Clock Hours	Total Credits
IC7200	Clinic Internship III.	0	0	525	525	17.00
	Concentration Elective*	30	0	0	30	2.00
<b>Total</b>		<b>30</b>	<b>0</b>	<b>525</b>	<b>555</b>	<b>19.00</b>
<b>Grand Total</b>		<b>2431</b>	<b>1245</b>	<b>1380</b>	<b>5056</b>	<b>248.00</b>

*Note: This document reflects courses and credit hours in the Doctor of Chiropractic Medicine curriculum **beginning Spring 2022**. However, the University reserves the right to make changes as required and may have modified the curriculum since the publication of this material. The most up-to-date information can be found on the University's website at [www.nuhs.edu](http://www.nuhs.edu).*

*\*National University offers several concentration elective courses. All DC students must successfully complete three elective course (2.0 credits each) offered by NUHS valued at 6.0 credit hours. Concentration electives can be taken starting in trimester 7 and thereon forward in the DC program. The concentration can be taken in any order and are all online/remote and asynchronous. Therefore, taking the concentration electives in trimesters 8-10 are preferred but not required. All University academic policies, regulations, and procedures apply to elective courses. The only exception is that an elective course(s) other than the three required for graduation need not be repeated or completed if an F or U grade is received. The following concentration "elective" courses will count towards fulfilling the elective requirements for graduation. Not all courses listed below will be offered every trimester. Contact the Office of the Registrar for schedule details; however, if planning correctly with the academic advisor and the Office of the Registrar, you can acquire the concentration in the following fields:*

#### Sports Medicine Concentration

- EL6712 Exercise Testing and Prescription
- EL6713 Nutrition for Human Performance
- EL6714 Sports Injuries & Medical Conditions

#### Functional Medicine Concentration

- EL6723 Laboratory Interpretation for Functional Medicine
- EL6724 Functional Medicine and Chronic Illness
- EL6725 Functional Neuroendocrinology and Reproductive Health

#### Women's Health Concentration

- EL6733 Functional Neuroendocrinology and Reproductive Health
- EL6734 Women's Health and Conservative Management I
- EL6735 Women's Health and Conservative Management II

General Electives/No Concentration is a combination of any three (3) of the above-mentioned concentration elective courses, totaling 6.0 credits hours.

## Doctor of Chiropractic (DC) Program Course Descriptions\*

*Courses descriptions and credits are effective for all students enrolled at any point in time, unless noted as "Effective Spring 2022". Those courses will only be effective for students who have enrolled in the Spring of 2022 or thereafter.*

<b>AN5101</b>	<b>Spine &amp; Extremities Anatomy</b>	<b>Credits 5.0</b>
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In this course, students will learn in lecture and group formats, the normal structure and function of the spine and extremities. In the first portion of this course, students will be required to demonstrate core knowledge of the gross anatomy of spinal structures, including the pediatric spine, and relevant structures of the back. Students must also demonstrate an anatomical and functional understanding of the spinal cord, its meninges, and the spinal nerves. In the second portion of the course, students will explore the gross anatomical structures of the extremities and their functions. The integrated gross anatomy laboratory exercises will address related basic science issues.

Co-requisite: AN5102

**AN5102** **Spine & Extremities Anatomy Lab** **Credits 3.5**

In this course, students will learn in laboratory format, the normal structure and function of the spine and extremities. In the first portion of this course, students will be required to demonstrate core knowledge of the gross anatomy of spinal structures, including the pediatric spine, and relevant structures of the back. Students must also demonstrate an anatomical and functional understanding of the spinal cord, its meninges and the spinal nerves. In the second portion of the course, students will explore the gross anatomical structures of the extremities and their functions. The basic science component will integrate with the laboratory issues.

Co-requisite: AN5101

<b>AN5107</b>	<b>Histology &amp; Embryology I</b>	<b>Credits 2.5</b>
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In this course, students will be introduced to histology and human developmental anatomy. In the histology portion of the course, students will study the histology of the main tissues of the body, i.e., epithelium, connective, muscle, and nervous. In addition, students will study the histology of the blood, the vascular system, bone and cartilage, the integument, and lymphoid tissue. In the developmental anatomy portion of the course, students will learn about the events of the first three weeks of development and the development of the nervous system. In coordination with the co-requisite gross anatomy course, students will also study axial and limb development.

Co-requisite: AN5101, AN5102, PH5103

<b>AN5201</b>	<b>Head &amp; Neck Anatomy</b>	<b>Credits 3.0</b>
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In this course, students will study, in lecture and group formats, the normal structure and function of the regions of the human head and neck. This includes gross anatomical structures as well as neuroanatomical structures. In addition, the embryology and histology of specific structures of the head and neck will be presented. This course is fully integrated with laboratory dissections presented in AN5202. Gross anatomy and neuroanatomy exercises will address related basic science issues.

Prerequisites: AN5101, AN5102

Co-requisites: AN5202, AN5203, PH5208

## AN5202 Head &amp; Neck Anatomy Lab Credits 2.0

In this course, students will study in laboratory format, the normal structure and function of the regions of the human head and neck. This includes gross anatomical structures as well as neuroanatomical structures. This course is fully integrated with lecture topics presented in AN5201. Gross anatomy and neuroanatomy laboratory exercises will address related basic science issues.

Co-requisites: AN5201, AN5203, PH5208

\*For details regarding the delivery method of the courses, please see the schedule posted on the student portal.

**Credits 5.5**

The purpose of this course is to study the structures of the brain, spinal cord, and autonomic nervous system (ANS), and their functions. The structures of the brain, spinal cord, and ANS, and their functions will be introduced to students through the following methods: lectures, group activities, self-directed learning, readings, and laboratory participation. The functions of these structures will be emphasized and their relevancy to clinical practice will be demonstrated through the use of patient paper cases and problems.

Prerequisite: AN5107

Co-requisites: AN5201, AN5202, PH5208

**Credits 2.0**

Students will study, in lecture and group formats, the normal structure and function of the organ systems associated with the thorax, abdomen, and pelvis. Specifically, this course will cover the gross anatomy of the respiratory, cardiovascular, gastrointestinal, reproductive, and urinary systems. Laboratory exercises will help guide students toward understanding the anatomical concepts associated with these systems. In addition, students will interrelate their anatomical knowledge with the Histology and Embryology II course.

Prerequisites: AN5201, AN5202, AN5203

Co-requisites: AN5305, AN5307

**Credits 2.0**

Students will study, in laboratory format, the normal structure and function of the organ systems associated with the thorax, abdomen, and pelvis. Specifically, this course will cover the gross anatomy of the respiratory, cardiovascular, gastrointestinal, reproductive, and urinary systems. Laboratory exercises will help guide students toward understanding the anatomical concepts associated with these systems. In addition, students will interrelate their anatomical knowledge with the Histology and Embryology II course.

Co-requisites: AN5304, AN5307

**Credits 2.5**

In coordination with the co-requisite gross anatomy course, students will learn the developmental anatomy and histology of the main systems of the chest, abdomen, and pelvis in this course.

Prerequisite: AN5107

Co-requisites: AN5304, AN5305

**Credits 5.0**

The structure and functions of proteins, carbohydrates, lipids, and their reactions in metabolic pathways are investigated.

Prerequisite / Co-requisite: None

**Credits 2.0**

Water soluble and fat soluble vitamins and vitamin-like nutrients (choline, lipoic acid, L-carnitine, ubiquinone, and flavonoids) will be studied with an emphasis on their absorption, transport, excretion and biochemical involvement within human metabolic pathways involving normal physiology and pathophysiology.

Prerequisites: BC5104

**Credits 1.0**

Minerals, water and fiber will be studied with an emphasis on their absorption, transport, excretion and biochemical involvement within human metabolic pathways involving normal physiology and pathophysiology. Biochemical interactions regarding nutrigenomics will also be discussed.

Prerequisites: BC5308

**Credits 1.0**

Ethics is a cornerstone to success in healthcare education and to be successful as a healthcare practitioner. Understanding ethical and professional practices as well as the laws that govern the healthcare profession is paramount to a student's success while in an academic and clinical program, as well as the student's success as a



practitioner. This course discusses the legal, policy and ethical issues encountered by students in the educational setting and after graduation as a practitioner in the continuously evolving health care system. Topics will include academic misconduct in the classroom, ethical conduct and laws governing a student intern in an academic clinical setting and ethical conduct and laws governing a Doctor of Chiropractic in the practice of chiropractic.

Prerequisite: None

**BU6221 Patient Communication and Marketing Credits 2.0**

Effective communication through written, verbal and electronic means is essential for the success of a health care practice. Ethical marketing is the hallmark for the success of any business, especially a healthcare practice.

Prerequisite: Professionalism, Ethics and Law

**BU6309 Starting a Practice Credits 2.0**

Students after graduation aspire to open their own health care practice but many times do not know how to accomplish this. This course takes what was learned in the previous business classes and incorporates new material to give the student the knowledge and strategic plan to start their own practice within various practice settings.

Prerequisite: Professionalism, Ethics and Law; Billing, Coding and Documentation; Patient Communication and Marketing

**BU6411 Managing a Practice Credits 2.0**

This course introduces students to the principles and practices of managing a successful health care practice to include; the use of business management software, financial and performance analysis of the practice, goal setting for personal and professional development, understanding local, state and federal tax codes, debt management and retirement planning.

Prerequisites: Professionalism, Ethics and Law; Billing, Coding and Documentation; Patient Communication and Marketing; Starting a Practice

**BU6314 Billing, Coding, Documentation and Compliance Credits 2.0**

This course introduces students to principles of chiropractic billing, coding and documentation staying within government and third-party guidelines needed to be successful in the clinic phase of the healthcare program as well as after graduation in practice. Students will learn proper methods of billing for services, which include the proper use of ICD-10 and CPT coding to be compliant with regulator guidelines. Students will learn what needs to be in patient care documentation that will serve to support medical necessity as well as substantiate services performed and billed. This course will also expose the students to provider credentialing and credentialing for third-party payers.

Prerequisite: Professionalism, Ethics and Law, Patient Communication and Marketing

**DH5411 Public Health Credits 2.0**

The focus of this course is to introduce the student to the concepts of public health, health promotion, and disease prevention. Individual, environmental, and sociodemographic factors affecting the population's health will be discussed, along with organization of the public health system, health surveys, health policies, and health screening.

Pre-requisites/Co-requisites: None

**EC6303 Ambulatory Trauma Care (Fall 2021) Credits 1.5**

This course places emphasis on the practical application of emergency care procedures that can be employed in a primary care clinic setting if required. This course provides instruction in open and closed wound management techniques that encompass sterile procedures, the application methods of roller bandages, and suturing techniques. To receive a passing grade in this course, students must show current CPR certification from the American Heart Association, BLS for Health Care Providers.

Prerequisite: Completion of Phase I

**EC6311 Emergency Management: Chiropractic Practice (Effective Spring 2022) Credits 1.5**

This course places emphasis on the practical application of emergency care procedures that can be employed in a primary care clinic setting if required. This course provides instruction in open and closed wound management techniques that encompass sterile procedures, the application methods of roller bandages, and suturing techniques.

To receive a passing grade in this course, students must show current CPR certification from the American Heart Association, BLS for Health Care Providers.

Prerequisite: Completion of Phase I

**EL6712                      Exercise Testing and Prescription (Effective Spring 2022)                      Credits 2.0**

This course is a “concentration elective”. In this course the study of standard testing procedures will be utilized to help ensure the health and safety of the athlete to include pre-participation physicals, cardiorespiratory fitness assessment, muscle strength assessment, body composition and flexibility and functional movements. This course will also discuss exercise prescriptions for all ages, special populations, and specific health conditions.

**EL6713                      Nutrition for Human Performance (Effective Spring 2022)                      Credits 2.0**

This course is a “concentration elective”. This course is an in-depth study of the function of nutrients on human performance through energy production, muscle, metabolism, and immune function. This course will include nutritional assessment and dietary habits for optimal performance; body weight and composition; weight management; and eating disorders in athletes. The risks, benefits, and legality of performance enhancing supplements and drugs will be evaluated.

**EL6714                      Sports Injuries & Medical Conditions (Effective Spring 2022)                      Credits 2.0**

This course is a “concentration elective”. This course is a continuation of Sports Medicine I, that further studies the injuries and medical conditions that occur in specific sports. Assessment and management of these conditions may include rehabilitation, manual therapy, and taping. This course will also cover the evaluation and management of concussions.

**EL6723                      Laboratory Interpretation for Functional Medicine (Effective Spring 2022)                      Credits 2.0**

This course is a “concentration elective”. This course will provide an in-depth study of laboratory tests used in the practice of functional medicine and how to interpret the findings to prevent body systems dysfunction and to maintain and restore health. Functional tests will include blood serum and smears, urine, cultures, swabs, saliva, and genetics.

**EL6724                      Functional Medicine and Chronic Illness (Effective Spring 2022)                      Credits 2.0**

This course is a “concentration elective”. This course provides students with an in-depth study on imbalances in the human body that play a role in chronic conditions. This course will focus on detoxification and biotransformation, protective mechanisms to xenobiotic exposure, immune imbalances, and inflammatory stress. The importance of functional assessment, testing, and management will be stressed.

**EL6725/EL6733                      Functional Neuroendocrinology and Reproductive Health                      Credits 2.0**  
**(Effective Spring 2022)**

This course is a “concentration elective”. This course will provide an in-depth study of the relationship between the brain and endocrine system to regulate hormonal activity in the human body. This course will examine the hypothalamic-pituitary-adrenal axis (HPA axis), hypothalamic-pituitary-thyroid axis (HPT axis) and Hypothalamic-pituitary-gonadal axis and effects on the body’s systems including reproductive health. Functional testing will be studied to determine if and where a dysfunction has occurred within these axis and end hormone secretion. Nutritional consideration will be presented to restore homeostasis.

**EL6734                      Women’s Health and Conservative Management I                      Credits 2.0**  
**(Effective Spring 2022)**

This course is a “concentration elective”. This course provides an in-depth study essential for a broad-based conservative care (primary health care) physician regarding the evaluation, differential diagnosis, and management of common conditions involving the female patient. This course will provide students with an understanding of common gynecological testing used along with the history and physical exam data to formulate a diagnosis of common gynecological and pregnancy conditions. The course will expose students to treatment options to formulate a management plan inclusive of natural therapy in the form of diet, exercise, lifestyle changes, spinal manipulation, and other rehabilitative procedures

**EL6735**

**Women's Health and Conservative Management II  
(Effective Spring 2022)**

**Credits 2.0**

This course is a "concentration elective". This is the second course in the Women's Health and Conservative Management sequence that further provides an in-depth study focusing on the pregnant female essential for a broad-based conservative care (primary health care) physician regarding the evaluation, differential diagnosis, and conservative management of the female from prenatal through the post-partum phases. This course will expose students to treatment options to formulate a management plan inclusive of natural therapy in the form of diet, exercise, lifestyle changes, spinal manipulation, and other rehabilitative procedures.

**EM5207**

**Evaluation & Management of the Chest & Thoracic Spine (Fall 2021)**

**Credits 3.0**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage the chest and thoracic spine. Students will learn methods for obtaining a history specific to the chest and thoracic spine, as well as examination skills for these areas. Skills covered in the course will include, but are not limited to, taking vitals, inspection, joint and soft tissue palpation, auscultation, percussion, range of motion, orthopedic evaluation, and basic neurological examinations. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the evaluation and management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the chest and thoracic spine. Teaching methods will include lectures, demonstrations, and skills laboratories that focus on skills development and clinical reasoning.

This is the student's first Evaluation and Management course. It will lay the foundation for other Evaluation and Management courses by teaching concepts related to (i) the patient interview, examination, and management process; (ii) joint and soft tissue evaluation; and (iii) the doctor-patient relationship.

Prerequisites: AN5101, AN5102, FH5106

Co-requisite: MM5220

**EM5213**

**Examination & Management of the Thoracic Spine & Chest (Effective Spring 2022)**

**Credits 3.0**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage the chest and thoracic spine. Students will learn methods for obtaining a history specific to the chest and thoracic spine, as well as examination skills for these areas. Skills covered in the course will include, but are not limited to, taking vitals, inspection, joint and soft tissue palpation, auscultation, percussion, range of motion, orthopedic evaluation, and basic neurological examinations. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the evaluation and management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the chest and thoracic spine. Teaching methods will include lectures, demonstrations, and skills laboratories that focus on skills development and clinical reasoning.

This is the student's first Evaluation and Management course. It will lay the foundation for other Evaluation and Management courses by teaching concepts related to (i) the patient interview, examination and management process; (ii) joint and soft tissue evaluation; and (iii) the doctor-patient relationship.

Prerequisites: AN5101, AN5102, FH5106

Co-requisite: MM5222

**EM5309**

**Evaluation & Management of the Abdomen, Pelvis, and Lumbar Spine (Fall 2021)**

**Credits 3.0**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage the abdomen, pelvis, and lumbar spine. Students will learn methods for obtaining a history specific to the abdomen, pelvis, and lumbar spine, as well as examination skills for these areas. Skills covered in the course will include, but are not limited to, inspection, joint and soft tissue palpation, auscultation, percussion, range of motion, orthopedic evaluation, and basic neurological examinations. This course will teach treatments applicable to the abdomen, pelvis, and lumbar spine such as joint and soft tissue manipulation. The clinical presentation of normal anatomy, biomechanics, and physiology will be

emphasized, along with an introduction to the evaluation and management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the abdomen, pelvis and lumbar spine. Teaching methods will include lectures, demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisite: EM5207

**EM5309                      Examination & Management of the Abdomen, Pelvis, and Lumbar Spine                      Credits 3.0**  
**(Effective Spring 2022)**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage the abdomen, pelvis, and lumbar spine. Students will learn methods for obtaining a history specific to the abdomen, pelvis, and lumbar spine, as well as examination skills for these areas. Skills covered in the course will include, but are not limited to, inspection, joint and soft tissue palpation, auscultation, percussion, range of motion, orthopedic evaluation, and basic neurological examinations. This course will teach treatments applicable to the abdomen, pelvis, and lumbar spine such as joint and soft tissue manipulation. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the evaluation and management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the abdomen, pelvis and lumbar spine. Teaching methods will include lectures, demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisite: EM5213

**EM5408                      Evaluation & Management of the Head, Neck & Cervical Spine (Fall 2021)                      Credits 3.0**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage select conditions of the head, neck, and cervical spine. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the concepts of (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling as it relates to the evaluation and management of uncomplicated conditions affecting the head, neck, and cervical spine. Students will reinforce their skills of the standard historical methods learned in EM5207 as well as learn the examination methods required to gather pertinent patient information regarding the head, neck, and cervical spine in a professional and reliable manner. The course is structured to include instruction via two distinct methods: classroom lectures as well as clinical skills practicums. The clinical skills practicum portion of the course is distinctively further divided into an evaluation as well as management portion. Overall, the teaching methods of the course will include lectures, demonstrations, skills laboratories, simulated patient encounters, small group work, and problem-based large group discussion that focus on clinical/motor skills development.

Prerequisites: AN5201, AN5202, EM5309

Co-requisite: MM5420

**EM5417                      Examination & Management of the Head, Neck & Cervical Spine                      Credits 3.0**  
**(Effective Spring 2022)**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage select conditions of the head, neck, and cervical spine. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the concepts of (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling as it relates to the evaluation and management of uncomplicated conditions affecting the head, neck, and cervical spine. Students will reinforce their skills of the standard historical methods learned in EM5213 as well as learn the examination methods required to gather pertinent patient information regarding the head, neck and cervical spine in a professional and reliable manner. The course is structured to include instruction via two distinct methods: classroom lectures as well as clinical skills practicums. The clinical skills practicum portion of the course is distinctively further divided into an evaluation as well as management portion. Overall, the teaching methods of the course will include lectures, demonstrations, skills

laboratories, simulated patient encounters, small group work, and problem-based large group discussion that focus on clinical/motor skills development.

Prerequisites: AN5201, AN5202, EM5309

Co-requisite: MM5422

**EM6103                      Evaluation & Management of the GI/GU & Reproductive Systems (Fall 2021)                      Credits 4.0**

This course focuses on the clinical manifestations of disorders of the gastrointestinal, genitourinary and female reproductive systems. The emphasis is on the etiology, presentation, diagnostic identification, management, and prevention of system conditions. Learning is driven by class lectures, case-based learning, and self-directed small group assignments. Diagnostic evaluation includes appropriate laboratory testing, special testing, and imaging. Management of system disorders includes the study of clinical aspects of nutritional therapy to include diet modification, botanical medicine, manipulation, and physiological therapeutics.

Prerequisite: Completion of Phase I

**EM6214                      Differential Diagnosis & Management I: Abdominal & Pelvic Disorders                      Credits 4.0**  
**(Effective Spring 2022)**

This course provides students the knowledge and clinical thought process of evaluation, diagnosis, and management of disorders of the gastrointestinal and genitourinary systems as needed to be a primary healthcare provider. This course will emphasize the etiology, presentation, diagnostic identification, management, and prevention of conditions involving gastrointestinal and genitourinary systems. Diagnostic evaluation of these conditions will include specific laboratory testing, special testing, and imaging. Management of these disorders will include nutritional therapy in the form of diet modification, and botanical medicine. Manual therapy will also be discussed in the form of manipulation and physiological therapeutics. Students will learn through class lectures, case-based, and self-directed small group assignments.

Prerequisite: Completion of Phase I

**EM6104                      Evaluation & Management of the Cardiovascular & Respiratory Systems (Fall 2021)                      Credits 3.0**

This course focuses on the differential diagnosis and management of common disorders of the cardiopulmonary system. Students are expected to develop skills in history collection, physical examination, laboratory evaluation, critical thinking, and differential evaluation. In addition to history taking and the physical exam, diagnosis of these conditions will include evaluation of electrocardiograms and various laboratory tests. Students are introduced to the various modalities that are available for the treatment of these disorders. Case presentations include, but are not limited to, disorders such as myocardial infarction, congestive heart failure, chronic obstructive pulmonary disease, peripheral vascular disease, pneumoconiosis, and pneumonia. Management of these conditions will encompass the study of the clinical aspects of nutritional science including diet therapy and botanical medicine, manipulation, physiological therapeutics, and rehabilitation.

Prerequisite: Completion of Phase I

**EM6215                      Differential Diagnosis & Management II: Cardio-Pulmonary Disorders                      Credits 3.0**  
**(Effective Spring 2022)**

This course provides students the knowledge, skills, and clinical thought process to provide a differential diagnosis and management plan of common disorders of the cardiopulmonary system. Students will utilize knowledge and skills taught in EM5207 Evaluation and Management of Chest and Thoracic spine such as: history collection, physical examination, laboratory evaluation, critical thinking, and differential diagnosis. Diagnosis of these conditions will also include interpretation of electrocardiograms and various laboratory tests. Students are introduced to modalities that are available for the treatment of these disorders. Case presentations include, but are not limited to, disorders such as myocardial infarction, congestive heart failure, chronic obstructive pulmonary disease, peripheral vascular disease, pneumoconiosis, and pneumonia. Management of these conditions will encompass the study of the clinical aspects of nutritional science including diet therapy and botanical medicine, manipulation, physiological therapeutics, and rehabilitation.

Prerequisite: Completion of Phase I

This course focuses on the clinical manifestations of disorders of the eyes, ears, nose, and throat. The emphasis is upon the etiology, presentation, diagnostic identification, management, and prevention of these disorders. Diagnostic procedures include laboratory testing, special testing, and appropriate imaging. Management of these conditions will encompass the study of the clinical aspects of nutritional science including diet therapy and botanical medicine, manipulation, physiological therapeutics, and rehabilitation. There is a portion of the course that will address complaints of dizziness and vertigo. The emphasis is upon the etiology, presentation, diagnostic identification, pathophysiology, and on the conservative management of these complaints. Learning will be driven by the class lectures, case-based presentations, and self-directed small group assignments.

Prerequisite: Completion of Phase I

This course focuses on the clinical manifestations of disorders of the eyes, ears, nose, and throat. The emphasis is upon the etiology, presentation, diagnostic identification, management, and prevention of these disorders. Diagnostic procedures include laboratory testing, special testing, and appropriate imaging. Management of these conditions will encompass the study of the clinical aspects of nutritional science including diet therapy and botanical medicine, manipulation, physiological therapeutics, and rehabilitation. There is a portion of the course that will address complaints of dizziness and vertigo. The emphasis is upon the etiology, presentation, diagnostic identification, pathophysiology, and on the conservative management of these complaints. Learning will be driven by the class lectures, case-based presentations, and self-directed small group assignments.

Prerequisite: Completion of Phase I

This course presents a study of the procedures of the neurological history and examination, clinical correlation of neurological findings with other clinical data, an introduction to functional neurology, and the application of manipulation, massage, exercise, and other sensory input in the management of patients with neurological disorders. Methods of instruction include lecture, patient video presentations and clinical cases presented in a large group. Small group and self-directed learning activities outside of class include specific readings about neurological diseases/disorders and written assignments based on the readings.

Prerequisite: Completion of Phase I

This course presents a study of the procedures of the neurological history and examination, clinical correlation of neurological findings with other clinical data, an introduction to functional neurology, and the application of manipulation, massage, exercise, and other sensory input in the management of patients with neurological disorders. Methods of instruction include lecture, patient video presentations and clinical cases presented in a large group. Small group and self-directed learning activities outside of class include specific readings about neurological diseases/disorders and written assignments based on the readings.

Prerequisite: Completion of Phase I

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage disorders of the musculoskeletal system. The clinical presentation of common musculoskeletal conditions will be emphasized, along with an introduction to the management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle group counseling involving the musculoskeletal system. Teaching methods will include lectures, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisites: AN5201, AN5202, EM5309

**EM6113** **Chiropractic Practice: Musculoskeletal I** **Credits 2.0**  
**(Effective Spring 2022)**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage disorders of the musculoskeletal system. The clinical presentation of common musculoskeletal conditions will be emphasized, along with an introduction to the management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the musculoskeletal system. Teaching methods will include lectures, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisites: AN5201, AN5202, EM5309

**EM6120** **Evaluation & Management of the Extremities** **Credits 4.0**  
**(Fall 2021)**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage the upper and lower extremities. Students will learn methods for obtaining a history specific to the extremities, as well as examination skills for this area. Skills covered in the course will include, but are not limited to, inspection, joint and soft tissue palpation, range of motion, orthopedic evaluation, and basic neurological examinations. This course will teach treatments applicable to the extremities, such as joint and soft tissue manipulation. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the evaluation and management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the extremities. Teaching methods will include lectures, demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisite: Completion of Phase I

Prerequisite: EM6112

**EM6121** **Examination & Management of the Upper & Lower Extremities** **Credits 4.0**  
**(Effective Spring 2022)**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage the upper and lower extremities. Students will learn methods for obtaining a history specific to the extremities, as well as examination skills for this area. Skills covered in the course will include, but are not limited to, inspection, joint and soft tissue palpation, range of motion, orthopedic evaluation, and basic neurological examinations. This course will teach treatments applicable to the extremities, such as joint and soft tissue manipulation. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the evaluation and management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the extremities. Teaching methods will include lectures, demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisite: Completion of Phase I

Prerequisite: EM6113

**EM6202** **Physical Diagnosis (Fall 2021)** **Credits 4.5**

The primary objective of this course is for students to reinforce history taking and physical diagnostic skills taught in prior Evaluation and Management courses. These physical skills are reinforced in this course with an emphasis placed on interpretation of findings on a wide range of conditions. The context of this course will be a broad-based conservative care (primary health care) setting. The course's laboratory activities will require students to perform a comprehensive (head-to-toe) physical examination, individual regional exams, and a region-based musculoskeletal

exam using skills introduced prior. Lectures will emphasize correlation of physical finding and interpretation.

Prerequisites: Completion of Phase I, EM6103, EM6104, EM6105; EM6106; EM6120

**EM6116** **Clinical Evaluation & Diagnosis** **Credits 4.5**  
**(Effective Spring 2021)**

This course will provide students additional training to reinforce history taking and physical, orthopedic and neurological examination skills taught in prior Evaluation and management courses. Emphasis will be placed on interpretation of findings on a wide range of conditions. The context of this course will be a broad-based conservative care (primary health care). The course's laboratory activities will require students to perform a comprehensive (head to toe) physical examination, individual regional exams, and a region-based musculoskeletal exam using skills introduced prior. Lectures will emphasize correlation of physical finding and interpretation.

Prerequisites: Completion of Phase 1

**EM6203** **Clinical Laboratory Diagnosis (Fall 2021)** **Credits 3.0**

The primary objective of this course is for students to learn laboratory diagnostic skills. This course will include comprehensive instruction about the laboratory testing process, including indications, the collection and preparation of samples, the interpretation and evaluation of laboratory test results, and associated record keeping techniques. The context of this course will be a broad-based conservative care (primary health care) setting. The course will include commonly run profiles of hematology, chemistries, urinalysis, fecal and sputum studies.

Prerequisites: EM6103, M6104, EM6105, EM6106

**EM6117** **Laboratory Diagnosis (Effective Spring 2022)** **Credits 3.0**

The primary objective of this course is for students to learn laboratory diagnostic skills. This course will include comprehensive instruction about the laboratory testing process, including indications, the collection and preparation of samples, the interpretation and evaluation of laboratory test results, and associated record keeping techniques. The context of this course will be a broad-based conservative care (primary health care) setting. The course will include commonly run profiles of hematology, chemistries, urinalysis, fecal and sputum studies.

Prerequisites: Completion of phase I

**EM6207** **Pediatrics, Geriatrics & Female Health Issues (Fall 2021)** **Credits 3.0**

This course focuses on the differential diagnosis and management of common conditions that present in the pediatric and elderly populations. Patient presentation, identification, prevention, and management are addressed in lectures and large group experiences. Learning is driven by clinical cases and enhanced by the lectures. Management of these conditions includes the study of the clinical aspects of nutritional science (including diet therapy and botanical medicine), manipulation, csc, and rehabilitation.

Prerequisite: Completion of Phase I

**EM6324** **Clinical Approach to Special Populations (Effective Spring 2022)** **Credits 3.0**

This course focuses on the differential diagnosis and management of common conditions that present in the pediatric and elderly populations. Patient presentation, identification, prevention, and management are addressed in lectures and large group experiences. Learning is driven by clinical cases and enhanced by the lectures. Management of these conditions includes the study of the clinical aspects of nutritional science (including diet therapy and botanical medicine), manipulation, csc, and rehabilitation.

Prerequisite: Completion of Phase I

**EM6210** **The Clinical Encounter (Fall 2021)** **Credits 1.5**

This course focuses on practical aspects of the clinical encounter including the manners in which effective doctor-patient communication facilitate health care outcomes, and how effective medical records reflect the clinical thought process, and the role of integrative medicine in therapeutic clinical decision-making, with focus on how the chiropractic physician contributes into the integrative process. Discussion and application within this course will follow certain proposed evidence-informed definitions and philosophies of chiropractic medicine. Students will be given the opportunity to learn these concepts through mock patient encounters and clinical observation within the chiropractic medicine program.

Prerequisite: Completion of Phase I



### Chiropractic Clinical Encounters (Effective Spring 2022)

**Credits 1.5**

This course focuses on the practical issues of patient management in practice. Students are asked to explore the literature to broaden their understanding of the issues in the field, and then reflect on and actively develop strategies for their relationships with patients and other health care providers. Lecture and discussion topics include: structures in doctor-patient interaction; models of the doctor-patient interaction; doctor-patient boundaries; the impact of the doctor-patient relationship on health care outcomes; the impact of the doctor-patient relationship on patient satisfaction; culturally-responsive health care; the sociological context of patient suffering; co-creation of the patient's story in a therapeutic relationship; death, dying and palliative health care; management of the abused patient; and the doctor's responsibilities to the community and society. Class time is used to explore doctor-patient relationship issues through lectures, cases, guest presentations, structured interpersonal exercises, article reviews, and discussion.

Prerequisite: Completion of Phase I

EM6212

## Evaluation & Management of the Musculoskeletal System II (Fall 2021)

**Credits 2.0**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage disorders of the musculoskeletal system, focusing on the extremities. The clinical presentation of common musculoskeletal conditions will be emphasized, along with an introduction to the management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the musculoskeletal system. Teaching methods will include lectures, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisites: EM6120, EM6112

EM6214

**Chiropractic Practice: Evaluation & Management of the Musculoskeletal II**  
(Effective Spring 2022)

**Credits 2.0**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage disorders of the musculoskeletal system, focusing on the extremities. The clinical presentation of common musculoskeletal conditions will be emphasized, along with an introduction to the management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the musculoskeletal system. Teaching methods will include lectures, and problem-based large group discussions that focus on skills development and clinical reasoning.

**Prerequisites:** EM6121, EM6113

EM6213

## Phlebotomy and Special Collections Lab (Fall 2021)

**Credits 0.5**

The primary objective of this course is for students to learn the skill of phlebotomy, and to introduce students to the collection and handling of laboratory specimens including throat culture, quick strep test, urinalysis, and capillary glucose testing.

Prerequisites: EM6212

**EM6118**

### Phlebotomy and Point of Care Testing (Effective Spring 2022)

**Credits 0.5**

The primary objective of this course is for students to learn the skill of phlebotomy, and to introduce students to the collection and handling of laboratory specimens including throat culture, quick strep test, urinalysis, and capillary glucose testing.

Prerequisites: Completion of Phase 1

EM6304

### Advanced Diagnosis & Problem Solving (Fall 2021)

**Credits 2.0**

The primary objective of this course is to give students an opportunity to master the diagnostic skills, and the associated psychomotor skills used in a broad-based conservative care (primary health care) setting. The laboratory portion of this course will use simulated patients to help students synthesize and refine their history taking,

examination, and diagnostic skills. Emphasis will be placed on the doctor-patient relationship, including appropriate ethical boundaries and effective communication skills. Students will also practice record keeping skills, including the preparation of SOAP notes. This course will require students to perform male and female sensitive exams (breast and pelvic) on standardized patients.

Prerequisites: Completion of Phase I, EM6202

**EC6313                      Advanced Diagnosis & Clinical Reasoning (Effective Spring 2022)                      Credits 3.0**

The primary objective of this course is to give students an opportunity to master the diagnostic skills, and the associated psychomotor skills used in a broad-based conservative care (primary health care) setting. The laboratory portion of this course will use simulated patients to help students synthesize and refine their history taking, examination, and diagnostic skills. Emphasis will be placed on the doctor-patient relationship, including appropriate ethical boundaries and effective communication skills. Students will also practice record keeping skills, including the preparation of SOAP notes. This course will require students to perform male and female sensitive exams (breast and pelvic) on standardized patients.

Prerequisites: Completion of Phase I, EM6116

**EM6305                      Psychopathology & Health Psychology (Fall 2021)                      Credits 3.0**

This course includes:

- (i) review and discussion of the major topics in health psychology including examination of the relationships of psychopathology, lifestyle and personal relationships to physical health. Topics include risk factors and treatments for physical disorders such as cardiovascular disease, cancer, and chronic pain as well as the exploration of the co-morbidity of physical and psychological disorders;
- (ii) an examination of the nine basic categories of psychopathology (depression, anxiety, somatoform, substance use disorders, sleep disorders, eating disorders, sexual dysfunction, cognitive disorders, and psychosis) with emphasis on screening, diagnosis and management in a primary care setting. Students are asked to review current theories and their implication for practice. The course will include an overview of psychopathology and health psychology with self-directed learning to include cases, discussion, application of principles, article reviews, presentations, and field projects.

**EM6119                      Psychopathology & Health Psychology (Effective Spring 2022)                      Credits 3.0**

This course includes:

- (i) review and discussion of the major topics in health psychology including examination of the relationships of psychopathology, lifestyle and personal relationships to physical health. Topics include risk factors and treatments for physical disorders such as cardiovascular disease, cancer, chronic pain and diabetes as well as the exploration of the co-morbidity of physical and psychological disorders;
- (ii) an examination of some of the basic categories of psychopathology (depression, anxiety, substance related disorders, sleep disorders, eating disorders, cognitive disorders, and psychosis) with emphasis on screening, diagnosis and management in a primary care setting. Students are asked to review current theories and their implication for practice;
- (iii) The course will include an overview of psychopathology and health psychology with self-directed learning to include cases, discussion, application of principles, and article reviews.

**EM6403                      Clinical Natural Medicine\*                      Credits 2.0**

This course will give students opportunities to practice diagnosing and managing conditions in a broad-based, conservative care (primary health care) setting. Students will apply a comprehensive skill set, including physical examination procedures, manual therapies, nutritional aspects of care, functional rehabilitation, exercise prescription, and the application of physiological, biochemical and pharmacological therapeutic protocols. Case examples that demonstrate the broad scope of chiropractic practice will be presented by the primary instructor, and depending on availability, guest presenters, to provide foundational information that will serve to validate the management options available to the chiropractic physician. The course is designed to help the student “put it all together,” integrating basic and clinical sciences knowledge in terms of managing patients in the outpatient setting. Lists that report the most common conditions presenting to primary care physician’s office will serve as a basis for evaluating management strategies.

Prerequisites: Completion of Phase I, EM6304, FR6309; FR6307, MM6220, NN6206; NN6301, NN6308

Corequisite: IC7000

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**EM6405**

**Doctor-Patient Relationship \***

**Credits 2.0**

This course focuses on the practical issues of patient management in practice. Students are asked to explore the literature to broaden their understanding of the issues in the field and then reflect on and actively develop strategies for their relationships with patients and other health care providers. Lecture and discussion topics include: structures in doctor-patient interaction; models of the doctor-patient interaction; doctor-patient boundaries; the impact of the doctor-patient relationship on health care outcomes; the impact of the doctor-patient relationship on patient satisfaction; culturally-responsive health care; the sociological context of patient suffering; co-creation of the patient's story in a therapeutic relationship; death, dying and palliative health care; management of the abused patient; and the doctor's responsibilities to the community and society. Class time is used to explore doctor-patient relationship issues through lectures, cases, guest presentations, structured interpersonal exercises, article reviews, and discussion.

Prerequisite: EM6210

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**EM6406**

**Dermatology**

**Credits 1.5**

This course is designed to help students gain necessary knowledge and build skill in observation and clinical reasoning for the diagnosis and management of common diseases of the skin encountered in a broad-based conservative care (primary health care) setting.

Prerequisite: EM6202\*, EM6116\*\*

\* = Fall 2021 / \*\* = Effective Spring 2022

**EM6411**

**Clinical Skills Seminar**

**Credits 1.0**

This course is a lecture, assessment, and self-directed learning environment aimed to improve the student's rapid medical interviewing, diagnostic imaging, and case management clinical skills and critical judgement. The student is responsible for the study direction and concentration of his or her clinical skills improvement through rubric-based assessment, self-assessment, patient case review and discussion. Students will also have an opportunity to critique his or her peers and give constructive ideas for clinical skills advancement.

Prerequisite: EM6304\*, EC6313\*\*

\*=Fall 2021 / \*\* = Effective Spring 2022

**EP5401**

**Evidence-Based Practice: Critical Appraisal of the Biomedical Literature (Fall 2021)**

**Credits 1.0**

This course will expand upon the skills developed to introduce the role of research, including the interpretation and critical analysis of research reports and studies, in complementary and alternative medicine (CAM). The course will provide the foundation to equip students to be consumers of published research and to engage in building knowledge to enhance their professional practice and service delivery through the use of scientific methods, as well as to identify the strengths and weaknesses of those methods in published research. This is done to support the education and efforts of CAM practitioners for use with and on behalf of patients. Emphasis throughout the course will be placed on preparing students to identify research findings that will assist them in being more effective practitioners. Special emphasis will be placed on understanding the methods traditionally used in the research process, critical thinking, interpretation of research designs and analytical methods used, and on technology used to support its dissemination.

Prerequisite: None

**EP5410**

**Evidence-Based Practice: Critical Appraisal of the Biomedical Literature  
(Effective Spring 2022)**

**Credits 1.0**

This course will expand upon the skills developed to introduce the role of research, including the interpretation and critical analysis of research reports and studies, in complementary and alternative medicine (CAM). The course will provide the foundation to equip students to be consumers of published research and to engage in building knowledge to enhance their professional practice and service delivery through the use of scientific methods, as well

as to identify the strengths and weaknesses of those methods in published research. This is done to support the education and efforts of CAM practitioners for use with and on behalf of patients. Emphasis throughout the course will be placed on preparing students to identify research findings that will assist them in being more effective practitioners. Special emphasis will be placed on understanding the methods traditionally used in the research process, critical thinking, interpretation of research designs and analytical methods used, and on technology used to support its dissemination.

Prerequisite: None

**EP6310 Evidence-Based Practice: Applied Evidence-Based Practice (Fall 2021) Credits 1.0**

This course emphasizes the professional application of evidence-based practice (EBP). Students will use current topics of importance to chiropractors, such as the reported association between manipulation and stroke. To highlight the way evidence is an integral part of their future practice. Students will learn the research origins of professional guidelines and how research will shape their chiropractic practice, including the use of high yield examination procedure. The course will also focus on communicating the evidence in written and oral formats to peers, insurance companies, other healthcare professionals, and patient through exercises such as independent medical evaluations and reviews. Students will develop a plan for how they will use an evidence-based practice approach, including an understanding of research writing.

Prerequisite: Completion of Phase I

**EP6316 Research –Evidence Based Clinical Applications Credits 1.0  
(Effective Spring 2022)**

This course emphasizes the professional application of evidence-based practice (EBP). Students will use current topics of importance to chiropractors, such as the reported association between manipulation and stroke. To highlight the way evidence is an integral part of their future practice. Students will learn the research origins of professional guidelines and how research will shape their chiropractic practice, including the use of high yield examination procedure. The course will also focus on communicating the evidence in written and oral formats to peers, insurance companies, other healthcare professionals, and patient through exercises such as independent medical evaluations and reviews. Students will develop a plan for how they will use an evidence-based practice approach, including an understanding of research writing.

Prerequisite: Completion of Phase I

**EP6410 Evidence-Based Practice: Journal Club (Fall 2021) Credits 0.5**

This class is an interactive course designed to sharpen the student's Advanced Topics in Spinal CareAdvanced Topics in Spinal Care research literacy and evidence-based practice (EBP) skills. Applied EBP is emphasized, including questioning, researching, analyzing, and communicating clinically relevant information. The overall objective of this course is to create sound EBP habits in students preparing to become physicians. Students will research, develop, and present a journal of clinically relevant, important, and applicable research literature to a small group of peers and practicing clinical mentors and professionals, using key evidence-based practice skills (asking, accessing, appraising, applying, and assessing) along with the concepts of critical appraisal of the literature. Emphasis is placed on how the research and clinical literature impacts clinical decisions.

Prerequisite: Completion of Phase II

**EP6413 Literature Research and Review (Evidence Based Practice: Journal Club) Credits 0.5  
(Effective Spring 2022)**

This class is an interactive course designed to sharpen the student's Advanced Topics in Spinal CareAdvanced Topics in Spinal Care research literacy and evidence-based practice (EBP) skills. Applied EBP is emphasized, including questioning, researching, analyzing, and communicating clinically relevant information. The overall objective of this course is to create sound EBP habits in students preparing to become physicians. Students will research, develop, and present a journal of clinically relevant, important, and applicable research literature to a small group of peers and practicing clinical mentors and professionals, using key evidence-based practice skills (asking, accessing, appraising, applying, and assessing) along with the concepts of critical appraisal of the literature. Emphasis is placed on how the research and clinical literature impacts clinical decisions.

Prerequisite: Completion of Phase II

**FH5106                                      Fundamentals of Natural Medicine & Historical Perspectives (Fall 2021)                                      Credits 1.0**

In this course, students will develop an understanding of the evolution, structure and societal role of their profession. This includes both a study of the origins as well as the contemporary practice and regulatory milieu of chiropractic and naturopathic medicine. Certain aspects of the practice are highlighted including the components of the medical record, the importance of physical examination and interviewing, and the uses and general methods of searching medical databases for evidence. Students are encouraged to create a vision for their future professional work to serve as a framework for the longer process of becoming a chiropractic or naturopathic physician.

Prerequisite: None

**FH5108                                      Introduction to Clinical Medicine (Effective Spring 2022)                                      Credits 1.0**

In this course, students will develop an understanding of the evolution, structure and societal role of their profession. This includes both a study of the origins as well as the contemporary practice and regulatory milieu of chiropractic and naturopathic medicine. Certain aspects of the practice are highlighted including the components of the medical record, the importance of physical examination and interviewing, and the uses and general methods of searching medical databases for evidence. Students are encouraged to create a vision for their future professional work to serve as a framework for the longer process of becoming a chiropractic or naturopathic physician.

Prerequisite: None

**FH5310                                      Whole Health Concepts & Philosophical Perspectives\* (Fall 2021)                                      Credits 1.0**

This course will expand on the whole health concepts that were first introduced in the Fundamentals of Natural Medicine course. Concepts to be explored will include, but are not limited to: the dynamic interrelationship between various body systems in both normal and pathological states; the impact of external factors on various body systems, such as environmental, life style, nutritional, physical fitness, psychosocial, and stress; integrating whole health concepts into everyday life and patient care. Logical analysis of the principles underlying philosophical perspectives will also be discussed.

Prerequisite: FH5106

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**FR6204                                      Functional Rehabilitation I:                                      Credits 3.0**  
**Introduction to Therapeutic Exercise and Spinal Rehabilitation (Fall 2021)**

The essential premise of this course is to develop the student's knowledge base for progressing the patient's care beyond the acute phase of management and develop stability to the axial skeleton via therapeutic exercise and other evidence-influenced regional stabilization interventions. The student will also establish a knowledge base of functional assessments. Evidence-influenced functional assessments for the spine will be detailed in this course allowing the student to effectively measure the physical capacity of the patient and then use this information to design a physical rehabilitation program for the identified deficiencies. Course content will be presented in both a lecture and lab setting.

Prerequisites: EM6112, EM6120

**FR6216                                      Sports and Musculoskeletal Functional Rehabilitation I                                      Credits 3.0**  
**(Effective Spring 2022)**

The essential premise of this course is to develop the student's knowledge base for progressing the patient's care beyond the acute phase of management and develop stability to the axial skeleton via therapeutic exercise and other evidence-influenced regional stabilization interventions. The student will also establish a knowledge base of functional assessments. Evidence-influenced functional assessments for the spine will be detailed in this course allowing the student to effectively measure the physical capacity of the patient and then use this information to design a physical rehabilitation program for the identified deficiencies. Course content will be presented in both a lecture and lab setting.

Prerequisites: EM6113, EM6121



**IC7010** **Clinic Internship I (Effective Spring 2022)** **Credits 10.0**

Clinic Internship I, although designated as a laboratory in a curricular sense, marks the advent of the student's practical application of the basic and clinical sciences in a clinical setting. Students will receive close supervision, guidance, and instruction in the delivery of health care by licensed clinical personnel as well as mentoring by senior interns. Students participating in clinical experiences are expected to exhibit clinical competence and professionalism (including knowledge of and strict adherence to confidentiality and privacy policies). Clinic Internship I operations will closely mirror the experiences of Clinic Internship II and III, including but not limited to clinic forms, diagnostic evaluations, and therapeutic procedures. In each clinical experience (I, II, III), responsibilities are granted interns based upon the clinician's assessment that patient care competencies have been mastered. Clinical competencies relating to the skills of assessment and diagnosis, management plan, health promotion and disease prevention, communication and record keeping, professional ethics and jurisprudence, information and technology literacy, manipulation, and inter-professional education (meta-competencies 1-8) will be assessed throughout this course.

Co-requisites or Completion: EM6403, RA6408, RA6424

**IC7100** **Clinic Internship II** **Credits 17.0**

Students will further develop skills needed for successful management of patients and their conditions. Students will participate in off-campus rotations to expand their experience and knowledge base. All students will be evaluated for skill development, manipulative technique and case management. Students will participate in Quality Assurance activities to ensure that the patient chart is in compliance with the University's Quality Assurance program. In-service training will be given in personnel issues for the practice, OSHA compliance issues for the private practice office, provisional credentialing of the chiropractic intern, and Medicare issues for the private practice.

Prerequisites: Completion of Phase II, IC7000\*, IC7010\*\*, American Heart Association BLS for Health Care Professionals with AED CPR certification.

\*= Fall 2021 / \*\* = Effective Spring 2022

**IC7200** **Clinic Internship III** **Credits 17.0**

Students will further develop skills needed for successful management of patients and their conditions. Off-campus rotations to expand the experience and knowledge base of the student are available for those that qualify. All students will be evaluated for skill development, manipulative technique and case management. Students will participate in Quality Assurance activities to ensure that the patient chart is in compliance with the University's Quality Assurance program.

Prerequisites: IC7100, American Heart Association BLS for Health Care Professionals with AED CPR certification.

***\* A listing of the Council on Chiropractic Education (CCE) Clinical Education Meta-Competencies is located at the end of the course descriptions.***

**MI5215** **Fundamentals of Microbiology** **Credits 2.0**

Students shall learn in this course the basic principles of medical microbiology and infectious disease. Learning outcomes will include the biology of bacterial, viral, fungal, and parasitic pathogens, mechanisms of infectious disease transmission, principles of aseptic practice, and antimicrobial agents. The course provides the conceptual basis for understanding pathogenic microorganisms and the mechanisms by which they cause disease in the human body. It also provides opportunities to develop diagnostic skills, including the use and interpretation of laboratory tests in the diagnosis of infectious diseases.

Prerequisite: None

**MI5303** **Medical Microbiology I** **Credits 4.5**

Considered in this course are the infections affecting the nervous system, upper respiratory system, blood and lymphatic system, skeletal system, and integumentary system. The discussion would include microbiologic characteristics, epidemiology, clinical aspects, treatment, and prevention of various pathogens where appropriate public health aspects of these infections would be elaborated upon. In addition, basic and clinical immunology including immunologic disorders will be discussed in detail. All the content will be discussed in lecture, group, and case-based format.

Prerequisite: MI5215

**MI5403 Medical Microbiology II Credits 5.0**

Considered in this course are the infections affecting the respiratory, gastrointestinal, reproductive, and urinary systems. The discussion will include microbiologic characteristics, epidemiology, clinical aspects, treatment, and prevention of various pathogens. Where appropriate, public health aspects of these infections will be elaborated upon. All the content will be discussed in lecture, group, and case-based format.

Prerequisite: MI5303

**MM5120 Introduction to Palpation Skills & Landmark Identification (Fall 2021) Credits 1.0**

The focus of this laboratory course is to introduce the skills of palpation and identification of osseous and soft tissue structures. We will introduce the concepts of static and motion palpation as well as palpation for trigger points, tender points, spasm, and other pathology. This course provides some basic clinical perspective to build upon the fundamentals introduced in the first trimester anatomy lab.

Prerequisite: None

**MM5121 Technique I: Palpation and Landmarks (Effective Spring 2022) Credits 1.0**

In this laboratory course students will be introduced to the skills of palpation and identification of osseous and soft tissue structures. This laboratory course will introduce the concepts of static and motion palpation as well as palpation trigger points, tender points, spasm and other pathology. This course provides some basic clinical perspective to the fundamentals introduced in the first trimester anatomy lab.

Prerequisite: None

**MM5220 Manipulation of the Thoracic Spine (Fall 2021) Credits 1.0**

This course teaches manipulation of the thoracic spine as an introduction to management of uncomplicated, common thoracic conditions. Teaching methods will include demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning. This is the student's first manipulation course. It will lay the foundation for other manipulation courses by teaching concepts related to (i) the patient management process; (ii) spinal manipulation; and (iii) the doctor-patient relationship.

Co-requisite: EM5207

**MM5221 Technique II: Principals & Practice of Chiropractic (Effective Spring 2022) Credits 2.0**

This course will discuss the history of chiropractic as healthcare profession and treatment for prevention, maintenance, and restoration of health. Students will learn the theories, models, and hypothesis of the intervertebral dysfunction complex and adjustment. Students will also learn diversified techniques, the basic concepts in chiropractic such as anatomical, pathophysiological, and biomechanical and be exposed to research models and the importance of research.

Pre-requisites: Registered in the Chiropractic program

**MM5222 Technique III: Manipulation of the Thoracic Spine & Ribs (Effective Spring 2022) Credits 1.5**

This course teaches the knowledge and skills needed to effectively and safely perform manipulative therapy to the thoracic spine, cervicothoracic and costovertebral regions to manage uncomplicated, common thoracic conditions. Students will utilize prior knowledge to identify osseous and soft tissue structures, skills of palpation and orthopedic tests correlating to the manipulative technique. This course is part of a stream of technique courses wherein techniques are sequentially added and skills and competence are further developed. It will lay the foundation for other Manipulation courses by teaching concepts related to (i) the patient management process; (ii) spinal manipulation, and (iii) the doctor-patient relationship. Teaching methods will include demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.

Corequisite: EM5213

**MM5320 Manipulation of the Pelvis, Lumbar Spine, T/L Junction (Fall 2021) Credits 1.0**

The primary objective of this course is for students to learn the essential concepts and skills necessary to palpate and manipulate the pelvis and lumbar spine, and the thoracolumbar junction. The clinical presentation of normal anatomy biomechanics will be highly emphasized. Teaching methods will include prelab discussions, demonstrations,



and skills laboratories. This course is part of a series or stream of technique courses wherein techniques are sequentially added and skills and competencies are further developed.

Prerequisite: MM5220

**MM5322                      Technique IV: Manipulation of the Lumbo-sacral Spine, T/L Junction & Pelvis                      Credits 1.5**  
**(Effective Spring 2022)**

This course teaches students the knowledge and skills needed to effectively and safely perform manipulation of the Pelvis, Lumbar Spine & T/L Junction to manage uncomplicated, and common conditions. Students will utilize prior knowledge to identify osseous and soft tissue structures and skills of palpation. This course will lay the foundation for other Manipulation courses by teaching concepts related to (i) the patient management process; (ii) spinal manipulation; and (iii) the doctor-patient relationship. Teaching methods will include demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisite: MM5222

**MM5420                      Manipulation of the Cervical Spine and Cervico-Thoracic Junction (Fall 2021)                      Credits 1.0**

This course will teach manipulation of the cervical spine as an introduction towards management of uncomplicated, common cervical conditions. Teaching methods will include demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning. As the third manipulation course, it assists in building on previous concepts related to (i) the patient management process; (ii) spinal manipulation; and (iii) the doctor-patient relationship.

Prerequisites: AN5101; AN5102; FH5106; MM5220; MM5320

**MM5422                      Technique V: Manipulation of the Cervical Spine, C/T Junction and First Rib                      Credits 1.5**  
**(Effective Spring 2022)**

This course teaches students the knowledge and skills needed to effectively and safely perform manipulation of the Cervical Spine and Cervico-Thoracic Junction to manage uncomplicated, and common conditions. Students will utilize prior knowledge to identify osseous and soft tissue structures and skills of palpation. This course will lay the foundation for other Manipulation courses by teaching concepts related to (i) the patient management process; (ii) spinal manipulation; and (iii) the doctor-patient relationship. Teaching methods will include demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisites: AN5101; AN5102; FH5106; MM5220; MM5320

**MM6110                      Soft Tissue Management (Fall 2021)                      Credits 0.5**

This laboratory course introduces soft tissue therapies and builds upon brief introductions from previous E&M classes. Techniques for enhancing soft tissue function and reducing pathology are presented.

Prerequisite: Completion of Phase I

**MM6114                      Myofascial Treatments (Effective Spring 2022)                      Credits 1.0**

This laboratory course introduces soft tissue therapies and builds upon brief introductions from previous E&M classes. Techniques for enhancing soft tissue function and reducing pathology are presented.

Prerequisite: Completion of Phase I

**MM6208                      Orthopedic Musculoskeletal Imaging (Fall 2021)                      Credits 1.0**

This course will consider the practical application of imaging the orthopedic patient. The course will concentrate on the most common advanced imaging modalities currently used in private practice, relating them to various orthopedic conditions encountered in private practice. The course will review the epidemiology, pathophysiology, natural history, and treatment of various orthopedic conditions, and place a strong emphasis on the imaging required to evaluate these conditions, assess severity and monitor treatment or provide appropriate referral, when required.

Prerequisites: Completion of Phase I; EM6112; EM6120

**RA6425      Radiology: Orthopedic & Musculoskeletal Imaging (Effective Spring 2022)      Credits 1.0**

This course will consider the practical application of imaging the orthopedic patient. The course will concentrate on the most common advanced imaging modalities currently used in private practice, relating them to various orthopedic conditions encountered in private practice. The course will review the epidemiology, pathophysiology, natural history, and treatment of various orthopedic conditions, and place a strong emphasis on the imaging required to evaluate these conditions, assess severity and monitor treatment or provide appropriate referral, when required.

Prerequisites: Completion of Phase I, EM6113, EM6121

**MM6220      Advanced Manual Therapy Techniques I (Fall 2021)      Credits 1.5**

This laboratory course presents assessment and treatment procedures for the hip, pelvis, lumbar, and lower thoracic spine regions. The assessment includes orthopedic testing and static and dynamic assessment of joint function. Treatment options for the findings noted during the examination are discussed. Treatment procedures emphasize joint manipulation with management considerations. Integrative methods to treat the spine that include blocking, instrument assisted adjusting, and drop table procedures are incorporated in the course.

Prerequisites: Completion of Phase I, EM6120

**MM6122      Technique VI: Advanced Adjustments (Effective Spring 2022)      Credits 1.5**

This laboratory course presents assessment and treatment procedures for the hip, pelvis, lumbar, and lower thoracic spine regions. The assessment includes orthopedic testing and static and dynamic assessment of joint function. Treatment options for the findings noted during the examination are discussed. Treatment procedures emphasize joint manipulation with management considerations. Integrative methods to treat the spine that include blocking, instrument assisted adjusting, and drop table procedures are incorporated in the course.

Prerequisites: Completion of Phase I, EM6121

**MM6221      Diversified Technique\* (Fall 2021)      Credits 1.0**

This course emphasizes enhancement of fundamental skills, analysis, and technique selection necessary for the chiropractic physician to apply Diversified Technique in the clinical setting in an effective and precise manner. Lecture/lab sessions will be used to demonstrate and individually instruct the students in the proper application of the common as well as less frequently employed diversified techniques that are utilized in special or unique situations. Rationale for adaptations that can be made will be stressed and explained.

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**MM6320      End Range Loading & Flexion Distraction Technique (Fall 2021)      Credits 1.0**

This laboratory course presents the utilization of the end range loading (MDT) and flexion/distraction manipulative procedures in the management of common clinical presentations.

Prerequisite: MM6220

**MM6321      Technique VII: Manipulation Systems (Effective Spring 2022)      Credits 1.0**

This laboratory course presents the utilization of the end range loading (MDT) and flexion/distraction manipulative procedures in the management of common clinical presentations.

Prerequisite: MM6122

**MM6420      Advanced Manual Therapy Techniques II (Fall 2021)      Credits 0.5**

This laboratory course is a condition-based course on the manual therapy management of the conditions in the cervical, thoracic, lumbar spine, and upper and lower extremities. Additional conditions encountered in chiropractic practice such as colic, restless leg syndrome, TMJ syndrome, otitis media, and essential hypertension will also be included.

Prerequisite: MM6220

**MM6422      Technique VIII: Manipulation Clinical Application (Effective Spring 2022)      Credits 0.5**

This laboratory course is a condition-based course highlighting the use of manual therapy in the management of conditions in the cervical spine, thoracic spine, lumbar spine, as well as the upper and lower extremities. Additional

conditions commonly encountered in chiropractic practice such as colic, restless leg syndrome, TMJ syndrome, otitis media, and essential hypertension will also be included.

Prerequisite: MM6122

**NN5406**

**Science of Diet & Nutrition\***

**Credits 3.0**

This course provides a basic understanding of the fundamentals of human nutrition and stresses the essentials of the basis for good nutritional status. It serves as the basic nutrition course that follows the basic science presentation of the macronutrients and the micronutrients presented in the Nutritional Biochemistry course (BC5308). Topics presented in this course include a review of the macronutrients and micronutrients with emphasis on the health properties of each as well as the severe deficiency states for both micronutrients and macronutrients. Digestion, absorption and transport of the nutrients, and consequences of malabsorption care are covered. Energy production, energy balance and weight management are also described. Food habits in the United States and nutrition across the life cycle are discussed in the course. Male and female health, sports and exercise nutrition, enteral and parenteral nutrition procedures as well as an introduction to the science of food preparation and handling are included. An introduction to nutritional status assessment using food frequency questionnaires and diet history is given.

Prerequisite: BC5308

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**NN5418**

**Human Metabolism and Nutrition**

**Credits 1.0**

Dietary assessment of the macronutrients (carbohydrates, fats, proteins) and micronutrients (vitamins, minerals) will be reviewed along with application of their individual and integrated physiological roles in metabolism with an emphasis on pathways and their relationships to hormonal and dietary regulation through anabolic vs catabolic states. Lipid metabolism will emphasize dietary sources of fats for fuel, energy, and storage, compared against the essential fatty acid signaling molecules of the inflammatory eicosanoid pathway. Carbohydrate metabolism will assess simple vs complex dietary sugars and their different physiological effects on achieving, sustaining, or losing euglycemia. Protein metabolism will emphasize nitrogen balance and synthesis reactions supported through essential vitamin and mineral dependent pathways. Essential nutrient functional roles in antioxidant and mitochondrial function will be reviewed alongside dietary strategies of achieving and sustaining optimal health.

**NN6107**

**Pharmacology I**

**Credits 3.0**

This course provides a basic understanding of the use of drugs in western medicine for the treatment of disease. Topics covered in this course will be descriptions of drug names and classification, general principles of drug action and metabolism that will cover the area of pharmacokinetics and pharmacodynamics. Factors influencing drug action and a discussion of drug safety are addressed. A large part of this course will be a description of the drug actions on body systems including all the major organ systems and the disorders and diseases in each of the systems. Included will be a description of the mechanism of action, major untoward effects, and contraindications for each drug and drug category. Interactions with other drugs and botanicals as well as a description of the nutrients that are depleted by each of the drugs will be covered. Drug actions on infection and immune system regulation as well as chemical dependency and substance abuse will be described. A discussion of poisons and their antidotes is included.

Prerequisite: Completion of Phase I

**NN6108**

**Botanical Medicine**

**Credits 3.0**

This course presents the fundamentals of herbal science and pharmacognosy. Topics included are herbal terminology, principles of herbal pharmacology and treatment, as well as mechanisms for optimizing safety. Dosage forms and preparations and standardization are covered in detail. Extraction and purification of the active ingredients are explained in the course. Herbal approaches to maintenance of health and treatment of disease as well as the strengthening of organ systems are presented for all the major organ systems of the body and many of the primary care diseases found in each of those organ systems. A major focus in the second half of this course is a description of the Materia Medica for 30 of the common botanical medicines used in western medicine. Active ingredient, part of the plant used, major therapeutic use, untoward effects, contraindications and interactions with drugs, and other botanical medicines are covered in detail.

Prerequisite: Completion of Phase I

**NN6206****Pharmacology II****Credits 3.0**

This course provides a basic understanding of the use of pharmaceuticals utilized in allopathic medicine for the treatment of disease. Topics covered in this course will be descriptions of drug names and classification, general principles of drug action and metabolism, which will cover the areas of Pharmacokinetics and Pharmacodynamics. Factors influencing drug action and a discussion of drug safety are addressed. A large part of this course will be a description of the drugs' action on body systems including all the major organ systems and diseases of these systems. Included will be a description of the mechanism of action, major untoward effects and contraindications for each drug and drug category.

Prerequisite: NN6107

**NN6301****Clinical Nutrition (Fall 2021)****Credits 4.0**

This course offers a nutritional approach to the prevention and treatment of disease, with an emphasis on maintenance of health and homeostasis and specific disease conditions and their prevention. Nutritional assessment methods are covered in detail and the methods for obtaining a physical exam of nutrition health and means to assess nutritional status are covered. A description of the approach to nutrition counseling and the nutrition counseling session are described. Topics covered are food frequency questionnaires (FFQ), health history and physical exam forms, and food diary and intake forms. The diseases of the major organ systems in the body are covered with the musculoskeletal, joint health, gastrointestinal, and cardiovascular systems covered in depth. Metabolic diseases such as diabetes and thyroid diseases are also described. Liver detoxification, adrenal stress syndrome, and a functional medicine approach to the liver, adrenal, thyroid, and gastrointestinal tract are described. Other diseases covered are central nervous system disease and infectious and dermatological conditions. A discussion of immune up-regulation, glandular products, chelation therapy, and glyconutrients is held. The use of all nutritional therapies, botanical medicines, and other functional medicine approaches to maintenance of health and prevention and treatment of disease are described.

Prerequisite: Completion of Phase I

**NN6322****Evidence Based Nutritional Therapies (Effective Spring 2022)****Credits 4.0**

This course offers a nutritional approach to the prevention and treatment of disease, with an emphasis on maintenance of health and homeostasis within specific disease states. Nutritional assessment methods are covered in detail, including the methods for obtaining a physical exam of nutrition health and means to assess nutritional status. The nutrition care process and approach to nutrition counseling sessions are discussed. The diseases of the major organ systems in the body are covered including joint health, gastrointestinal, renal, liver, and cardiovascular systems. Metabolic diseases such as obesity, diabetes, and thyroid conditions are also explored. Nutritional screening, assessment, and treatment within each specific disease state will be emphasized in relationship to the integrative therapeutic application of nutrition in a clinical setting.

Prerequisite: Completion of Phase I

**NN6308****Botanical Medicine II (Fall 2021)****Credits 4.0**

This advanced course will engage the subject of therapeutic herbalism in great detail. The strategies for addressing dysfunction in the organ systems will be outlined. Specific aspects of botanicals will be studied including: constituents, pharmacognosy, specific indications, contraindications, toxicity, and dosing parameters. In the traditional manner, the herbs will be studied according to therapeutic category (nervines, hepatics, anodynes, etc.). Close attention will be paid to the potential for herb-herb and herb-drug interaction. Students will practice compounding and dispensing as part of their clinical rotations, but this course will provide the theoretical information to enable them to do so.

Prerequisite: NN6108

**NU6404****Nutritional Therapies in Functional Medicine (Effective Spring 2022)****Credits 3.0**

This course is an advanced nutrition course that will take in to account a patient's history, physical findings and clinical laboratory procedures to determine the use of nutraceuticals, botanicals, glandulars, bio-identical hormones and Ayurveda medicine to restore and maintain health and maximize organ function. Students will learn how to correlate a patient intake, physical examination findings and functional testing to develop a nutritional therapy plan.

Prerequisite: EM6117, NN6108, NN6322

**PA5204** **Fundamentals of Pathology** **Credits 3.0**

This course provides an introduction to the basic changes in the morphology of the cells, tissues, and organs in diseased states. Extensive use of visual aids with the latest computer technology helps students to differentiate abnormal from normal, and to correlate the clinical aspects of the alterations. Included also is discussion on general characteristics, classification and differential diagnosis of cysts, benign and malignant tumors, and other neoplastic entities. All content will be discussed in lecture and group activity/discussion format.

Prerequisites: AN5107, PH5103

**PA5302** **Systems Pathology I** **Credits 4.0**

Considered in this course are the pathologies peculiar to and characteristic of the various systems of the body. The systems examined are the nervous system, myopathy, neuropathy, bone and joint pathology, immunopathology, hematopathology, and dermatopathology. Each condition is studied from the standpoint of general characteristics, gross and microscopic appearance, and clinical course.

Prerequisite: PA5204

Co-requisites: AN5304, AN5305, AN5307

**PA5402** **Systems Pathology II** **Credits 6.0**

Considered in this course are the pathologies peculiar to and characteristic of various systems of the body. The systems examined are respiratory, cardiovascular, reproductive and mammary, gastrointestinal (inclusive of liver, gall bladder and pancreas), urinary, and endocrine.

Prerequisite: PA5302

Co-requisite: PH5405

**PH5103** **Cellular Physiology & Hematology** **Credits 4.0**

In this course, students will review, in a problem-based setting, the basic science concepts related to the physiology of cellular membranes and organelles, along with the integrated functioning of the blood as a tissue. The physiology lab exercises will consist of problem sets and case studies, designed to integrate and apply material and concepts introduced through the accompanying lectures each week.

Co-requisite: AN5107

**PH5208** **Neurophysiology** **Credits 3.5**

The purpose of this course is to study the neurophysiology of the nervous system. The complex signals created and utilized by the nervous system to control most bodily functions will be studied in depth to gain a better understanding of how the human nervous system functions. Areas of study will include: synaptic transmission; autonomic control; sensory systems including the special senses of vision, hearing, touch, balance (vestibular function), taste and smell; signal integration in the CNS; control of the motor system (including skeletal muscle physiology); and higher cortical functions such as speech, sleep and associational areas of the brain.

Prerequisite: PH5103

Co-requisites: AN5201, AN5202, AN5203

**PH5306** **Neuroendocrinology, GI & Reproductive Physiology** **Credits 4.0**

This course will address neuroendocrine mechanisms that operate to maintain homeostatic control over various systems and states within the body. The primary focus will be upon the normal mechanisms and reflexes that operate to maintain a healthy state. Specific topics will include regulation of the reproductive, gastrointestinal, and thermoregulatory systems. Neuroendocrine feedback pathways that regulate metabolic and mineral homeostasis will also be discussed. Course instruction will be through lecture and group discussion of selected problems and cases.

Prerequisite: PH5208

**PH5405** **Cardiovascular, Respiratory & Renal Physiology** **Credits 5.0**

This course will present the normal physiologic function of the respiratory system (breathing, ventilation and gas exchange), circulatory system (blood pressure, cardiac output, pressure and flow homeostasis, and cardiac electrophysiology), and the kidney (conservation and excretion, and volume homeostasis). Content will be presented

through lecture, laboratory, and supplemental problem exercises. Structure-function relationships and mechanisms of regulation will be emphasized. Laboratory-based measurements on human subjects will be used along with computer simulations to demonstrate and illustrate core concepts. Supplemental problem exercises will provide students the opportunity to demonstrate and test their understanding and capability to apply core concepts toward explanative assessment of how each of these systems function.

Prerequisites: AN5304, AN5305, PH5306

**RA5206                                      Normal Radiographic Anatomy & Variants (Fall 2021)                                      Credits 1.5**

Chiropractic physicians must have a thorough understanding of the normal radiographic anatomy of the skeletal system if they are to detect abnormal pathology in these regions. This course provides background information as a basis for courses in musculoskeletal imaging diagnosis, essentially designed to help students differentiate a normal structure from pathology. The study of normal variants and anomalies of the skeletal system and skeletal measurement procedures are presented to give students an overall understanding of variations of normal, which both mimic pathology and often present with unique clinical challenges.

Prerequisites: AN5101, AN5102

**RA5416                                      Normal Radiographic Anatomy & Variants (Effective Spring 2022)                                      Credits 1.5**

Chiropractic physicians must have a thorough understanding of the normal radiographic anatomy of the skeletal system if they are to detect abnormal pathology in these regions. This course provides background information as a basis for courses in musculoskeletal imaging diagnosis, essentially designed to help students differentiate a normal structure from pathology. The study of normal variants and anomalies of the skeletal system and skeletal measurement procedures are presented to give students an overall understanding of variations of normal, which both mimic pathology and often present with unique clinical challenges.

Prerequisites: AN5101, AN5102

**RA5407                                      Radiation Physics & Technology (Fall 2021)                                      Credits 1.0**

This course explains the basics of X-ray production, interaction with matter, image production, and patient protection. Emphasis is on troubleshooting common technical errors that create artifacts and poor diagnostic image quality. Radiation biology is also presented to provide the student with a healthy respect for the intrinsic dangers of ionizing radiation and the principle of quality films at the lowest possible exposure.

Prerequisite: RA5206

**RA5205                                      Radiation Physics & Technology (Effective Spring 2022)                                      Credits 1.0**

This course explains the basics of X-ray production, interaction with matter, image production, and patient protection. Emphasis is on troubleshooting common technical errors that create artifacts and poor diagnostic image quality. Radiation biology is also presented to provide the student with a healthy respect for the intrinsic dangers of ionizing radiation and the principle of quality films at the lowest possible exposure.

Prerequisite: RA5416

**RA6109                                      Fundamentals of Imaging: Arthritides & Trauma (Fall 2021)                                      Credits 2.5**

Arthritic disorders and associated connective tissue disorders are discussed including distinctive radiographic characteristics and associated clinical presentations of the basic categories of joint disease. Traumatic conditions are presented with special emphasis on the musculoskeletal system, both spine and extremity. Laboratory exercises reinforce and apply core material.

Prerequisite: Completion of Phase I

**RA6115                                      Radiology: Arthritides and Trauma (Effective Spring 2022)                                      Credits 2.5**

Arthritic disorders and associated connective tissue disorders are discussed including distinctive radiographic characteristics and associated clinical presentations of the basic categories of joint disease. Traumatic conditions are presented with special emphasis on the musculoskeletal system, both spine and extremity. Laboratory exercises reinforce and apply core material.

Prerequisite: Completion of Phase I

**RA6205** **Fundamentals of Imaging: Skeletal Dysplasia, Tumors, Endocrine, & Hematopoietic Disorders (Fall 2021)** **Credits 2.5**

A systematic and orderly approach to interpretation of plain film radiography is stressed, complemented by associated findings relative to special imaging modalities. Clinical correlation of anomalies, bone pathology, joint abnormalities, and soft tissue changes are presented. Laboratory sessions focus upon the development of skills necessary for the acquisition of patient information, and the interpretation of X-rays pertaining to bone pathology. Furthermore, laboratory sessions afford students the opportunity to study actual case studies, including clinical presentations and imaging of material presented during lecture.

Prerequisite: Completion of Phase I

**RA6217** **Radiology: Tumors & Dysplasia (Effective Spring 2022)** **Credits 2.5**

A systematic and orderly approach to interpretation of plain film radiography is stressed, complemented by associated findings relative to special imaging modalities. Clinical correlation of anomalies, bone pathology, joint abnormalities, and soft tissue changes are presented. Laboratory sessions focus upon the development of skills necessary for the acquisition of patient information, and the interpretation of X-rays pertaining to bone pathology. Furthermore, laboratory sessions afford students the opportunity to study actual case studies, including clinical presentations and imaging of material presented during lecture.

Prerequisite: Completion of Phase I

**RA6302** **Fundamentals of Imaging: Chest & Abdomen (Fall 2021)** **Credits 2.5**

A systematic and orderly approach to interpretation of plain film radiography is stressed, complemented by associated findings relative to special imaging modalities. Normal radiographic anatomy, anomalies, and pathology of the chest and abdomen are presented with associated clinical presentations. Laboratory sessions focus upon the development of skills necessary for the acquisition of patient information, and the interpretation of X-rays pertaining to pathology of the chest and abdomen. Furthermore, laboratory sessions afford students the opportunity to study actual case studies, including clinical presentations and imaging of material presented during lecture.

Prerequisites: RA6109, RA6217

**RA6323** **Radiology: Chest & Abdomen (Effective Spring 2022)** **Credits 2.5**

A systematic and orderly approach to interpretation of plain film radiography is stressed, complemented by associated findings relative to special imaging modalities. Normal radiographic anatomy, anomalies, and pathology of the chest and abdomen are presented with associated clinical presentations. Laboratory sessions focus upon the development of skills necessary for the acquisition of patient information, and the interpretation of X-rays pertaining to pathology of the chest and abdomen. Furthermore, laboratory sessions afford students the opportunity to study actual case studies, including clinical presentations and imaging of material presented during lecture.

Prerequisites: RA6115, RA6217

**RA6408** **Report Writing & Advanced Imaging (Fall 2021)** **Credits 1.0**

This course teaches the basics of writing a detailed and accurate radiology report emphasizing findings, impressions, and recommendations. The reports are written on a variety of normal and abnormal cases exposing the student to a variety of pathologic processes. The advanced imaging portion of this course focuses on the different types of advanced imaging, their uses and limitations, as well as clinical decision-making regarding proper indications to order advanced imaging.

Co-requisite: IC7100

**RA6423** **Radiological Critical Thinking (Effective Spring 2022)** **Credits 1.0**

This course teaches the basics of writing a detailed and accurate radiology report emphasizing findings, impressions, and recommendations. The reports are written on a variety of normal and abnormal cases exposing the student to a variety of pathologic processes. The advanced imaging portion of this course focuses on the different types of advanced imaging, their uses and limitations, as well as clinical decision-making regarding proper indications to order advanced imaging.

Co-requisite: IC7010

**RA6409                      Radiographic Positioning & Radiology Management (Fall 2021)                      Credits 2.0**

This course considers the practical parameters of X-ray technology including patient positioning, technique calculations, instrument operation, film processing, and other pertinent phases of technology. Students gain experience in the practical application of routine radiographic procedures via the use of energized and non-energized units and lab partners. The positioning portion of this class/lab focuses on radiography of the spine, extremities, abdomen, and chest. Additionally, this course presents guidelines for the design of an office X-ray facility, selection of equipment, and quality control that is needed to maintain optimum image formation. State and federal regulations governing these installations, the medico-legal aspects of diagnostic radiology, ethics, and record keeping are emphasized.

Co-requisite: IC7100

**RA6424                      Advanced Radiology & Positioning (Effective Spring 2022)                      Credits 2.0**

This course considers the practical parameters of X-ray technology including patient positioning, technique calculations, instrument operation, film processing, and other pertinent phases of technology. Students gain experience in the practical application of routine radiographic procedures via the use of energized and non-energized units and lab partners. The positioning portion of this class/lab focuses on radiography of the spine, extremities, abdomen, and chest. Additionally, this course presents guidelines for the design of an office X-ray facility, selection of equipment, and quality control that is needed to maintain optimum image formation. State and federal regulations governing these installations, the medico-legal aspects of diagnostic radiology, ethics, and record keeping are emphasized.

Co-requisite: IC7100



## **CCE CLINICAL EDUCATION META-COMPETENCIES**

*The CCE Meta-Competencies listed below are defined by the Council on Chiropractic Education and are chiropractic specific. The six NUHS Academic and Clinical Competencies (see College of Professional Studies Academic Policies, Regulations and Procedures) were adopted by the University to meet the inter-professional needs of the multiple programs in the College of Professional Studies, and also satisfy the requirements laid out in the CCE Meta-Competencies.*

A graduate of a CCE-accredited Doctor of Chiropractic Program (DCP) is competent in the areas of:

### **META-COMPETENCY 1 – ASSESSMENT & DIAGNOSIS**

**Assessment and diagnosis require developed clinical reasoning skills. Clinical reasoning consists of data gathering and interpretation, hypothesis generation and testing, and critical evaluation of diagnostic strategies. This dynamic process includes the collection and assessment of data through history, physical examination, imaging, laboratory tests, and case-related clinical services.**

#### **CURRICULAR OBJECTIVE:**

**The program prepares students to:**

- A. Compile a case-appropriate history that evaluates the patient's health status, including a history of any present illness, systems review, and review of past, family and psychosocial histories for the purpose of constructing a differential diagnosis and directing clinical decision-making.
- B. Determine the need for and availability of external health records.
- C. Perform case-appropriate examinations that include evaluations of body regions and organ systems, including the spine and any subluxation/segmental dysfunction that assist the clinician in developing the diagnosis/es.
- D. Perform and utilize diagnostic studies and consultations when appropriate, inclusive of imaging, clinical laboratory, and specialized testing procedures, to obtain objective clinical data.
- E. Formulate a diagnosis/es supported by information gathered from the history, examination, and diagnostic studies.

#### **OUTCOMES:**

**Students will be able to:**

- 1) Develop a list of differential diagnosis/es and corresponding exams from a case-appropriate health history and review of external health records.
- 2) Identify significant findings that may indicate the need for follow-up through additional examination, application of diagnostic and/or confirmatory tests and tools, and any consultations.
- 3) Generate a problem list with diagnosis/es.

## **META-COMPETENCY 2 – MANAGEMENT PLAN**

**Management involves the development, implementation and monitoring of a patient care plan for positively impacting a patient's health and well-being, including specific healthcare goals and prognoses. It may include case follow-up, referral, and/or collaborative care.**

### **CURRICULAR OBJECTIVE:**

**The program prepares students to:**

- A. Develop a management plan appropriate to the diagnosis/es, the patient's health status, obstacles to improvement, specific goals, and prognoses, while incorporating patient values and expectations of care.
- B. Determine the need for chiropractic adjustment/manipulation or other forms of passive care.
- C. Determine the need for active care.
- D. Determine the need for changes in patient behavior and activities of daily living.
- E. Determine the need for emergency care, referral, and/or collaborative care.
- F. Provide information to patients of risks, benefits, natural history, and alternatives to care regarding the proposed management plan.
- G. Obtain informed consent.
- H. Monitor patient progress and alter management plans accordingly.
- I. Recognize the point of a patient's maximum improvement and release the patient from care, or determine rationales for any ongoing care.

### **OUTCOMES:**

**Students will be able to:**

- 1) Develop an evidence-informed management plan appropriate to the diagnosis, including obstacles to improvement, measurable healthcare goals, prognoses, and target endpoint of care in consideration of bio-psychosocial factors, natural history, and alternatives to care.
- 2) Refer for emergency care and/or collaborative care as appropriate.
- 3) Present a management plan that includes obtaining informed consent.
- 4) Deliver appropriate chiropractic adjustments/manipulations, and/or other forms of passive care as identified in the management plan.
- 5) Implement appropriate active care as identified in the management plan.
- 6) Make recommendations for changes in lifestyle behaviors, activities of daily living, and/or dietary and nutritional habits as appropriate.
- 7) Implement changes to the management plan as new clinical information becomes available.
- 8) Identify maximum improvement and document the endpoint of care or determine rationales for continuing care.

### **META-COMPETENCY 3 – HEALTH PROMOTION & DISEASE PREVENTION**

Health promotion and disease prevention requires an understanding and application of epidemiological principles regarding the nature and identification of health issues in diverse populations and recognition of the impact of biological, chemical, behavioral, structural, psychosocial and environmental factors on general health.

#### **CURRICULAR OBJECTIVE:**

The program prepares students to:

- A. Identify appropriate hygiene in a clinical environment.
- B. Explain health risk factors, leading health indicators and public health issues to patients.
- C. Identify public health issues in diverse populations.
- D. Understand their reporting responsibility regarding public health risks and issues.

#### **OUTCOMES:**

Students will be able to:

- 1) Manage health risks and public health issues, including reporting, as required.
- 2) Recommend or provide resources (educational, community-based, etc.) and instruction regarding public health issues.
- 3) Address appropriate hygiene practices in the clinical environment.
- 4) Communicate health improvement strategies with other health professionals.

## **META-COMPETENCY 4 – COMMUNICATION AND RECORD KEEPING**

Effective communication includes oral, written and nonverbal skills with appropriate sensitivity, clarity and control for a wide range of healthcare related activities, to include patient care, professional communication, health education, record keeping and reporting.

### **CURRICULAR OBJECTIVE:**

The program prepares students to:

- A. Communicate effectively, accurately, and appropriately, in writing and interpersonally with diverse audiences.
- B. Acknowledge the need for, and apply cultural sensitivity in, communications with patients and others.
- C. Create and maintain accurate, appropriate, and legible records.
- D. Comply with regulatory standards and responsibilities for patient and business records.

### **OUTCOMES:**

The student will be able to:

- 1) Document health risks and management options considering the patient's health care needs and goals.
- 2) Consider the patient's ethnicity, cultural beliefs, and socio-economic status when communicating.
- 3) Generate accurate, concise, appropriate, and legible patient records, narrative reports, and correspondence.
- 4) Safeguard and keep confidential the patient's protected health and financial information.
- 5) Generate patient records that are in compliance with state and federal laws and regulations and applicable/accepted industry standards.

## **META-COMPETENCY 5 – PROFESSIONAL ETHICS & JURISPRUDENCE**

Professionals are expected to comply with the law and exhibit ethical behavior.

### **CURRICULAR OBJECTIVE:**

The program prepares students to:

- A. Apply knowledge of ethical principles and boundaries.
- B. Apply knowledge of applicable health care laws and regulations.
- C. Apply knowledge of expected professional conduct.

### **OUTCOMES:**

The student will be able to:

- 1) Maintain appropriate physical, communication (verbal and non-verbal), and emotional boundaries with patients.
- 2) Maintain professional conduct with patients, peers, staff, and faculty.
- 3) Comply with the ethical and legal dimensions of clinical practice.

## **META-COMPETENCY 6 – INFORMATION & TECHNOLOGY LITERACY**

Information literacy is a set of abilities, including the use of technology, to locate, evaluate, and integrate research and other types of evidence to manage patient care.

### **CURRICULAR OBJECTIVE:**

The program prepares students to:

- A. Locate, critically appraise, and use relevant scientific literature and other evidence.

### **OUTCOMES:**

Students will be able to:

- 1) Use relevant scientific literature and other evidence to inform patient care.

## **META-COMPETENCY 7 – CHIROPRACTIC ADJUSTMENT/MANIPULATION**

Doctor of Chiropractic employ the adjustment/manipulation to address joint and neurophysiologic dysfunction. The adjustment/manipulation is a precise procedure requiring the discrimination and identification of dysfunction, interpretation and application of clinical knowledge, and the use of cognitive and psychomotor skills.

### **CURRICULAR OBJECTIVE:**

The program prepares students to:

- A. Assess normal and abnormal structural, neurological, and functional articular relationships.
- B. Evaluate the clinical indications and rationale for selecting a particular chiropractic adjustment/manipulation.
- C. Determine, based on clinical indications and risk factors, the appropriateness of delivering chiropractic adjustment/manipulation.
- D. Demonstrate the knowledge, mechanical principles, and psychomotor skills necessary to safely perform chiropractic adjustment/manipulation.
- E. Assess the patient outcome(s) of the chiropractic adjustment/manipulation.

### **OUTCOMES:**

Students will be able to:

- 1) Identify subluxations/segmental dysfunction of the spine and/or other articulations.
- 2) Analyze and interpret findings indicating the need for chiropractic adjustment/manipulation.
- 3) Identify indications, contraindications, and risk factors for the chiropractic adjustment/manipulation; and, explain the anticipated benefits, potential complications, and effects to patients.
- 4) Apply chiropractic adjustment/manipulation to patients while ensuring patient safety.
- 5) Identify the effects following the chiropractic adjustment/manipulation.

## **META-COMPETENCY 8 – INTER-PROFESSIONAL EDUCATION**

Students have the knowledge, skills, and values necessary to function as part of an inter-professional team to provide patient-centered collaborative care. Inter-professional teamwork may be demonstrated in didactic, clinical, or simulated learning environments.

### **CURRICULAR OBJECTIVE:**

The program prepares students to:

- A. Work with other health professionals to maintain a climate of mutual respect and shared values, placing the interests of patients at the center of inter-professional health care delivery.
- B. Use the knowledge of one's own role and other professions' roles to effectively interact with team members.
- C. Understand different models of inter-professional care, organizational and administrative structures, and the decision-making processes that accompany them.
- D. Understand the principles of team dynamics to perform effectively on an inter-professional team influencing patient-centered care that is safe, timely, efficient, effective, and equitable.
- E. Organize and communicate with patients, families, and healthcare team members to ensure common understanding of information, treatment and care decisions.

### **OUTCOMES:**

Students will be able to:

- 1) Explain their own roles and responsibilities and those of other care providers and how the team works together to provide care.
- 2) Use appropriate team building and collaborative strategies with other members of the healthcare team to support a team approach to patient centered care.

***CCE Accreditation Standards – Principles, Processes & Requirements for Accreditation January 2018***

## Fall 2021:

### Courses of the Doctor of Naturopathic Medicine (ND) Curriculum

The following course descriptions and credits are effective for students who **began** the ND program from Fall 2019 term through Fall 2021 term.

		Lecture Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total Clock Hours	Total Credits
<b>ND Phase I: Term One (T1)</b>						
AN5101N	Spine & Extremities Anatomy	75	0	0	75	5.00
AN5102N	Spine & Extremities Anatomy Lab	0	105	0	105	3.50
AN5107N	Histology & Embryology I	30	15	0	45	2.50
BC5104N	Human Biochemistry	60	30	0	90	5.00
FH5106N	Fundamentals of Natural Medicine	15	0	0	15	1.00
MM5120N	Introduction to Palpation Skills and Landmark Identification	0	30	0	30	1.00
NT5110N	Foundations of Naturopathic Medicine I	30	0	0	30	2.00
PH5103N	Cellular Physiology & Hematology	45	30	0	75	4.00
<b>Total</b>		<b>255</b>	<b>210</b>	<b>0</b>	<b>465</b>	<b>24.00</b>

### ND Phase I: Term Two (T2)

AN5201N	Head & Neck Anatomy	45	0	0	45	3.00
AN5202N	Head & Neck Anatomy Lab	0	60	0	60	2.00
AN5203N	Neuroanatomy	75	15	0	90	5.50
EM5207N	Evaluation & Management of the Chest & Thoracic Spine	30	30	0	60	3.00
MM5220N	Manipulation of the Thoracic Spine	0	30	0	30	1.00
MI5215	Fundamentals of Microbiology	30	0	0	30	2.00
NN5212N	Homeopathy I	15	0	0	15	1.00
NT5210N	Foundations of Naturopathic Medicine II	15	0	0	15	1.00
NT5211N	Basic Science Applications: Determinants of Health	22.5	0	0	22.5	1.50
PA5204N	Fundamentals of Pathology	45	0	0	45	3.00
PH5208N	Neurophysiology	45	15	0	60	3.50
RA5206N	Normal Radiographic Anatomy & Variants	15	15	0	30	1.50
<b>Total</b>		<b>337.5</b>	<b>165</b>	<b>0</b>	<b>502.5</b>	<b>28.00</b>



		Lecture Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total Clock Hours	Total Credits
<b>ND Phase I: Term Three (T3)</b>						
AN5304N	Thorax, Abdomen & Pelvic Anatomy	30	0	0	30	2.00
AN5305N	Thorax, Abdomen & Pelvic Anatomy Lab	0	60	0	60	2.00
AN5307N	Histology & Embryology II	30	15	0	45	2.50
BC5308N	Nutritional Biochemistry I	30	0	0	30	2.00
EM5309N	Evaluation & Management of the Abdomen, Pelvis & Lumbar Spine	30	30	0	60	3.00
MM5320N	Manipulation of the Lumbo-Sacral Spine, the T/L Junction and the Pelvis	0	30	0	30	1.00
MI5303N	Medical Microbiology I	60	0	0	60	4.50
NP5312N	Introduction to Naturopathic Counseling	22.5	0	0	22.5	1.50
PA5302N	Systems Pathology I	60	0	0	60	4.00
PH5306N	Neuroendocrinology, GI & Reproductive Physiology	60	0	0	60	4.00
<b>Totals</b>		<b>322.5</b>	<b>135</b>	<b>0</b>	<b>457.5</b>	<b>26.50</b>

<b>ND Phase I: Term Four (T4)</b>						
BC5409N	Nutritional Biochemistry II	15	0	0	15	1.00
DH5411N	Public Health	30	0	0	30	2.00
EM5408N	Evaluation & Management of the Head, Neck & Cervical Spine	30	30	0	60	3.00
MM5420N	Manipulation of the Cervical Spine, the CT Junction and the First Rib	0	30	0	30	1.00
MI5403N	Medical Microbiology II	75	0	0	75	5.00
NN5406N	Science of Diet and Nutrition	45	0	0	45	3.00
PA5402N	Systems Pathology II	90	0	0	90	6.00
PH5405N	Cardiovascular, Respiratory & Renal Physiology	60	30	0	90	5.00
RE5401N	Evidence-Based Practice: Critical Appraisal of the Biomedical Literature	15	0	0	15	1.00
<b>Total</b>		<b>360</b>	<b>90</b>	<b>0</b>	<b>450</b>	<b>27.00</b>

		Lecture Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total Clock Hours	Total Credits
<b>ND Phase II: Term One (T5)</b>						
EM6103N	Evaluation & Management of the GI/GU & Reproductive Systems	60	0	0	60	4.00
EM6104N	Evaluation & Management of the Cardiovascular & Respiratory Systems	45	0	0	45	3.00
EM6106N	Evaluation & Management of the Neurological System	45	0	0	45	3.00
EM6120N	Evaluation & Management of the Extremities	30	60	0	90	4.00
NN6107N	Pharmacology I	45	0	0	45	3.00
NN6108N	Botanical Medicine I	45	0	0	45	3.00
NN6112N	Homeopathy II	60	0	0	60	4.00
NP6109N	Introduction to Naturopathic Primary Care	45	15	0	60	3.50
NT6110N	Advanced Naturopathic Clinical Theory	15	0	0	15	1.00
NT6111N	Introduction to Traditional World Medicine	60	0	0	60	2.00
<b>Totals</b>		<b>450</b>	<b>75</b>	<b>0</b>	<b>525</b>	<b>30.50</b>

<b>ND Phase II: Term Two (T6)</b>						
BU6221N	Patient Communication and Marketing	30	0	0	30	2.00
EM6202N	Physical & Laboratory Diagnosis	45	45	0	90	4.50
EM6203N	Clinical Laboratory Diagnosis	45	0	0	45	3.00
EM6213N	Phlebotomy and Specimen Collection Lab	0	15	0	15	0.50
HY5409N	Hydrotherapy & Traditional Naturopathy	15	30	0	45	2.00
ND6317N	Clinic Observation	0	0	60	60	2.00
NN6206N	Pharmacology II	45	0	0	45	3.00
NN6212N	Homeopathy III	60	0	0	60	4.00
NT6210N	Applied Naturopathic Clinical Theory	30	0	0	30	2.00
RA6207N	Imaging Diagnosis	30	0	0	30	2.00
MM6240N	Physical Medicine in Systemic Dysfunction	15	0	0	15	1.00
<b>Totals</b>		<b>315</b>	<b>135</b>	<b>60</b>	<b>480</b>	<b>26.00</b>

<b>ND Phase II: Term Three (T7)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
BU6309N	Starting a Practice	30	0	0	30	2.00
EM6304N	Advanced Diagnosis & Problem Solving	0	60	0	60	2.00
EM6305N	Psychopathology & Health Psychology	45	0	0	45	3.00
FR6307N	Physiological Therapeutics: Modalities	60	15	0	75	4.50
ND6315N	Hydrotherapy Clinical Rotation	0	0	30	30	1.00
NN6301N	Clinical Nutrition	60	0	0	60	4.00
NN6308N	Botanical Medicine II	60	0	0	60	4.00
NN6312N	Homeopathy IV	60	0	0	60	4.00
NX6215N	Clinical Endocrinology	30	0	0	30	2.00
NX6216N	Functional Laboratory & Point of Care Testing	0	15	0	15	0.50
<b>Totals</b>		<b>345</b>	<b>90</b>	<b>30</b>	<b>465</b>	<b>27.00</b>

<b>ND Phase II: Term Four (T8)</b>						
EM6405N	Doctor-Patient Relationship	30	0	0	30	2.00
EM6406N	Dermatology	15	15	0	30	1.50
ND6410N	Internship I	0	0	270	270	9.00
NN6401N	Pharmacotherapeutics (Online)	7.5	0	0	7.5	0.50
NN6402N	Intravenous Therapeutics	15	0	0	15	1.00
NN6412N	Botanical Medicine III: Advanced Naturopathic Botanical Prescribing	30	0	0	30	2.00
NN6416N	Advanced Nutrition: Functional Medicine	30	0	0	30	2.00
NP6415N	Advanced Topics in Women's Health	15	0	0	15	1.00
NP6417N	Internal Medicine / Emergency Medicine	67.5	0	0	67.5	4.50
NP6418N	Naturopathic Management of Special Populations	15	0	0	15	1.00
<b>Totals</b>		<b>225</b>	<b>15</b>	<b>270</b>	<b>510</b>	<b>24.50</b>

<b>ND Phase III: Term One (T9)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
NB6413N	ND Practice Management: Jurisprudence	30	0	0	30	2.00
ND7111N	Internship II - A	0	0	285	285	9.50
ND7112N	Internship II - B	0	0	195	195	6.50
NN7109N	Botanical Medicine IV: Advanced Materia Medica	15	0	0	15	1.00
NP6419N	Environmental Medicine / Toxicology / Detoxification	15	0	0	15	1.00
NP7419N	Pediatrics	30	0	0	30	2.00
ST7107N	Minor Surgery	15	15	0	30	1.50
<b>Totals</b>		<b>105</b>	<b>15</b>	<b>480</b>	<b>600</b>	<b>23.50</b>
<b>ND Phase III: Term Two (T10)</b>						
ND7211N	Internship III - A	0	0	255	255	8.50
ND7212N	Internship III - B	0	0	165	165	5.50
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>420</b>	<b>420</b>	<b>14.00</b>
<b>Grand Total</b>		<b>2715</b>	<b>930</b>	<b>1260</b>	<b>4875</b>	<b>251.00</b>

**Note:** This document reflects the courses and credit hours in the Doctor of Naturopathic Medicine curriculum through Fall 2021. However, the University reserves the right to make changes as required and may have modified the curriculum since the publication of these materials. The most up-to-date information can be found on the University's website at [www.nuhs.edu](http://www.nuhs.edu).

#### **Courses Needed for NPLEX Acupuncture Add-on Exam**

Students in the naturopathic medicine program who plan to sit for the NPLEX (Naturopathic Physicians Licensing Examination) may take coursework at NUHS in order to qualify for the optional NPLEX acupuncture exam. NPLEX itself is required for licensure but the acupuncture component is an add-on only required by some jurisdictions. Students are strongly advised to check [www.nabne.org](http://www.nabne.org) regarding jurisdictions that require the acupuncture add-on, as well as check with the jurisdictional licensing bodies themselves.

Students who may want to take the NPLEX acupuncture add-on must consult with the Assistant Dean, Naturopathic Medicine.

## Effective Spring 2022:

### Courses of the Doctor of Naturopathic Medicine (ND) Curriculum

The following course descriptions and credits are effective for students in the ND program. Please note course number and description changes for students beginning the program in Spring 2022 or later.

ND Phase I: Term One (T1)		Lecture Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total Clock Hours	Total Credits
AN5101N	Spine & Extremities Anatomy	75	0	0	75	5.00
AN5102N	Spine & Extremities Anatomy Lab	0	105	0	105	3.50
AN5107N	Histology & Embryology I	30	15	0	45	2.50
BC5104N	Human Biochemistry	60	30	0	90	5.00
FH5108N	Introduction to Clinical Medicine	15	0	0	15	1.00
NN5114N	Homeopathy I: First Aid	15	0	0	15	1.00
MM5121N	Technique I: Palpation & Landmarks	0	30	0	30	1.00
NT5110N	Foundations of Naturopathic Medicine I	30	0	0	30	2.00
PH5103N	Cellular Physiology & Hematology	45	30	0	75	4.00
<b>Total</b>		<b>270</b>	<b>210</b>	<b>0</b>	<b>480</b>	<b>25.00</b>

### ND Phase I: Term Two (T2)

AN5201N	Head & Neck Anatomy	45	0	0	45	3.00
AN5202N	Head & Neck Anatomy Lab	0	60	0	60	2.00
AN5203N	Neuroanatomy	75	15	0	90	5.50
BU5116N	Professionalism, Ethics & Laws	15	0	0	15	1.00
MI5215N	Fundamentals of Microbiology	30	0	0	30	2.00
MM5222N	Technique III: Manipulation of the Thoracic Spine	0	45	0	45	1.50
NP5216N	Integrated Therapeutics I	15	0	0	15	1.00
NT5210N	Foundations of Naturopathic Medicine II	15	0	0	15	1.00
NT5211N	Basic Science Applications: Determinants of Health	22.5	0	0	22.5	1.50
NT5214N	Examination & Management of the Thoracic Spine & Chest	30	30	0	60	3.00
PA5204N	Fundamentals of Pathology	45	0	0	45	3.00
PH5208N	Neurophysiology	45	15	0	60	3.50
<b>Total</b>		<b>337.5</b>	<b>165</b>	<b>0</b>	<b>502.5</b>	<b>28.00</b>

		Lecture Clock Hours	Lab Clock Hours	Clinic Clock Hours	Total Clock Hours	Total Credits
<b>ND Phase I: Term Three (T3)</b>						
AN5304N	Thorax, Abdomen & Pelvic Anatomy	30	0	0	30	2.00
AN5305N	Thorax, Abdomen & Pelvic Anatomy Lab	0	60	0	60	2.00
AN5307N	Histology & Embryology II	30	15	0	45	2.50
BC5308N	Nutritional Biochemistry I	30	0	0	30	2.00
EM5309N	Examination & Management of the Abdomen, Pelvis & Lumbar Spine	30	30	0	60	3.00
MI5303N	Medical Microbiology I	67.5	0	0	67.5	4.50
MM5322N	Technique IV: Manipulation of the Lumbo-sacral Spine, T/L Junction & Pelvis	0	45	0	45	1.50
NN5313N	Homeopathy II	30	0	0	30	2.00
NP5312N	Introduction to Naturopathic Counseling	22.5	0	0	22.5	1.50
NP5321N	Integrated Therapeutics II	15	0	0	15	1.00
PA5302N	Systems Pathology I	60	0	0	60	4.00
PH5306N	Neuroendocrinology, GI & Reproductive Physiology	60	0	0	60	4.00
<b>Totals</b>		<b>375</b>	<b>150</b>	<b>0</b>	<b>525</b>	<b>30.00</b>

<b>ND Phase I: Term Four (T4)</b>						
BC5409N	Nutritional Biochemistry II	15	0	0	15	1.00
EM5417N	Examination & Management of the Head, Neck & Cervical Spine	30	30	0	60	3.00
MI5403N	Medical Microbiology II	75	0	0	75	5.00
MM5422N	Technique V: Manipulation of the Cervical Spine, CT/Junction & First Rib	0	45	0	45	1.50
NN5412N	Homeopathy III	30	0	0	30	2.00
NN5413N	Botanical Medicine I	15	0	0	15	1.00
NP5415N	Integrated Therapeutics III	15	0	0	15	1.00
NT5414N	Advanced Clinical Theory	15	0	0	15	1.00
PA5402N	Systems Pathology II	90	0	0	90	6.00
PH5405N	Cardiovascular, Respiratory & Renal Physiology	60	30	0	90	5.00
RA5416N	Normal Radiographic Anatomy & Variants	15	15	0	30	1.50
<b>Total</b>		<b>360</b>	<b>120</b>	<b>0</b>	<b>480</b>	<b>28.00</b>

<b>ND Phase II: Term One (T5)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
DH5411N	Public Health	30	0	0	30	2.00
EM6116N	Clinical Evaluation & Diagnosis	45	45	0	90	4.50
EP5410N	Evidence-Based Practice: Critical Appraisal of the Biomedical Literature	15	0	0	15	1.00
ME6117N	Laboratory Diagnosis	45	0	0	45	3.00
MI6112N	Immunology	15	0	0	15	1.00
MM6121	ND Physical Medicine I: Extremities exam, Posture and Structural Integration	0	30	0	30	1.00
NN6107N	Pharmacology I	45	0	0	45	3.00
NN6113N	Botanical Medicine II	30	0	0	30	2.00
NN6119N	Dietary Counseling & Therapy	45	0	0	45	3.00
NT6118N	Applied Naturopathic Clinical Theory	30	0	0	30	2.00
PH6114N	Basic Science Clinical Correlates	30	0	0	30	2.00
PH6113N	Advanced Topics in Biomedical Science	30	0	0	30	2.00
ND6115N	Clinical Observation I	0	0	30	30	1.00
<b>Totals</b>		<b>360</b>	<b>75</b>	<b>30</b>	<b>465</b>	<b>27.50</b>

<b>ND Phase II: Term Two (T6)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
BU6221N	Patient Communication & Marketing	30	0	0	30	2.00
EM6118N	Phlebotomy and Point of Care Testing	0	15	0	15	0.50
EM6119N	Psychopathology & Health Psychology	45	0	0	45	3.00
EM6214N	Differential Diagnosis & Management I: Abdominal & Pelvic Disorders	60	0	0	60	4.00
EM6215N	Differential Diagnosis & Management II: Cardio-Pulmonary Disorders	45	0	0	45	3.00
EM6218N	Differential Diagnosis & Management III: Neurology	45	0	0	45	3.00
HY6209N	Hydrotherapy & Traditional Naturopathy	15	30	0	45	2.00
MM6219N	ND Physical Medicine II: Pain Management	0	15	0	15	0.50
ND6223N	Clinical Observation II	0	0	30	30	1.00
ND6224N	Botanical Medicine III	30	0	0	30	2.00
NN6222N	Homeopathy IV	60	0	0	60	4.00
NN6322N	Evidence-based Nutritional Therapies	60	0	0	60	4.00
<b>Totals</b>		<b>390</b>	<b>60</b>	<b>30</b>	<b>480</b>	<b>29.00</b>

<b>ND Phase II: Term Three (T7)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
BU6309N	Starting a Practice	30	0	0	30	2.00
EC6311N	Emergency Management: Chiropractic Practice	15	15	0	30	1.50
EC6313N	Advanced Diagnosis & Clinical Reasoning	0	90	0	90	3.00
FR6318N	Physiotherapies & Advanced Modalities	15	30	0	45	2.00
ND6315N	Hydrotherapy Clinical Rotation	0	0	30	30	1.00
NN6206N	Pharmacology II	45	0	0	45	3.00
NN6311N	Botanical Medicine IV	30	0	0	30	2.00
NN6319N	Homeopathy V	60	0	0	60	4.00
NP6310N	Human Sexuality & Reproductive Health	15	0	0	15	1.00
NP6314N	Internal Medicine I (GI, Hep, Immune, Rheumatology)	45	0	0	45	3.00
NX6318N	Clinical Endocrinology	30	0	0	30	2.00
<b>Totals</b>		<b>285</b>	<b>135</b>	<b>30</b>	<b>450</b>	<b>24.50</b>

<b>ND Phase II: Term Four (T8)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
BU6411N	Managing a Practice	30	0	0	30	2.00
EM6406N	Dermatology	15	15	0	30	1.50
ND6410N	Internship I	0	0	270	270	9.00
NN6427N	Botanical Medicine V	30	0	0	30	2.00
NN6432N	Pharmacotherapeutics I	7.5	0	0	7.5	0.50
NP6426N	Pediatrics	30	0	0	30	2.00
NP6428N	Naturopathic Approaches to Special Populations	15	0	0	15	1.00
NP6429N	Internal Medicine II (Cardiovascular / Pulmonary / Renal / Hematopoetic)	45	0	0	45	3.00
NP6430N	Advanced Topics in Women's Health	15	0	0	15	1.00
NP6431N	Advanced Nutrition	30	0	0	30	2.00
<b>Totals</b>		<b>217.5</b>	<b>15</b>	<b>270</b>	<b>502.5</b>	<b>24.00</b>



<b>ND Phase III: Term One (T9)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
ND7110N	Internship II	0	0	480	480	16.00
NP7113N	Integrative Oncology	15	0	0	15	1.00
NP7119N	Environmental Medicine / Toxicology / Detoxification	15	0	0	15	1.00
30ST7107N	Minor Surgery	15	15	0	30	1.50
NP7118N	IV Therapeutics	15	0	0	15	1.00
NP7119N	Pharmacotherapeutics II	15	0	0	15	0.50
<b>Totals</b>		<b>75</b>	<b>15</b>	<b>480</b>	<b>570</b>	<b>21.00</b>

### ND Phase III: Term Two (T10)

ND7210N	Internship III	0	0	420	420	14.00
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>420</b>	<b>420</b>	<b>14.00</b>
<b>Grand Total</b>		<b>2670</b>	<b>945</b>	<b>1260</b>	<b>4875</b>	<b>251.00</b>

**Note:** This document reflects the courses and credit hours in the Doctor of Naturopathic Medicine curriculum effective Spring 2022. However, the University reserves the right to make changes as required and may have modified the curriculum since the publication of these materials. The most up-to-date information can be found on the University's website at [www.nuhs.edu](http://www.nuhs.edu).

### Courses Needed for NPLEX Acupuncture Add-on Exam

Students in the naturopathic medicine program who plan to sit for the NPLEX (Naturopathic Physicians Licensing Examination) may take coursework at NUHS in order to qualify for the optional NPLEX acupuncture exam. NPLEX itself is required for licensure but the acupuncture component is an add-on only required by some jurisdictions. Students are strongly advised to check [www.nabne.org](http://www.nabne.org) regarding jurisdictions that require the acupuncture add-on, as well as check with the jurisdictional licensing bodies themselves.

Students who may want to take the NPLEX acupuncture add-on must consult with the Assistant Dean, Naturopathic Medicine.

## Doctor of Naturopathic Medicine (ND) Program Course Descriptions

*Courses descriptions and credits are effective for all students enrolled at any point in time, unless noted as "Effective Spring 2022". Those courses will only be effective for students who have enrolled in the Spring of 2022 or thereafter.*

<b>AN5101N</b>	<b>Spine &amp; Extremities Anatomy</b>	<b>Credits 5.0</b>
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In this course, students will learn in lecture and group formats, the normal structure and function of the spine and extremities. In the first portion of this course, students will be required to demonstrate core knowledge of the gross anatomy of spinal structures, including the pediatric spine, and relevant structures of the back. Students must also demonstrate an anatomical and functional understanding of the spinal cord, its meninges, and the spinal nerves. In the second portion of the course, students will explore the gross anatomical structures of the extremities and their functions. The integrated gross anatomy laboratory exercises will address related basic science issues.

Co-requisite: AN5102N

<b>AN5102N</b>	<b>Spine &amp; Extremities Anatomy Lab</b>	<b>Credits 3.5</b>
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In this course, students will learn in laboratory format, the normal structure and function of the spine and extremities. In the first portion of this course, students will be required to demonstrate core knowledge of the gross anatomy of spinal structures, including the pediatric spine, and relevant structures of the back. Students must also demonstrate an anatomical and functional understanding of the spinal cord, its meninges, and the spinal nerves. In the second portion of the course, students will explore the gross anatomical structures of the extremities and their functions. The basic science component will integrate with the laboratory issues.

Co-requisite: AN5101N

<b>AN5107N</b>	<b>Histology &amp; Embryology I</b>	<b>Credits 2.5</b>
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In this course, students will be introduced to histology and human developmental anatomy. In the histology portion of the course, students will study the histology of the main tissues of the body, i.e., epithelium, connective, muscle, and nervous. In addition, students will study the histology of the blood, the vascular system, bone and cartilage, the integument, and lymphoid tissue. In the developmental anatomy portion of the course, students will learn about the events of the first three weeks of development and the development of the nervous system. In coordination with the co-requisite gross anatomy course, students will also study axial and limb development.

Co-requisite: AN5101N, AN5102N, PH5103N

<b>AN5201N</b>	<b>Head &amp; Neck Anatomy</b>	<b>Credits 3.0</b>
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In this course, students will study, in lecture and group formats, the normal structure and function of the regions of the human head and neck. This includes gross anatomical structures as well as neuroanatomical structures. In addition, the embryology and histology of specific structures of the head and neck will be presented. This course is fully integrated with laboratory dissections presented in AN5202N. Gross anatomy and neuroanatomy exercises will address related basic science issues.

**Prerequisite:** AN5101N, AN5102N

Co-requisites: AN5202N, AN5203N, PH5208N

## AN5202N      Head &amp; Neck Anatomy Lab      Credits 2.0

In this course, students will study, in laboratory format, the normal structure and function of the regions of the human head and neck. This includes gross anatomical structures as well as neuroanatomical structures. This course is fully integrated with lecture topics presented in AN5201N. Gross anatomy and neuroanatomy laboratory exercises will address related basic science issues.

Co-requisites: AN5201N, AN5203N, PH5208N

<b>AN5203N</b>	<b>Neuroanatomy</b>	<b>Credits 5.5</b>
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The purpose of this course is to study the structures of the brain, spinal cord and autonomic nervous system (ANS) and their functions. The structures of the brain, spinal cord and ANS, and their functions, will be introduced to students through the following methods: lectures, group activities, self-directed learning, readings, and laboratory

participation. The functions of these structures will be emphasized and their relevancy to clinical practice will be demonstrated through the use of patient paper cases and problems.

Prerequisite: AN5107N

Co-requisites: AN5201N, PH5208N

**AN5304N Thorax, Abdomen & Pelvic Anatomy Credits 2.0**

Students will study, in lecture and group formats, the normal structure and function of the organ systems associated with the thorax, abdomen, and pelvis. Specifically, this course will cover the gross anatomy of the respiratory, cardiovascular, gastrointestinal, reproductive, and urinary systems. Laboratory exercises will help guide students toward understanding the anatomical concepts associated with these systems. In addition, students will interrelate their anatomical knowledge with the Histology and Embryology II course.

Prerequisites: AN5201N, AN5202N, AN5203N

Co-requisites: AN5305N, AN5307N

**AN5305N Thorax, Abdomen & Pelvic Anatomy Lab Credits 2.0**

Students will study, in laboratory format, the normal structure and function of the organ systems associated with the thorax, abdomen and pelvis. Specifically, this course will cover the gross anatomy of the respiratory, cardiovascular, gastrointestinal, reproductive, and urinary systems. Laboratory exercises will help guide students toward understanding the anatomical concepts associated with these systems. In addition, students will interrelate their anatomical knowledge with the Histology and Embryology II course.

Co-requisites: AN5304N, AN5307N

**AN5307N Histology & Embryology II Credits 2.5**

In coordination with the co-requisite gross anatomy course, students will learn the developmental anatomy and histology of the main systems of the chest, abdomen, and pelvis in this course.

Prerequisite: AN5107N

Co-requisites: AN5304N, AN5305N

**BC5104N Human Biochemistry Credits 5.0**

The structure and functions of proteins, carbohydrates, lipids, and their reactions in metabolic pathways are investigated.

Prerequisite / Co-requisite: None

**BC5308N Nutritional Biochemistry I Credits 2.0**

Water soluble and fat soluble vitamins and vitamin-like nutrients (choline, lipoic acid, L-carnitine, ubiquinone, and flavonoids) will be studied with an emphasis on their absorption, transport, excretion and biochemical involvement within human metabolic pathways involving normal physiology and pathophysiology.

Prerequisites: BC5104N

**BC5409N Nutritional Biochemistry II Credits 1.0**

Minerals, water and fiber will be studied with an emphasis on their absorption, transport, excretion and biochemical involvement within human metabolic pathways involving normal physiology and pathophysiology. Biochemical interactions regarding nutrigenomics will also be discussed.

Prerequisites: BC5308N

**BU6221N Patient Communication and Marketing Credits 2.0**

Effective communication through written, verbal and electronic means is essential for the success of a health care practice. Ethical marketing is the hallmark for the success of any business, especially a healthcare practice.

Prerequisite: None

**BU6309N** **Starting a Practice** **Credits 2.0**

Students after graduation aspire to open their own health care practice, but many times do not know how to accomplish this. This course takes what was learned in the previous business classes and incorporates new material to give the student the knowledge and strategic plan to start their own practice within various practice settings.

Prerequisite: BU6221N

**DH5411N** **Public Health** **Credits 2.0**

The focus of this course is to introduce the student to the concepts of public health, health promotion, and disease prevention. Individual, environmental, and sociodemographic factors affecting the population's health will be discussed, along with organization of the public health system, health surveys, health policies, and health screening.

Pre-requisites/ Co-requisites: None

**EM5207N** **Evaluation & Management of the Chest & Thoracic Spine (Fall 2021)** **Credits 3.0**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage the chest and thoracic spine. Students will learn methods for obtaining a history specific to the chest and thoracic spine, as well as examination skills for these areas. Skills covered in the course will include, but are not limited to, taking vitals, inspection, joint and soft tissue palpation, auscultation, percussion, range of motion, orthopedic evaluation, and basic neurological examinations. The clinical presentation of normal anatomy biomechanics and physiology will be emphasized, along with an introduction to the evaluation and management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the chest and thoracic spine. Teaching methods will include lectures, demonstrations, and skills laboratories that focus on skills development and clinical reasoning.

This is the student's first Evaluation and Management course. It will lay the foundation for other Evaluation and Management courses by teaching concepts related to (i) the patient interview, examination and management process; (ii) joint and soft tissue evaluation; and (iii) the doctor-patient relationship.

Prerequisites: AN5101N, AN5102N, FH5106N

Co-requisite: MM5220N

**EM5213N** **Examination and Management of the Thoracic Spine & Chest** **Credits 3.0**  
**(Effective Spring 2021)**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage the chest and thoracic spine. Students will learn methods for obtaining a history specific to the chest and thoracic spine, as well as examination skills for these areas. Skills covered in the course will include, but are not limited to, taking vitals, inspection, joint and soft tissue palpation, auscultation, percussion, range of motion, orthopedic evaluation, and basic neurological examinations. The clinical presentation of normal anatomy biomechanics and physiology will be emphasized, along with an introduction to the evaluation and management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the chest and thoracic spine. Teaching methods will include lectures, demonstrations, and skills laboratories that focus on skills development and clinical reasoning.

This is the student's first Evaluation and Management course. It will lay the foundation for other Evaluation and Management courses by teaching concepts related to (i) the patient interview, examination and management process; (ii) joint and soft tissue evaluation; and (iii) the doctor-patient relationship.

Prerequisites: AN5101N, AN5102N, FH5106N

Co-requisite: MM5222N

**EM5309N** **Evaluation & Management of the Abdomen, Pelvis, & Lumbar Spine (Fall 2021)** **Credits 3.0**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage the abdomen, pelvis, and lumbar spine. Students will learn methods for obtaining a history specific to the abdomen, pelvis, and lumbar spine, as well as

examination skills for these areas. Skills covered in the course will include, but are not limited to, inspection, joint and soft tissue palpation, auscultation, percussion, range of motion, orthopedic evaluation, and basic neurological examinations. This course will teach treatments applicable to the abdomen, pelvis, and lumbar spine such as joint and soft tissue manipulation. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the evaluation and management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the abdomen, pelvis, and lumbar spine. Teaching methods will include lectures, demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisite: EM5207N

**EM5309N                      Examination & Management of the Abdomen, Pelvis, & Lumbar Spine                      Credits 3.0**  
**(Effective Spring 2022)**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage the abdomen, pelvis, and lumbar spine. Students will learn methods for obtaining a history specific to the abdomen, pelvis, and lumbar spine, as well as examination skills for these areas. Skills covered in the course will include, but are not limited to, inspection, joint and soft tissue palpation, auscultation, percussion, range of motion, orthopedic evaluation, and basic neurological examinations. This course will teach treatments applicable to the abdomen, pelvis, and lumbar spine such as joint and soft tissue manipulation. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the evaluation and management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the abdomen, pelvis, and lumbar spine. Teaching methods will include lectures, demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisite: EM5214N

**EM5408N                      Evaluation & Management of the Head, Neck, & Cervical Spine (Fall 2021)                      Credits 3.0**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage select conditions of the head, neck, and cervical spine. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the concepts of (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling as it relates to the evaluation and management of uncomplicated conditions affecting the head, neck, and cervical spine. Students will reinforce their skills of the standard historical methods learned in EM5207N as well as learn the examination methods required to gather pertinent patient information regarding the head, neck, and cervical spine in a professional and reliable manner. The course is structured to include instruction via two distinct methods: classroom lectures as well as clinical skills practicums. The clinical skills practicum portion of the course is distinctively further divided into an evaluation as well as management portion. Overall, the teaching methods of the course will include lectures, demonstrations, skills laboratories, simulated patient encounters, small group work, and problem-based large group discussion that focuses on clinical/motor skills development.

Prerequisites: AN5201N, AN5202N, EM5309N

Co-requisite: MM5420N

**EM5417N                      Examination & Management of the Head, Neck & Cervical Spine                      Credits 3.0**  
**(Effective Spring 2022)**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage select conditions of the head, neck, and cervical spine. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the concepts of (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling as it relates to the evaluation and management of uncomplicated conditions affecting the head, neck, and cervical spine. Students will reinforce their skills of the standard historical methods learned in EM5213 as well as learn the examination methods required to gather

pertinent patient information regarding the head, neck and cervical spine in a professional and reliable manner. The course is structured to include instruction via two distinct methods: classroom lectures as well as clinical skills practicums. The clinical skills practicum portion of the course is distinctively further divided into an evaluation as well as management portion. Overall, the teaching methods of the course will include lectures, demonstrations, skills laboratories, simulated patient encounters, small group work, and problem-based large group discussion that focus on clinical/motor skills development.

Prerequisites: AN5201N, AN5202N, EM5309N

Co-requisite: MM5422N

**EM6103N                      Evaluation & Management of the GI/GU & Reproductive Systems                      Credits 4.0**  
**(Fall 2021)**

This course focuses on the clinical manifestations of disorders of the gastrointestinal, genitourinary and female reproductive systems. The emphasis is on the etiology, presentation, diagnostic identification, management, and prevention of system conditions. Learning is driven by class lectures, case-based learning, and self-directed small group assignments. Diagnostic evaluation includes appropriate laboratory testing, special testing, and imaging. Management of system disorders includes the study of clinical aspects of nutritional therapy to include diet modification, botanical medicine, manipulation, and physiological therapeutics.

Prerequisite: Completion of Phase I

**EM6214N                      Differential Diagnosis & Management I: Abdominal & Pelvic Disorders                      Credits 4.0**  
**(Effective Spring 2022)**

This course provides students the knowledge and clinical thought process of evaluation, diagnosis, and management of disorders of the gastrointestinal and genitourinary systems as needed to be a primary healthcare provider. This course will emphasize the etiology, presentation, diagnostic identification, management, and prevention of conditions involving gastrointestinal and genitourinary systems. Diagnostic evaluation of these conditions will include specific laboratory testing, special testing, and imaging. Management of these disorders will include nutritional therapy in the form of diet modification, and botanical medicine. Manual therapy will also be discussed in the form of manipulation and physiological therapeutics. Students will learn through class lectures, case-based, and self-directed small group assignments.

Prerequisite: Completion of Phase I

**EM6104N                      Evaluation & Management of the Cardiovascular & Respiratory Systems                      Credits 3.0**  
**(Fall 2021)**

This course focuses on the differential diagnosis and management of common disorders of the cardiopulmonary system. Students are expected to develop skills in history collection, physical examination, laboratory evaluation, critical thinking, and differential evaluation. In addition to history taking and the physical exam, diagnosis of these conditions will include evaluation of electrocardiograms and various laboratory tests. Students are introduced to the various modalities that are available for the treatment of these disorders. Case presentations include, but are not limited to, disorders such as myocardial infarction, congestive heart failure, chronic obstructive pulmonary disease, peripheral vascular disease, pneumoconiosis, and pneumonia. Management of these conditions will encompass the study of the clinical aspects of nutritional science including diet therapy and botanical medicine, manipulation, physiological therapeutics, and rehabilitation.

Prerequisite: Completion of Phase I

**EM6215N                      Differential Diagnosis & Management II: Cardio-Pulmonary Disorders                      Credits 3.0**  
**(Effective Spring 2022)**

This course provides students the knowledge, skills, and clinical thought process to provide a differential diagnosis and management plan of common disorders of the cardiopulmonary system. Students will utilize knowledge and skills taught in EM5207 Evaluation and Management of Chest and Thoracic spine such as: history collection, physical examination, laboratory evaluation, critical thinking, and differential diagnosis. Diagnosis of these conditions will also include interpretation of electrocardiograms and various laboratory tests. Students are introduced to modalities that are available for the treatment of these disorders. Case presentations include, but are not limited to, disorders such as myocardial infarction, congestive heart failure, chronic obstructive pulmonary disease, peripheral vascular

Prerequisite: Completion of Phase I

This course focuses on the clinical manifestations of disorders of the eyes, ears, nose, and throat. The emphasis is upon the etiology, presentation, diagnostic identification, management, and prevention of these disorders. Diagnostic procedures include laboratory testing, special testing, and appropriate imaging. Management of these conditions will encompass the study of the clinical aspects of nutritional science including diet therapy and botanical medicine, manipulation, physiological therapeutics, and rehabilitation. There is a portion of the course that will address complaints of dizziness and vertigo. The emphasis is upon the etiology, presentation, diagnostic identification, pathophysiology, and on the conservative management of these complaints. Learning will be driven by the class lectures, case-based presentations, and self-directed small group assignments.

Prerequisite: Completion of Phase I

This course focuses on the clinical manifestations of disorders of the eyes, ears, nose, and throat. The emphasis is upon the etiology, presentation, diagnostic identification, management, and prevention of these disorders. Diagnostic procedures include laboratory testing, special testing, and appropriate imaging. Management of these conditions will encompass the study of the clinical aspects of nutritional science including diet therapy and botanical medicine, manipulation, physiological therapeutics, and rehabilitation. There is a portion of the course that will address complaints of dizziness and vertigo. The emphasis is upon the etiology, presentation, diagnostic identification, pathophysiology, and on the conservative management of these complaints. Learning will be driven by the class lectures, case-based presentations, and self-directed small group assignments.

**Prerequisite:** Completion of Phase I

This course presents a study of the procedures of the neurological history and examination, clinical correlation of neurological findings with other clinical data, an introduction to functional neurology, and the application of manipulation, massage, exercise, and other sensory input in the management of patients with neurological disorders. Methods of instruction include lecture, patient video presentations and clinical cases presented in a large group. Small group and self-directed learning activities outside of class include specific readings about neurological diseases/disorders and written assignments based on the readings.

Prerequisite: Completion of Phase I

This course presents a study of the procedures of the neurological history and examination, clinical correlation of neurological findings with other clinical data, an introduction to functional neurology, and the application of manipulation, massage, exercise, and other sensory input in the management of patients with neurological disorders. Methods of instruction include lecture, patient video presentations and clinical cases presented in a large group. Small group and self-directed learning activities outside of class include specific readings about neurological diseases/disorders and written assignments based on the readings.

Prerequisite: Completion of Phase I

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage disorders of the musculoskeletal system. The clinical presentation of common musculoskeletal conditions will be emphasized, along with an introduction to the management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle

counseling involving the musculoskeletal system. Teaching methods will include lectures, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisites: AN5201N, AN5202N, EM5309N

**EM6113N                                      Chiropractic Practice: Musculoskeletal I                                      Credits 2.0**  
**(Effective Spring 2022)**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage disorders of the musculoskeletal system. The clinical presentation of common musculoskeletal conditions will be emphasized, along with an introduction to the management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the musculoskeletal system. Teaching methods will include lectures, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisites: AN5201N, AN5202N, EM5309N

**EM6120N                                      Evaluation & Management of the Extremities (Fall 2021)                                      Credits 4.0**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage the upper and lower extremities. Students will learn methods for obtaining a history specific to the extremities, as well as examination skills for this area. Skills covered in the course will include, but are not limited to, inspection, joint and soft tissue palpation, range of motion, orthopedic evaluation, and basic neurological examinations. This course will teach treatments applicable to the extremities, such as joint and soft tissue manipulation. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the evaluation and management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the extremities. Teaching methods will include lectures, demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisite: Completion of Phase I

Prerequisite: EM6112N

**EM6121N                                      Examination & Management of the Upper & Lower Extremities                                      Credits 4.0**  
**(Effective Spring 2022)**

The primary objective of this course is for students to learn the basic concepts and skills necessary for a broad-based conservative care (primary health care) physician to evaluate and manage the upper and lower extremities. Students will learn methods for obtaining a history specific to the extremities, as well as examination skills for this area. Skills covered in the course will include, but are not limited to, inspection, joint and soft tissue palpation, range of motion, orthopedic evaluation, and basic neurological examinations. This course will teach treatments applicable to the extremities, such as joint and soft tissue manipulation. The clinical presentation of normal anatomy, biomechanics, and physiology will be emphasized, along with an introduction to the evaluation and management of uncomplicated common conditions. This course will integrate basic concepts in (i) preventive medicine, (ii) biochemical and nutritional foundations of health, (iii) determinants of health, and (iv) lifestyle counseling involving the extremities. Teaching methods will include lectures, demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.

Prerequisite: Completion of Phase I

Prerequisite: EM6113N

**EM6202N                                      Physical Diagnosis (Fall 2021)                                      Credits 4.5**

The primary objective of this course is for students to reinforce history taking and physical diagnostic skills taught in prior Evaluation and Management courses. These physical skills are reinforced in this course with an emphasis placed on interpretation of findings on a wide range of conditions. The context of this course will be a broad-based conservative care (primary health care) setting. The course's laboratory activities will require students to perform a comprehensive (head-to-toe) physical examination, individual regional exams, and a region-based musculoskeletal



exam using skills introduced prior. Lectures will emphasize correlation of physical finding and interpretation.

Prerequisites: Completion of Phase I, EM6103N, EM6104N, EM6105N; EM6106N; EM6120N

**EM6116N Clinical Evaluation & Diagnosis (Effective Spring 2021) Credits 4.5**

This course will provide students additional training to reinforce history taking and physical, orthopedic and neurological examination skills taught in prior Evaluation and management courses. Emphasis will be placed on interpretation of findings on a wide range of conditions. The context of this course will be a broad-based conservative care (primary health care). The course's laboratory activities will require students to perform a comprehensive (head to toe) physical examination, individual regional exams, and a region-based musculoskeletal exam using skills introduced prior. Lectures will emphasize correlation of physical finding and interpretation.

Prerequisites: Completion of Phase 1

**EM6203N Clinical Laboratory Diagnosis (Fall 2021) Credits 3.0**

The primary objective of this course is for students to learn laboratory diagnostic skills. This course will include comprehensive instruction about the laboratory testing process, including indications, the collection and preparation of samples, the interpretation and evaluation of laboratory test results, and associated record keeping techniques. The context of this course will be a broad-based conservative care (primary health care) setting. The course will include commonly run profiles of hematology, chemistries, urinalysis, fecal and sputum studies.

Prerequisites: EM6103N, EM6104N, EM6105N, EM6106N

**EM6117N Laboratory Diagnosis (Effective Spring 2022) Credits 3.0**

The primary objective of this course is for students to learn laboratory diagnostic skills. This course will include comprehensive instruction about the laboratory testing process, including indications, the collection and preparation of samples, the interpretation and evaluation of laboratory test results, and associated record keeping techniques. The context of this course will be a broad-based conservative care (primary health care) setting. The course will include commonly run profiles of hematology, chemistries, urinalysis, fecal and sputum studies.

Prerequisites: Completion of phase I

**EM6213N Phlebotomy and Special Collections Lab (Fall 2021) Credits 0.5**

The primary objective of this course is for students to learn the skill of phlebotomy, and to introduce students to the collection and handling of laboratory specimens including throat culture, quick strep test, urinalysis, and capillary glucose testing.

Prerequisites: EM6212N

**EM6118N Phlebotomy and Point of Care Testing (Effective Spring 2022) Credits 0.5**

The primary objective of this course is for students to learn the skill of phlebotomy, and to introduce students to the collection and handling of laboratory specimens including throat culture, quick strep test, urinalysis, and capillary glucose testing.

Prerequisites: Completion of Phase 1

**EM6304N Advanced Diagnosis & Problem Solving (Fall 2021) Credits 2.0**

The primary objective of this course is to give students an opportunity to master the diagnostic skills, and the associated psychomotor skills used in a broad-based conservative care (primary health care) setting. The laboratory portion of this course will use simulated patients to help students synthesize and refine their history taking, examination, and diagnostic skills. Emphasis will be placed on the doctor-patient relationship, including appropriate ethical boundaries and effective communication skills. Students will also practice record keeping skills, including the preparation of SOAP notes. This course will require students to perform male and female sensitive exams (breast and pelvic) on standardized patients.

Prerequisites: Completion of Phase I, EM6202N

**EC6313N Advanced Diagnosis & Clinical Reasoning (Effective Spring 2022) Credits 3.0**

The primary objective of this course is to give students an opportunity to master the diagnostic skills, and the associated psychomotor skills used in a broad-based conservative care (primary health care) setting. The laboratory

Prerequisites: Completion of Phase I, EM6116N

**Credits 3.0**

- (i) review and discussion of the major topics in health psychology including examination of the relationships of psychopathology, lifestyle and personal relationships to physical health. Topics include risk factors and treatments for physical disorders such as cardiovascular disease, cancer, and chronic pain as well as the exploration of the co-morbidity of physical and psychological disorders;
- (ii) an examination of the nine basic categories of psychopathology (depression, anxiety, somatoform, substance use disorders, sleep disorders, eating disorders, sexual dysfunction, cognitive disorders, and psychosis) with emphasis on screening, diagnosis and management in a primary care setting. Students are asked to review current theories and their implication for practice. The course will include an overview of psychopathology and health psychology with self-directed learning to include cases, discussion, application of principles, article reviews, presentations, and field projects.

**Credits 3.0**

- (i) review and discussion of the major topics in health psychology including examination of the relationships of psychopathology, lifestyle and personal relationships to physical health. Topics include risk factors and treatments for physical disorders such as cardiovascular disease, cancer, chronic pain and diabetes as well as the exploration of the co-morbidity of physical and psychological disorders;
- (ii) (an examination of some of the basic categories of psychopathology (depression, anxiety, substance related disorders, sleep disorders, eating disorders, cognitive disorders, and psychosis) with emphasis on screening, diagnosis and management in a primary care setting. Students are asked to review current theories and their implication for practice;
- (iii) The course will include an overview of psychopathology and health psychology with self-directed learning to include cases, discussion, application of principles, and article reviews.

**Credits 2.0**

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**Credits 1.5**

\* = Fall 2021 / \*\* = Effective Spring 2022

**FH5106N                      Fundamentals of Natural Medicine & Historical Perspectives (Fall 2021)                      Credits 1.0**

In this course, students will develop an understanding of the evolution, structure and societal role of their profession. This includes both a study of the origins as well as the contemporary practice and regulatory milieu of chiropractic and naturopathic medicine. Certain aspects of the practice are highlighted including the components of the medical record, the importance of physical examination and interviewing, and the uses and general methods of searching medical databases for evidence. Students are encouraged to create a vision for their future professional work to serve as a framework for the longer process of becoming a chiropractic or naturopathic physician.

Prerequisite: None

**FH5108N                      Introduction to Clinical Medicine (Effective Spring 2022)                      Credits 1.0**

In this course, students will develop an understanding of the evolution, structure and societal role of their profession. This includes both a study of the origins as well as the contemporary practice and regulatory milieu of chiropractic and naturopathic medicine. Certain aspects of the practice are highlighted including the components of the medical record, the importance of physical examination and interviewing, and the uses and general methods of searching medical databases for evidence. Students are encouraged to create a vision for their future professional work to serve as a framework for the longer process of becoming a chiropractic or naturopathic physician.

Prerequisite: None

**FR6307N                      Physiological Therapeutics: Modalities (Fall 2021)                      Credits 4.5**

This course introduces therapeutic modalities and their practical application in the clinical setting. Therapies include actinotherapy, thermotherapy, hydrotherapy, cryotherapy, mechanotherapy, and various electrostimulation modalities.

Prerequisite: Completion of Phase I

**FR6318N                      Physiotherapies & Advanced Modalities (Effective Spring 2022)                      Credits 4.5**

This course introduces therapeutic modalities and their practical application in the clinical setting. Therapies include actinotherapy, thermotherapy, hydrotherapy, cryotherapy, mechanotherapy, and various electrostimulation modalities.

Prerequisite: Completion of Phase I

**HY5409N                      Hydrotherapy & Traditional Naturopathy                      Credits 2.0**

Hydrotherapy was the cornerstone therapy of the “nature cure” movement and of the pioneers of naturopathic medicine. Its effective use in both acute and chronic conditions belied a deep and comprehensive understanding of disease and the healing process. This course presents students with theory and skills of hydrotherapy. Practice in the constitutional method of hydrotherapy will be done until students are comfortable and confident enough to use the treatment in clinic.

The use of a simple agent such as water and temperature will serve to demonstrate that healing can be supported and encouraged by safe, natural, and gentle treatments that are nonetheless powerful.

Prerequisite: PH5405N

**MI5215N                      Fundamentals of Microbiology                      Credits 2.0**

Students shall learn in this course the basic principles of medical microbiology and infectious disease. Learning outcomes will include the biology of bacterial, viral, fungal, and parasitic pathogens, mechanisms of infectious disease transmission, principles of aseptic practice, and antimicrobial agents. The course provides the conceptual basis for understanding pathogenic microorganisms and the mechanisms by which they cause disease in the human body. It also provides opportunities to develop diagnostic skills, including the use and interpretation of laboratory tests in the diagnosis of infectious diseases.

Prerequisite: None

**MI5303N                      Medical Microbiology I                      Credits 4.5**

Considered in this course are the infections affecting the nervous system, upper respiratory system, blood and lymphatic system, skeletal system, and integumentary system. The discussion would include microbiologic

Prerequisite: MI5215N

**Credits 5.0**

Prerequisite: MI5303N

**Credits 1.0**

Prerequisite: MI5403N Microbiology II

**Credits 1.0**

Prerequisite: None

**Credits 1.0**

Prerequisite: None

**Credits 1.0**

Co-requisite: EM5207N

**Credits 1.5**

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laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.  
Corequisite: EM5213N

**MM5320N                      Manipulation of the Pelvis, Lumbar Spine, T/L Junction (Fall 2021)                      Credits 1.0**  
The primary objective of this course is for students to learn the essential concepts and skills necessary to palpate and manipulate the pelvis and lumbar spine, and the thoracolumbar junction. The clinical presentation of normal anatomy biomechanics will be highly emphasized. Teaching methods will include prelab discussions, demonstrations, and skills laboratories. This course is part of a series or stream of technique courses wherein techniques are sequentially added and skills and competencies are further developed.  
Prerequisite: MM5220

**MM5322N                      Technique IV: Manipulation of the Lumbo-sacral Spine, T/L Junction & Pelvis                      Credits 1.5**  
**(Effective Spring 2022)**  
This course teaches students the knowledge and skills needed to effectively and safely perform manipulation of the Pelvis, Lumbar Spine & T/L Junction to manage uncomplicated, and common conditions. Students will utilize prior knowledge to identify osseous and soft tissue structures and skills of palpation. This course will lay the foundation for other Manipulation courses by teaching concepts related to (i) the patient management process; (ii) spinal manipulation; and (iii) the doctor-patient relationship. Teaching methods will include demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.  
Prerequisite: MM5222N

**MM5420N                      Manipulation of the Cervical Spine and Cervico-Thoracic Junction (Fall 2021)                      Credits 1.0**  
This course will teach manipulation of the cervical spine as an introduction towards management of uncomplicated, common cervical conditions. Teaching methods will include demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning. As the third manipulation course, it assists in building on previous concepts related to (i) the patient management process; (ii) spinal manipulation; and (iii) the doctor-patient relationship.  
Prerequisites: AN5101N; AN5102N; FH5106N; MM5220N; MM5320N

**MM5422N                      Technique V: Manipulation of the Cervical Spine, C/T Junction and First Rib                      Credits 1.5**  
**(Effective Spring 2022)**  
This course teaches students the knowledge and skills needed to effectively and safely perform manipulation of the Cervical Spine and Cervico-Thoracic Junction to manage uncomplicated, and common conditions. Students will utilize prior knowledge to identify osseous and soft tissue structures and skills of palpation. This course will lay the foundation for other Manipulation courses by teaching concepts related to (i) the patient management process; (ii) spinal manipulation; and (iii) the doctor-patient relationship. Teaching methods will include demonstrations, skills laboratories, and problem-based large group discussions that focus on skills development and clinical reasoning.  
Prerequisites: AN5101N; AN5102N; FH5108N; MM5222N; MM5322N

**MM6121N                      Naturopathic Physical Medicine I: Extremities Exam and Manipulation,                      Credits 1.0**  
**Postural Assessment (Effective Spring 2022)**  
This course will review the examination of the extremities and techniques to improve function and relieve pain. Skills in assessing and recommending exercise to correct posture are presented by a perspective of holistic assessment of the spine, extremities, muscles, and myofascial system. Some ongoing practice in previously learned manipulative therapies will be included in the weekly lab sessions.  
Prerequisite: MM5422N

**MM6219N                      ND Physical Medicine II: Pain Management (Effective Spring 2022)                      Credits 0.5**  
Pain is a major presentation in naturopathic practice. This lab course will review the evaluation of pain symptoms, and the use of various techniques to address acute and chronic pain. This course will incorporate previously learned physical medicine skills and introduce some new techniques. Rehabilitative exercise regimens are incorporated along with the review of hands-on techniques.  
Prerequisite: MM6121N

**Credits 1.0**

Manual medicine is a versatile and powerful modality in the naturopathic therapeutic order. In this course, students will develop skills in using a variety of physical medicine approaches to address systemic dysfunction. The course will follow a conditions/organ systems organization. The techniques included in this course improve function and structure through a variety of soft tissue, myofascial, somatosensory and neurorehabilitative pathways. Students will conclude this course with the ability to integrate these techniques into their treatment plans and some awareness of areas for further study and practice.

Prerequisite: EM6120N

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**Credits 2.0**

This course reviews skills in opening, closing, or selling a practice. Finding an appropriate niche for services is discussed and particular emphasis is on unlicensed state practice — legal and appropriate communications that respect state law. A solid review of accounting practices, tax obligations, and accounting software complement the practice management skills. Students will leave this course able to bring a business plan to a bank, and to effectively employ a loan or their own start-up resources. An appreciation of how to use business professionals, such as accountants, lawyers, marketing consultants, etc. is a recurring theme. The basics of medical jurisprudence are examined. Examples from various and diverse jurisdictions are discussed.

Prerequisite: BU6306N

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**Credits 1.0**

This rotation in the naturopathic medicine program is designed to give the student an opportunity to demonstrate basic skills in hydrotherapy in a clinical setting. Students will perform hydrotherapy treatments as assigned by the attending clinician. Although students on this rotation are not acting as interns, they will perform a basic intake (including vital signs), make chart entries, attend to patient needs, and suggest treatment options/modifications. Patient treatments are at the discretion and under the close supervision of the attending clinician. Interns from Phase III of the ND program may be paired with the student or other NUHS interns, as deemed appropriate.

Prerequisites: EM6202N\*, EM6116N\*\*, HY5409N

\*=Fall 2021 / \*\*= Spring 2022

**Credits 2.0**

Students will participate in clinic activities for three hours per week. Students in ND6317N will take on a more active role. During their shift, they will be paired with a senior intern (Phase III, Term One or Two) or faculty practitioner. Students will assist in the physical examination and research for the case. The clinic faculty and interns will expect students to come prepared to discuss cases in conference and to provide input into diagnosis and treatment. The thinking of the Phase II, Term Three student must have evidence of training in applied naturopathic clinical theory, as well as overall competence in diagnosis and therapeutics appropriate for their standing in the naturopathic program. This rotation is also an opportunity for students to strengthen their skills of charting, for which they will be responsible whenever they perform any treatment, interview, or examination of a patient. Evaluation will be by clinical faculty and interns.

Prerequisite: EM6202N

**Credits 1.0**

This course will review the examination of the extremities and techniques to improve function and relieve pain. Skills in assessing and recommending exercise to correct posture are presented by a perspective of holistic assessment of the spine, extremities, muscles, and myofascial system. Some ongoing practice in previously learned manipulative therapies will be included in the weekly lab sessions.

Prerequisite: EM6116N

**Credits 1.0**

This course continues the study of herbal monographs, including information about phytochemistry, mode of action, clinical indications, dosing considerations, potential toxicity, and contraindications. These monographs are arranged

by organ system and featured topics include the gastrointestinal, endocrine, reproductive, respiratory, urinary, cardiac, and nervous systems. The pharmacologic basis of herb-drug interactions and examples are introduced. A focus in this course is on the principles of herb combination and prescribing, which will continue in subsequent botanical medicine courses.

Prerequisite: PH6115N, ND6115N

***\* Students must be available to cover the assigned clinic shift at the specified NUHS Whole Health Center and/or other assigned clinic facility, as hours vary at each location, in order to serve the needs of patients and the community.***

**ND6410N Clinical Internship I Credits 9.0**

This comprises the first of three block assignments during which students will assume increasing responsibility for the treatment of patients within a naturopathic medical team. Although ultimate responsibility for the case will rest with the supervising doctor, interns will be given sufficient opportunity to exercise the skills and competencies that they have acquired in their training to date. The goal of this first internship block is to make the transition to being responsible for the case, and assemble all of the relevant clinical skills. There is more intense supervision than students in ND7110N and ND7210N and interns will often be paired with a more experienced peer. Students will be evaluated in a number of ways, and will show competence in treating a variety of clinical conditions and patient populations, including both NUHS students and the patients from the general community. In all cases, interns will demonstrate an understanding of naturopathic principles as well as clinical skill.

Prerequisites: Completion of Phase I; FR6307N\*, FR6318\*\*; ND6317N

Co-requisites: NP6415N\*, NP6430N\*\*; NP6417N; NP6418N; NP6419N

\*= Fall 2021 / \*\* = Effective Spring 2022

**ND7111N Clinical Internship II – A (Fall 2021) Credits 9.5**

In this clinical rotation, students will assume responsibility for the treatment of patients within a naturopathic medical team. Although ultimate responsibility for the case will rest with the supervising doctor, the interns will be given sufficient opportunity to exercise all the skills and competencies that they have acquired in their training to date. They will sometimes be paired with a peer. Students will be evaluated in a number of ways, and will show competence in treating a variety of different clinical conditions and patient populations, including both NUHS students and the patients from the general community. In all cases, interns will demonstrate an understanding of naturopathic principles as well as clinical skills. The observational evaluation of intern performance will emphasize the Medical Interview, Physical Examination, and Organization/Efficiency at an advanced level appropriate for a student who is midway through the internships of the program.

Prerequisite: Completion of Phase II

**ND7112N Clinical Internship II – B (Fall 2021) Credits 6.5**

In this clinical rotation, students will assume responsibility for the treatment of patients within a naturopathic medical team. Although ultimate responsibility for the case will rest with the supervising doctor, the interns will be given sufficient opportunity to exercise all the skills and competencies that they have acquired in their training to date. They will sometimes be paired with a peer. Students will be evaluated in a number of ways, and will show competence in treating a variety of different clinical conditions and patient populations, including both NUHS students and the patients from the general community. In all cases, interns will demonstrate an understanding of naturopathic principles as well as clinical skills. The observational evaluation of intern performance will emphasize Counseling and Naturopathic Therapeutics at an advanced level appropriate for a student who is midway through the internships of the program.

Prerequisite: Completion of Phase II

**ND7110N Clinical Internship II – (Effective Spring 2022) Credits 16.0**

In this clinical rotation, students will assume responsibility for the treatment of patients within a naturopathic medical team. Although ultimate responsibility for the case will rest with the supervising doctor, the interns will be given sufficient opportunity to exercise all the skills and competencies that they have acquired in their training to date. They will sometimes be paired with a peer. Students will be evaluated in a number of ways, and will show

competence in treating a variety of different clinical conditions and patient populations, including both NUHS students and the patients from the general community. In all cases, interns will demonstrate an understanding of naturopathic principles as well as clinical skills. The observational evaluation of intern performance will emphasize the Medical Interview, Physical Examination, and Organization/Efficiency at an advanced level appropriate for a student who is midway through the internships of the program.

Prerequisite: Completion of Phase II

**ND7211N Clinical Internship III – A (Fall 2021) Credits 8.5**

In this clinical rotation, students will assume increasing responsibility for the treatment of patients within a naturopathic medical team. Although ultimate responsibility for the case will rest with the supervising doctor, the interns will be given sufficient opportunity to exercise all the skills and competencies that they have acquired in their training to date. Increased self-sufficiency in the management of patient care, combined with evidence of awareness of indications for consultation and referral are the hallmarks of this third block assignment. Interns may be sometimes paired with a peer. Students will be evaluated in a number of ways, and will show competence in treating a variety of different clinical conditions and patient populations. In all cases, interns will demonstrate an understanding of naturopathic principles as well as clinical skills. The observational evaluation of intern performance will emphasize the Medical Interview, Physical Examination, and Organization/Efficiency at an advanced level appropriate for a student who is soon to be an entry-level practitioner.

Prerequisite: Completion of ND7111N and ND7112N

**ND7212N Clinical Internship III – B (Fall 2021) Credits 5.5**

In this clinical rotation, students will assume increasing responsibility for the treatment of patients within a naturopathic medical team. Although ultimate responsibility for the case will rest with the supervising doctor, the interns will be given sufficient opportunity to exercise all the skills and competencies that they have acquired in their training to date. Increased self-sufficiency in the management of patient care, combined with evidence of awareness of indications for consultation and referral are the hallmarks of this third block assignment. Interns may be sometimes paired with a peer. Students will be evaluated in a number of ways, and will show competence in treating a variety of different clinical conditions and patient populations. In all cases, interns will demonstrate an understanding of naturopathic principles as well as clinical skills. The observational evaluation of intern performance will emphasize Counseling and Naturopathic Therapeutics, at an advanced level appropriate for a student who is soon to be an entry-level practitioner.

Prerequisite: Completion of ND7111N and ND7112N

**ND7210N Clinical Internship III (Effective Spring 2022) Credits 14.0**

In this clinical rotation, students will assume increasing responsibility for the treatment of patients within a naturopathic medical team. Although ultimate responsibility for the case will rest with the supervising doctor, the interns will be given sufficient opportunity to exercise all the skills and competencies that they have acquired in their training to date. Increased self-sufficiency in the management of patient care, combined with evidence of awareness of indications for consultation and referral are the hallmarks of this third block assignment. Interns may be sometimes paired with a peer. Students will be evaluated in a number of ways, and will show competence in treating a variety of different clinical conditions and patient populations. In all cases, interns will demonstrate an understanding of naturopathic principles as well as clinical skills. The observational evaluation of intern performance will emphasize Counseling and Naturopathic Therapeutics, at an advanced level appropriate for a student who is soon to be an entry-level practitioner.

Prerequisite: Completion of ND7110N

***\* A listing of the required clinical competencies for naturopathic medicine students is located at the end of the course descriptions.***

**NN5212N Homeopathy I (Fall 2021) Credits 1.0**

This course introduces students to the principles of homeopathy. Basic terminology and concepts, such as the purpose of the repertory, the study of materia medica, case taking, and the preparation of homeopathic medicines



Prerequisite: None

**Credits 1.0**

Prerequisites: None

**Credits 3.0**

Prerequisite: BC5308

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**Credits 3.0**

**Prerequisite:** Completion of Phase I

**Credits 3.0**

Prerequisite: Completion of Phase I

**Credits 1.0**

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Prerequisite: Completion of Phase I

**Credits 4.0**

Prerequisite: Completion of Phase I

**Credits 2.0**

Prerequisite: Completion of Phase I

**Credits 3.0**

Prerequisite: BC5308

**Credits 3.0**

Prerequisite: NN6107N

**Credits 4.0**

Prerequisite: NN6112N

**Credits 2.0**

A thorough study of the Organon is made, as preparation for effective practice. Topics include the principles of health and disease, medicine action, case taking, suppression, complex cases, alternating diseases, and provings. In preparation for internship and the NPLEX exam, some keynotes of common remedies are reviewed. Case illustrations are used.

Prerequisite: NN6112N

**Credits 4.0**

This course offers a nutritional approach to the prevention and treatment of disease, with an emphasis on maintenance of health and homeostasis and specific disease conditions and their prevention. Nutritional assessment methods are covered in detail and the methods for obtaining a physical exam of nutrition health and means to assess nutritional status are covered. A description of the approach to nutrition counseling and the nutrition counseling session are described. Topics covered are food frequency questionnaires (FFQ), health history and physical exam forms, and food diary and intake forms. The diseases of the major organ systems in the body are covered with the musculoskeletal, joint health, gastrointestinal, and cardiovascular systems covered in depth. Metabolic diseases such as diabetes and thyroid diseases are also described. Liver detoxification, adrenal stress syndrome, and a functional medicine approach to the liver, adrenal, thyroid, and gastrointestinal tract are described. Other diseases covered are central nervous system disease and infectious and dermatological conditions. A discussion of immune up-regulation, glandular products, chelation therapy, and glyconutrients is held. The use of all nutritional therapies, botanical medicines, and other functional medicine approaches to maintenance of health and prevention and treatment of disease are described.

Prerequisite: Completion of Phase I

**Credits 4.0**

This course offers a nutritional approach to the prevention and treatment of disease, with an emphasis on maintenance of health and homeostasis within specific disease states. Nutritional assessment methods are covered in detail, including the methods for obtaining a physical exam of nutrition health and means to assess nutritional status. The nutrition care process and approach to nutrition counseling sessions are discussed. The diseases of the major organ systems in the body are covered including joint health, gastrointestinal, renal, liver, and cardiovascular systems. Metabolic diseases such as obesity, diabetes, and thyroid conditions are also explored. Nutritional screening, assessment, and treatment within each specific disease state will be emphasized in relationship to the integrative therapeutic application of nutrition in a clinical setting.

Prerequisite: Completion of Phase I

**Credits 4.0**

This advanced course will engage the subject of therapeutic herbalism in great detail. The strategies for addressing dysfunction in the organ systems will be outlined. Specific aspects of botanicals will be studied including: constituents, pharmacognosy, specific indications, contraindications, toxicity, and dosing parameters. In the traditional manner, the herbs will be studied according to therapeutic category (nervines, hepatics, anodynes, etc.). Close attention will be paid to the potential for herb-herb and herb-drug interaction. Students will practice compounding and dispensing as part of their clinical rotations, and this course will provide the theoretical information to enable them to do so.

Prerequisite: NN6108N

**Credits 2.0**

This course introduces the student to a wide range of herbal monographs, including information about phytochemistry, mode of action, clinical indications, dosing considerations, potential toxicity, and contraindications. These monographs are arranged by organ system and featured topics include the gastrointestinal, hepatic, respiratory, urinary, cardiac, nervous, and integumentary systems. The pharmacologic basis of herb-drug interactions and examples are introduced here.

Prerequisite: NN5413N

**NN6312N** **Homeopathy IV (Fall 2022)** **Credits 4.0**

Materia medica study is continued in depth. Follow-up prescriptions and case analysis over sequential visits is emphasized. Medicine potency, repetition, time between prescriptions, and potency alternation are examined. Students are taught how to distinguish between suppression, an aggravation, and a positive response. Group exercises continue the use of cases for analysis, as well as presentations on materia medica. Challenging or unique cases are presented and discussed in class. This serves to reinforce previously presented concepts such as the principles of case taking, case analysis, remedy selection, and proper follow-up. Comparative materia medica is discussed during presentations about case analysis and remedy section. The value of acute prescribing and the role of adjunct therapies are explored.

Prerequisite: NN6212N

**NN6222N** **Homeopathy IV (Effective Spring 2022)** **Credits 4.0**

Building on the basic concepts introduced to this point, the course centers on the actual skills of taking a case, analyzing symptoms, using the Repertory, and selecting a remedy. Materia medica is taught by examining provings. Students will study carefully the range of symptoms in the proving, and the physiological actions, as well as the wide variety of mental symptomatology found in many provings.

Prerequisite: NN5412N

**NN6319N** **Homeopathy V (Effective Spring 2022)** **Credits 4.0**

Continuing with the education of materia medica study is continued in depth. Follow-up prescriptions and case analysis over sequential visits is emphasized. Medicine potency, repetition, time between prescriptions, and potency alternation are examined. Students are taught how to distinguish between suppression, an aggravation, and a positive response. Group exercises continue the use of cases for analysis, as well as presentations on materia medica. Challenging or unique cases are presented and discussed in class. This serves to reinforce previously presented concepts such as the principles of case taking, case analysis, remedy selection, and proper follow-up. Comparative materia medica is discussed during presentations about case analysis and remedy section. The value of acute prescribing and the role of adjunct therapies are explored.

Prerequisite: NN5412N

**NN6401N (Online)** **Pharmacotherapeutics** **Credits 0.5**

This course presents up-to-date current pharmacological care of patients who present with primary care disorders and conditions. Students will be presented with a series of clinical cases and will be asked to formulate a plan of action that includes their first choice of prescription medication and its dose. Building on knowledge from previous pharmacology courses, students will be given resources about the mechanism of action, side effects, major use, contraindications, and appropriate dose of drugs for major conditions. Students will be assessed on their ability to choose an effective medication at the effective and safe dose.

Prerequisite: NN6206N

**NN6402N** **Intravenous Therapeutics (Fall 2021)** **Credits 1.0**

This lecture-based course will introduce students to the fundamental principles and procedures of naturopathic intravenous therapeutics. This includes the common indications for this therapy as well as the appropriate procedures including safety considerations. Commonly used agents and their known pharmacodynamics are discussed as well as some ancillary parenteral procedures such as intramuscular injections.

Prerequisite: NN6301N

**NP7118** **Intravenous Therapeutics (Effective Spring 2022)** **Credits 1.0**

This lecture-based course will introduce students to the fundamental principles and procedures of naturopathic intravenous therapeutics. This includes the common indications for this therapy as well as the appropriate procedures including safety considerations. Commonly used agents and their known pharmacodynamics are discussed as well as some ancillary parenteral procedures such as intramuscular injections.

Prerequisite: NN6322N

**NN6412N** **Botanical Medicine III: (Fall 2021)** **Credits 2.0**  
**Advanced Naturopathic Botanical Prescribing**

The focus of this course is the creation of special botanical treatment prescriptions that are individually formulated for a patient case. Additional materia medica will be discussed in this course, building onto those emphasized in NN6308N. Sources, indications, contraindications, and pharmacology of medical herbs are described. Herbal medicines from the Eclectic Material Medica, including those with a narrow therapeutic window, are discussed, including precise dosing regimens as well as traditional combinations of botanicals for various organ systems or conditions.

Prerequisite: NN6308N

**ND6224N** **Botanical Medicine III (Effective Summer 2022)** **Credits 2.0**

This course continues the study of herbal monographs, including information about phytochemistry, mode of action, clinical indications, dosing considerations, potential toxicity, and contraindications. These monographs are arranged by organ system and featured topics include the gastrointestinal, endocrine, reproductive, respiratory, urinary, cardiac, and nervous systems. The pharmacologic basis of herb-drug interactions and examples are introduced. A focus in this course is on the principles of herb combination and prescribing, which will continue in subsequent botanical medicine courses.

Prerequisite: ND6113N

**NN6416N** **Advanced Nutrition: Functional Medicine (Fall 2021)** **Credits 2.0**

This course will prepare the student intern for the application of biochemical, physiological and nutritional knowledge to practice. To that end, concepts such as genomic and biochemical individuality, interconnections in physiological and biochemical systems of the body, and the maximization of organ function are key to this course. The testing and protocols for addressing fundamental issues including inflammation, chemoprevention, detoxification, mitochondrial dysfunction, dental infection, brain health, food allergy, environmental allergy, and the endocannabinoid system are reviewed. To support intern competence in the rapidly evolving fields of clinical nutrition and naturopathic practice, the instructor will select some special topics to highlight. This advanced course will entail that the student review current literature, and analyze selected aspects of that literature in determining possible protocols for future patients.

Prerequisite: NN6301N

**NP6431N** **Advanced Nutrition: Application of Dietary and Lifestyle Interventions** **Credits 2.0**  
**(Effective Spring 2022)**

This advanced course will prepare the student intern for the application of dietary and lifestyle interventions for a variety of chronic conditions. Students will utilize their foundational knowledge from clinical nutrition and internal medicine coursework. In this advanced course, students will review relevant evidence-based literature, analyze that literature, and translate the evidence into treatment plans according to the naturopathic therapeutic ladder of interventions. In-depth attention will be paid to chronic conditions and how specific therapeutic dietary recommendations will mitigate and prevent further progression of illness.

Prerequisite: N6322N

**NN7109N** **Botanical Medicine IV: Advanced Materia Medica\*** **Credits 1.0**

This final course in the botanical medicine series focuses on acquiring knowledge of additional botanicals, not previously covered, that are important for a naturopathic practice. The class will also review those herbs that are within the scope of naturopathic medicine but must be used with extra caution. Class time will be allocated to reviewing herbs that are very frequently used in naturopathic medicine and therefore both important to patient care and likely to appear on licensing examinations. Students will be expected to demonstrate knowledge of herb-drug interactions and how to skillfully research queries about the potential risk associated with an herbal medicine treatment using reliable databases and other resources.

Prerequisite: NN6412N

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**Credits 1.5**

Effective counseling skills are essential to the practice of naturopathic medicine. In this course, students will review the techniques of counseling and engage in the practice of those techniques. Self-awareness, listening, understanding, and exploring sensitive topics are discussed and to some extent practiced with peers. Students learn techniques of stress management and apply them to their own life.

Prerequisite: None

**Credits 1.0**

Students in this course will assemble a multi-faceted treatment plan for several common conditions involving the human nervous system. This effort will be supported by guidance from the instructor in creating a framework for such treatment plans, and the provision of some essential treatment information. Expectations for treatment information will be appropriate for a naturopathic student in the earlier phase of the program. The class will discuss how these treatment plans reflect the naturopathic principles discussed in Foundations of Naturopathic Medicine I: First Do No Harm, Treat the Whole Person, Treat the Cause(es), Prevention, Doctor as Teacher and of course, work with the *Vis Medicatrix Naturae*.

Prerequisite: None

**Credits 1.0**

Students in this course will assemble a multi-faceted treatment plan for several common conditions involving the organ systems. This effort will be supported by guidance from the instructor in creating a framework for such treatment plans, and the provision of some essential treatment information. Expectations for treatment information will be appropriate for a naturopathic student in the earlier phase of the program. The class will discuss how these treatment plans reflect the naturopathic principles discussed in Foundations of Naturopathic Medicine I: First Do No Harm, Treat the Whole Person, Treat the Cause(s), Prevention, Doctor as Teacher and of course, work with the Vis Medicatrix Naturae.

Prerequisite: NP5216N

**Credits 1.0**

Students in this course will assemble a multi-faceted treatment plan for several common conditions involving the organ systems. This effort will be supported by guidance from the instructor in creating a framework for such treatment plans, and the provision of some essential treatment information. Expectations for treatment information will be appropriate for a naturopathic student in the earlier phase of the program. The class will discuss how these treatment plans reflect the naturopathic principles discussed in Foundations of Naturopathic Medicine I: First Do No Harm, Treat the Whole Person, Treat the Cause(s), Prevention, Doctor as Teacher and of course, work with the Vis Medicatrix Naturae.

Prerequisite: NP5321N

**Credits 3.5**

Current naturopathic practice includes the role of a primary care physician. In naturopathic medicine, primary care is based on the naturopathic principles and guided through the use of the therapeutic order. This class serves as the introduction to naturopathic medicine in practice, with the focus on acute conditions. Students will learn how to manage common acute conditions safely, how to determine cases for referral, and how to treat these conditions using naturopathic therapies.

Prerequisite: Completion of Phase I

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**Credits 1.0**

Taking the perspective that the whole person and the determinants of health need to be considered in the treatment of female health issues, students will review approaches to common issues (dysmenorrhea, endometriosis, infertility, breast cancer, ovarian cancer, uterine cancer, amenorrhea, infertility, and menopause), a rational approach to these issues that includes counseling about common medical options, prevention, and naturopathic therapeutics.

Co-requisite: ND6410N

Taking the perspective that the whole person and the determinants of health need to be considered in the treatment of female health issues, students will review approaches to common issues (dysmenorrhea, endometriosis, infertility, breast cancer, ovarian cancer, uterine cancer, amenorrhea, infertility, and menopause), a rational approach to these issues that includes counseling about common medical options, prevention, and naturopathic therapeutics.

This course is an in-depth study of the treatment and management of disease of the organ systems. Although naturopathic medicine promotes prevention, the practicing naturopathic physician must be prepared to address any of the common issues seen in a general practice. Students entering this Trimester Eight course will already be trained in diagnosis and therapeutic modalities. This course is a review of treatment and management strategies. Some new treatment information will be added to strengthen the student's knowledge of botanical, nutritional, and homeopathic medicine, and other therapies. The course will occur throughout the week, and treatment of disease of the organ systems (cardiopulmonary, gastroenterological, hepatobiliary, renal/urologic, hematological, and gynecologic) will be followed in depth. The last lecture of the week will be on emergency medicine topics, relating to the internal medicine issues taught to date. The overall approach builds on the clinical theory and principles studied throughout the ND program.

Internal medicine I focuses on diseases of the internal organs. The student will make a thorough review of the diagnostic approach to conditions of the gastrointestinal system, the hepatobiliary system, the immune system – especially as it pertains to mucosal immune system and autoimmune disease, and some rheumatological conditions. Treatment approaches grounded in naturopathic principles and best evidence are discussed at an advanced level. A management approach that involves long term care and the need for referrals and co-management by other practitioners is included in these reviews.

Internal medicine II focuses on diseases of the internal organs. The student will make a thorough review of the diagnostic approach to conditions of the heart, vascular system, pulmonary, renal, and hematopoietic system. Treatment approaches grounded in naturopathic principles and best evidence are discussed at an advanced level. A management approach that involves long term care and the need for referrals and co-management by other practitioners is included in these reviews.

Naturopathic physicians are responsible for providing consistent and thorough outpatient care to people of all ages and life situations. This course focuses on the practice strategies and issues encountered in treating prenatal and geriatric patients, issues arising from veteran's health care, care of underserved populations, global medicine issues, and LGBT specific health care issues. A review of screening and health maintenance strategies for the adult patient is included. Additional treatment information in the areas of dermatology, neurology, hematology, and EENT are included.

Naturopathic physicians are responsible for providing consistent and thorough outpatient care to people of all ages and life situations. This course focuses on the practice strategies and issues encountered in treating prenatal and geriatric patients, issues arising from veteran's health care, care of underserved populations, global medicine issues, and LGBT specific health care issues. A review of screening and health maintenance strategies for the adult patient

Prerequisite: EC6313N

This course examines the clinical manifestations of exposure to environmental toxins. Sources and the route of exposure of synthetic and naturally occurring toxins are discussed. Emphasis is placed on the clinical strategies that are useful to detect and alleviate overburdened detoxification pathways. The activation of the body's greater defensive system, including inflammation and sensitization (both allergic and non-allergic) is examined in light of how patients might present in clinic and what historical and environmental factors are likely present in the history. Acquiring a high level of confidence in recommending protocols that support detoxification pathways through various naturopathic therapies is considered a key element in this course.

This course is an introduction to health topics pertaining to the pediatric population. Naturopathic physicians are responsible for providing consistent and thorough outpatient care to pediatric patients. An overview of developmental screening and health maintenance strategies for the pediatric patient is the focus of this course. Assessment and treatment of both presenting office complaints and strategies for long-term prevention and wellness are stressed.

This course forms the basis of the clinical theory stream of courses in the ND program, which serves as a framework for practice. The course begins with an overview and the vision and ultimate goals of the ND program. The naturopathic principles are discussed at length. Major concepts such as health, holism, and vitalism are analyzed by the class. Ecology and environmental health as a basis for individual health and the broader implications of the Gaia theory are explored. Spirituality and its importance to life and healing and the need for the physicians to be whole themselves form the concluding portion of the course.

This course surveys the organizational structure and conceptual framework of the naturopathic medicine profession. This includes topics such as practice management plans, licensing of naturopathic medicine, and the scope of the NPLEX examinations. As a prelude to future clinical theory courses, and the development of therapeutic skills, the course includes discussion of clinical theory, such as the therapeutic order.

Addressing the determinants of health comprises the foundational step in naturopathic therapeutics. The knowledge of the human being and their internal and external environment that is gained by studying the basic sciences gives the practitioner insight into how to address the determinants of health. This course reviews the most common categories of the determinants and the basic science topics that relate to them such as: proper hydration and its relation to kidney function, perspiration, pituitary function, beneficial effects of adequate sunlight and the nature of vitamin D metabolism; and known risks of UV light, etc. The theme of the course is that basic science knowledge assists us in making a diagnosis, and in engineering the proper conditions for healing and prevention of disease.

The therapeutic order is discussed in more detail. Students will by this time have a basic knowledge of the various naturopathic therapies. Their employment within different orders of intervention will be discussed as a part of a



dynamic approach to patient care. A unified theory of healing is presented, with emphasis on the clinical indications of improvement or deterioration of a patient's condition.

Prerequisite: Completion of Phase I

**NT6110N                                      Advanced Naturopathic Clinical Theory (Fall 2022)\*                                      Credits 1.0**

The therapeutic order is discussed in more detail. Students will by this time have a basic knowledge of the various naturopathic therapies. Their employment within different orders of intervention will be discussed as a part of a dynamic approach to patient care. A unified theory of healing is presented, with emphasis on the clinical indications of improvement or deterioration of a patient's condition.

Prerequisite: Completion of Phase I

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**NT6210N                                      Applied Naturopathic Clinical Theory                                      Credits 2.0**

This is a participatory course. Students work in small groups, applying their knowledge of clinical theory to actual cases. Competency in analysis of the causes of disease, the obstacles to healing, and the sequence and timing of various interventions are expected of students. Weekly group reports and individually prepared comprehensive reports will be the basis of students' grades. The amounts and dosing of prescribed substances are less emphasized in this course, whereas the understanding of the application of naturopathic principles and theory is paramount. The competencies reached in this course serve as the foundation for the study of internal medicine and care throughout the life cycle in Phase II, Term Four, which is based on a consistent and coherent approach.

Prerequisite: NT6110N

**NX6215N                                      Clinical Endocrinology (Fall 2021)                                      Credits 2.0**

This course builds on previously attained knowledge in diagnosis and laboratory medicine, focusing on disorders of the endocrine system. Students will learn how to approach commonly encountered endocrine conditions in naturopathic medicine, such as hypothyroidism and diabetes mellitus. All aspects of endocrine management are covered, from presentation and assessment of symptoms, to diagnostic testing and treatment. The use of more experimental tests and therapies and the evidence behind them are approached in a critical sense. Both conventional and naturopathic therapies are reviewed. Students will practice creating treatment protocols following the naturopathic therapeutic order using clinical cases.

Prerequisites: EM6203N, NN6108N

**NX6318N                                      Clinical Endocrinology (Effective Spring 2022)                                      Credits 2.0**

This course builds on previously attained knowledge in diagnosis and laboratory medicine, focusing on disorders of the endocrine system. Students will learn how to approach commonly encountered endocrine conditions in naturopathic medicine, such as hypothyroidism and diabetes mellitus. All aspects of endocrine management are covered, from presentation and assessment of symptoms, to diagnostic testing and treatment. The use of more experimental tests and therapies and the evidence behind them are approached in a critical sense. Both conventional and naturopathic therapies are reviewed. Students will practice creating treatment protocols following the naturopathic therapeutic order using clinical cases.

Prerequisites: EM6203N, NN6108N

**NX6216N                                      Functional Laboratory and Point of Care Testing \*                                      Credits 0.5**

This course builds on previously attained knowledge in laboratory medicine. The emphasis is on: a) functional lab testing including comprehensive digestive analysis; b) allergy testing; c) heavy metal and detoxification testing; d) cardiac biomarker testing; e) point of care testing (urine, hemoglobin A1C, etc.); and f) specimen collection and transport for analysis at a hospital laboratory (and other CLIA certified labs). Universal precautions are stressed throughout the lab experience. The delivery of this course will be a combination of pre-lab and hands-on activities with point of care testing.

Prerequisite: Completion of Phase I

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**ON5311N** **Oriental Medicine (ND)** **Credits 1.5**

This is an introduction to traditional world medicines. This includes Traditional Asian Medicine, Ayurvedic medicine, and aboriginal/folk medicine of the Americas, Europe, and Africa. Review of the historical background and development will provide framework for understanding the current practice of each system. Students will be able to recognize the key concepts in theory, assessment and treatment for each major system. Students will be able to compare these concepts with those of naturopathic medicine and Western biomedicine.

Prerequisite: None

**PA5204N** **Fundamentals of Pathology** **Credits 3.0**

This course provides an introduction to the basic changes in the morphology of the cells, tissues, and organs in diseased states. Extensive use of visual aids with the latest computer technology helps students to differentiate abnormal from normal, and to correlate the clinical aspects of the alterations. Included also is discussion on general characteristics, classification, and differential diagnosis of cysts, benign and malignant tumors, and other neoplastic entities. All content will be discussed in lecture and group activity/discussion format.

Prerequisites: AN5107N, PH5103N

**PA5302N** **Systems Pathology I** **Credits 4.0**

Considered in this course are the pathologies peculiar to and characteristic of the various systems of the body. The systems examined are the nervous system, myopathy, neuropathy, bone and joint pathology, immunopathology, hematopathology, and dermatopathology. Each condition is studied from the standpoint of general characteristics, gross and microscopic appearance, and clinical course.

Prerequisite: PA5204N

Co-requisites: AN5304N, AN5305N, AN5307N

**PA5402N** **Systems Pathology II** **Credits 6.0**

Considered in this course are the pathologies peculiar to and characteristic of various systems of the body. The systems examined are respiratory, cardiovascular, reproductive and mammary, gastrointestinal (inclusive of liver, gall bladder and pancreas), urinary, and endocrine.

Prerequisite: PA5302N

Co-requisite: PH5405N

**PH5103** **Cellular Physiology & Hematology** **Credits 4.0**

In this course, students will review, in a problem-based setting, the basic science concepts related to the physiology of cellular membranes and organelles, along with the integrated functioning of the blood as a tissue. The physiology lab exercises will consist of problem sets and case studies, designed to integrate and apply material and concepts introduced through the accompanying lectures each week.

Co-requisite: AN5107

**PH5208N** **Neurophysiology** **Credits 3.5**

The purpose of this course is to study the neurophysiology of the nervous system. The complex signals created and utilized by the nervous system to control most bodily functions will be studied in depth to gain a better understanding of how the human nervous system functions. Areas of study will include: synaptic transmission; autonomic control; sensory systems including the special senses of vision, hearing, touch, balance (vestibular function), taste and smell; signal integration in the CNS; control of the motor system (including skeletal muscle physiology); and higher cortical functions such as speech, sleep, and associational areas of the brain.

Prerequisite: PH5103N

Co-requisites: AN5201N, AN5202N, AN5203N

**PH5306N** **Neuroendocrinology, GI & Reproductive Physiology** **Credits 4.0**

This course will address neuroendocrine mechanisms that operate to maintain homeostatic control over various systems and states within the body. The primary focus will be upon the normal mechanisms and reflexes that operate to maintain a healthy state. Specific topics will include regulation of the reproductive, gastrointestinal, and thermoregulatory systems. Neuroendocrine feedback pathways that regulate metabolic and mineral homeostasis

Prerequisite: PH5208N

This course will present the normal physiologic function of the respiratory system (breathing, ventilation, and gas exchange), circulatory system (blood pressure, cardiac output, pressure and flow homeostasis, and cardiac electrophysiology), and the kidney (conservation and excretion, and volume homeostasis). Content will be presented through lecture, laboratory, and supplemental problem exercises. Structure-function relationships and mechanisms of regulation will be emphasized. Laboratory based measurements on human subjects will be used along with computer simulations to demonstrate and illustrate core concepts. Supplemental problem exercises will provide students the opportunity to demonstrate and test their understanding and capability to apply core concepts toward explanative assessment of how each of these systems function.

This course will provide a series of symposia that address some of the more advanced concepts in biomedical sciences that intersect with naturopathic practice. Building on the knowledge of human structure, function, biochemistry, and genomics from previous courses, the advanced topics presented here provide a scientific basis for some of the natural therapies that help to retune the body's bioregulatory systems.

Applying basic science concepts to a clinical setting is a key requirement for any intern. Interns must use biomedical science knowledge as part of a thought process that can lead to the assessment of the patient and treatment. This course presents the student with many of the key concepts, structures, and processes from the biomedical science curriculum and relates them to clinical scenarios that a naturopathic physician is likely to encounter. The goal of this course for the student is for them to demonstrate the ability to relate diagnostic considerations, and treatment goals, to the basic science concepts in question. The NPLEX Part 1 Biomedical Science competencies are referenced in this course, as a guide to making these important correlations.

Naturopathic physicians must have a thorough understanding of the normal radiographic anatomy of the skeletal system if they are to detect abnormal pathology in these regions. This course provides background information as a basis for courses in musculoskeletal imaging diagnosis, essentially designed to help students differentiate a normal structure from pathology. The study of normal variants and anomalies of the skeletal system and skeletal measurement procedures are presented to give students an overall understanding of variations of normal, which both mimic pathology and often present with unique clinical challenges.

Naturopathic physicians must have a thorough understanding of the normal radiographic anatomy of the skeletal system if they are to detect abnormal pathology in these regions. This course provides background information as a basis for courses in musculoskeletal imaging diagnosis, essentially designed to help students differentiate a normal structure from pathology. The study of normal variants and anomalies of the skeletal system and skeletal measurement procedures are presented to give students an overall understanding of variations of normal, which both mimic pathology and often present with unique clinical challenges.

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**RA6207N****Imaging Diagnosis\*****Credits 2.0**

The basic principles of the major modalities of diagnostic imaging are discussed. Students will learn normal findings on X-ray films and also will become familiar with the type of abnormal findings yielded by the most common tests. This course is designed for the naturopathic student planning to be in general practice that will request and receive radiographic and other diagnostic imaging reports. Interpretation of these reports and knowing when to request them are the major learning outcomes.

Prerequisite: RA5206N

\*This course will be eliminated from the program for any student starting in the Spring of 2022 and thereafter.

**RE5401N****Evidence-Based Practice: Critical Appraisal of the Biomedical Literature (Fall 2021) Credits 1.0**

This course will expand upon the skills developed in EBP I. to introduce the role of research, including the interpretation and critical analysis of research reports and studies, in complementary and alternative medicine (CAM). The course will provide the foundation to equip students to be consumers of published research and to engage in building knowledge to enhance their professional practice and service delivery through the use of scientific methods, as well as to identify the strengths and weaknesses of those methods in published research. This is done to support the education and efforts of CAM practitioners for use with and on behalf of patients. Emphasis throughout the course will be placed on preparing students to identify research findings that will assist them in being more effective practitioners. Special emphasis will be placed on understanding the methods traditionally used in the research process, critical thinking, interpretation of research designs and analytical methods used, and on technology used to support its dissemination.

Prerequisite: MI5215N

**EP5401N****Evidence-Based Practice: Critical Appraisal of the Biomedical Literature Credits 1.0  
(Effective Spring 2022)**

This course will expand upon the skills developed in EBP I. to introduce the role of research, including the interpretation and critical analysis of research reports and studies, in complementary and alternative medicine (CAM). The course will provide the foundation to equip students to be consumers of published research and to engage in building knowledge to enhance their professional practice and service delivery through the use of scientific methods, as well as to identify the strengths and weaknesses of those methods in published research. This is done to support the education and efforts of CAM practitioners for use with and on behalf of patients. Emphasis throughout the course will be placed on preparing students to identify research findings that will assist them in being more effective practitioners. Special emphasis will be placed on understanding the methods traditionally used in the research process, critical thinking, interpretation of research designs and analytical methods used, and on technology used to support its dissemination.

Prerequisite: MI5215N

**ST7107N****Minor Surgery****Credits 1.5**

This course outlines the basic principles and procedures of minor surgery. Procedures involving cutaneous or subcutaneous surgery or procedures to obtain a diagnostic specimen, that can be done in-office, are the main focus of the course. Clean field, sterile instrumentation, and wound cleanliness are stressed throughout. Basic in-office medical procedures such as biopsy, wound debridement, treatment of benign skin lesions, and suturing are discussed. Laboratory components include practice of suturing technique and use of specialized equipment and instrumentation. Appropriate wound dressings and topical agents, such as antiseptics and anesthetics, are reviewed. Special topics include: dermatologic medicine, procedures to address patient safety during minor surgery, and how to respond to adverse reactions.

Pre-Requisites / Co-Requisites: Completion of Phase II

## Required Competencies of the Naturopathic Medical Graduate

The competencies that guide the Doctor of Naturopathic Medicine Program are the NUHS College of Professional Studies Six Core Competencies (see *College of Professional Studies Academic Policies, Regulations and Procedures*). The Association of Accredited Naturopathic Medical Colleges (AANMC) is a voluntary organization of accredited ND programs/institutions, which also produces an ND-specific set of competencies. The voluntary, non-binding AANMC Required Competencies of the Naturopathic Medical Graduate is included here as a reference for students and for the ongoing development of the curriculum.

### The Seven Areas of Competence for the Naturopathic Medical Graduate:

- Medical Assessment and Diagnosis
- Patient Management
- Communication and Collaboration
- Professionalism
- Career Development and Practice Management
- System-Based Practice
- Practice-Based Learning, Research, and Scholarship

### Medical Assessment and Diagnosis

Naturopathic medical graduates conduct a complete and accurate history, physical exam, and objective assessment to arrive at a diagnosis. They demonstrate the knowledge, skills, abilities, and attitudes expected of a naturopathic physician within the context of a patient-centered model.

The naturopathic medical graduate:

*Elicits a complete and accurate medical and biopsychosocial history*

- Establishes a therapeutic doctor-patient relationship
- Demonstrates active listening when taking a history and performing a physical exam
- Assesses the determinants of health, as defined by the World Health Organization
- Documents the medical record consistent with legal, institutional, and ethical requirements
- *Performs a complete and accurate health examination, including pathological and functional assessment*
- Selects assessments and performs diagnostic procedures based on a risk benefit analysis
- Performs appropriate system-specific or hypothesis-driven examination based on patient presentation
- Performs health screenings for disease prevention and early diagnosis
- Orders and/or performs appropriate diagnostic tests and imaging studies
- Conducts rapid assessment in emergency situations
- Performs assessments mindful of personal biases including, but not limited to, age, sex, race, ethnicity, disability, religion, social status, gender identity, and sexual orientation

*Formulates an accurate medical diagnosis*

- Interprets results for laboratory tests, physical examination, imaging studies, and other diagnostic tests
- Integrates the medical history, physical examination, and diagnostic testing with naturopathic principles in formulating a diagnosis
- Applies critical thinking and clinical reasoning to the synthesis of a medical diagnosis
- Identifies emergency and life-threatening situations and diagnoses
- Communicates assessment findings and diagnosis with the patient as appropriate

### Patient Management

Naturopathic medical graduates provide personalized, compassionate, ethical, holistic patient care. Determination of interventions are informed by considering the risk of harm, efficacy, level of evidence, and patient values and priorities as individually appropriate in promoting patient health and prevention of disease.

The naturopathic medical graduate:

*Establishes therapeutic relationships with patients*

- Builds and maintains rapport in patient interactions
- Displays empathy in patient interactions
- Respects doctor/patient roles and responsibilities
- Actively collaborates with patients in shared decision-making

*Develops an individualized treatment plan based on diagnosis and consistent with naturopathic principles*

- Incorporates cultural and psychosocial issues
- Uses best practices and best available evidence
- Focuses on safe, natural medical care
- Emphasizes health promotion and illness prevention
- Considers the safety, efficacy, contraindications, actions, and interactions of therapies
- Fosters patient adherence through consideration of the patient's circumstances, resources, and ability to implement the plan
- Addresses physical, spiritual, mental, and emotional aspects of the patient

*Recommends and/or administers therapies used in the individualized care of patients, including but not limited to \*:*

- Botanical medicine
- Counseling (e.g., lifestyle counseling, health psychology, mind-body medicine)
- Homeopathic medicine
- Medical office therapeutic procedures (e.g. injections and infusions, minor surgery)
- Clinical Nutrition (e.g., dietary counseling and nutraceuticals)
- Pharmaceuticals
- Physical medicine (e.g., manipulation, electrotherapies, and hydrotherapy)

\*Therapeutic modalities outlined in this document are those consistent with offerings at all CNME recognized institutions. Additional therapeutic modalities may be taught within individual academic programs.

*Facilitates informed patient decisions by presenting evidence-informed therapeutic and wellness options including risks, benefits, and alternatives to therapies*

- Engages patients in establishing a long-term focus for their personal health management with an emphasis on prevention and wellness
- Provides counseling and support for patients, their families, and significant others related to chronic illness, acute illness, and end of life issues
- Recommends plan for follow-up care
- Reassesses treatment plans considering clinical outcomes, best practices, and patient needs
- Documents plan of care and revisions to plan of care
- Recognizes personal limitations, adheres to scope of practice, and makes referrals when appropriate
- Intervenes and/or refers in urgent and emergency care situations

### **Communication and Collaboration**

Naturopathic medical graduates communicate effectively to optimize patient relationships and patient care. They refer, consult, and collaborate with other health professionals as appropriate when providing care.

The naturopathic medical graduate:

*Communicates effectively with patients, and when appropriate their families and significant others*

- Describes succinctly what naturopathic medicine is, and the role and responsibilities of naturopathic physicians
- Analyzes the patient narrative
- Communicates findings with patient

*Educates patients regarding their diagnosis and prognosis*

- Provides counsel on treatment options
- Promotes treatment plan adherence to achieve therapeutic goals

*Demonstrates empathy, compassion, and objectivity in patient interactions*

- Demonstrates sensitivity and respect for cultural identity including, but not limited to, age, sex, race, ethnicity, disability, religion, social status, gender identity, and sexual orientation
- Utilizes appropriate resources when experiencing barriers to communication

*Consults with and/or refers to other health care professionals when care is outside of scope of practice or personal competence*

- Conveys effective oral and written communication to other medical professionals
- Collaborates as a member of the patient's health care team to provide safe and effective care

*Educates members of the patient's health care team regarding the role of naturopathic medicine and the naturopathic physician in patient care*

- Recognizes and respects the roles and responsibilities of other professionals within the health care team.
- Collaborates as a member of the health care community to address public health issues such as access to care
- Provides leadership in the incorporation of the naturopathic physician as an integral member of the health care community
- Promotes naturopathic medicine and principles to the community at large

### **Professionalism**

Naturopathic medical graduates demonstrate professional behavior, personal integrity, and altruism. They are aware of their limitations in expertise, operate within the jurisdictional scope of practice, and refer care when appropriate. They exemplify the principles of naturopathic medicine personally and professionally as health care professionals and leaders in the community.

The naturopathic medical graduate:

*Maintains legal and ethical standards, including but not limited to*

- Patient confidentiality
- Informed consent
- Documentation of care
- Scope of practice
- Mandatory reporting
- Professional boundaries
- Conflicts of interest

*Demonstrates respect and integrity in professional interactions*

- Fulfills professional commitments in a timely and responsible manner
- Provides and receives constructive feedback as a part of peer and self-evaluation of professional competence
- Recognizes and addresses ethical issues arising in practice
- Demonstrates a commitment to balancing patient care, self-care, and responsibilities to colleagues, community, family, and friends
- Mentors members of the profession

## **Career Development and Practice Management**

Naturopathic medical graduates are able to establish a viable career in naturopathic medicine.

The naturopathic medical graduate:

*Creates a realistic career plan*

- Applies basic principles of marketing towards the establishment and growth of a patient base
- Adheres to best practices in management standards including financial practices, negotiation, inventory, and business
- Demonstrates the ability to plan and manage time and resources
- Maintains a professional network
- Promotes practice and relationships through effective public and professional communications
- Identifies and responds to practice challenges and opportunities
- Participates in continuous quality assessment and improvement
- Demonstrates key leadership attributes in practice management

## **Systems-Based Practice**

Naturopathic medical graduates demonstrate an awareness of the developing role of naturopathic medicine within larger frameworks of health care and health care systems in order to advocate for optimal patient care.

The naturopathic medical graduate:

- Demonstrates a working understanding of available health care resources, both conventional and complementary, in order to address patient and community needs
- Influences community or population health through education, community initiatives, and other efforts to shape public and professional health care policy
- Demonstrates an ability to participate effectively within a health care team with respect to referral skills, collaboration, and co-management of care
- Practices cost-effective health care through evidence-informed management, preventive strategies, and lifestyle management with an aim at alleviating the overall health care burden

## **Practice-Based Learning, Research, and Scholarship**

Naturopathic medical graduates critically appraise, assimilate, and apply scientific evidence to improve patient care. They demonstrate an understanding of the strengths and limitations of research. Naturopathic graduates are dedicated to ongoing personal reflection and lifelong learning.

The naturopathic medical graduate:

*Applies the skills of evidence-informed practice to patient care*

- Formulates a clinical research question to guide the design of the information search, using the principles and tools of evidence-based medicine
- Conducts a literature search efficiently, accessing appropriate resources in order to answer clinical questions
- Demonstrates an understanding of statistical tools
- Critically appraises relevant data to make judgments in integrating the information into clinical practice
- Applies levels of evidence in application and selection of therapeutics and patient management
- Critically evaluates patient care outcomes with respect to qualitative and quantitative measurements
- Advances the practice of naturopathic medicine through contributions to the development and dissemination of new knowledge

*Demonstrates reflective practice in a commitment to lifelong learning*

- Recognizes limitations in his/her own knowledge, skills, and attitudes
- Assesses professional competence using self-awareness, feedback from others and reflection on practice
- Demonstrates commitment to maintaining and improving knowledge, skills, and attitudes

\*\*\* Use of the term physician may vary based on jurisdictional legislation.



**Effective Summer 2023:**  
**Courses of the Doctor of Acupuncture Degree Completion Program**  
**(DAc-C) Curriculum (Online)**

<b>DAc-C Program:</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
DA7301 / OS6533	Doctoral Advanced Seminar I.	30	0	0	30	2.00
DA7302 / OS6534	Doctoral Advanced Seminar II.	30	0	0	30	2.00
DA7402 / MSACP521	Research Methodology and Biostatistics	60	0	0	60	4.00
DA7403 / MSACP611	Biomedical Diagnostics: Imaging Studies & Laboratory Values	45	0	0	45	3.00
DA7501 / BU6221	Patient Communication & Marketing	30	0	0	30	2.00
DA7502 / BU6309	Starting a Practice	30	0	0	30	2.00
DA7503 / MSACP631	Advanced Clinical Applications in Special Populations	45	0	0	45	3.00
DA7504 / DH5411	Public Health	30	0	0	30	2.00
DA7601	Integrating With Your Medical Community	45	0	0	45	3.00
DA7602 / MSACP651	Independent Research	60	0	0	60	4.00
<b>Total</b>		<b>240</b>	<b>0</b>	<b>0</b>	<b>240</b>	<b>27.00</b>

## **Effective Summer 2023: Doctor of Acupuncture Degree Completion (DAc-C) Course Descriptions (Online)**

### **DA7301**

#### **Doctoral Advanced Seminar 1**

**Credits 2.0**

In this seminar series, students integrate all of the subjects that they have studied over the past two years. The format used to integrate this information is case-based seminars. A few of the topics covered include: chronic pain management, orthopedics, internal disorders, obstetrics and gynecology, pediatrics, geriatrics, dermatology, allergies, infertility, emergency care, and so on. However, this Advanced Seminar 3 will mainly focus on gastrointestinal, renal, and OB/GYN conditions. Some seminar presentations may involve a patient in the grand rounds setting whenever possible. The class may be composed of large and small group activities. The large group session will present the case, introduce the related topics, and wrap up the case. Each small group session is responsible for a report on the cases that include: full patient information and physical examination results based on traditional four diagnosis methods and western medicine; differential diagnosis and assessments; principles of treatment; treatment protocol with specific acupuncture points and their point selection rationales; accessory techniques and prognosis. Students will also discuss patient management, business management and practice ethics, and proper patient referral to other health care providers.

Prerequisites or Co-requisites: CL5471, CL5472, OM4651

### **DA7302**

#### **Doctoral Advanced Seminar 2**

**Credits 2.0**

In this seminar series, students integrate all of the subjects that they have studied over the past two years. The format used to integrate this information is case-based seminars. A few of the topics covered include: chronic pain management, orthopedics, internal disorders, obstetrics and gynecology, pediatrics, geriatrics, dermatology, allergies, infertility, emergency care, and so on. However, this Advanced Seminar 4 will mainly focus on geriatric, pediatric, and multiple system-related conditions. Some seminar presentations may involve a patient in the grand rounds setting whenever possible. The class may be composed of large and small group activities. The large group session will present the case, introduce the related topics, and wrap up the case. Each small group session is responsible for a report on the cases that include: full patient information and physical examination results based on traditional four diagnosis methods and western medicine; differential diagnosis and assessments; principles of treatment; treatment protocol with specific acupuncture points and their point selection rationales; accessory techniques and prognosis. Students will also discuss patient management, business management and practice ethics, and proper patient referral to other health care providers.

Prerequisites or Co-requisites: CL5571L, CL5572L, OM6451

### **DA7402 / MSACP521**

#### **.Research Methodology and Biostatistics**

**Credits 4.0**

This course will increase the knowledge regarding critical appraisal of research articles including accessing articles, assessing the research methods and results, and determining potential biases. Emphasis will be placed on preparing students to identify pertinent research findings that may enhance clinical outcomes. The student will learn to write succinct critiques and discuss research articles in a scientific manner.

Pre-requisites/Co-requisites: None

### **DA7403 / MSACP611**

#### **Biomedical Diagnostics: Imaging Studies and Laboratory Values**

**Credits 3.0**

The purpose of this course is to study utility and limitations of the various diagnostic imaging modalities, including conventional radiography, computed tomography, magnetic resonance imaging, and nuclear imaging. The student will also improve their interpretation of diagnostic imaging reports, define effective imaging strategies in specific clinic scenarios, approach an imaging study with greater confidence, and determine referral decisions and prognostic indicators.

Pre-requisites/Co-requisites: None

**Credits 2.0**

Prerequisites or Co-requisites: None

**Credits 2.0**

Prerequisite: Professionalism, Ethics and Law; Billing, Coding and Documentation; Patient Communication and Marketing.

Prerequisites or Co-requisites: None

**Credits 3.0**

Pre-requisites/Co-requisites: None

**Credits 2.0**

Pre-requisites/Co-requisites: None

**Credits 3.0**

Pre-requisites/Co-requisites: None

**Credits 4.0**

Pre-requisite: DA7402

## Courses of the Master of Science in Acupuncture (MSAc) Curriculum

Effective January 2023, this program will change to the Master of Acupuncture (MAc) program.

<b>MSAc - First Trimester (T1)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
OM4405	Introduction to Oriental Medicine	45	0	0	45	3.00
OM4406	Physiology of Oriental Medicine	45	0	0	45	3.00
AC4461	Meridian Theory & Point Location 1	30	15	0	45	2.50
AC4463	Meridian Theory & Point Location 2	30	15	0	45	2.50
TM4492L	Asian Body Work (T1 or T2)	0	30	0	30	—
TM4491L	Tui Na (T1 or T2)	0	30	0	30	1.00
WB4400	Palpation Skills	0	15	0	15	0.50
WB4401	Medical Terminology	15	0	0	15	1.00
WB4407	Western Anatomy & Physiology (T1 or T2)	37.5	15	0	52.5	3.00
WB4402	Human Anatomy (T1 or T2)	15	45	0	60	2.50
WB4404	Principles of Biochemistry (T1 or T2)	15	0	0	15	1.00
WB4405	Neurology (T1 or T2)	30	0	0	30	2.00
<b>Totals</b>		<b>217.5</b>	<b>90</b>	<b>0</b>	<b>307.5</b>	<b>17.50</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>195</b>	<b>120</b>	<b>0</b>	<b>315</b>	<b>17.00</b>

\* Some courses are offered in alternate trimesters, for example (T1 or T2).

<b>MSAc - Second Trimester (T2)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
OM4411	Etiology & Pathogenesis of Oriental Medicine	45	0	0	45	3.00
OM5471	Diagnosis & Skills of Oriental Medicine 1	22.5	15	0	37.5	2.00
AC4462	Meridian and Point Energetics 1	30	0	0	30	2.00
TM4492L	Asian Body Work (T1 or T2)	0	30	0	30	1.00
TM4491L	Tui Na (T1 or T2)	0	30	0	30	—
WB4407	Western Anatomy & Physiology (T1 or T2)	37.5	15	0	52.5	3.00
WB4402	Human Anatomy (T1 or T2)	15	45	0	60	2.50
WB4404	Principles of Biochemistry (T1 or T2)	15	0	0	15	—
WB4405	Neurology (T1 or T2)	30	0	0	30	2.00
WD4441L	Western Physical Exam (T2 or T3)	0	30	0	30	1.00
WD4442L	Neuromusculoskeletal Exam (T2 or T3)	0	30	0	30	—
WB4412	Western Pathology (T2 or T3)	45	0	0	45	—
WB4411	Microbiology, Immunology & Public Health (T2 or T3)	45	0	0	45	3.00
CL4561L	Clinic Observation 1	0	0	60	60	2.00
<b>Totals</b>		<b>187.5</b>	<b>120</b>	<b>60</b>	<b>367.5</b>	<b>18.50</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>210</b>	<b>90</b>	<b>60</b>	<b>360</b>	<b>19.00</b>

\* Some courses are offered in alternate trimesters, for example (T1 or T2) or (T2 or T3).

<b>MSAc - Third Trimester (T3)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
OM5472	Diagnosis & Skills of Oriental Medicine 2	22.5	15	0	37.5	2.00
OM5441	Differential Diagnosis of Oriental Medicine 1 (T3 or T4)	45	0	0	45	3.00
OM5442	Differential Diagnosis of Oriental Medicine 2 (T3 or T4)	45	0	0	45	—
AC4464	Meridian and Point Energetics 2	30	0	0	30	2.00
AC5471	Acupuncture & Clean Needle Technique	22.5	15	0	37.5	2.00
ID4542L	Medical Qi Gong (T3 or T4)	0	30	0	30	—
ID4541L	Tai Chi (T3 or T4)	0	30	0	30	1.00
WD4441L	Western Physical Exam (T2 or T3)	0	30	0	30	—
WD4442L	Neuromusculoskeletal Exam (T2 or T3)	0	30	0	30	1.00
WB4412	Western Pathology (T2 or T3)	45	0	0	45	3.00
WB4411	Microbiology, Immunology & Public Health (T2 or T3)	45	0	0	45	—
CL4562L	Clinic Observation 2	0	0	60	60	2.00
CL4563L	Clinic Observation 3	0	0	60	60	2.00
<i>Internship Foundational Examination</i>						
<b>Totals</b>		<b>165</b>	<b>90</b>	<b>120</b>	<b>375</b>	<b>18.00</b>

\* Some courses are offered in alternate trimesters, for example (T2 or T3) or (T3 or T4).

<b>MSAc - Fourth Trimester (T4)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
OM5441	Differential Diagnosis of Oriental Medicine 1 (T3 or T4)	45	0	0	45	—
OM5442	Differential Diagnosis of Oriental Medicine 2 (T3 or T4)	45	0	0	45	3.00
OM6451	Advanced Diagnosis & Treatment Strategy (T4 or T5)	30	0	0	30	2.00
AC6481	Microsystems & Advanced Acupunctures (T4 or T5)	22.5	15	0	37.5	—
AC5472	Acupuncture & Accessory Techniques	0	30	0	30	1.00
ID4542L	Medical Qi Gong (T3 or T4)	0	30	0	30	1.00
ID4541L	Tai Chi (T3 or T4)	0	30	0	30	—
PD6543	Business, Marketing & Practice Management (T4 or T5)	30	0	0	30	—
PD6542	Evidence-Based Practice (T4 or T5)	30	0	0	30	2.00
WD5442	Clinical Laboratory Diagnosis (T4 or T5)	30	0	0	30	—
WD5441	Imaging Diagnosis (T4 or T5)	30	0	0	30	2.00
WC5422	Western Pharmacology & Toxicology (T4 or T5)	30	0	0	30	—
WC5421	Neurophysiology of Acupuncture (T4 or T5)	30	0	0	30	2.00
CL5571L	Associate Internship 1	0	0	60	0	2.00
CL5572L	Associate Internship 2	0	0	60	0	2.00
<b>Totals</b>		<b>165</b>	<b>60</b>	<b>120</b>	<b>345</b>	<b>17.00</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>158</b>	<b>75</b>	<b>120</b>	<b>352.5</b>	<b>17.00</b>

\* Some courses are offered in alternate trimesters, for example (T3 or T4) or (T4 or T5).

<b>MSAc - Fifth Trimester (T5)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
PD6541	Doctor & Patient Relationship (T5 or T6)	30	0	0	30	—
AC6452	Acupuncture Treatment Strategy (T5 or T6)	30	0	0	30	2.00
WD6441	Western Physical Diagnosis (T5 or T6)	30	0	0	30	—
OM6453	Nutrition & Food Therapy of Oriental Medicine (T5 or T6)	30	0	0	30	2.00
OM6451	Advanced Diagnosis & Treatment Strategy (T4 or T5)	30	0	0	30	—
AC6481	Microsystems & Advanced Acupunctures (T4 or T5)	22.5	15	0	37.5	2.00
PD6543	Business, Marketing & Practice Management (T4 or T5)	30	0	0	30	2.00
PD6542	Evidence-Based Practice (T4 or T5)	30	0	0	30	—
WD5442	Clinical Laboratory Diagnosis (T4 or T5)	30	0	0	30	2.00
WD5441	Imaging Diagnosis (T4 or T5)	30	0	0	30	—
PD6544	Practice Ethics & Risk Management Considerations (T5 or T6)	15	0	0	15	—
WC5422	Western Pharmacology & Toxicology (T4 or T5)	30	0	0	30	2.00
WC5421	Neurophysiology of Acupuncture (T4 or T5)	30	0	0	30	—
WI6501	Integrative Biomedicine I	22.5	15	0	37.5	2.00
TM5492L	Rehab & Physical Therapy of Oriental Medicine (T5 or T6)	0	30	0	30	—
TM5491L	Advanced Tui Na (T5 or T6)	0	30	0	30	1.00
CL5573L	Associate Internship 3	0	0	60	60	2.00
CL5574L	Associate Internship 4	0	0	60	60	2.00
<i>Senior Internship Advanced Examination</i>						
<b>Totals</b>		<b>195</b>	<b>60</b>	<b>120</b>	<b>375</b>	<b>19.00</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>202.5</b>	<b>45</b>	<b>120</b>	<b>367.5</b>	<b>19.00</b>

**\*Some courses are offered in alternate trimesters, for example (T4 or T5) or (T5 or T6).**



<b>MSAc - Sixth Trimester (T6)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
OS6531	Advanced Seminar 1 (T6 or T7)	30	0	0	30	2.00
OS6532	Advanced Seminar 2 (T6 or T7)	30	0	0	30	2.00
OS6533	Advanced Seminar 3 (T6 or T7)	30	0	0	30	—
OS6534	Advanced Seminar 4 (T6 or T7)	30	0	0	30	—
TM5492L	Rehab & Physical Therapy of Oriental Medicine (T5 or T6)	0	30	0	30	1.00
TM5491L	Advanced Tui Na (T5 or T6)	0	30	0	30	—
PD6541	Doctor & Patient Relationship (T5 or T6)	30	0	0	30	2.00
AC6452	Acupuncture Treatment Strategy (T5 or T6)	30	0	0	30	—
WD6441	Western Physical Diagnosis (T5 or T6)	30	0	0	30	2.00
OM6453	Nutrition & Food Therapy of Oriental Medicine (T5 or T6)	30	0	0	30	—
WT6455	Western Diet & Nutrition (T6 or T7)	15	0	0	15	1.00
WC5423	Psychopathology & Health Psychology (T6 or T7)	30	0	0	30	—
PD6544	Practice Ethics & Risk Management Considerations (T5 or T6)	15	0	0	15	1.00
CL6581L	Acupuncture Senior Internship 1	0	0	60	60	2.00
CL6582L	Acupuncture Senior Internship 2	0	0	60	60	2.00
CL6583L	Acupuncture Senior Internship 3	0	0	60	60	2.00
<b>Totals</b>		<b>150</b>	<b>30</b>	<b>180</b>	<b>360</b>	<b>17.00</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>135</b>	<b>30</b>	<b>180</b>	<b>345</b>	<b>16.00</b>

\* Some courses are offered in alternate trimesters, for example (T5 or T6) or (T6 or T7).

<b>MSAc - Seventh Trimester (T7)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
OS6531	Advanced Seminar 1 (T6 or T7)	30	0	0	30	—
OS6532	Advanced Seminar 2 (T6 or T7)	30	0	0	30	—
OS6533	Advanced Seminar 3 (T6 or T7)	30	0	0	30	2.00
OS6534	Advanced Seminar 4 (T6 or T7)	30	0	0	30	2.00
WT6455	Western Diet & Nutrition (T6 or T7)	15	0	0	15	—
WC5423	Psychopathology & Health Psychology (T6 or T7)	30	0	0	30	2.00
CL6584L	Acupuncture Senior Internship 4	0	0	60	60	2.00
CL6585L	Acupuncture Senior Internship 5	0	0	60	60	2.00
CL6586L	Acupuncture Senior Internship 6	0	0	60	60	2.00
CL6587L	Acupuncture Senior Internship 7	0	0	60	60	2.00
<i>Comprehensive Graduation Examination</i>						
<b>Totals</b>		<b>90</b>	<b>0</b>	<b>240</b>	<b>330</b>	<b>14.00</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>105</b>	<b>0</b>	<b>240</b>	<b>345</b>	<b>15.00</b>
<b>Grand Totals</b>		<b>1177.5</b>	<b>435</b>	<b>840</b>	<b>2460</b>	<b>121.00</b>

\* Some courses are offered in alternate trimesters, for example (T6 or T7).

# Master of Science in Acupuncture (MSAc) Course Descriptions

Effective January 2023, this program will change to the Master of Acupuncture (MAc) program.

## **AC4461                                      Meridian Theory & Point Location 1                                      Credits 2.5**

This course begins with an introduction to the meridians of acupuncture and how they form a complete circuit throughout the body. Relevant scientific research will be presented that examines the meridians and Qi in light of technological advances that are now able to detect them. Each channel will be studied, both its internal and external branches, and every student is encouraged to become aware of the energetics of the meridians as they are being palpated and understood. The six energetic axes are introduced along with how they correspond to different energetic zones in the body. Using lecture, demonstration, and small group practice, students learn the precise location for all of the acupuncture points on the 12 main channels, as well as the conception/ren and governing/du channels. Other commonly used extra points will be taught as well. Using the Chinese anatomical measurement system (cun) as well as precise anatomical landmarks, students palpate each point, learning location, depth, insertion technique, and contraindications. Adopted by the World Health Organization, students learn the nomenclature (name and number) for each point in English, and learn certain classical points in Chinese as well.

Prerequisite or Co-requisite: WB4440

## **AC4462                                      Meridian & Point Energetics 1                                      Credits 2.0**

This course focuses on the energetic properties and functions of the acupuncture points. Each point is studied individually as well as in comparison to other points on the meridian, and with points on different meridians with similar functions. The theory and usage of each acupuncture point is discussed in depth, along with special categories and groupings of points, e.g. lux connecting points, yuan source points, xi-cleft points, five element points, and mu and shu points. Methods of combining points into effective treatment prescriptions are discussed in depth; students learn how to select appropriate point combinations to effectively treat corresponding patterns of disease. In this two-series course, 12 regular meridian points, eight extraordinary meridian points, and major extra points will be covered.

Prerequisite: OM4405

## **AC4463                                      Meridian Theory & Point Location 2                                      Credits 2.5**

This is a continuation of Meridian Theory and Point Location 1. This follows-up and continues with the remaining primary and branch Meridians and points that were not covered in Meridian Theory and Point Location 1. The remaining points and meridians will be taught and students will learn the exact location of points and continue to develop their palpation skills. Identification of the English, Chinese, and Korean names of the points and their meaning in relationships will be focused on. Anatomical structures and landmarks will also be taught, along with contrary indications and precautionary measures.

Prerequisite or Co-requisite: WB4440

## **AC4464                                      Meridian & Point Energetics 2                                      Credits 2.0**

This second in a series, this course continues focusing on the energetic properties and functions of each acupuncture point.

Prerequisite: OM4405

## **AC5471                                      Acupuncture & Clean Needle Technique                                      Credits 2.0**

Combining classroom lecture, demonstration, and supervised practice, this course lays the foundation for acquiring clinical acupuncture skills. This course starts with the introduction of acupuncture travel kit. This course will emphasize establishing and maintaining clean fields, and application of aseptic and sterile procedures. Universal precautions, including HIV/AIDS, HBV, and clean needle technique as set forth in the NCCAOM guidelines will be introduced. This course will also address emergency care in the acupuncture clinic such as patient fainting, semi-coma, severe nausea, vomiting, etc. Students will develop the basic skills of needling, including insertion and withdrawal, correct angle, depth, manipulation, and withdrawal of needles, tonification, and sedation techniques. Special emphasis is placed on developing De Qi sensitivity to patients' reactions to these procedures, as well as to safe techniques, precautions, and contraindications, and learning to recognize and respond to adverse treatment

reactions. Students will spend significant time practicing needle insertion and withdrawal in small groups (three students per group). By the end of this course, students will be prepared to successfully pass the Clean Needle Technique exam sponsored by the Council of Colleges of Acupuncture and Oriental Medicine (CCAOM).

Prerequisites: AC4461, AC4463

**AC5472**

**Acupuncture & Accessory Techniques**

**Credits 1.0**

This course will train students in the use of the clinical tools and essential skills of the acupuncturist, direct and indirect moxa, cupping, Gua Sha, plum blossom, electrical stimulation, and blood-letting. In this course, students will learn not only various skills of different tools and modalities, but also what conditions can be used with which tools or modalities. Students will sharpen their needle handling techniques as well.

Prerequisite or Co-requisite: AC5471

**AC6452**

**Acupuncture Treatment Strategy**

**Credits 2.0**

This course will cover general theoretical and practical rules of acupuncture treatment including the principles of treatment and the basic guidelines for acupuncture point selection and combination of points among the five shu points, five element acupuncture, xi-cleft, yuan source, back-shu, front-mu, lux-connecting, eight confluent points, four and six command points, long distance vs. local point, etc.

Prerequisites: OM5441, OM5442

**AC6481**

**Microsystems & Advanced Acupunctures**

**Credits 2.0**

Building on the skills already learned, students are introduced to a variety of specialized techniques of microsystem acupuncture, including scalp acupuncture, auricular acupuncture, Korean hand acupuncture, and cosmetic acupuncture. In this course, students are exposed to various styles of acupuncture techniques, furthermore, specific clinical applications of these techniques will be discussed based on various case presentations. Students will also be introduced to various unique acupuncture disciplines such as Saam Five Phase acupuncture, Japanese meridian acupuncture, Tong's acupuncture, etc. From this course, students will be inspired for further research and pursuing continuing education for a variety of styles of acupuncture.

Prerequisite: AC5471

**CL4561L**

**Clinic Observation 1**

**Credits 2.0**

The clinic observation courses are divided into three progressive stages. The first stage of observation is designed for beginning students to observe the clinical set-up and treatment procedures in acupuncture and oriental medicine. During this stage, the students observe how to perform history taking, physical examination, oriental medical diagnosis/differentiation, treatment plans, and acupuncture. The students get to observe how the basic theories they are learning are directly applied and realized in clinical practice. The observer is an integral part of the clinical experience at National University, and is involved throughout the clinic shift. Each observer is required to keep a clinic worksheet, which is graded at the end of the trimester. Here they record the clinic procedures, history, tongue, pulse, diagnosis, points and/or herbs used along with patient reactions, etc. There is also room for questions, personal observations, and other issues that can then be discussed with clinicians.

Prerequisite: None

**CL4562L**

**Clinic Observation 2**

**Credits 2.0**

In the second part of observation, the observer fulfills certain responsibilities in assisting the treating intern during each clinic shift, such as Gua Sha, Tui Na, and other simple non-invasive and non-provocative procedures.

Prerequisite: None

**CL4563L**

**Clinic Observation 3**

**Credits 2.0**

During this last stage of observation, the observer will progressively work toward increased involvement with supervised patient interactions. The observers will assist as needed in taking patient histories and familiarize themselves with writing SOAP notes (specific form in the NUHS AOM clinic) with supervision. Stage 3 observers will be familiar with diagnostic procedures and with formulating acupuncture therapy protocols and other treatment protocols with close supervision of clinician.

Prerequisites: AC4461, AC4463, CL4561, OM4405, OM4406

***\* Students must be available to cover the assigned clinic shift at the specified NUHS Whole Health Center and/or other assigned clinic facility, as hours vary at each location in order to serve the needs of patients and the community.***

**CL5571L Associate Internship 1 Credits 2.0**

The first stage of the clinical internship begins in Trimester 4, as students move out of the observation phase and begin to treat patients. Under close supervision, the intern conducts the patient interview including tongue and pulse diagnosis, and in collaboration with the supervisor makes a diagnosis and plans an acupuncture treatment. They then perform the acupuncture treatment with the clinical supervisor who is physically present at all times during the associate intern's diagnosis and treatment of the patient. At the end of each clinic shift, each intern has a chance to direct questions to their supervisor and get feedback. Interns are responsible for writing all of their medical records including history taking. During their associate internships, MSOM interns are not allowed to prescribe herbs for patients, but interns will discuss herbal formula if supervisor prescribes one.

Prerequisites: CPR certificate, AC5471L, CL4563L, blood-borne pathogen training, immunization record

**CL5572L Associate Internship 2 Credits 2.0**

Prerequisites: Successful completion of clinic foundational exam, CPR certificate, CL4563L

Prerequisite or Co-requisite: CL5571L

**CL5573L Associate Internship 3 Credits 2.0**

Throughout this second stage of clinical work, associate interns will continue the same work they did in the Associate Internships 1 and 2 and will gain further confidence and experience. The interns are able to continually add to and refine their diagnostic skills as well as their acupuncture techniques. More competency is required in the later trimesters, as interns are expected to take on more responsibility in treatment planning and patient education. During their associate internships, MSOM interns are not yet allowed to prescribe herbs for patients, but interns will discuss herbal formulas if the supervisor prescribes one.

Prerequisite or Co-requisite: CL5571L, CL5572L

**CL5574L Associate Internship 4 Credits 2.0**

Prerequisite or Co-requisite CL5571L, CL5572L, CL5573L

**CL6581L Acupuncture Senior Internship 1 Credits 2.0**

The different levels of clinic internships are designed to be progressive. To take this level of acupuncture, senior interns have to complete all of the prior levels of internships. From this level of training, the interns will be more independent and assume the role of primary care giver even though the interns will still have supervision from a licensed clinician. During this final stage of acupuncture senior internship, the interns must exhibit not only well developed skills in taking a history, performing physical exams, developing a diagnosis, prescribing acupuncture points, and choosing other treatment modalities, but also they must pay special attention to communication skills, patient education, marketing, insurance billing, and Illinois acupuncture policies, and so on. Even though senior acupuncture interns are independently practicing, they are still required to discuss their diagnosis with their findings and then submit their treatment plan including acupuncture and its accessories, diet and exercise protocol to their supervisor before performing their treatment or/and counseling their patients. The clinic supervisor does not have to be present in the examination room during the treatment although he/she must be available in the clinic.

Prerequisites: Successful completion of senior internship advanced exam, CL5571L, CL5572L, CL5573L, CL5574L

**CL6582L Acupuncture Senior Internship 2 Credits 2.0**

Prerequisites: Successful completion of senior internship advanced exam, CL5571L, CL5572L, CL5573L, CL5574L

Prerequisite or Co-requisite: CL6581L

**CL6583L Acupuncture Senior Internship 3 Credits 2.0**

Prerequisites: Successful completion of senior internship advanced exam, CL5571L, CL5572L, CL5573L, CL5574L

Prerequisite or Co-requisite: CL6581L, CL6582L

<b>CL6584L</b>	<b>Acupuncture Senior Internship 4</b>	<b>Credits 2.0</b>
Acupuncture Senior Internships 4 - 7 are the continuation of Acupuncture Senior Internships 1 - 3. During this internship, interns will pursue their own style of practice with their supervisor's permission and help. All practice modalities and scope of practice should be limited to what they learned from the curriculum or electives offered by the NUHS AOM program.		
Prerequisite or Co-requisite: CL6583L		
<b>CL6585L</b>	<b>Acupuncture Senior Internship 5</b>	<b>Credits 2.0</b>
Prerequisites: CL6583L or Co-requisite CL6584L, OS6531, OS6532, OS6533, OS6534		
<b>CL6586L</b>	<b>Acupuncture Senior Internship 6</b>	<b>Credits 2.0</b>
Prerequisite or Co-requisite: CL6583L or Co-requisite CL6585L		
<b>CL6587L</b>	<b>Acupuncture Senior Internship 7</b>	<b>Credits 2.0</b>
Prerequisite or Co-requisite: CL6583L or Co-requisite CL6586L		
<b>ID4541L</b>	<b>Tai Chi</b>	<b>Credits 1.0</b>
Students learn the fundamentals of Tai Chi, a moving meditation that harmonizes the body and mind. Tai Chi also is an excellent way to become aware of one's own Qi, the basis of Chinese medicine.		
Prerequisite: None		
<b>ID4542L</b>	<b>Medical Qi Gong</b>	<b>Credits 1.0</b>
Medical Qi Gong is one of the oldest branches of Chinese medicine, and is considered one of the most powerful. It is a therapeutic method that uses the training of the mind, the breath, and the physiological processes of the body for improving health and well being, maintaining body/mind balance and enhancing longevity. The first part of this course introduces a series of exercises and movements, which focus on cultivating one's internal energy, or qi. The second half of this course covers the movement and sensation of qi, as well as learning to guide qi internally through the meridians. Focus is on improving well-being and relieving symptoms of acute and chronic disorders. Students will be taught how to select different qi gong exercises according to various syndromes and disharmonies.		
Prerequisite: None		
<b>OM4405</b>	<b>Introduction to Oriental Medicine</b>	<b>Credits 3.0</b>
This course is designed to introduce the development processes and philosophical background of oriental medicine. Students will have an opportunity to explore great Chinese physicians as well as great philosophers. They will study the root of oriental medicine with focuses on the Taoism, Confucianism and Buddhism. The class will discuss the unique thinking process and the characteristic outlook of oriental medicine. Furthermore, the class will examine some of the different approaches to oriental medicine in other parts of Asia such as Korea and Japan. Students will study the transplantation of oriental medicine into the western world. By the end of the course, students will have an overall sense of the history, development and basic foundational principles of oriental medicine with an eye toward the future of the field and their place in it.		
Prerequisite: None		
<b>OM4406</b>	<b>Physiology of Oriental Medicine</b>	<b>Credits 3.0</b>
This course is a general introduction to oriental medicine in terms of Traditional Chinese/Oriental Medical Physiology. Students will learn to apply to the body the basic theories of oriental medicine: Yin/Yang, the concept of Qi, the Five Phases learned in the Introduction to Oriental Medicine class. Students will begin by looking at the Five Substances. The class will then move beyond these basic fundamental constituents of the body to the internal organs themselves, known as the Zang-Fu theory. Finally, the class will consider the primary question of etiology of disease in oriental medicine and the Three Categories of disease causes: Internal, External, and Miscellaneous (neither Internal nor External). Students will then be prepared to understand pathology in oriental medicine in future classes.		
Prerequisite: None		

In this course, the basic theory and characteristics of the etiology, pathology, sources of pathogens, and mechanisms of illness are covered. The topics include the six environmental excesses (Liu-Yin), seven emotions (Qi Qing), disharmony of Yin and Yang, the six channel pattern identification (Liu Jing Bian Zheng), and the abnormal function of Qi, blood, body fluid, and organs. General principles of treatment methods for each topic will be briefly covered. Prerequisites: OM4405 and OM4406

In this two-part course, students will learn different pattern diagnosis and introduction of treatment. This set of courses will cover the differentiation of patterns according to the different theories of oriental medicine. An in-depth discussion of the differentiation of patterns will include topics of pathological changes, Zhang-Fu patterns, I and blood patterns, six channel patterns, four aspect patterns, meridian and collateral patterns, San Jiao patterns, disease-evil patterns, and so on. The instructor will present how pattern identification applies to cases encountered in the NUHS AOM clinic. Treatment based on the differential diagnosis will be also discussed.

Prerequisite: OM4411

In this course, we build upon the basic theory and characteristics of the etiology, pathology, sources of pathogens and mechanisms of illness. Topics include six environmental excesses, seven emotions, disharmony of Yin and Yang, and abnormal functions of qi, blood, jin-ye, and organs. Causes of diseases include the exogenous and endogenous factors and along with stages of disease progression will be considered. General principles of treatment methods for each topic will be briefly discussed and evaluated.

Prerequisite: OM4411

This course introduces the Four Traditional Methods of Diagnosis: looking, hearing/smelling, asking, and feeling/palpating. The focus here is on tongue and pulse diagnosis. Students first learn the procedures of tongue inspection and pulse palpation by watching the instructor's demonstration and follow by performing and practicing the technique in class. Students also will identify and classify significant findings into eight principle categories in order to further understand them within the traditional patterns of disharmony. A significant amount of lab time will be spent on pulse diagnosis.

Prerequisites: OM4405, OM4406

The second course in the diagnosis series continues with the Four Traditional Methods of Diagnosis, focusing specifically on the Ten Questions and writing SOAP notes. After learning each of the 10 categories of questions and their significance in terms of diagnosis, students will practice patient interviewing, focusing on review of systems questionnaire of “confidential history,” combining it with the tongue and pulse exams. In this course, students will also learn how to palpate certain categories of points — mu and shu points, source points, ashi points, etc. — as part of the diagnostic procedures and will learn what important information can be gained. There will be significant lab time available for practicing all of these skills. Students will submit three full sets of mock patient medical records including review of systems questionnaire, “confidential history,” by the end of the course.

Prerequisites: OM4405, OM4406

The format of this course will be case presentation. Students will have the opportunity to learn to incorporate the different models of pattern diagnoses and theories of oriental medicine based on clinical cases, and to develop accurate, fluent and sophisticated diagnoses, treatment plans and point selections for each patient as a unique individual. Included in these discussions are the patient-intern relationship, case management and referral, and general patient care issues. Special factors or symptoms are presented to help the student recognize the potential for increased risk to the patient, for example: cases such as the diabetic patient, the immune-compromised patient, etc.; when to modify standard therapeutic approaches, such as when treating infants and children or women who

Prerequisite: OM5442

<b>OM6453</b>	<b>Nutrition &amp; Food Therapy of Oriental Medicine</b>	<b>Credits 2.0</b>
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Prerequisites: OM4405, OM4406

In this seminar series, students integrate all of the subjects that they have studied over the past two years. The format used to integrate this information is case-based seminars. A few of the topics covered include: chronic pain management, orthopedics, internal disorders, obstetrics and gynecology, pediatrics, geriatrics, dermatology, allergies, infertility, emergency care, and so on. However, this Advanced Seminar 1 will mainly focus on chronic pain management and neuromusculoskeletal conditions. Some seminar presentations may involve a patient in the grand rounds setting whenever possible. The class may be composed of large and small group activities. The large group session will present the case, introduce the related topics, and wrap up the case. Each small group session is responsible for a report on the cases that include: full patient information and physical examination results based on traditional four diagnosis methods and western medicine; differential diagnosis and assessments; principles of treatment; treatment protocol with specific acupuncture points and their point selection rationales; accessory techniques and prognosis. Students will also discuss patient management, business management and practice ethics, and proper patient referral to other health care providers.

OS6532	Advanced Seminar 2	Credits 2.0
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**Prerequisites or Co-requisites:** CL5571L, CL5572L, OM6451

In this seminar series, students integrate all of the subjects that they have studied over the past two years. The format used to integrate this information is case-based seminars. A few of the topics covered include: chronic pain management, orthopedics, internal disorders, obstetrics and gynecology, pediatrics, geriatrics, dermatology, allergies, infertility, emergency care, and so on. However, this Advanced Seminar 3 will mainly focus on gastrointestinal, renal, and OB/GYN conditions. Some seminar presentations may involve a patient in the grand rounds setting whenever possible. The class may be composed of large and small group activities. The large group session will present the case, introduce the related topics, and wrap up the case. Each small group session is responsible for a report on the cases that include: full patient information and physical examination results based on traditional four diagnosis methods and western medicine; differential diagnosis and assessments; principles of



treatment; treatment protocol with specific acupuncture points and their point selection rationales; accessory techniques and prognosis. Students will also discuss patient management, business management and practice ethics, and proper patient referral to other health care providers.

Prerequisites or Co-requisites: CL5571L, CL5572L, OM6451

**OS6534**

**Advanced Seminar 4**

**Credits 2.0**

In this seminar series, students integrate all of the subjects that they have studied over the past two years. The format used to integrate this information is case-based seminars. A few of the topics covered include: chronic pain management, orthopedics, internal disorders, obstetrics and gynecology, pediatrics, geriatrics, dermatology, allergies, infertility, emergency care, and so on. However, this Advanced Seminar 4 will mainly focus on geriatric, pediatric, and multiple system-related conditions. Some seminar presentations may involve a patient in the grand rounds setting whenever possible. The class may be composed of large and small group activities. The large group session will present the case, introduce the related topics, and wrap up the case. Each small group session is responsible for a report on the cases that include: full patient information and physical examination results based on traditional four diagnosis methods and western medicine; differential diagnosis and assessments; principles of treatment; treatment protocol with specific acupuncture points and their point selection rationales; accessory techniques and prognosis. Students will also discuss patient management, business management and practice ethics, and proper patient referral to other health care providers.

Prerequisites or Co-requisites: CL5571L, CL5572L, OM6451

**PD6541**

**Doctor & Patient Relationship**

**Credits 2.0**

This course is designed to sensitize students to the patient's life situation and stimulate self-observation as students interact with patients. Lecture and discussion topics include: structures in doctor/patient interaction; models of the doctor/patient interaction; doctor/patient boundaries; the impact of the doctor/patient relationship on health care outcomes; the impact of the doctor/patient relationship on patient satisfaction; culturally responsive health care; the sociological context of patient suffering; co-creation of the patient's story in a therapeutic relationship; death, dying and palliative health care; management of the abused patient; and the doctor's responsibilities to the community and society. Group time will be used to discuss and practice relationship issues through guest case presentations, structured interpersonal exercises, article reviews, and discussion.

Prerequisite: None

**PD6542**

**Evidence-Based Practice**

**Credits 2.0**

As professional health care practitioners, it is important to strive to educate oneself on the efficacy of one's applied art. The research literature provides the knowledge base to make sound clinical judgments in both diagnosis and treatment of health conditions. This course provides a means for developing the skills needed to critically evaluate research literature in general, and research literature specifically pertaining to complementary and alternative medicine. The topics covered include research design, validity and reliability, bias, searching the literature, critical appraisal of the literature, and elementary statistical methods of data analysis. Prerequisite: None

**PD6543**

**Business, Marketing, and Practice Management**

**Credits 2.0**

This course focuses on many of the various practice-related issues that face the acupuncture and/or oriental medicine practitioner. Topics addressed in this class include: writing a curriculum vitae; investigating various practice types; writing narrative reports; the informed consent process; marketing concepts for the practice with preparation of a comprehensive marketing plan; preparation of a comprehensive business plan; successful interviewing techniques; vicarious liability and independent contact issues; record keeping requirements; creating an effective referral network; and personal and professional insurance needs.

Prerequisite: None

**PD6544**

**Practice Ethics & Risk Management Considerations**

**Credits 1.0**

This course focuses on many of the various practice-related risk management and provider/patient communication issues that face the acupuncture and/or oriental medicine practitioner. Topics addressed in this class include: boundary issues and preventive strategies involving sexual boundaries; treating friends and family members; self-disclosure; gifts and trade-offs; dual relationships; language; physical examination; physical contact; time and

duration of appointments. Additional topics include: a health care provider's duties, responsibilities, and professional standards of care; a provider's duty regarding vicarious liability and the independent contract

relationship; elements of successful communication skills in provider/patient relationships; recognizing and managing difficult/predatory patients; and should you say you're sorry if you hurt a patient?

Prerequisites: None

**TM4491L**

**Tui Na**

**Credits 1.0**

Tui Na is a traditional meridian bodywork therapy that originated in China over 2,000 years ago. It involves a variety of techniques including rolling, tapping, and pressure used for treating a broad range of disorders including orthopedic and stroke rehabilitation. It is also a widely used modality in pediatrics. In this course, students gain a working knowledge of basic Tui Na techniques, the general body routine, and Tui Na exercises to strengthen the body's constitution. An emphasis will be made on integrating Tui Na with oriental as well as biomedical evaluation and treatment methods of common disorders.

Prerequisite: None

**TM4492L**

**Asian Body Work**

**Credits 1.0**

In this course, students will learn many different forms of basic soft tissue works such as shiatsu, anma, acupressure, and so on. Students will learn meridian based acupressure or anma for various conditions of patient care.

Prerequisite: None

**TM5491L**

**Advanced Tui Na**

**Credits 1.0**

In this course, students will be introduced to more advanced skills of Tui Na while they sharpen the skills they have previously learned from the basic course.

Prerequisite: [TM4491](#)

**TM5492L**

**Rehabilitation & Physical Therapy of Oriental Medicine**

**Credits 1.0**

Students will learn modern oriental medicine rehabilitation based on oriental medicine theory. Students will also learn hydrotherapy, infrared, ultrasound, Kinesio Taping, and many other newly developed equipment and tools. While learning function, indications, and contraindications of each modality, students will also discuss safety and legal issues.

Prerequisites: TM4491L, TM4492L

**WB4400**

**Palpation Skills**

**Credits 0.5**

This course is designed for students to learn through study and practical exploration of the assessment of the skin, superficial fascia, and veins. Students will also develop palpation skills of the major superficial muscles, tendons, ligaments, and bony landmarks of the spine and extremities. Students will develop basic hands-on palpation skills and also will focus on the assessment of joint motions and normal posture.

Prerequisite: None

**WB4401**

**Western Medical Terminology**

**Credits 1.0**

This course will introduce students to key word parts associated with body systems, disorders, conditions, procedures, and medical specialties. It will show students how to decipher difficult medical terms by breaking them down into these components. Pronunciation of the terms will be covered as well.

Prerequisite: None

**WB4402**

**Human Anatomy**

**Credits 2.5**

Students will learn through cadaver dissection in lecture and laboratory. Lecture will cover the basic concepts of human anatomy with an emphasis on the cutaneous part of the human body. Students will discuss the function of major muscles and clinical and pathological conditions that present frequently in the clinic. In the laboratory, students will discover the relationship between anatomical structures, meridians, and major acupuncture points.

Prerequisite: None

**WB4404** **Principles of Biochemistry** **Credits 1.0**

This course presentation starts with an introduction to the concepts of bio-molecules in the human body such as carbohydrates, lipids, proteins, and nucleic acid, etc. This course will also introduce the metabolic mechanism and processes involved in producing and transforming these molecules to generate energy for the body. Students will also be provided with a basis for understanding nutrition on a biochemical level, covering vitamins, minerals, co-enzymes, etc.

Prerequisite: None

**WB4405** **Neurology** **Credits 2.0**

This course will serve as an introduction to the general neurological system. Knowledge of the neurological system is essential to understand the scientific basis and mechanisms of acupuncture. Topics covered in this course include the histology, anatomy, and physiology of the nervous system. The central, peripheral, and autonomic nervous systems, as well as the cranial nerves will be presented. The major nerve plexuses are discussed along with the common clinical pathologies.

Prerequisite: None

**WB4407** **Western Anatomy and Physiology** **Credits 3.0**

In this course, students will learn in lecture and laboratory formats, the normal anatomy, and physiology of the major organ systems of the human body. The organ systems discussed are the cardiovascular, respiratory, lymphatic, endocrine, urinary, digestive, and reproductive as well as neuroanatomical structures. In addition, the interrelationships between organ systems will be explained as well as the interrelationships between structure and function of the organs and organ systems. The gross anatomy laboratory sessions will be presented using a regional approach and will be designed to support the lecture sessions and address related basic science issues.

Prerequisite: None

**WB4411** **Microbiology, Immunology & Public Health** **Credits 3.0**

This course provides an introduction to microorganisms, immunology, public health, and their interaction with humans; concepts in public health as applied to communicable and non-communicable diseases; and an introduction to the basic changes in the morphology of the cells, tissues, and organs in diseased states. Extensive use of visual aids using the latest computer technology will aid students in visualizing and understanding these various fundamental topics. The appropriate clinical correlation with case studies is discussed as well.

Prerequisite or Co-requisite: WB4401

**WB4412** **Western Pathology** **Credits 3.0**

Considered in this course are the pathologies peculiar to and characteristic of the various systems of the body. The pathologies examined include myopathy, neuropathy, bone and joint pathology, immunopathology, hematopathology, and dermatopathology. Each condition is studied from the standpoint of general characteristics, gross and microscopic appearance, and clinical course. The systems examined include neurological, respiratory, cardiovascular, reproductive and mammary, gastrointestinal (inclusive of liver, gall bladder and pancreas), urinary, and endocrine.

Prerequisite or Co-requisite: WB4401

**WC5421** **Neurophysiology of Acupuncture** **Credits 2.0**

In this course, students will discuss acupuncture from a different angle. This course investigates how modern western scientific research starts unveiling the mystical functions and action mechanisms of acupuncture, and the relationship between acupuncture stimulation and brain reaction. By discussing current western research achievement about acupuncture, students will understand the neurological, physiological, and chemical basis of the acupuncture action mechanisms and its functions. Students will be inspired by this course to connect 5,000 years of traditional eastern acupuncture into modern western science.

Prerequisites: WB4401, WB4405

**Credits 2.0**

This course provides a basic understanding of the use of drugs in western medicine for the treatment of disease. Topics covered in this course will be descriptions of drug names and classification, general principles of drug action and metabolism. Factors influencing drug action and drug safety are addressed, too. This course also will discuss the drug actions on body systems including the entire major organ systems and the disorders and diseases in each of the systems. Included will be a description of the mechanism of action, major untoward effects and contraindications for each drug and drug category. A large part of this lecture will be focused on interactions with other drugs, Chinese herbs, and botanicals. Drug action on infection and immune system regulation as well as chemical dependency and substance abuse will be described. A discussion of poisons and their antidotes is included.

Prerequisite: WB4401, WB4404

**Credits 2.0**

This course includes:

- (i) review and discussion of the major topics in health psychology including examination of the relationships of psychopathology, lifestyle, and personal relationships to physical health. Topics include risk factors and treatments for physical disorders such as cardiovascular disease, cancer and chronic pain, as well as the exploration of the co-morbidity of physical and psychological disorders;
- (ii) an examination of the nine basic categories of psychopathology (depression, anxiety, somatoform, substance use disorders, sleep disorders, eating disorders, sexual dysfunction, cognitive disorders, and psychosis) with emphasis on screening, diagnosis, and management in a primary care setting. Students are asked to review current theories and their implication for practice.

Prerequisite: None

**Credits 1.0**

In this course, students will practice general physical exams of common western medical conditions through oriental and western medical integrative forms. In the lectures and lab, students will learn history taking, vitals, and general physical exams and their procedures. The students will be familiar with the major individual exam skill performance while they practice head-to-toe sequence exams. The course will also cover patient referral to other health care professions. Students will also practice SOAP note writing based on the NUHS AOM clinic patient SOAP note form.

Prerequisites: WB4401

Co-requisites: WB4407

**Credits 1.0**

This laboratory course will cover the neurological examination and orthopedic examinations. Students will learn how to test the neurological systems including dermatome testing, muscle testing, deep tendon reflexes, etc. Students will also learn how to perform orthopedic examinations of the major joint systems of the human body. The examinations will help the student to determine if a lesion is present and the location of the lesion.

Prerequisites: WB4401, WB4402

**Credits 2.0**

The basic principles of the major modalities of diagnostic imaging are discussed. The major outcomes include learning normal and common abnormal findings on conventional X-ray studies and becoming familiar with common abnormal findings yielded by the following modalities: conventional X-ray, MRI, CT, and nuclear imaging. This course is designed for the acupuncture practitioner in general practice who will request and receive radiographic and advanced diagnostic imaging reports and will learn how to apply this information to the overall patient status/disease process. Basic interpretation of such reports, knowing when and how to request them, and how to apply the information contained in the radiology report to their patient's condition is a major learning outcome.

Prerequisites: WB4401, WB4402, WB4412

**Credits 2.0**

The clinical laboratory plays a major role in the education of the student. Today's technology allows the health practitioner to examine the depths of the body in ways that were only imaginable a few short years ago. The modern

health care provider, especially acupuncturist, needs to be able to know in what situations patients should be referred for diagnostic tests, how to interpret the information relative to its diagnostic or informative value, what other tests relate to this information, and what are the disadvantages or possibilities of error or false positive results. In this course, these aspects are addressed with regard to the common profiles of hematology, chemistries, urinalysis, fecal, and sputum studies.

Prerequisites: WB4401, WB4407, WB4411, WB4412

**WD6441**

**Western Physical Diagnosis**

**Credits 2.0**

This course introduces the student to the methods used in the diagnosis and management of common conditions. The students in this course develop skills in interpretation, evaluation and correlation of normal and abnormal physical findings. Discussions concentrate on the development of diagnostic acumen and conservative management of selected conditions.

Prerequisites: WD4441L, WD4442L

Co-requisite: WD5441

**WI6501**

**Integrative Biomedicine**

**Credits 2.0**

This course will review and sharpen core biomedicine knowledge and skills and focus on the comprehensive application of acquired cognitive knowledge, psychomotor clinical skills, and affective senses in actual clinical case problem-solving. In this course, students will discuss how to utilize and integrate the different subjects from each biomedicine class into real clinical case problem-solving situations. Students will also contend how to apply medical knowledge, manage patient care effectively, demonstrate professionalism, interpersonal and communication skills, and utilize all other appropriate information, while integrating the basic science and basic western diagnostic skills with certain treatment plans. Students will also review specific exam skills and be required to practice a hands-on format. The materials in this class will be delivered through class meetings and/or an online basis.

Prerequisites: WB4400, WB4401, WB4402, WB4411, WB4412, WD4441, WD4442

Prerequisites or Co-requisites: WC5421, WC5422, WD5441, WD5442, PD6542

**WT6455**

**Western Diet & Nutrition**

**Credits 1.0**

This course provides a basic understanding of the vital role of the western diet and nutrition in an overall approach to patient care. Topics will cover principles of human nutrition that stress a review of the macronutrients and micronutrients with emphasis on the health properties of each as well as the severe deficiency states for both micronutrients and macronutrients. Digestion, absorption, and transport of the nutrients, and consequences of malabsorption care are covered. Energy production, energy balance, and weight management are also described. Food habits in the United States and nutrition across the life cycle are discussed in the course. Male and female health, sports and exercise nutrition, enteral and parenteral nutrition procedures as well as an introduction to the science of food preparation and handling are included. An introduction to nutritional status assessment using food frequency questionnaires and diet history is given.

Prerequisite: WB4404

## Courses of the Master of Science in Oriental Medicine (MSOM) Curriculum

Effective January 2023, this program will change to the Master of Acupuncture, with an emphasis in Chinese Herbal Medicine (MAc-CHM) program.

<b>MSOM - First Trimester (T1)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
OM4405	Introduction to Oriental Medicine	45	0	0	45	3.00
OM4406	Physiology of Oriental Medicine	45	0	0	45	3.00
AC4461	Meridian Theory & Point Location 1	30	15	0	45	2.50
AC4463	Meridian Theory & Point Location 2	30	15	0	45	2.50
TM4492L	Asian Body Work (T1 or T2)	0	30	0	30	—
TM4491L	Tui Na (T1 or T2)	0	30	0	30	1.00
WB4400	Palpation Skills	0	15	0	15	0.50
WB4401	Medical Terminology	15	0	0	15	1.00
WB4407	Western Anatomy & Physiology (T1 or T2)	37.5	15	0	52.5	3.00
WB4402	Human Anatomy (T1 or T2)	15	45	0	60	2.50
WB4404	Principles of Biochemistry (T1 or T2)	15	0	0	15	1.00
WB4405	Neurology (T1 or T2)	30	0	0	30	—
<b>Totals</b>		<b>217.5</b>	<b>90</b>	<b>0</b>	<b>307.5</b>	<b>17.50</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>195</b>	<b>120</b>	<b>0</b>	<b>315</b>	<b>17.00</b>

\* Some courses are offered in alternate trimesters, for example (T1 or T2).

<b>MSOM - Second Trimester (T2)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
OM4411	Etiology & Pathogenesis of Oriental Medicine	45	0	0	45	3.00
OM5471	Diagnosis & Skills of Oriental Medicine 1	22.5	15	0	37.5	2.00
AC4462	Meridian and Point Energetics 1	30	0	0	30	2.00
TM4492L	Asian Body Work (T1 or T2)	0	30	0	30	1.00
TM4491L	Tui Na (T1 or T2)	0	30	0	30	—
WB4407	Western Anatomy & Physiology (T1 or T2)	37.5	15	0	52.5	3.00
WB4402	Human Anatomy (T1 or T2)	15	45	0	60	2.50
WB4404	Principles of Biochemistry (T1 or T2)	15	0	0	15	—
WB4405	Neurology (T1 or T2)	30	0	0	30	2.00
WD4441L	Western Physical Exam (T2 or T3)	0	30	0	30	1.00
WD4442L	Neuromusculoskeletal Exam (T2 or T3)	0	30	0	30	—
WB4412	Western Pathology (T2 or T3)	45	0	0	45	—
WB4411	Microbiology, Immunology & Public Health (T2 or T3)	45	0	0	45	3.00
CL4561L	Clinic Observation 1	0	0	60	60	2.00
<b>Totals</b>		<b>187.5</b>	<b>120</b>	<b>60</b>	<b>367.5</b>	<b>18.50</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>210</b>	<b>90</b>	<b>60</b>	<b>360</b>	<b>19.00</b>

\* Some courses are offered in alternate trimesters, for example (T1 or T2) or (T2 or T3).

<b>MSOM - Third Trimester (T3)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
HM4511	Materia Medica 1	45	0	0	45	3.00
OM5472	Diagnosis & Skills of Oriental Medicine 2	22.5	15	0	37.5	2.00
OM5441	Differential Diagnosis of Oriental Medicine 1 (T3 or T4)	45	0	0	45	3.00
OM5442	Differential Diagnosis of Oriental Medicine 2 (T3 or T4)	45	0	0	45	—
AC4464	Meridian and Point Energetics 2	30	0	0	30	2.00
AC5471	Acupuncture & Clean Needle Technique	22.5	15	0	37.5	2.00
ID4542L	Medical Qi Gong (T3 or T4)	0	30	0	30	—
ID4541L	Tai Chi (T3 or T4)	0	30	0	30	1.00
WD4441L	Western Physical Exam (T2 or T3)	0	30	0	30	—
WD4442L	Neuromusculoskeletal Exam (T2 or T3)	0	30	0	30	1.00
WB4412	Western Pathology (T2 or T3)	45	0	0	45	3.00
WB4411	Microbiology, Immunology & Public Health (T2 or T3)	45	0	0	45	—
CL4562L	Clinic Observation 2	0	0	60	60	2.00
CL4563L	Clinic Observation 3	0	0	60	60	2.00
<i>Internship Foundational Examination</i>						
<b>Totals</b>		<b>210</b>	<b>90</b>	<b>120</b>	<b>420</b>	<b>21.00</b>

\* Some courses are offered in alternate trimesters, for example (T2 or T3) or (T3 or T4).



<b>MSOM - Fourth Trimester (T4)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
HM4512	Materia Medica 2 (T4 or T5)	45	0	0	45	3.00
HM4513	Materia Medica 3 (T4 or T5)	45	0	0	45	—
OM5441	Differential Diagnosis of Oriental Medicine 1 (T3 or T4)	45	0	0	45	—
OM5442	Differential Diagnosis of Oriental Medicine 2 (T3 or T4)	45	0	0	45	3.00
OM6451	Advanced Diagnosis & Treatment Strategy (T4 or T5)	30	0	0	30	2.00
AC6481	Microsystems & Advanced Acupunctures (T4 or T5)	22.5	15	0	37.5	—
AC5472	Acupuncture & Accessory Techniques	0	30	0	30	1.00
ID4542L	Medical Qi Gong (T3 or T4)	0	30	0	30	1.00
ID4541L	Tai Chi (T3 or T4)	0	30	0	30	—
PD6543	Business, Marketing & Practice Management (T4 or T5)	30	0	0	30	—
PD6542	Evidence-Based Practice (T4 or T5)	30	0	0	30	2.00
WD5442	Clinical Laboratory Diagnosis (T4 or T5)	30	0	0	30	—
WD5441	Imaging Diagnosis (T4 or T5)	30	0	0	30	2.00
WC5422	Western Pharmacology & Toxicology (T4 or T5)	30	0	0	30	—
WC5421	Neurophysiology of Acupuncture (T4 or T5)	30	0	0	30	2.00
CL5571L	Associate Internship 1	0	0	60	0	2.00
CL5572L	Associate Internship 2	0	0	60	0	2.00
<b>Totals</b>		<b>210</b>	<b>60</b>	<b>120</b>	<b>390</b>	<b>20.00</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>202.5</b>	<b>75</b>	<b>120</b>	<b>397.5</b>	<b>20.00</b>

\* Some courses are offered in alternate trimesters, for example (T3 or T4) or (T4 or T5).

<b>MSOM - Fifth Trimester (T5)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
HM4514L	Herbal Pharmacy Practicum	0	30	0	30	1.00
HM4512	Materia Medica 2 (T4 or T5)	45	0	0	45	—
HM4513	Materia Medica 3 (T4 or T5)	45	0	0	45	3.00
PD6541	Doctor & Patient Relationship (T5 or T6)	30	0	0	30	—
AC6452	Acupuncture Treatment Strategy (T5 or T6)	30	0	0	30	2.00
WD6441	Western Physical Diagnosis (T5 or T6)	30	0	0	30	—
OM6453	Nutrition & Food Therapy of Oriental Medicine (T5 or T6)	30	0	0	30	2.00
OM6451	Advanced Diagnosis & Treatment Strategy (T4 or T5)	30	0	0	30	—
AC6481	Microsystems & Advanced Acupunctures (T4 or T5)	22.5	15	0	37.5	2.00
PD6543	Business, Marketing & Practice Management (T4 or T5)	30	0	0	30	2.00
PD6542	Evidence-Based Practice (T4 or T5)	30	0	0	30	—
PD6544	Practice Ethics & Risk Management Considerations (T5 or T6)	15	0	0	15	—
WD5442	Clinical Laboratory Diagnosis (T4 or T5)	30	0	0	30	2.00
WD5441	Imaging Diagnosis (T4 or T5)	30	0	0	30	—
WC5422	Western Pharmacology & Toxicology (T4 or T5)	30	0	0	30	2.00
WC5421	Neurophysiology of Acupuncture (T4 or T5)	30	0	0	30	—
WI6501	Integrative Biomedicine I	22.5	15	0	37.5	2.00
CL5573L	Associate Internship 3	0	0	60	60	2.00
CL5574L	Associate Internship 4	0	0	60	60	2.00
<b>Totals</b>		<b>240</b>	<b>60</b>	<b>120</b>	<b>420</b>	<b>22.00</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>247.5</b>	<b>45</b>	<b>120</b>	<b>412.5</b>	<b>22.00</b>

\*Some courses are offered in alternate trimesters, for example (T4 or T5) or (T5 or T6).

<b>MSOM - Sixth Trimester (T6)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
HM5511	Herbal Formula 1 (T6 or T7)	45	0	0	45	3.00
HM5512	Herbal Formula 2 (T6 or T7)	45	0	0	45	—
OS6531	Advanced Seminar 1 (T6 or T7)	30	0	0	30	2.00
OS6532	Advanced Seminar 2 (T6 or T7)	30	0	0	30	2.00
OS6533	Advanced Seminar 3 (T6 or T7)	30	0	0	30	—
OS6534	Advanced Seminar 4 (T6 or T7)	30	0	0	30	—
PD6541	Doctor & Patient Relationship (T5 or T6)	30	0	0	30	2.00
AC6452	Acupuncture Treatment Strategy (T5 or T6)	30	0	0	30	—
WD6441	Western Physical Diagnosis (T5 or T6)	30	0	0	30	2.00
OM6453	Nutrition & Food Therapy of Oriental Medicine (T5 or T6)	30	0	0	30	—
WT6455	Western Diet & Nutrition (T6 or T7)	15	0	0	15	1.00
WC5423	Psychopathology & Health Psychology (T6 or T7)	30	0	0	30	—
PD6544	Practice Ethics & Risk Management Considerations (T5 or T6)	15	0	0	15	1.00
CL5591L	Herbal Associate Integrative Internship 1	0	0	60	60	2.00
CL5592L	Herbal Associate Integrative Internship 2	0	0	60	60	2.00
<b>Totals</b>		<b>195</b>	<b>0</b>	<b>120</b>	<b>315</b>	<b>17.00</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>180</b>	<b>0</b>	<b>120</b>	<b>300</b>	<b>16.00</b>

\* Some courses are offered in alternate trimesters, for example (T5 or T6) or (T6 or T7).

<b>MSOM - Seventh Trimester (T7)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
HM5511	Herbal Formula 1 (T6 or T7)	45	0	0	45	—
HM5512	Herbal Formula 2 (T6 or T7)	45	0	0	45	3.00
HM5513	Herbal Patent Medicine	15	0	0	15	1.00
HM6454	Herbal Treatment Strategy	45	0	0	45	3.00
OS6531	Advanced Seminar 1 (T6 or T7)	30	0	0	30	—
OS6532	Advanced Seminar 2 (T6 or T7)	30	0	0	30	—
OS6533	Advanced Seminar 3 (T6 or T7)	30	0	0	30	2.00
OS6534	Advanced Seminar 4 (T6 or T7)	30	0	0	30	2.00
WT6455	Western Diet & Nutrition (T6 or T7)	15	0	0	15	—
WC5423	Psychopathology & Health Psychology (T6 or T7)	30	0	0	30	2.00
CL5593L	Herbal Associate Integrative Internship 3	0	0	60	60	2.00
CL5594L	Herbal Associate Integrative Internship 4	0	0	60	60	2.00
CL5595L	Herbal Associate Integrative Internship 5	0	0	60	60	2.00
<i>Senior Internship Advanced Examination</i>						
<b>Totals</b>		<b>195</b>	<b>0</b>	<b>180</b>	<b>375</b>	<b>19.00</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>210</b>	<b>0</b>	<b>180</b>	<b>390</b>	<b>20.00</b>

**\*Some courses are offered in alternate trimesters, for example (T6 or T7).**

<b>MSOM - Eighth Trimester (T8)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
HS6531	Herbal Seminar 1 (T8 or T9)	30	0	0	30	2.00
HS6532	Herbal Seminar 2 (T8 or T9)	30	0	0	30	2.00
HS6533	Herbal Seminar 3 (T8 or T9)	30	0	0	30	—
HS6534	Herbal Seminar 4 (T8 or T9)	30	0	0	30	—
HM6524	Integration of Herbal Medicine (T8 or T9)	30	0	0	30	—
HM6523	Classics of Oriental Medicine (T8 or T9)	45	0	0	45	3.00
WT6456	Botanical Medicine	52.5	0	0	52.5	3.50
CL6601L	Herbal Senior Integrative Internship 1	0	0	60	60	2.00
CL6602L	Herbal Senior Integrative Internship 2	0	0	60	60	2.00
CL6603L	Herbal Senior Integrative Internship 3	0	0	60	60	2.00
CL6604L	Herbal Senior Integrative Internship 4	0	0	60	60	2.00
<i>Comprehensive Graduation Examination at the end of 9th Trimester (Week 12)</i>						
<b>Totals</b>		<b>157.5</b>	<b>0</b>	<b>240</b>	<b>397.5</b>	<b>18.50</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>142.5</b>	<b>0</b>	<b>240</b>	<b>382.5</b>	<b>18.50</b>

\* Some courses are offered in alternate trimesters, for example (T8 or T9).

<b>MSOM - Ninth Trimester (T9)</b>		<b>Lecture Clock Hours</b>	<b>Lab Clock Hours</b>	<b>Clinic Clock Hours</b>	<b>Total Clock Hours</b>	<b>Total Credits</b>
HS6531	Herbal Seminar 1 (T8 or T9)	30	0	0	30	—
HS6532	Herbal Seminar 2 (T8 or T9)	30	0	0	30	—
HS6533	Herbal Seminar 3 (T8 or T9)	30	0	0	30	2.00
HS6534	Herbal Seminar 4 (T8 or T9)	30	0	0	30	2.00
HM6524	Integration of Herbal Medicine (T8 or T9)	30	0	0	30	2.00
HM6523	Classics of Oriental Medicine (T8 or T9)	45	0	0	45	—
CL6605L	Herbal Senior Integrative Internship 5	0	0	60	60	2.00
CL6606L	Herbal Senior Integrative Internship 6	0	0	60	60	2.00
CL6607L	Herbal Senior Integrative Internship 7	0	0	60	60	2.00
CL6608L	Herbal Senior Integrative Internship 8	0	0	60	60	2.00
<b>Totals</b>		<b>90</b>	<b>0</b>	<b>240</b>	<b>330</b>	<b>14.00</b>
		<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>	<b>or</b>
		<b>105</b>	<b>0</b>	<b>240</b>	<b>345</b>	<b>14.00</b>
<b>Grand Total</b>		<b>1710</b>	<b>405</b>	<b>1200</b>	<b>3322.5</b>	<b>167.50</b>

\* Some courses are offered in alternate trimesters, for example (T8 or T9).

## Master of Science in Oriental Medicine (MSOM) Program Course Descriptions

Effective January 2023, this program will change to the Master of Acupuncture, with an emphasis in Chinese Herbal Medicine (MAc-CHM) program.

### **AC4461                                      Meridian Theory & Point Location 1                                      Credits 2.5**

This course begins with an introduction to the meridians of acupuncture and how they form a complete circuit throughout the body. Relevant scientific research will be presented that examines the meridians and Qi in light of technological advances that are now able to detect them. Each channel will be studied, both its internal and external branches, and every student is encouraged to become aware of the energetics of the meridians as they are being palpated and understood. The six energetic axes are introduced along with how they correspond to different energetic zones in the body. Using lecture, demonstration, and small group practice, students learn the precise location for all of the acupuncture points on the 12 main channels, as well as the conception/ren and governing/du channels. Other commonly used extra points will be taught as well. Using the Chinese anatomical measurement system (cun) as well as precise anatomical landmarks, students palpate each point, learning location, depth, insertion technique, and contraindications. Adopted by the World Health Organization, students learn the nomenclature (name and number) for each point in English, and learn certain classical points in Chinese as well.

Prerequisite or Co-requisite: WB4400

### **AC4462                                      Meridian & Point Energetics 1                                      Credits 2.0**

This course focuses on the energetic properties and functions of the acupuncture points. Each point is studied individually as well as in comparison to other points on the meridian, and with points on different meridians with similar functions. The theory and usage of each acupuncture point is discussed in depth, along with special categories and groupings of points, e.g. lux connecting points, yuan source points, xi-cleft points, five element points, and mu and shu points. Methods of combining points into effective treatment prescriptions are discussed in depth; students learn how to select appropriate point combinations to effectively treat corresponding patterns of disease. In this two-series course, 12 regular meridian points, eight extraordinary meridian points, and major extra points will be covered.

Prerequisite: OM4405

### **AC4463                                      Meridian Theory & Point Location 2                                      Credits 2.5**

This is a continuation of Meridian Theory and Point Location 1.

Prerequisite of Co-requisite: WB4400

### **AC4464                                      Meridian & Point Energetics 2                                      Credits 2.0**

The second in a series, this course continues focusing on the energetic properties and functions of each acupuncture point.

Prerequisite: OM4405

### **AC5471                                      Acupuncture & Clean Needle Technique                                      Credits 2.0**

Combining classroom lecture, demonstration, and supervised practice, this course lays the foundation for acquiring clinical acupuncture skills. This course starts with the introduction of acupuncture travel kit. This course will emphasize establishing and maintaining clean fields, and application of aseptic and sterile procedures. Universal precautions, including HIV/AIDS, HBV, and clean needle technique as set forth in the NCCAOM guidelines will be introduced. This course will also address emergency care in the acupuncture clinic such as patient fainting, semi-coma, severe nausea, vomiting, etc. Students will develop the basic skills of needling, including insertion and withdrawal, correct angle, depth, manipulation, and withdrawal of needles, tonification, and sedation techniques. Special emphasis is placed on developing De Qi sensitivity to patients' reactions to these procedures, as well as to safe techniques, precautions, and contraindications, and learning to recognize and respond to adverse treatment reactions. Students will spend significant time practicing needle insertion and withdrawal in small groups (three students per group). By the end of this course, students will be prepared to successfully pass the Clean Needle Technique exam sponsored by the Council of Colleges of Acupuncture and Oriental Medicine (CCAOM).

Prerequisites: AC4461, AC4463

**Credits 1.0**

This course will train students in the use of the clinical tools and essential skills of the acupuncturist, direct and indirect moxa, cupping, Gua Sha, plum blossom, electrical stimulation, and blood-letting. In this course, students will learn not only various skills of different tools and modalities, but also what conditions can be used with which tools or modalities. Students will sharpen their needle handling techniques as well.

Prerequisite or Co-requisite: AC5471

**Credits 2.0**

This course will cover general theoretical and practical rules of acupuncture treatment including the principles of treatment and the basic guidelines for acupuncture point selection and combination of points among the five shu points, five element acupuncture, xi-cleft, yuan source, back-shu, front-mu, lux-connecting, eight confluent points, four and six command points, long distance vs. local point, etc.

Prerequisites: AC5471, OM5441, OM5442

**Credits 2.0**

Building on the skills already learned, students are introduced to a variety of specialized techniques of microsystem acupuncture, including scalp acupuncture, auricular acupuncture, Korean hand acupuncture, and cosmetic acupuncture. In this course, students are exposed to various styles of acupuncture techniques, furthermore, specific clinical applications of these techniques will be discussed based on various case presentations. Students will also be introduced to various unique acupuncture disciplines such as Saam Five Phase acupuncture, Japanese meridian acupuncture, Tong's acupuncture, etc. From this course, students will be inspired for further research and pursuing continuing education for a variety of styles of acupuncture.

Prerequisite: AC5471

**Credits 2.0**

The clinic observation courses are divided into three progressive stages. The first stage of observation is designed for beginning students to observe the clinical set-up and treatment procedures in acupuncture and oriental medicine. During this stage, the students observe how to perform history taking, physical examination, oriental medical diagnosis/differentiation, treatment plans, and acupuncture. The students get to observe how the basic theories they are learning are directly applied and realized in clinical practice. The observer is an integral part of the clinical experience at National University, and is involved throughout the clinic shift. Each observer is required to keep a clinic worksheet, which is graded at the end of the trimester. Here they record the clinic procedures, history, tongue, pulse, diagnosis, points and/or herbs used along with patient reactions, etc. There is also room for questions, personal observations, and other issues that can then be discussed with clinicians.

Prerequisite: None

**Credits 2.0**

In the second part of observation, the observer fulfills certain responsibilities in assisting the treating intern during each clinic shift, such as Gua Sha, Tui Na, and other simple non-invasive and non-provocative procedures.

Prerequisite: None

**Credits 2.0**

During this last stage of observation, the observer will progressively work toward increased involvement with supervised patient interactions. The observers will assist as needed in taking patient histories and familiarize themselves with writing SOAP notes (specific form in the NUHS AOM clinic) with supervision. Stage 3 observers will be familiar with diagnostic procedures and with formulating acupuncture therapy protocols and other treatment protocols with close supervision of clinician.

Prerequisites: AC4461, AC4463, CL4561L, OM4405, OM4406

***\* Students must be available to cover the assigned clinic shift at the specified NUHS Whole Health Center and/or other assigned clinic facility, as hours vary at each location in order to serve the needs of patients and the community.***



**CL5571L** **Associate Internship 1** **Credits 2.0**

The first stage of the clinical internship begins in Trimester 4, as students move out of the observation phase and begin to treat patients. Under close supervision, the intern conducts the patient interview including tongue and pulse diagnosis, and in collaboration with the supervisor makes a diagnosis and plans an acupuncture treatment. They then perform the acupuncture treatment with the clinical supervisor who is physically present at all times during the associate intern's diagnosis and treatment of the patient. At the end of each clinic shift, each intern has a chance to direct questions to their supervisor and get feedback. Interns are responsible for writing all of their medical records including history taking. During their associate internships, MSOM interns are not allowed to prescribe herbs for patients, but interns will discuss herbal formula if supervisor prescribes one. Prerequisites: CPR certificate, CL4563L, blood-borne pathogen training, immunization record.

**CL5572L** **Associate Internship 2** **Credits 2.0**

Prerequisites: CPR certificate, CL4563L  
Prerequisite or Co-requisite: CL5571L

**CL5573L** **Associate Internship 3** **Credits 2.0**

Throughout this second stage of clinical work, associate interns will continue the same work they did in the Associate Internships 1 and 2 and will gain further confidence and experience. The interns are able to continually add to and refine their diagnostic skills as well as their acupuncture techniques. More competency is required in the later trimesters, as interns are expected to take on more responsibility in treatment planning and patient education. During their associate internships, MSOM interns are not yet allowed to prescribe herbs for patients, but interns will discuss herbal formulas if the supervisor prescribes one. Prerequisite or Co-requisite: CL5571L, CL5572L

**CL5574L** **Associate Internship 4** **Credits 2.0**

Prerequisite or Co-requisite CL5571L, CL5572L, CL5573L

**CL5591L** **Herbal Associate Integrative Internship 1** **Credits 2.0**

In this level of training, the integrative herbal interns will focus on herbal prescription with close supervision. Interns and clinic supervisor will discuss each step of each case. Interns must report and discuss their findings from the patient history before performing physical exams including checking pulse, tongue, and others. Then, the intern and supervisor will discuss a treatment plan including herbal preparation and other modalities. Herbs can be prepared only after approval from the supervisor. The clinic supervisor does not have to be present during the acupuncture treatment and/or other modalities in the treatment room although he/she must be available in the clinic. Prerequisite: CL5574L, HM4514L, OM6451

**CL5592L** **Herbal Associate Integrative Internship 2** **Credits 2.0**

Prerequisite or Co-requisite: CL5591L

**CL5593L** **Herbal Associate Integrative Internship 3** **Credits 2.0**

Prerequisite or Co-requisite: CL5592L

**CL5594L** **Herbal Associate Integrative Internship 4** **Credits 2.0**

Prerequisite or Co-requisite: CL5593L

**CL5595L** **Herbal Associate Integrative Internship 5** **Credits 2.0**

Prerequisite or Co-requisite: CL5594L

**CL6601L** **Herbal Senior Integrative Internship 1** **Credits 2.0**

In these two final stages of herbal senior integrative internships, interns should be able to perform all of the clinic procedures by themselves without a supervisor's immediate assistance. The interns, however, are required to report all of their findings from the four traditional exams and others before they begin treatment. Based on these findings,

interns will develop a differential diagnosis and formulate a treatment plan including an idea of herbal preparation before obtaining the clinic supervisor's advice. After a thorough discussion of the patient case with the supervisor, interns will start treatment and prepare an herbal formula. Along with patient care, the interns must pay special attention to communication skills, patient education, marketing, insurance billing, and Illinois acupuncturist policies, and so on. The clinic supervisor is not required to be present in the treatment room during the treatment but he/she must be available in the clinic.

Prerequisites: Successful passing of Herbal Senior Clinic advanced exam, OS6531, OS6532, OS6533, OS6534, CL5594L

**CL6602L Herbal Senior Integrative Internship 2 Credits 2.0**

Prerequisite or Co-requisite: CL6601L

**CL6603L Herbal Senior Integrative Internship 3 Credits 2.0**

Prerequisite or Co-requisite: CL6602L

**CL6604L Herbal Senior Integrative Internship 4 Credits 2.0**

Prerequisite or Co-requisite: CL6603L

**CL6605L Herbal Senior Integrative Internship 5 Credits 2.0**

These final stages of the Herbal Senior Integrative Internship are a continuation of Herbal Senior Integrative Internships 1 - 4. During this internship, interns will pursue their own style of practice with their supervisor's permission and help. All of modalities and scope of practice should be limited to what they learned from the core curriculum or electives offered at NUHS in the AOM program.

Prerequisite or Co-requisite: CL6604L

**CL6606L Herbal Senior Integrative Internship 6 Credits 2.0**

Prerequisite or Co-requisite: CL6605L

**CL6607L Herbal Senior Integrative Internship 7 Credits 2.0**

Prerequisite or Co-requisite: CL6606L

**CL6608L Herbal Senior Integrative Internship 8 Credits 2.0**

Prerequisite or Co-requisite: CL6607L

**HM4511 Materia Medica 1 Credits 3.0**

This is the first course in a three-course series. It begins with an introduction to the history, development and fundamental theories of Chinese herbal medicine. Covered are the basic concepts underlying the properties and functions of herbs, including the four qis, the five tastes, channel entry and functional tendencies, as well as preparation methods, toxicity, and side effects. The Pinyin spelling and meaning of herbal names as well as the categories of single herbs, will be introduced. Students now begin the study of the Chinese Materia Medica, learning roughly the first 100 herbs arranged and presented in their traditional categories. The English, Latin, and Chinese names are learned, as well as the tastes, properties, channels, dosage, indications, major combinations, cautions / precautions, and preparations for each individual herb.

Prerequisites: OM4405, OM4406, OM4411

**HM4512 Materia Medica 2 Credits 3.0**

The second course of the Chinese Materia Medica examines approximately the next 100 commonly used herbs in their traditional categories. Major formulas related to each herb are presented, as well as TCM theory as it relates to the understanding of an herb in the context of diagnosis and treatment.

Prerequisite: HM4511

**HM4513** **Materia Medica 3** **Credits 3.0**

The final course of the in-depth study of the Chinese Materia Medica covers the last 100 herbs. Each herb is studied within its traditional category, studying its tastes, properties, channels, dosage, preparation method, etc. Recent research pertaining to individual herbs is presented as well.

Prerequisite: HM4511

**HM4514L** **Herbal Pharmacy Practicum** **Credits 1.0**

Assisting in the Herbal Pharmacy in the dispensary, students become familiar with the properties of individual raw herbs, their proper storage, and handling, and how each herb is individually prepared to be part of an herbal formula. Under faculty supervision, students fill prescriptions written by student interns for patients in the clinic. By the end of the trimester, students should be able to identify major individual herbs. Students will schedule their dispensary attending hours with the chief clinician at the time of the registration for this class.

Prerequisite: HM4512 or HM4513

Prerequisite or Co-requisite: CL5591L

**HM5511** **Herbal Formula 1** **Credits 3.0**

In this class, students begin studying the traditional Chinese herbal formulas and their clinical applications. Students learn over 150 formulas by their Pinyin and English names. They study the constituent ingredients, how these separate herbs relate and interact, and the primary and secondary functions of each prescription. Formula modifications are shown for individualizing prescriptions. Ingredients, forms, traditional and modern applications, dosage, indications, and contraindications are discussed.

Prerequisites: HM4511, HM4513

Prerequisite or Co-requisite: HM4512

**HM5512** **Herbal Formula 2** **Credits 3.0**

Students continue to study the traditional herbal formulas — approximately 75 formulas are studied in each of these two courses. The practice of more extensive formula modification is taught. Recent research regarding modern applications of traditional and modified formulas is presented and discussed.

Prerequisites: HM4511, HM4512

Prerequisite or Co-requisite: HM4513

**HM5513** **Herbal Patent Medicine** **Credits 1.0**

This course covers the 100 most commonly used patent formulas in clinical practice in the U.S. today, and the classical formulas from which they were developed. Students will study a variety of products manufactured both in the U.S. and abroad, how they have been modified, and how to pick the most effective formulas and examine the variety of forms that patent medicines are available in, from pills, capsules and powders to tinctures and freeze-dried preparations. Manufacturing and safety considerations will be addressed, as well as ongoing issues with governmental regulating agencies.

Prerequisite or Co-requisite: HM5511, HM5512

**HM6454** **Herbal Treatment Strategy** **Credits 3.0**

This course is designed as an overview of the individual herbs and formulae to understand how the classic formula can be modified and prepared based upon clinical cases. In this final stage of herbal study, students will learn how to formulate individual raw herbs or classic formula based on oriental medical differential diagnosis. In the class, cases will be presented with detail of patient history, tongue, pulse, and other necessary medical records. Case presentation will be either by instructor or by students who have a unique case from the clinic. Based on the information, differential diagnosis will be discussed and then herbal formulation will be discussed. The cases will be further discussed for follow-up visits with the patient. Dependent on the patient conditions, the modification of herbal formulation will be discussed again. Through this course, students will learn how they can apply their herbal knowledge in the clinical situations.

Prerequisite: HM5511

Prerequisite or Co-requisite: HM5512

**HM6523** **Classics of Oriental Medicine** **Credits 3.0**

In this advanced course, students will study a number of the most important classical medical texts from China. Classical texts of Huang Di Nei Jing (Yellow Emperor's Inner Classic), Shang Han Lun (Treatise on Febrile Disease caused by Cold), Wen Bing (Warm Disease), Jin Gui Yao Lue (Synopsis of Prescription from the Golden Chamber), Nan Jing (Classic of Difficulties), and Compendium of Acupuncture and Moxibustion among others will be introduced. These texts have been primary oriental medicine resources for thousands of years and are still vitally relevant today. Prerequisite: OM6451

**HM6524** **Integration of Herbal Medicine** **Credits 2.0**

This course helps to strengthen the student's herbal knowledge and creates a whole picture of Chinese herbal medicine, from Materia Medica and formulas through the classics. This is an advanced course in the integration of Chinese herbal medicine as well as a review and synthesis to help students prepare for the national board exam. Prerequisites: HM5511, HM5512, HM5513

**HS6531** **Herbal Seminar 1** **Credits 2.0**

**HS6532** **Herbal Seminar 2** **Credits 2.0**

**HS6533** **Herbal Seminar 3** **Credits 2.0**

**HS6534** **Herbal Seminar 4** **Credits 2.0**

This four-series seminar will also be accomplished in the same format as Senior Seminar series. These series of seminars will cover major internal disorders. Students will go over exactly the same format as the Senior Seminars, and will also focus on herbal prescriptions based on differential diagnosis. Students should be able to prescribe classic formula and also modify the traditional classic formula based on differential diagnosis. Through these series of seminars, students will review all individual herbs and formulas. Prerequisites: HM5511, HM5512, HM5513

**ID4541L** **Tai Chi** **Credits 1.0**

Students learn the fundamentals of Tai Chi, a moving meditation that harmonizes the body and mind. Tai Chi also is an excellent way to become aware of one's own Qi, the basis of Chinese Medicine. Prerequisite: None

**ID4542L** **Medical Qi Gong** **Credits 1.0**

Medical Qi Gong is one of the oldest branches of Chinese medicine, and is considered one of the most powerful. It is a therapeutic method that uses the training of the mind, the breath, and the physiological processes of the body for improving health and well being, maintaining body/mind balance and enhancing longevity. The first part of this course introduces a series of exercises and movements, which focus on cultivating one's internal energy, or qi. The second half of this course covers the movement and sensation of qi, as well as learning to guide qi internally through the meridians. Focus is on improving well-being and relieving symptoms of acute and chronic disorders. Students will be taught how to select different qi gong exercises according to various syndromes and disharmonies. Prerequisite: None

**OM4405** **Introduction to Oriental Medicine** **Credits 3.0**

This course is designed to introduce the development processes and philosophical background of oriental medicine. Students will have an opportunity to explore great Chinese physicians as well as great philosophers. They will study the root of oriental medicine with focuses on the Taoism, Confucianism, and Buddhism. The class will discuss the unique thinking process and the characteristic outlook of oriental medicine. Furthermore, the class will examine some of the different approaches to oriental medicine in other parts of Asia such as Korea and Japan. Students will study the transplantation of oriental medicine into the western world. By the end of the course, students will have an overall sense of the history, development and basic foundational principles of oriental medicine with an eye toward the future of the field and their place in it. Prerequisite: None

**Credits 3.0**

This course is a general introduction to oriental medicine in terms of Traditional Chinese/Oriental Medical Physiology. Students will learn to apply to the body the basic theories of oriental medicine: Yin/Yang, the concept of Qi, the Five Phases learned in the Introduction to Oriental Medicine class. Students will begin by looking at the Five Substances. The class will then move beyond these basic fundamental constituents of the body to the internal organs themselves, known as the Zang-Fu theory. Finally, the class will consider the primary question of etiology of disease in oriental medicine and the Three Categories of disease causes: Internal, External, and Miscellaneous (neither Internal nor External). Students will then be prepared to understand pathology in oriental medicine in future classes.

Prerequisite: None

**Credits 3.0**

In this course, the basic theory and characteristics of the etiology, pathology, sources of pathogens, and mechanisms of illness are covered. The topics include the six environmental excesses (Liu-Yin), seven emotions (Qi Qing), disharmony of Yin and Yang, the six channel pattern identification (Liu Jing Bian Zheng), and the abnormal function of Qi, blood, body fluid, and organs. General principles of treatment methods for each topic will be briefly covered.

Prerequisites: OM4405 and OM4406

**Credits 3.0**

In this two-part course, students will learn different pattern diagnosis and introduction of treatment. This set of courses will cover the differentiation of patterns according to the different theories of oriental medicine. An in-depth discussion of the differentiation of patterns will include topics of pathological changes, Zhang-Fu patterns, I and blood patterns, six channel patterns, four aspect patterns, meridian and collateral patterns, San Jiao patterns, disease-evil patterns, and so on. The instructor will present how pattern identification applies to cases encountered in the NUHS AOM clinic. Treatment based on the differential diagnosis will be also discussed.

Prerequisite: OM4411

**Credits 3.0**

This course is continuation of Differential Diagnosis 1.

Prerequisite: OM4411

**Credits 2.0**

This course introduces the Four Traditional Methods of Diagnosis: looking, hearing/smelling, asking, and feeling/palpating. The focus here is on tongue and pulse diagnosis. Students first learn the procedures of tongue inspection and pulse palpation by watching the instructor's demonstration and follow by performing and practicing the technique in class. Students also will identify and classify significant findings into eight principle categories in order to further understand them within the traditional patterns of disharmony. A significant amount of lab time will be spent on pulse diagnosis.

Prerequisites: OM4405, OM4406

**Credits 2.0**

The second course in the diagnosis series continues with the Four Traditional Methods of Diagnosis, focusing specifically on the Ten Questions and writing SOAP notes. After learning each of the 10 categories of questions and their significance in terms of diagnosis, students will practice patient interviewing, focusing on review of systems questionnaire of “confidential history,” combining it with the tongue and pulse exams. In this course, students will also learn how to palpate certain categories of points — mu and shu points, source points, ashi points, etc. — as part of the diagnostic procedures and will learn what important information can be gained. There will be significant lab time available for practicing all of these skills. Students will submit three full sets of mock patient medical records including review of systems questionnaire, “confidential history,” by the end of the course.

Prerequisites: OM4405, OM4406

**Credits 2.0**

The format of this course will be case presentation. Students will have the opportunity to learn to incorporate the different models of pattern diagnoses and theories of oriental medicine based on clinical cases, and to develop

Prerequisite or Co-requisite: OM5441

**Credits 2.0**

Prerequisites: OM4405, OM4406

**Credits 2.0**

**Prerequisites or Co-requisites:** CL5571L, CL5572L, OM6451

**Credits 2.0**

Prerequisites or Co-requisites: CL5571L, CL5572L, OM6451

**Credits 2.0**

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gastrointestinal, renal, and OB/GYN conditions. Some seminar presentations may involve a patient in the grand rounds setting whenever possible. The class may be composed of large and small group activities. The large group session will present the case, introduce the related topics, and wrap up the case. Each small group session is responsible for a report on the cases that include: full patient information and physical examination results based on traditional four diagnosis methods and western medicine; differential diagnosis and assessments; principles of treatment; treatment protocol with specific acupuncture points and their point selection rationales; accessory techniques and prognosis. Students will also discuss patient management, business management and practice ethics, and proper patient referral to other health care providers.

Prerequisites or Co-requisites: CL5571L, CL5572L, OM6451

**OS6534**

**Advanced Seminar 4**

**Credits 2.0**

In this seminar series, students integrate all of the subjects that they have studied over the past two years. The format used to integrate this information is case-based seminars. A few of the topics covered include: chronic pain management, orthopedics, internal disorders, obstetrics and gynecology, pediatrics, geriatrics, dermatology, allergies, infertility, emergency care, and so on. However, this Advanced Seminar 4 will mainly focus on geriatric, pediatric, and multiple system-related conditions. Some seminar presentations may involve a patient in the grand rounds setting whenever possible. The class may be composed of large and small group activities. The large group session will present the case, introduce the related topics, and wrap up the case. Each small group session is responsible for a report on the cases that include: full patient information and physical examination results based on traditional four diagnosis methods and western medicine; differential diagnosis and assessments; principles of treatment; treatment protocol with specific acupuncture points and their point selection rationales; accessory techniques and prognosis. Students will also discuss patient management, business management and practice ethics, and proper patient referral to other health care providers.

Prerequisites or Co-requisites: CL5571L, CL5572L, OM6451

**PD6541**

**Doctor & Patient Relationship**

**Credits 2.0**

This course is designed to sensitize students to the patient's life situation and stimulate self-observation as students interact with patients. Lecture and discussion topics include: structures in doctor/patient interaction; models of the doctor/patient interaction; doctor/patient boundaries; the impact of the doctor/patient relationship on health care outcomes; the impact of the doctor/patient relationship on patient satisfaction; culturally responsive health care; the sociological context of patient suffering; co-creation of the patient's story in a therapeutic relationship; death, dying and palliative health care; management of the abused patient; and the doctor's responsibilities to the community and society. Group time will be used to discuss and practice relationship issues through guest case presentations, structured interpersonal exercises, article reviews, and discussion.

Prerequisite: None

**PD6542**

**Evidence-Based Practice**

**Credits 2.0**

As professional health care practitioners, it is important to strive to educate oneself on the efficacy of one's applied art. The research literature provides the knowledge base to make sound clinical judgments in both diagnosis and treatment of health conditions. This course provides a means for developing the skills needed to critically evaluate research literature in general, and research literature specifically pertaining to complementary and alternative medicine. The topics covered include research design, validity and reliability, bias, searching the literature, critical appraisal of the literature, and elementary statistical methods of data analysis.

Prerequisite: None

**PD6543**

**Business, Marketing, and Practice Management**

**Credits 2.0**

This course focuses on many of the various practice-related issues that face the acupuncture and/or oriental medicine practitioner. Topics addressed in this class include: writing a curriculum vitae; investigating various practice types; writing narrative reports; the informed consent process; marketing concepts for the practice with preparation of a comprehensive marketing plan; preparation of a comprehensive business plan; successful interviewing techniques; vicarious liability and independent contact issues; record keeping requirements; creating an effective referral network; and personal and professional insurance needs.

Prerequisite: None

**PD6544 Practice Ethics & Risk Management Considerations Credits 1.0**

This course focuses on many of the various practice-related risk management and provider/patient communication issues that face the acupuncture and/or oriental medicine practitioner. Topics addressed in this class include: boundary issues and preventive strategies involving sexual boundaries; treating friends and family members; self-disclosure; gifts and trade-offs; dual relationships; language; physical examination; physical contact; time and duration of appointments. Additional topics include: a health care provider's duties, responsibilities, and professional standards of care; a provider's duty regarding vicarious liability and the independent contract relationship; elements of successful communication skills in provider/patient relationships; recognizing and managing difficult/predatory patients; and should you say you're sorry if you hurt a patient?

Prerequisites: None

**TM4491L Tui Na Credits 1.0**

Tui Na is a traditional meridian bodywork therapy that originated in China over 2,000 years ago. It involves a variety of techniques including rolling, tapping, and pressure used for treating a broad range of disorders including orthopedic and stroke rehabilitation. It is also a widely used modality in pediatrics. In this course, students gain a working knowledge of basic Tui Na techniques, the general body routine, and Tui Na exercises to strengthen the body's constitution. An emphasis will be made on integrating Tui Na with oriental as well as biomedical evaluation and treatment methods of common disorders.

Prerequisite: None

**TM4492L Asian Body Work Credits 1.0**

In this course, students will learn many different forms of basic soft tissue works such as shiatsu, anma, acupressure, and so on. Students will learn meridian based acupressure or anma for various conditions of patient care.

Prerequisite: None

**WB4400 Palpation Skills Credits 0.5**

This course is designed for students to learn through study and practical exploration of the assessment of the skin, superficial fascia, and veins. Students will also develop palpation skills of the major superficial muscles, tendons, ligaments, and bony landmarks of the spine and extremities. Students will develop basic hands-on palpation skills and also will focus on the assessment of joint motions and normal posture.

Prerequisite: None

**WB4401 Western Medical Terminology Credits 1.0**

This course will introduce students to key word parts associated with body systems, disorders, conditions, procedures, and medical specialties. It will show students how to decipher difficult medical terms by breaking them down into these components. Pronunciation of the terms will be covered as well.

Prerequisite: None

**WB4402 Human Anatomy Credits 2.5**

Students will learn through cadaver dissection in lecture and laboratory. Lecture will cover the basic concepts of human anatomy with an emphasis on the cutaneous part of the human body. Students will discuss the function of major muscles and clinical and pathological conditions that present frequently in the clinic. In the laboratory, students will discover the relationship between anatomical structures, meridians, and major acupuncture points.

Prerequisite: None

**WB4404 Principles of Biochemistry Credits 1.0**

This course presentation starts with an introduction to the concepts of bio-molecules in the human body such as carbohydrates, lipids, proteins, and nucleic acid, etc. This course will also introduce the metabolic mechanism and processes involved in producing and transforming these molecules to generate energy for the body. Students will also be provided with a basis for understanding nutrition on a biochemical level, covering vitamins, minerals, co-enzymes, etc.

Prerequisite: None



**WB4405** **Neurology** **Credits 2.0**

This course will serve as an introduction to the general neurological system. Knowledge of the neurological system is essential to understand the scientific basis and mechanisms of acupuncture. Topics covered in this course include the histology, anatomy, and physiology of the nervous system. The central, peripheral, and autonomic nervous systems, as well as the cranial nerves will be presented. The major nerve plexuses are discussed along with the common clinical pathologies.

Prerequisite: None

**WB4407** **Western Anatomy and Physiology** **Credits 3.0**

In this course, students will learn in lecture and laboratory formats, the normal anatomy, and physiology of the major organ systems of the human body. The organ systems discussed are the cardiovascular, respiratory, lymphatic, endocrine, urinary, digestive, and reproductive as well as neuroanatomical structures. In addition, the interrelationships between organ systems will be explained as well as the interrelationships between structure and function of the organs and organ systems. The gross anatomy laboratory sessions will be presented using a regional approach and will be designed to support the lecture sessions and address related basic science issues.

Prerequisite: None

**WB4411** **Microbiology, Immunology & Public Health** **Credits 3.0**

This course provides an introduction to microorganisms, immunology, public health, and their interaction with humans; concepts in public health as applied to communicable and non-communicable diseases; and an introduction to the basic changes in the morphology of the cells, tissues, and organs in diseased states. Extensive use of visual aids using the latest computer technology will aid students in visualizing and understanding these various fundamental topics. The appropriate clinical correlation with case studies is discussed as well.

Prerequisite or Co-requisite: WB4401

**WB4412** **Western Pathology** **Credits 3.0**

Considered in this course are the pathologies peculiar to and characteristic of the various systems of the body. The pathologies examined include myopathy, neuropathy, bone and joint pathology, immunopathology, hematopathology, and dermatopathology. Each condition is studied from the standpoint of general characteristics, gross and microscopic appearance, and clinical course. The systems examined include neurological, respiratory, cardiovascular, reproductive and mammary, gastrointestinal (inclusive of liver, gall bladder and pancreas), urinary, and endocrine.

Prerequisite or Co-requisite: WB4401

**WC5421** **Neurophysiology of Acupuncture** **Credits 2.0**

In this course, students will discuss acupuncture from a different angle. This course investigates how modern western scientific research starts unveiling the mystical functions and action mechanisms of acupuncture, and the relationship between acupuncture stimulation and brain reaction. By discussing current western research achievement about acupuncture, students will understand the neurological, physiological, and chemical basis of the acupuncture action mechanisms and its functions. Students will be inspired by this course to connect 5,000 years of traditional eastern acupuncture into modern western science.

Prerequisites: WB4401, WB4405

**WC5422** **Western Pharmacology & Toxicology** **Credits 2.0**

This course provides a basic understanding of the use of drugs in western medicine for the treatment of disease. Topics covered in this course will be descriptions of drug names and classification, general principles of drug action and metabolism. Factors influencing drug action and drug safety are addressed, too. This course also will discuss the drug actions on body systems including the entire major organ systems and the disorders and diseases in each of the systems. Included will be a description of the mechanism of action, major untoward effects and contraindications for each drug and drug category. A large part of this lecture will be focused on interactions with other drugs, Chinese herbs, and botanicals. Drug action on infection and immune system regulation as well as chemical dependency and substance abuse will be described. A discussion of poisons and their antidotes is included.

Prerequisite: WB4401, WB4404

**WC5423****Psychopathology & Health Psychology****Credits 2.0**

This course includes:

- (i) review and discussion of the major topics in health psychology including examination of the relationships of psychopathology, lifestyle, and personal relationships to physical health. Topics include risk factors and treatments for physical disorders such as cardiovascular disease, cancer and chronic pain, as well as the exploration of the co-morbidity of physical and psychological disorders;
- (ii) an examination of the nine basic categories of psychopathology (depression, anxiety, somatoform, substance use disorders, sleep disorders, eating disorders, sexual dysfunction, cognitive disorders, and psychosis) with emphasis on screening, diagnosis, and management in a primary care setting. Students are asked to review current theories and their implication for practice.

Prerequisite: None

**WD4441L****Western Physical Exam****Credits 1.0**

In this course, students will practice general physical exams of common western medical conditions through oriental and western medical integrative forms. In the lectures and lab, students will learn history taking, vitals, and general physical exams and their procedures. The students will be familiar with the major individual exam skill performance while they practice head-to-toe sequence exams. The course will also cover patient referral to other health care professions. Students will also practice SOAP note writing based on the NUHS AOM clinic patient SOAP note form.

Prerequisites: WB4401

Co-requisites: WB4407

**WD4442L****Neuromusculoskeletal Exam****Credits 1.0**

This laboratory course will cover the neurological examination and orthopedic examinations. Students will learn how to test the neurological systems including dermatome testing, muscle testing, deep tendon reflexes, etc. Students will also learn how to perform orthopedic examinations of the major joint systems of the human body. The examinations will help the student to determine if a lesion is present and the location of the lesion.

Prerequisites: WB4401, WB4402

**WD5441****Imaging Diagnosis****Credits 2.0**

The basic principles of the major modalities of diagnostic imaging are discussed. The major outcomes include learning normal and common abnormal findings on conventional X-ray studies and becoming familiar with common abnormal findings yielded by the following modalities: conventional X-ray, MRI, CT, and nuclear imaging. This course is designed for the acupuncture practitioner in general practice who will request and receive radiographic and advanced diagnostic imaging reports and will learn how to apply this information to the overall patient status/disease process. Basic interpretation of such reports, knowing when and how to request them, and how to apply the information contained in the radiology report to their patient's condition is a major learning outcome.

Prerequisites: WB4401, WB4402, WB4412

**WD5442****Clinical Laboratory Diagnosis****Credits 2.0**

The clinical laboratory plays a major role in the education of the student. Today's technology allows the health practitioner to examine the depths of the body in ways that were only imaginable a few short years ago. The modern health care provider, especially acupuncturist, needs to be able to know in what situations patients should be referred for diagnostic tests, how to interpret the information relative to its diagnostic or informative value, what other tests relate to this information, and what are the disadvantages or possibilities of error or false positive results. In this course, these aspects are addressed with regard to the common profiles of hematology, chemistries, urinalysis, fecal, and sputum studies.

Prerequisites: WB4401, WB4407, WB4411, WB4412

**WD6441****Western Physical Diagnosis****Credits 2.0**

This course introduces the student to the methods used in the diagnosis and management of common conditions. The students in this course develop skills in interpretation, evaluation and correlation of normal and abnormal

physical findings. Discussions concentrate on the development of diagnostic acumen and conservative management of selected conditions.

Prerequisites: WD4441L, WD4442L

Co-requisite: WD5441

**WI6501**

**Integrative Biomedicine I**

**Credits 2.0**

This course will review and sharpen core biomedicine knowledge and skills and focus on the comprehensive application of acquired cognitive knowledge, psychomotor clinical skills, and affective senses in actual clinical case problem-solving. In this course, students will discuss how to utilize and integrate the different subjects from each biomedicine class into real clinical case problem-solving situations. Students will also focus on how to apply medical knowledge, manage patient care effectively, demonstrate professionalism, interpersonal and communication skills, and utilize all other appropriate information, while integrating the basic science and basic western diagnostic skills with certain treatment plans. Students will also review specific exam skills and be required to practice a hands-on format. The materials in this class will be delivered through class meetings and/or an online basis.

Prerequisites: WB4400, WB4401, WB4402, WB4411, WB4412, WD4441, WD4442

Prerequisites or Co-requisites: WC5421, WC5422, WD5441, WD5442, PD6542

**WT6455**

**Western Diet & Nutrition**

**Credits 1.0**

This course provides a basic understanding of the vital role of the western diet and nutrition in an overall approach to patient care. Topics will cover principles of human nutrition that stress a review of the macronutrients and micronutrients with emphasis on the health properties of each as well as the severe deficiency states for both micronutrients and macronutrients. Digestion, absorption, and transport of the nutrients, and consequences of malabsorption care are covered. Energy production, energy balance, and weight management are also described. Food habits in the United States and nutrition across the life cycle are discussed in the course. Male and female health, sports and exercise nutrition, enteral and parenteral nutrition procedures as well as an introduction to the science of food preparation and handling are included. An introduction to nutritional status assessment using food frequency questionnaires and diet history is given.

Prerequisite: WB4404

**WT6456**

**Botanical Medicine**

**Credits 3.5**

This course presents the fundamentals of herbal science and pharmacognosy. Topics included are herbal terminology, principles of herbal pharmacology and treatment, as well as mechanisms for optimizing safety. Dosage forms and preparations and standardization are covered in detail. Extraction and purification of the active ingredients are explained in the course. Herbal approaches to maintenance of health and treatment of disease as well as the strengthening of organ systems are presented for all the major organ systems of the body and many of the primary care diseases found in each of those organ systems. A major focus in the second half of this course is a description of the Materia Medica for 30 of the common botanical medicines used in western medicine. Active ingredient, part of the plant used, major therapeutic use, untoward effects, contraindications and interactions with drugs and other botanical medicines are covered in detail.

Prerequisite: WB4404

## **AOM Program Learning Objectives and Clinic Learning Outcomes**

- I. Medical Knowledge (MK): Interns must be able to demonstrate knowledge about established and evolving AOM foundational theories, acupuncture, its accessor techniques, herbology (MSOM only), and manual modalities, as well as Western disciplines including, but not limited to the following: biomedical, clinical, and cognate (eg. Epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.
- II. Patient Care (PC): Interns must be able to provide patient care including, but not limited to treatment, education and referral(s) that are compassionate, appropriate, and effective for the treatment of health problems, and the promotion of health. Interns must also be able to demonstrate health communication and collaboration skills with other health care providers.
- III. Interpersonal and Communication Skills (CS): Interns must be able to demonstrate interpersonal and communication skills that result in effective information exchanges and partnerships with patients, patients' families, and professional associates.
- IV. Professionalism (PR): Interns must be able to demonstrate a commitment to fulfilling professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.
- V. Practice-Based Learning and Improvement (PL): Interns must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices.
- VI. Systems-Based Practice (SP): Interns must be able to demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

## **Residency Programs for the DC and ND Programs (Illinois)**

National University of Health Sciences has two residency programs available to Doctor of Chiropractic and Doctor of Naturopathic Medicine: clinical Research (3 years) and Family Practice (3 years). In addition, the Doctor of Chiropractic also has the Diagnostic Imaging (3 years) residency available. There are also Naturopathic Residency Opportunities for the ND programs. For more information, please see: <https://www.nuhs.edu/academics/college-of-professional-studies/residency-programs/naturopathic-opportunities/>. Application is to be made with the Dean of the College of Professional Studies – Illinois and can be found at <https://www.nuhs.edu/academics/college-of-professional-studies/residency-programs>.

### **Clinical Research**

This is a three-year (with optional fourth year), in-residence training program in research. The purpose of this program is to provide the resident with an advanced level of training in, and understanding of, the discipline of research. Special emphasis is placed on investigation of the efficacy and efficiency of chiropractic treatment of specific disorders using valid and reliable outcome measures. Additional focus is on the refinement of existing measures of treatment, the development of new, more sensitive measures of these effects, and investigations to expand the clinically relevant basic science knowledge base of the anatomical, biomechanical, physiological, neurological, and biochemical ramifications of spinal manipulative therapy. An MPH or PhD degree through the University of Illinois at Chicago is a mandatory part of this residency.

### **Diagnostic Imaging**

This is a three-calendar-year program leading to eligibility to sit for examination by the American Chiropractic Board of Radiology and achieve status as diplomate of that board. The residency is a full-time, in-house program involving limited teaching, research, self-directed study, and training by radiologists (both chiropractic and medical) in all aspects of diagnostic imaging, with emphasis on neuro-musculoskeletal imaging. The National College of Chiropractic was the first institution with a chiropractic program to develop and use a specialized Training and Assessment Center

and the first to install and use an MRI for patient and research purposes. A Master of Science (MS) degree program in Diagnostic Imaging is a mandatory part of this residency.

**Family Practice**

This family practice residency is a three-calendar-year program focusing on the diagnosis and management of those disorders encountered in chiropractic general practice, including internal diseases. Emphasis is placed upon examination skills, including specialty diagnostic procedures, differential diagnosis, and clinical reasoning skills. Residents assist in the instruction of diagnosis courses, participate in patient care, and assist in the performance of specialty examinations and diagnostic consultations. Fulfillment of program requirements will satisfy board eligibility criteria. A Master of Science (MS) degree program in Advanced Clinical Practice is a mandatory part of this residency.

## Elective Course Descriptions

*Not all courses listed below will be offered every trimester. Contact the Registrar for schedule details.*

<b>EL1030</b>	<b>Medical Spanish (Meets with COM103)</b>	<b>Credits 3.0</b>
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Clinical Spanish is a 45-hour elective focused on Spanish language skills used in clinical practice. The course emphasizes the key role of the patient history in making a diagnosis, the evaluation of clinical evidence such as patient symptoms, and relevant statistical concepts such as predictive value. The underlying pathophysiologic mechanisms underlying common symptoms are reviewed. This course is based on listening and speaking skills rather than on reading and writing. There are no written exercises and no written tests or exams.

<b>EL1100</b>	<b>Applied Kinesiology: A Survey Course</b>	<b>Credit 1.0</b>
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This survey course focuses on the procedures used in the practice of, and its relationship to health care outcomes of Applied Kinesiology (AK). Students will also explore the literature involved in AK in order to broaden their understanding of the issues in the field. Students will be exposed to the history of AK and to the description of mechanics of neurology. This material will be presented in discussion and lecture.

Prerequisite: None

<b>EL2410</b>	<b>Biopsychology (Meets with BIOL241)</b>	<b>Credits 3.0</b>
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This course provides an introduction to understanding the function of the human brain and its relation to behavior. The first goal of this course is for students to integrate a basic understanding of the anatomy and neurology of the brain information into their existing knowledge base. The second goal of this course is to provide students an adequate framework about basic principles in biopsychology so that information may be incorporated in an understanding of holistic health care. A topical format is employed focusing on relevant health care issues. Topics include the structure and function of the nervous system related to a combination of the following topics: human brain damage, vision, movement, eating and drinking, sex, sleep, drug addiction, learning and memory, neuroplasticity, lateralization, emotions, stress, mental disorders, and health. To accomplish these goals, the topical information will be presented through a combination of lectures, discussions and readings beyond the textbook.

<b>EL6707</b>	<b>Certificate Test Preparation (Meets with COM110)</b>	<b>Credits 2.0</b>
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The purpose of this course is to provide the student with the knowledge of human anatomy, physiology, neurology, endocrinology, and energy systems and other knowledge in order to pass the CSCS and other certifying exams such as: ACE, NSCA or ACSM Personal Training exam, or NSCA Certified Strength and Conditioning Special Examination. The course will then provide the student with an understanding of how these various forms of training affect these various systems. Topics that will be covered: Concepts & Applications of Exercise Science, Testing and Evaluation, Exercise Techniques, Program Design, and Organization and Administration.

Prerequisite: Successful completion of Phase I

<b>HY6221</b>	<b>Hydrotherapy &amp; Traditional Naturopathy</b>	<b>Credits 2.0</b>
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Prerequisite: DCs Consent Only

<b>ID5515L</b>	<b>Medical Qi Gong I</b>	<b>Credits .50</b>
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<b>ID5516</b>	<b>Medical Qi Gong II</b>	<b>Credits .50</b>
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Prerequisite: ID5515L

<b>NP4211</b>	<b>Naturopathic Counseling</b>	<b>Credits 1.5</b>
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Prerequisite: DCs Consent Only

<b>NT4201</b> Prerequisite: DCs Consent Only	<b>Naturopathic Foundations I</b>	<b>Credits 2.0</b>
<b>NT4202</b> Prerequisite: DCs Consent Only	<b>Naturopathic Foundations II</b>	<b>Credits 2.0</b>
<b>NU6261</b> Prerequisite: DCs Consent Only	<b>Homeopathy I</b>	<b>Credits 1.0</b>
<b>NU6262</b> Prerequisite: NU 6261 & DCs Consent Only	<b>Homeopathy II</b>	<b>Credits 4.0</b>
<b>ON6251</b> Prerequisite: DCs Consent Only	<b>Oriental Medicine I</b>	<b>Credits 2.0</b>



# Bulletin

## 2022-2023



## COLLEGE OF ALLIED HEALTH SCIENCES & DISTANCE EDUCATION

- Undergraduate Degree Programs
- Graduate Degree Programs



## **Undergraduate Degree Programs**

*Dean-Assistant Professor, Candace Passi, PhD*

The Department of Undergraduate Studies currently offers a Bachelor of Science Degree in Biomedical Sciences, a completion program that includes the Prerequisite Program.

### **Bachelor of Science Degree in Biomedical Sciences**

#### **General Information**

The Office of the Superintendent of Public Instruction of the State of Illinois, through the Advisory Council of Degree-Granting Institutions, has approved National University of Health Sciences as an academic degree-granting institution as well as a professional degree-granting institution.

This bachelor of science degree completion program is a stand-alone program that can be used to meet the entrance requirements of the first professional degree programs or may be a terminal degree for students. This degree completion program includes the science requirements for entry to the first professional degree programs. These science courses are offered in an accelerated format as part of National University's Prerequisite Program. Students may also take these courses for transfer to other institutions.

#### **Emphasis in Nutrition**

A student may receive a Bachelor of Science Degree designated with "Emphasis in Nutrition" by completing 19 credits in nutrition (with a grade of C or higher)

#### **History**

National University of Health Sciences was established in 2000 from the institution formerly named The National College of Chiropractic, which was founded in 1906 in Davenport, Iowa. In 1908, the college settled in Chicago, Illinois, where it was chartered and incorporated under the laws of the state of Illinois.

In 1941, National College became a not-for-profit educational and research institution in accord with the corporate laws of Illinois and the requirements of the United States Department of the Treasury governing tax-exempt institutions. The Office of the Superintendent of Public Instruction of the State of Illinois granted official status to National College as a degree-granting institution in 1966. In 1981, the college was accredited by the North Central Association of Colleges and Secondary Schools.

In 1963, National moved to Lombard, Illinois, where, on approximately 35 acres, it provides the finest science-based curriculum and clinical experience for students in its graduate, undergraduate, and certificate programs.

#### **Nature and Institutional Purposes**

The National University of Health Sciences, College of Allied Health Sciences and Distance Education, Undergraduate Degree Program has as its purposes:

1. To provide specialized human science education requisite to qualify men and woman as competent in the biomedical sciences;
2. To provide general educational components for the express purpose of helping students appreciate and use their intellect, examine their values, evaluate and appreciate divergent views, participate in the free exchange of ideas and attitudes, and acquire and enhance interpersonal skills;
3. To provide public open enrollment courses;
4. To prepare a college level student for a career in the field of health care sciences;
5. To deliver high level courses beyond the typical bachelor of premed program courses;
6. To expand learning choices with additional majors in individual health care sciences;
7. To prepare students for a medical health care field degree;

8. To increase the student's knowledge of various professional health care fields, such as naturopathic medicine, chiropractic medicine, osteopathic medicine, pharmacy, and nursing;
9. To mentor students by guiding them to an appropriate health care field for their level of interest and knowledge.

### **Program Goals**

1. To prepare a college level student for a career in the field of health care sciences;
2. To deliver high level courses that are not given in a typical bachelor of premed program, such as pharmacology and immunology;
3. To develop other bachelor's degree completion programs in individual health care sciences such as a bachelor's in nutrition;
4. To prepare students for an end-level degree useful for the medical technology programs available in the health care field;
5. To develop faculty trained in the health care field to deliver high-level science courses;
6. To increase the knowledge of bachelor's degree students of professional health care fields, such as chiropractic and naturopathic medicine, osteopathic medicine, pharmacy, and nursing, among others;
7. To mentor bachelor's degree students by directing them to the appropriate field for their level of interest and knowledge.

### **Undergraduate Educational Objectives**

- Graduates of the Bachelor of Science Degree Program will have a broad knowledge of biological and physical sciences as related to human biology.
- Graduates of the Bachelor of Science Degree Program will be able to organize, analyze, and critically evaluate and interpret scientific data, and communicate such science concepts for peer and professional audiences.

## **Admission Information**

### **General Guidelines**

All individuals who wish to achieve a health care related bachelor's degree are encouraged to apply for admission to the university. National University admits new classes each fall, spring, and summer trimester.

Completion of this program does not guarantee admission to a professional school. Each professional school has specific admission requirements. Students are responsible for meeting the requirements of the professional school to which they choose to apply. Students must plan their course of study carefully in order to meet their specific professional objectives.

### **Selection of Candidates**

Applicants are approved for matriculation by the Committee on Admissions. In addition to meeting the National University admission standards, the Committee on Admissions will admit only those candidates who in the judgment of the university are of good character, are capable of performing in the BS completion program in its entirety, and who show promise of becoming a credit to their chosen profession and the university. Telephone or personal interviews may be required.

### **Application Procedure**

The application must include the following:

1. A properly completed Application for Admission. Applications for admission should be completed online or mailed to the Admissions Office.
2. An application fee of \$55. The fee is not refundable.
3. Official transcripts from college(s) and university(s) attended should be sent directly to the National University Admissions Office.
4. An informal interview (by phone, or in-person) with an Admissions counselor.

## Admission Decisions

Applicants for admission are not fully approved by the Committee on Admissions until it receives documentation of completion of all requirements for admission. Conditionally approved students will be held to the following regulations and timelines:

1. Accepted students will be notified upon entry to the program that the matriculation file must be completed by the end of the 30th day of the term. Students whose application files are not complete by the end of the sixth week of the term will not be allowed to remain enrolled in the university.
2. If applicable, financial aid awards shall not be certified or released to students until the matriculation file is complete.
3. Students who demonstrated continuing attempts to complete the application file in a timely manner, but are not able to do so through no fault of their own, may be granted an extended period of time to complete the file.
4. Students who do not complete the matriculation file by the end of the term will be required to start over from the beginning of the first trimester.
5. University policy on tuition and refunds will be adhered to for such students.
6. The university will attempt to help students with the completion of the matriculation file, however, it is the responsibility of students to do so.

## Entry Requirements

1. The overall GPA must be a 2.0 on a 4.0 scale.
2. All courses in the general education requirements must be completed with a grade of “C” or higher (2.0 on a 4.0 scale).
3. Students should have a minimum of 30 credits of general education courses and up to 30 credits of elective courses.

NOTE: A minimum 3.0 (on a 4.0 scale) cumulative GPA in all college and university coursework is required to enter the professional programs at NUHS. Students with a cumulative grade point average between a 2.75 and 2.99 may be considered for admission through the Alternative Admissions Track Plan (AATP). Please consult the individual programs at other health care institutions for their specific admission requirements.

## Specific General Education Course Requirements

The bachelor of science requires the successful completion of 30 semester or 60 quarter hours in the following coursework in order to be considered for the degree program:

- 6 credits in English Composition
- 3 credits in Public Speaking
- 9 credits in Social/Behavioral Sciences \*
- 9 credits in Humanities and Fine Arts \*\*
- 3 credits in General Psychology

Students should also have earned an additional 30 elective credits in any General Education, Liberal Arts, Life, or Physical Science course. (Algebra is recommended; it is a requirement for Physics.) If these credits are not completed prior to entry into the BS program, they must be earned while enrolled at NUHS.

\* Courses may be taken from the following areas: anthropology, economics, history, human geography, political science, psychology, and sociology.

\*\* Courses may be taken from the following areas: language, history, literature, philosophy, religious and cultural studies, performing arts (e.g. music/dance/ theater appreciation or history), visual arts (e.g. art appreciation, film studies).

## **Credit by Proficiency Examination**

The following rules apply:

1. No more than 20 semester hours, or the equivalent, of a candidate's general education requirements can be acquired through proficiency exams or coursework such as the College Level Examination Program (CLEP), Advanced Placement (AP), International Baccalaureate (IB), Defense Action for Non-Traditional Educational Support (DANTES), American College Testing Program (ACT), Program Evaluation Procedure (PEP), and New York Board of Regents College Examinations, or through challenge courses.
2. Such equivalence will only be acceptable if the applicant has had certification of the credits by an institution accredited at the college level by an accrediting organization that is listed as nationally recognized by the Secretary of Education of the U.S. Department of Education.
3. No more than 34 credit hours of NUHS courses of the BS completion program may be granted credit through any means such as transfer, AP, CLEP, etc.

## **Transfer Students and Advanced Standing**

National University will consider granting transfer credit from regionally accredited college(s) where the credits are germane and equivalent to the credits of the curriculum of National University. A maximum of 34 credits of advanced standing credit may be requested toward the 64 required NUHS credits for graduation.

## **Non-degree Students**

National University makes a limited number of courses available to individuals who wish to take classes as non-degree seeking students. Students taking coursework in this capacity do not go through the normal admission process and are not admitted to a degree program. Interested individuals should contact the Admissions Office for guidance and course availability. Course enrollment is handled through the Registrar.

To obtain credit for courses, non-degree students must complete the entire trimester and successfully pass all required examinations. Tuition is paid by the non-degree student by the per credit hour fee.

## **Full-time Student**

A full-time baccalaureate student at National University is one who enrolls in no less than 12 academic credit hours of coursework per trimester.

## **Trimester Credit**

The trimester hour is the unit of credit. A trimester hour of credit is defined as one lecture period or two laboratory periods each week during the trimester. The class period is 50 minutes in duration. The formal hours of the Bachelor of Science in Biomedical Science Program are generally scheduled Monday through Friday from 4 to 10 p.m. except for the laboratories.

## **Textbooks**

There are numerous resources available online where you can purchase or rent textbooks needed for your classes. When purchasing textbooks online, please be observant and do your research before committing to a purchase. A list of several top websites for buying or renting textbooks online is provided at orientation.

## **Student Complaint Procedures**

Questions or complaints of an academic nature should first be addressed to the instructor. Unresolved complaints or any other issues pertaining to academic matters are to be directed to the appropriate dean.

In order to ensure an effective response, initial complaints should be prepared in a typed or written format. Complainants should describe the issue in their own words and include their full name and contact information. Complainants should also include dates and list any college officials who were involved or have been contacted. Any

supporting documentation, such as emails or other correspondence should be included in order to help others understand the nature, context, actions, or events that lead to the complaint. Finally, the complainant should state what, if any, remedy is sought.

NUHS is committed to resolving complaints at the earliest and most informal level, conducting internal investigations in a timely and effective manner, adhering to the procedures as outlined, and providing prompt corrective action if discrimination is believed to have occurred. The date upon which a written complaint is received shall be referred to as the date of complaint. NUHS will make every reasonable attempt to resolve all complaints within 60 days.

In order to file an internal academic or non-academic complaint, contact the following:

- Complaints regarding the Financial Aid Program: Director of Financial Aid, 2nd floor, Janse Hall, Lombard, Illinois; 630-889-6517
- Complaints regarding the College of Allied Health Sciences and Distance Education: Dean of the College of Allied Health Sciences and Distance Education, 630-889-6224
- Complaints regarding Non-academic University Issues (discipline, discrimination, sexual misconduct, harassment, disabilities, privacy, misuse of computing resources, student safety, and security, etc.); Dean of Students. 630-889-6546, email [studentservices@nuhs.edu](mailto:studentservices@nuhs.edu) or via the online complaint form: <https://www.nuhs.edu/student-services/support-services/complaints/student-complaint-form/>

### **Dean's List and Honor Roll**

At the end of each trimester, recognition of the Dean's List of Students for Distinguished Academic Achievement is awarded to those students who have completed at least 12 credit hours and have achieved a GPA of at least 3.5 on a 4.0 scale for the trimester with no grade lower than a C. Recognition on the Honor Roll of Students for Exemplary Academic Achievement is awarded to those students who have completed at least 12 credit hours and have achieved a GPA of at least 3.0 (on a 4.0 scale) for the trimester with no grade lower than a C.

### **Valedictorian/Salutatorian**

The valedictorian and salutatorian are respectively the first and second highest ranking scholars in the graduating class. The students must have earned at least 50 credit hours of their core curriculum credits at National University of Health Sciences. The rankings are determined by the cumulative grade point average.

In the event there is a tie for the valedictorian position (there may be more than one), there will be no salutatorian. In the event there is a tie for the salutatorian position, there may be more than one. The selection of the student commencement speaker is determined at the discretion of the University administration.

## **Academic Policies, Regulations, Procedures**

### **Bachelor of Science in Biomedical Sciences**

The curriculum includes classroom and lab courses in anatomy and physiology, cadaver laboratory, terminology, interpersonal communication, chemistry, physics, nutrition, and a variety of biological science electives.

A degree is awarded upon completion of the 124 credit hours of study. The BS completion program may be completed in four trimesters. Students may attend on a part-time basis.

The following academic policies, regulations, and procedures apply to all students of the National University of Health Sciences College of Allied Health Sciences and Distance Education. Failure to conform with policies, regulations, and procedures may jeopardize or negate a student's opportunity to pursue and/or complete the course of study leading to the Bachelor of Science in Biomedical Sciences.

### **Full-Time Student**

A full-time student in the BS completion program at National University is one who enrolls in no less than 12 academic credit hours of coursework.

### **Trimester Credit**

The trimester hour is the unit of credit. A trimester hour of credit is defined as one lecture period or two laboratory periods each week during the trimester. The class period is 50 minutes in duration. The formal hours of the program are generally scheduled Monday through Friday from 4 to 10 p.m.

### **Attendance, Tardiness Make-up Work**

National University has established the following policy:

Students may miss up to 10% of the total hours for each course and laboratory without being required to make up the missed work. Absence beyond the allowed 10% results in a grade of F or U unless the student qualifies for an excused absence or does all make-up work to the extent allowed by the appropriate dean. The student must meet one of the following requirements: verified death of an immediate family member; grave personal illness or injury; personal catastrophe; or non-reschedulable military service requirement.

An excused absence may only be granted by the appropriate dean and must be made up. Tardiness contributes toward absenteeism. Tardy is defined as being late to class by 15 minutes or less. Three tardies will be counted as a one-hour absence. Arriving at class greater than 15 minutes late counts as a one-hour absence.

### **Make-up Final Examination Policy**

This policy permits students the opportunity to make up course or laboratory final examinations when the requirements noted below are met. Missed (with excused absence) final examinations may be made up. The make-up examination will be scheduled by the instructor during the first week of class of the following trimester. If examinees are not present at the scheduled make-up exam time, they will receive the grade of F or U.

### **Final Comprehensive Examinations**

Final examinations are an integral part of the course evaluation and are scheduled during the final examination period that is composed of the last week of the trimester. Each examination is scheduled at a specific time. Students who present themselves to the exam site late (greater than 15 minutes or after the first student leaves the exam site, whichever comes first) may be required to follow the make-up exam policy. Final examinations may not be given at times other than the regularly scheduled periods or the make-up periods.

No student will be permitted to sit for a final examination who has not completed all the work, including tests, practical examinations, class assignments, attendance, etc., required by the faculty member and laboratory instructor prior to the final examination.

The format of the final comprehensive examinations will be determined by the faculty member and specified in the syllabus.

## **Co-Curricular Learning (CCL)**

National University of Health Sciences graduates are called to take their place as health professionals and leaders in their communities. While at National, all degree-seeking students are required to participate in community service activities that support both the University and the public, providing excellent training for future leadership roles.

Co-curricular Learning, or CCL, is a mission-driven service requirement. CCL encompasses community service activities that support the University and the public, while focusing on leadership and management, cultural diversity and ethics, and advancement of education. CCL incorporates learning experiences that complement, in some way, what students are learning in their programs.

Students are asked to submit short written assignments reflecting on their own learning experiences therein. A master list of volunteer opportunities will be maintained by the Office of Student Services.

### **Program Requirements**

BS, MSACP and MSDI

### **Required Assignments**

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## **Academic Difficulty**

Depending upon the degree of academic difficulty, a student may be issued an Academic Deficiency, an Academic Warning, or placed on Academic Probation. A combination of academic warnings and academic probationations may result in the student being suspended or expelled from the university. Decisions in this regard may be referred to the Committee on Academic Standards, Grades, and Records through the appropriate dean's office.

Definitions of the categories of academic difficulty follow.

### **Academic Deficiency**

Academic Deficiency occurs whenever a grade of F or U is received in one or more courses, regardless of the trimester or cumulative grade point average. Courses with a grade of F or U must normally be repeated in the following trimester.

### **Academic Warning**

Academic Warning occurs whenever the trimester grade point average is less than 2.00. A single academic warning does not typically trigger remedial actions. Repeated academic warnings may cause remedial actions in the form of load reduction and/or repeating courses with a grade of D.

### **Academic Probation**

Academic Probation occurs whenever the cumulative grade point average is less than 2.00. Students on Academic Probation are no longer in good academic standing and are subject to remedial actions intended to improve academic performance. The probationary period is one trimester in length. During the probationary period, students shall not be allowed to participate in off-campus extracurricular activities or receive excused absences to attend activities supported by the University. Students within the Bachelor's Program may receive only two academic probationations, cumulatively. A third probation causes academic separation from the program.

Remedial actions are typically prescribed for students as a result of being placed into one of these categories. Such actions are administered through the office of the Dean, in consultation with designated academic advisors. Academic sanctions in the form of suspension or expulsion from the program may also result from an accumulation

of academic warnings and probations. Such decisions are made by the Dean, and may be appealed to the Committee on Academic Standards, Grades, and Records through the Dean's office.

## **Withdrawal**

Students who stop attending National University of Health Sciences must officially withdraw from the university. Students desiring to withdraw in good standing must secure a Request for Authorized Withdrawal from the Registrar, which must be properly completed and deposited with the Registrar. Returning students must direct their requests for readmission to the Registrar if withdrawn for three or less trimesters. If the withdrawal is for more than three trimesters, the student must reapply for admission.

## **Administrative Withdrawal**

Students who do not meet administrative requirements or expectations to remain enrolled at NUHS can be administratively withdrawn by the institution. Students can be administratively withdrawn for reasons such as the following:

- Failure to pay tuition;
- Failure to meet matriculation requirements;
- Failure to meet attendance requirements and/or persistent absence;
- Other substantive violations of NUHS' policies, procedures, or safety rules, including but not limited to violations of the academic honesty, code of conduct, or gender-based misconduct policies;

In the event of an administrative withdrawal, the Registrar's Office will notify students via email. If administratively withdrawn, students have the right to appeal the decision. For more detailed information, please refer to the "Withdrawal – Involuntary Administrative" policy.

## **Separation**

Students may be expelled or suspended from a program of the university for, among other reasons, academic deficiency or for academic dishonesty, such as, but not limited to, the use of dishonest means in any examination, the plagiarism of class assignments, and/or the falsification of previous academic records.

Students who have been separated from the university for academic reasons must direct their request for readmission to the Registrar within one year of leaving. After one calendar year, academically dismissed students are not eligible for readmission. Any conditions relative to readmission are established by the appropriate dean in consultation with the Committee on Academic Standards, Grades, and Records and with the advice of the Admissions Committee.

## **Graduation Requirements**

The degree of bachelor of biomedical science is conferred on the individual who:

1. has successfully completed 124 trimester hours of coursework with at least 30 of these hours earned at National University of Health Sciences, and no more than 34 of these hours granted as 'Advanced Standing';
2. has successfully completed all of the required courses and laboratories;
3. has successfully completed all required Co-Curricular Learning assignments
4. is in good academic standing;
5. is recommended for graduation by the faculty of the university;
6. is free of all indebtedness and other obligations to the university;
7. has passed the final comprehensive examination;
8. has submitted a completed and signed Petition for Degree Completion Form; and
9. has participated in the commencement ceremony.

Note: To receive the "Emphasis in Nutrition" designation, students must successfully complete 19 credits of nutrition courses.



**Academic Calendar**

Please refer to the university calendar section of this *Bulletin*.

## BIOL133 (Online) Research Methods &amp; Statistics Credits 3.0

## Research Methods & Statistics

**Credits 3.0**

Prerequisite: None

Offered: Fall

## Human Physiology 1: Control Systems

**Credits 3.0**

7.5 Weeks

Prerequisite: None

Offered: Fall, Spring, Summer

## Human Physiology 2: Body Functions

**Credits 3.0**

### 7.5 Weeks

**Prerequisite:** At least one first year biology course with an emphasis on cell biology or physiology.

Offered: Fall, Spring, Summer

## Human Physiology Lab

**Credit 1.0**

Co-requisite: BIOL201

Offered: Fall, Spring, Summer

## Anatomy 1

**Credits 4.0**

Prerequisite: None

Offered: Fall, Spring, Summer

## Anatomy 2

**Credits 4.0**

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function of organs and organ systems. The gross anatomy laboratory sessions will be presented using a regional approach, and will be designed to support the lecture sessions and address related basic science issues.

Prerequisite: BIOL221

Offered: Fall Only

**BIOL231 (Online)**

**General Microbiology**

**Credits 3.0**

This course will introduce students to the microbial world. General properties of microorganisms including classification, morphologic and growth characteristics, metabolism, and genetics will be discussed. The methods to study microorganisms will be discussed in detail. Students will explore the applications of microbiology to modern diagnostics and biotechnology. The course will consist of didactic and group discussion format.

Prerequisite: None

Offered: Fall, Spring, Summer

**BIOL241**

**Biopsychology**

**Credits 3.0**

This course provides an introduction to understanding the function of the human brain and its relation to behavior. The first goal of this course is for students to integrate a basic understanding of the anatomy and neurology of the brain information into their existing knowledge base. The second goal of this course is to provide students an adequate framework about basic principles in biopsychology so that information may be incorporated in an understanding of holistic health care. A topical format is employed focusing on relevant health care issues. Topics include the structure and function of the nervous system related to a combination of the following topics: human brain damage, vision, movement, eating and drinking, sex, sleep, drug addiction, learning and memory, neuroplasticity, lateralization, emotions, stress, mental disorders, and health. To accomplish these goals, the topical information will be presented through a combination of lectures, discussions, and readings beyond the textbook.

Prerequisite: BIOL203

Offered: Spring

**BIOL301**

**Histology**

**Credits 3.0**

This histology course is a study of the microscopic and ultramicroscopic structure of human tissues and organs, i.e., microscopic anatomy. Special emphasis is placed on the relation of structure to function. This course gives students a thorough and detailed overview of the various human tissues and organs. This is an upper level course designed for students who want intensive preparation in microanatomy.

**BIOL302**

**Exercise Physiology**

**Credits 3.0**

Exercise physiology is an applied discipline that combines knowledge of metabolic biochemistry, cellular and organ system physiology, and anatomic structure and function in order to understand and explain physical and athletic performance. In this course, students will be introduced to the metabolic, muscular, and cardio-respiratory adaptations to both acute and chronic exercise in humans. The emphasis will be for students to learn and understand major concepts in terms of normal physiologic responses in healthy individuals.

Prerequisite: BIOL201 or any biology course

Offered: Spring, Summer

**BIOL303**

**Embryology**

**Credits 3.0**

This course includes the basic principles underlying vertebrate development. Topics will include gametogenesis, fertilization, germ layer formation, organogenesis, growth, differentiation, morphogenesis, and control of development. Some abnormal embryology is introduced that has some clinically significant outcomes.

Prerequisite: BIOL201

Offered: Fall

**BIOL304**

**Basic Neuroscience**

**Credits 3.0**

Students will learn in a lecture and problem-based format the normal structures and functions (with minor emphasis on clinical) of the human nervous system. Emphasis will be primarily on basic science issues related to normal anatomy and functions of the human nervous system.

Prerequisite: BIOL203 / Offered: Fall, Spring

**BIOL305** **Genetics** **Credits 3.0**

Genetics has emerged as a central discipline in biology, and with the now-completed sequencing of the human genome, it is evident that all fields of biology can be related to the DNA possessed by the organism. This course will provide the fundamental tools required to understand the language of genetics.

Prerequisite: None

Offered: Fall

**BIOL306** **Cell Biology** **Credits 3.0**

This course is designed to provide a first look at what is known and how scientists are going about trying to understand the way in which living things operate at the most fundamental (but perhaps least understood) level — the molecular level. It is also a goal of this course to have students exposed to research concerning molecular biology that is reported in the primary research journals of science. Furthermore, Cell Biology 306 is a transition course in both the biology and biochemistry majors. It is built upon a foundation of introductory biology and chemistry and is designed to prepare students for upper division work in biochemistry, molecular biology, neurobiology, developmental biology, and immunology. These disciplines, in turn, form the foundation of modern medicine.

Prerequisite: BIOL203

Offered: Fall, Spring

**BIOL315 (Online)** **Introduction to Toxicology** **Credits 3.0**

This class will explore a wide array of environmental and synthetic toxicants, toxins, poisons, and xenobiotics on the human body. Specifically, this course will focus on different types of toxicants, their sources, the physiological mechanisms of action, the symptoms that manifest, the preventative procedures, and possible treatment strategies.

Prerequisite: BIOL201S, BIOL203S

Offered: Fall

**BIOL333 (Online)** **Immunology** **Credits 3.0**

This course will introduce students to the body's defenses. Different components of immune system, nonspecific and specific immunity will be discussed. The different cellular elements and biochemical mediators involved in immune response will be discussed in detail. Students will explore the applications of immunology to modern diagnostics, biotechnology, and therapeutics. There will be an introduction to immunologic disorders. The course will consist of didactic and group discussion format. Students will be assessed with periodic quizzes and exams in multiple choice, essay, and modified essay format.

Prerequisite: BIOL203

Offered: Fall, Summer

**BIOL337 (Online)** **Pathophysiology** **Credits 3.0**

The pathophysiology course is designed to introduce the student to basic pathologic processes and their applications to major pathologic conditions. The course work will include study of mechanisms of disease, causative and contributory factors, and an introduction to traditional as well as complementary and alternative management approaches. The instruction will be in the form of online learning resources including power points. The assessment will be based on discussion forums and online multiple choice tests, midterm, and final exams.

Prerequisite: BIOL201 or any equivalent physiology course

Offered: Fall, Spring

**BIOL400 (Online)** **Independent Study** **Credits 1.0 – 3.0**

Prerequisite: May be taken only to fulfill graduation requirements

Offered: Fall, Spring, Summer

**BIOL401 (Online)** **Current Topics in the Biosciences 1** **Credits 1.0**  
**7.5 Weeks, each class**

This course highlights current topics in the biosciences, particularly through recent novel publications or controversial topics. The course will focus on searching, reading and assessing scientific literature. Scientific areas that may be covered include molecular biology, genomics, immunology, infectious disease, and medical technology.

This course is intended for in-depth study of one or a few relevant topics. The student will choose a topic, either from examples provided or from their own interest, and spend the duration of the course researching this topic. If BIOL401 and BIOL402 are taken, topics must not be repeated, and may only be taken in a student's last trimester.

Prerequisite: Any Biology course

Offered: Fall, Spring, Summer

**BIOL402 (Online)**

**Current Topics in the Biosciences 2**

**Credits 1.0**

**7.5 Weeks, each class**

This course highlights current topics in the biosciences, particularly through recent novel publications or controversial topics. The course will focus on searching, reading and assessing scientific literature. Scientific areas that may be covered include molecular biology, genomics, immunology, infectious disease, and medical technology.

This course is intended for in-depth study of one or a few relevant topics. The student will choose a topic, either from examples provided or from their own interest, and spend the duration of the course researching this topic. If BIOL401 and BIOL402 are taken, topics must not be repeated, and may only be taken in a student's last trimester.

Prerequisite: Any Biology course

Offered: Fall, Spring, Summer

**BIOL403 (Online)**

**Introduction to Epidemiology**

**Credits 3.0**

This course covers applications of epidemiologic methods and procedures to the study of the distribution and determinants of health and diseases, morbidity, injuries, disability, and mortality in populations. Epidemiologic methods for the control of conditions such as infectious and chronic diseases, mental disorders, community and environmental health hazards, and unintentional injuries are discussed. Other topics include quantitative aspects of epidemiology, for example, data sources, measures of morbidity and mortality, evaluation of association and causality, study design, and screening for disease.

Prerequisite: BIOL133

Offered: Fall, Summer

**CHEM111 (Online)**

**General Chemistry 1**

**Credits 3.0**

**7.5 Weeks**

Foundations of chemistry, atoms, and molecules. Principles of stoichiometry, chemical reactions, properties of gases, periodicity and chemical bonding. Energy changes in chemical systems and electronic structure of atoms, and molecules. Examination of the chemical reactivity of common elements, inorganic and organic compounds.

Prerequisite: MATH135

Offered: Spring, Summer, Fall

**CHEM113 (Online)**

**General Chemistry 2**

**Credits 3.0**

**7.5 Weeks**

Properties of liquids and solutions, and principles of acid-base equilibria, solubility, and electrochemical processes. Examination of chemical kinetics and equilibria.

Prerequisite: CHEM111 or equivalent, MATH135

Offered: Spring, Summer, Fall

**CHEM116**

**General Chemistry 1 Lab**

**Credits 1.0**

**7.5 Weeks**

This is an in class course implementing through experiment, the foundations of chemistry, atoms, and molecules, principles of stoichiometry, chemical reactions, properties of gasses, periodicity and chemical bonding, energy changes in chemical systems and electronic structure of atoms and molecules, examinations the chemical reactivity of common elements, and inorganic and organic compounds. Students will also learn safety in the lab.

Pre-Requisite: MATH135

Co-Requisite: CHEM111

<b>CHEM118</b>	<b>General Chemistry 2 Lab</b> <b>7.5 Weeks</b>	<b>Credits 1.0</b>
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This is an in-class lab course implementing topics in general chemistry and analytical chemistry covering phase transitions, thermochemistry, spontaneity/equilibrium, electrochemistry, kinetics, bonding, order/symmetry in condensed phases, coordination compounds, and descriptive chemistry.

Prerequisites: CHEM 111 and CHEM 116

Co-requisites: CHEM113

<b>CHEM201S (Online)</b>	<b>Organic Chemistry 1</b>	<b>Credits 3.0</b>
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Structure and bonding in organic chemistry, Isomerism, and stereoisomerism in organic compounds. Chemistry of alkanes, cycloalkanes, alkenes, and alkynes. Aromatic compounds and mechanisms of aromatic substitution. Nucleophilic addition and substitution reactions. Chemistry of alcohols, ethers, aldehydes, and ketones.

Prerequisite: CHEM113 or equivalent

Offered: Spring, Summer, Fall

<b>CHEM203S (Online)</b>	<b>Organic Chemistry 2</b>	<b>Credits 3.0</b>
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This course will explore the chemistry of carboxylic acids and their derivatives, as well as amines and related nitrogen compounds; applications of spectroscopic techniques in organic chemistry; introduction to biochemistry, which will examine amino acids, carbohydrates, lipids, and nucleic acids; structure and properties of proteins and enzymes.

Prerequisite: CHEM 201S or equivalent

Offered: Summer Only

<b>CHEM206</b>	<b>Organic Chemistry 1 Lab</b> <b>7.5 Weeks</b>	<b>Credit 1.0</b>
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CHEM206 Lab accompanies Chem201S Organic Chemistry lecture. This laboratory course is an introduction to the techniques commonly used in the organic chemistry laboratory, an introduction to the synthesis of organic molecules, and an introduction to basic laboratory techniques; such as distillation, melting point, extraction of known and unknown mixtures, recrystallization, synthesis of compounds, and experiments utilizing basic organic techniques.

Prerequisite: CHEM113

Co-requisite: CHEM201S

Offered: Spring, Summer, Fall

<b>CHEM207</b>	<b>Organic Chemistry 2 Lab</b> <b>7.5 Weeks</b>	<b>Credit 1.0</b>
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CHEM207 Lab accompanies CHEM203S Organic Chemistry lecture. This laboratory course is an introduction to the techniques commonly used in the organic chemistry laboratory, an introduction to the synthesis of organic molecules, and an introduction to basic laboratory techniques; such as distillation, melting point, extraction of known and unknown mixtures, recrystallization, synthesis of compounds, and experiments utilizing basic organic techniques.

Prerequisite: CHEM201S and CHEM206

Co-requisite: CHEM203

Offered: Summer only

<b>CHEM301</b>	<b>Biochemistry</b>	<b>Credits 4.0</b>
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This course focuses on the chemistry of amino acids, carbohydrates, lipids, and nucleic acids, with special emphasis on representative proteins and enzymes, including hemoglobin, myoglobin, and cytochromes P450.

Prerequisite: BIOL203 or any biology course

Offered: Spring, Summer, Fall

<b>CHEM401</b>	<b>Principles of Pharmacology</b>	<b>Credits 4.0</b>
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This course provides an introduction to the use of drugs in western medicine for the treatment of disease. Topics covered in this course will be a description of drug names and classification, general principles of drug action and

metabolism. A large part of this course will be a description of the drug actions on body systems including all the major disorders and diseases in each of the system of the body. Included will be a description of the mechanism of action, major side effects and contraindications for each drug and drug category. Interactions with other drugs and botanicals as well as a description of the nutrients that are depleted by each of the drugs will be covered. Drug actions on infection and immune system regulation as well as drug abuse, chemical dependency, and drug abuse will be described.

Prerequisite: CHEM301

Offered: Fall Only

### **COM100**

#### **Student Success (15 Clock Hours)**

**Credits 0.0**

This non-credit course will help students to understand how to achieve academic success in a health profession program. The course will help students set academic goals, manage stress, and understand grade point average calculation. The course will also help students determine their primary learning style and improve communication skills, study skills and test taking skills. Students of any program may benefit from this course as a preparatory course. Others may find it useful if expectations have not been met.

Prerequisite: None

Offered: Fall, Spring, Summer

### **COM103 (Online)**

#### **Medical Spanish**

**Credits 3.0**

Clinical Spanish is a 45-hour elective focused on Spanish language skills used in clinical practice. The course emphasizes the key role of the patient history in making a diagnosis, the evaluation of clinical evidence such as patient symptoms, and relevant statistical concepts such as predictive value. The underlying pathophysiologic mechanisms underlying common symptoms are reviewed. This course is based on listening and speaking skills rather than on reading and writing. There are no written exercises and no written tests or exams.

Prerequisite: None

Offered: Summer Only

### **COM107 (Online)**

#### **Diagnostic Art**

**Credits 2.0**

This course explores and describes the observational skills used by artists in depicting various medical problems, and emphasizes related observational skills used in clinical practice. The key role of observation in the diagnostic process is emphasized, supported by concepts and methods of evidence-based medicine as they relate to clinical diagnosis. Relevant mechanisms of perception are reviewed, and the links between art history and the history of medicine. Analysis of medically relevant visual art is used as an instructional strategy comparable to the use of critical incidents or case histories. Analogies of visual images as related in music are also discussed.

Prerequisite: None

Offered: Fall only

### **MATH135**

#### **College Algebra**

**Credits 3.0**

The study of algebra with emphasis on applications. Topics include functions, inequalities, polynomials, conic sections, exponential and logarithmic functions, determinants, matrices, sequences, and series. Applications will be made in the social and medical sciences.

Prerequisite: None

Offered: Spring, Summer, Fall

### **MATH145**

#### **Trigonometry/Pre-Calculus**

**Credits 3.0**

A formal study of algebra with strong emphasis on concepts needed for calculus. Topics include functions, inequalities, polynomials, rational functions, basic logarithmic and exponential functions, combinatorial mathematics, determinants, and matrices. Basic trigonometric functions and identities will also be studied. Applications will be made.

Prerequisite: MATH135

Offered: Spring

**MATH155** **Calculus for Biological Sciences** **Credits 3.0**

This is a one-semester course designed to provide an introduction to the essentials of calculus covering techniques, methods, and applications of differentials and integrals. Topics include: an overview of derivatives and integrals (antiderivatives), the definite integral, the fundamental theorem of calculus, and applications in health science.

This course emphasizes the mastery of key concepts with the primary aim of helping students to learn, understand, explain, and use calculus. In addition, it is desired that students will improve their mathematical skills and further their understanding of mathematics and its applications to health sciences.

Prerequisite: MATH145

Offered: Summer

**NU201 (Online)** **Basic Nutrition** **Credits 3.0**

Basic principles of human nutrition, including the physical and chemical nature of carbohydrates, proteins, fats, vitamins, minerals, and metals will be discussed. Included in this course are cell metabolism and energy balance. Water and electrolyte balance and acid base balance are covered as well as absorption, distribution metabolism and excretion of the elements discussed.

Prerequisite: BIOL201

Offered: Spring, Summer, Fall

**NU202 (Online)** **Evaluation of Modern Diets** **Credits 3.0**

This course will evaluate the nutritional quality of common dietary programs that are popular in the United States. The dietary programs will be compared to determine which may be most beneficial for various health conditions such as obesity. Contraindications and possible adverse effects of each diet will be discussed.

Prerequisite: NU201

Offered: Spring only

**NU301** **Nutrition in Health & Disease** **Credits 4.0**

This is an introductory course to the utilization of nutrients and supplements for the prevention and treatment of major diseases found in western culture, including diseases of the heart, blood vessels, lungs, skin, and gastrointestinal tract, as well as metabolic disorders. There will be a special emphasis on wellness and dietary issues. The major emphasis is an explanation of the disease process as a totality of dietary and lifestyle concerns in the western world. Wellness theory as a holistic matter is covered in a general manner.

Prerequisite: NU201

Offered: Fall, Spring only

**NU302 (Online)** **Advanced Human Nutrition** **Credits 3.0**

This course is a continuation of NU301, Nutrition in Health and Disease, but issues such as school and hospital dietary eating plans are included. The dietary issues covered in NU301 will be expanded to include supplemental, dietary and some introduction to botanical and pharmacological influences on nutrients, wellness, and health and disease. Special emphasis will be on cardiovascular and metabolic diseases as they relate to the western diet. Fad diets as they influence society in the western culture are covered in this course.

Prerequisite: NU201

Offered: Summer

**NU303** **Nutrition in the Life Cycle** **Credits 3.0**

Nutrition during pregnancy and lactation, growth and development, infants, pediatrics, adolescence, teenage young adults, adults, and geriatric issues are covered. The nutrition issues that change and those that become necessary as we go through the stages of life are covered in detail. A special emphasis on pediatric and geriatric issues will be addressed considering the importance of these two populations as our citizens become older on the average and our newborn infants are exposed to increasingly negative challenges such as xenobiotics and allergens.

Prerequisite: NU201

Offered: Spring, Summer



**NU304** **Food Science (Emphasizing Microbiology and Safety)** **Credits 3.0**

In this course, food safety concerns such as pesticides, drugs additives, food labeling laws, government control regulations, and food-borne diseases are addressed. Fundamental scientific principles of food composition, food processing, and production will be discussed. Culinary applications of foods science are introduced.

Prerequisite: NU201

Offered: Spring, Fall

**NU305** **Sports and Physical Performance Nutrition** **Credits 3.0**

Energy sources for physical and athletic performance and sports are covered in the course. Topics will include the relationship between demographics, physical fitness, nutrition/diet, exercise, common sports injuries, and performance enhancing nutraceuticals. Special emphasis will be on the biochemical pathways and the physiological responses to the nutrients that may help athletes develop endurance and strength. The concepts of anaerobic threshold as well as lactic acid build-up are addressed.

Prerequisite: NU201

Offered: Summer, Fall

**NU307 (Online)** **Introduction to Botanicals and Herbs** **Credits 3.0**

The purpose of this course is to provide students with the knowledge and understanding of herbal supplements for common ailments and prevention of diseases that are encountered in every day life. The following topics will be discussed in this course: mechanism of botanical action, indications, and contraindications of botanicals, clinical problems, and a listing of botanicals.

Prerequisite: NU201

Offered: Spring, Summer

**NU308 (Online)** **Cultural Perspectives of Food** **Credits 2.0**

This course is a survey of present and past food practices around the globe. Understanding religious and ethnic foods, diverse dietary patterns, and food production with application to disease prevalence will be examined. Functional foods will be highlighted for each global dietary pattern.

Prerequisite: NU201

Offered: Fall

**NU310 (Online)** **Community Nutrition** **Credits 1.0**

This course examines the principles of public health, community nutrition, epidemiology, health, legislation, and nutrition policy. Evaluation of current community nutrition programs throughout the lifecycle will be emphasized.

Prerequisite: NU201

Offered: Spring

**NU311 (Online)** **Nutrition Education** **Credit 1.0**

This course focuses on communication skills for nutrition education. Strategies, techniques, and theories of behavioral change are discussed. Application of nutrition education material and evaluation of nutrition programs will be emphasized.

Prerequisite: NU310

Offered: Spring

**PHYS111S** **Physics 1** **Credits 3.0**

Non-calculus-based study of classical linear and rotational kinematics and dynamics (including work, energy, impulse, momentum, and collisions), fluids, periodic motion, sound and wave motion.

Prerequisite: College Algebra (MATH135) or equivalent

Offered: Fall, Spring, Summer

**PHYS113S** **Physics 2** **Credits 3.0**  
Non-calculus-based study of electrostatics, electric fields, Gauss' law, capacitance, current, resistance, magnetic forces and fields, electromagnetic induction, DC and AC circuits, electromagnetic waves, optics, and modern physics, as well as an introduction to quantum physics.  
Prerequisite: Physics111S  
Offered: Summer

**PHYS115 (Online)** **General Physics Laboratory** **Credit 1.0**  
Non-calculus-based virtual lab study of classical linear mechanics and dynamics (including work, energy, impulse, momentum and collisions), periodic motion, sound and wave motion, electricity and circuits.  
Prerequisite / Co-requisite: MATH135, PHYS111S  
Offered: Spring, Summer, Fall

**PHYS117** **Physics 2 Laboratory** **Credit 1.0**  
This is a course that will allow students to learn/experience a "hands-on" approach to physics. The lab will comprise those experiments that are important to the understanding of the Laws and Concepts of College Physics as it prepares the students for a course in science that furthers their education, or prepares them for a career in the arena of science-based health care.  
Prerequisite or Co-requisite: PHYS111S  
Offered: Summer only

**PHYS211** **Kinesiology** **Credits 3.0**  
Understanding human activity from a mechanical and physiological perspective so to address major issues, which include reducing the risk of injury, optimizing exercise prescription, and understanding clinical evaluations. Functional anatomy, muscle and passive tissue mechanics, anthropometry, electromyography, and linked segment mechanics are introduced and applied to clinical, occupational and athletic situations. Basic concepts of cardiovascular, respiratory, and thermoregulatory responses to physical activity.  
Prerequisite: None  
Offered: Spring and Fall only

**PUBH211 (Online)** **Introduction to Public Health** **Credits 3.0**  
Considered in this course are the basic concepts related to public and community health. Many students of the "sciences" focus on the details of each discipline of science (biology, chemistry, etc.) without understanding how these disciplines play roles in the health of the public in general. This course is designed to introduce the science of public health, including epidemiology, environmental health, and health education. The history of public health and the basics of the U.S. health care system are also covered.  
Prerequisite: BIOL133 (Research)  
Offered: Spring and Fall only

**TERM181 (Online)** **Medical Terminology** **Credits 3.0**  
This course is designed for students in the health care curriculum who need to be familiar with medical terms. It provides a framework for building a medical vocabulary. Emphasis will be on understanding basic medical terms, abbreviations and their meanings, and how they are used in documenting and reporting patient care procedures. Information provided in this course will help students to succeed in their chosen health care careers by familiarizing them with how medical terms are formed and by providing a systematic learning structure. Practical applications are provided by exercises and medical record analysis.

Students interested in acquiring or improving their knowledge of the language of health care would benefit from this course. The goal is to develop a basic working knowledge of the language of health care to serve as a basis for individual expansion.  
Prerequisite: None  
Offered: Spring, Summer, Fall

## Prerequisite Program

Students who desire a first professional health care education but have undergraduate degrees with a non-science major or those who fall short of the required credit hours in science to meet National University admission requirements, may enroll in the Prerequisite Program. The Prerequisite Program is offered on the Illinois campus only.

Under the NUHS Prerequisite Program, students can take one or several required bachelor's level science courses. General Chemistry 1 and 2 lecture and labs, and Physiology 1 and 2 lecture are offered in an accelerated format during two 8-week sessions prior to starting their graduate program. The two sessions are offered during each 15-week trimester to allow students to complete their science requirements in just one trimester.

Prerequisite Session 1, (Weeks 1-8) includes:

- General Chemistry 1 lecture plus Lab
- Physiology 1 lecture.

Prerequisite Session 2, (Weeks 8-15) includes:

- General Chemistry 2 lecture plus Lab
- Physiology 2 lecture.

Organic Chemistry 1 and 2 labs are also offered in an accelerated format of 8 weeks each. Other courses are available in non-accelerated 15-week sessions, such as Organic Chemistry 1 and 2 lecture, Physics, Physics lab, Biochemistry, Kinesiology, Physiology lab, and Anatomy plus lab.

Students must apply for one of the NUHS Professional Studies programs to receive a 50% tuition discount on their prerequisite coursework.

## Admission Information

### General Guidelines

Students wishing to enroll in the Prerequisite Program may do so at any time. National University admits new students into this program each fall, spring and summer trimester. An application is required, which can be obtained in the Admissions Office. Upon completion of the application process, students will be contacted for advising and course registration.

### Application Procedure

Students interested in the Prerequisite Program should complete the following process:

1. Complete a Prerequisite Application for Admission (No application fee is required.)
2. Submit transcripts from all regionally accredited undergraduate institutions attended.

## Student Financial Aid

### Financial Aid Programs

NUHS participates in the Federal Direct Loan Program. Undergraduate students enrolled in the Prerequisite Program are eligible to participate in the Direct Loan Program only.

Qualifications to participate in the loan program are as follows:

- may only receive aid for courses listed in their admissions letter that are necessary for admittance to their graduate program;

- must apply for admission into one of the NUHS Professional Studies programs;
- must enroll in a minimum of six total credit hours for the trimester(s);
- must complete the prerequisite courses within two trimesters. (Loan funds can only be awarded for two terms — four mini terms — within a calendar year);
- must have completed a financial aid application for the term(s) enrolled.

### **Eligible Loan Amounts**

Students who complete the Free Application for Federal Student Aid (FAFSA) as an undergraduate dependent student may be eligible to borrow \$3,750 per trimester. Money that students borrow for the Prerequisite Program may impact the amount that can be borrowed when they begin their graduate program.

Students who complete the Free Application for Federal Student Aid (FAFSA) as an undergraduate independent student may be eligible to borrow \$6,250 per trimester. Money that students borrow for the Prerequisite Program may impact the amount that can be borrowed when they begin their graduate program.

### **Loans**

#### **Direct Subsidized Loan**

The Direct Subsidized Loan is a need-based loan where the federal government pays the interest that accrues while students are attending school on at least a half-time basis and during the 6-month grace period following graduation or withdrawal. This is a variable fixed rate loan based on the rate announced each July 1.

#### **Direct Unsubsidized Loan**

The Direct Unsubsidized Loan is a non-need based loan where students are responsible for all interest that accrues from the day of disbursement. This is a variable fixed rate loan based on the rate announced each July 1.

All loans must be repaid. Direct Loans must be disbursed in two installments. For students who are receiving a loan for only one trimester, half the funds will be sent at the beginning of the term and the other half will be sent at the mid-point of the trimester. Repayment for Direct Loans begins six months after the student is no longer enrolled at least half-time.

## Prerequisite Course Descriptions

**BIOL201** **Human Physiology 1: Control Systems** **Credits 3.0**  
(6 hrs/wk lecture, 45 clock hours)

### 7.5 Weeks

The physiology of the cell, signaling mechanisms, cellular transport mechanisms, and human biological control systems will be investigated. Topics to be studied are cell structure and function, movement of molecules across cell membranes, homeostatic mechanisms, and cellular communication. The metabolic pathways of glycolysis, Krebs cycle, and oxidative phosphorylation are incorporated into discussions of cell function. The nervous and sensory systems are studied along with their control mechanisms. The examination of the muscular system function is extended to include its control of body movements

Prerequisite: None

Offered: Fall, Spring, Summer

**BIOL203** **Human Physiology 2: Body Functions** **Credits 3.0**  
(6 hrs/wk lecture, 45 clock hours)

### 7.5 Weeks

The anatomy and physiology of the major organ systems of the human body. Topics include the cardiovascular, respiratory, excretory, digestive, reproductive, and immune systems, and the components of blood.

Prerequisite: At least one first-year biology course with an emphasis on physiology, or cell biology, or equivalent

**BIOL205 (Online)** **Human Physiology Lab** **Credit 1.0**

Students will perform 10 laboratory exercises illustrating fundamental principles in physiology. The labs will involve exercises covering the following topics: cell transport and membrane permeability; skeletal muscle and neurophysiology; mechanisms involving the endocrine, cardiovascular and respiratory systems; as well as, function and regulation in renal system physiology and acid-base balance.

Co-requisite: BIOL201, BIOL203

**BIOL221** **Anatomy 1 & Laboratory** **Credits 4.0**  
(3 hrs/wk lecture, 2 hrs/wk lab, 75 clock hours)

In this course, students will learn, in both lecture and laboratory formats, the basic concepts of human anatomy with an emphasis on the relationship between structure and function. Basic concepts such as anatomical terminology, position, and relationship will be discussed in order to provide a foundation onto which other anatomical concepts will be taught. In addition, the normal gross anatomy of the musculoskeletal system (including the osteology, arthrology, and myology of the different anatomical regions) and the spinal cord will be presented. The gross anatomy laboratory sessions will be presented using a regional approach in order to facilitate greater integration of the lecture material.

Prerequisite: None

**BIOL223** **Anatomy 2 & Laboratory** **Credits 4.0**  
(3 hrs/wk lecture, 2 hrs/wk lab, 75 clock hours)

In this course, students will learn in lecture and laboratory formats, the normal gross structures of the human brain (including special senses and the autonomic nervous system) and organ systems. The organ systems discussed are the cardiovascular, respiratory, lymphatic, endocrine, urinary, digestive, and reproductive. In addition, the structural interrelationships between organ systems will be explained as well as the interrelationships between structure and function of organs and organ systems. The gross anatomy laboratory sessions will be presented using a regional approach and will be designed to support the lecture sessions and address related basic science issues.

Prerequisite: BIOL221

**BIOL302** **Exercise Physiology** **Credits 3.0**  
(3 hrs/wk lecture, 45 clock hours)

Exercise physiology is an applied discipline that combines knowledge of metabolic biochemistry, cellular and organ system physiology, and anatomic structure and function in order to understand and explain physical and athletic performance. In this course, students will be introduced to the metabolic, muscular, and cardio-respiratory

Prerequisite: BIOL201 or any biology course

**Credits 3.0**

## 7.5 Weeks

Prerequisite: MATH135

**Credits 3.0**

### 7.5 Weeks

Prerequisite: CHEM111 or equivalent

**Credits 1.0**

## 7.5 Weeks

Co-Requisite: CHEM111

**Credits 1.0**

### 7.5 Weeks

Co-requisites: CHEM113

**Credits 3.0**

Prerequisite: CHEM113 or equivalent

**Credits 3.0**

Prerequisite: CHEM201S or equivalent

**CHEM206** **Organic Chemistry 1 Lab** **Credit 1.0**  
(4 hrs/wk lab, 30 clock hrs)

CHEM206 Lab accompanies CHEM201S Organic Chemistry lecture. This laboratory course is an introduction to the techniques commonly used in the organic chemistry laboratory, an introduction to the synthesis of organic molecules, and an introduction to basic laboratory techniques; such as distillation, melting point, extraction of known and unknown mixtures, recrystallization, synthesis of compounds, and experiments utilizing basic organic techniques.

Prerequisite: CHEM113

Co-requisite: CHEM201S

**CHEM207** **Organic Chemistry 2 Lab** **Credit 1.0**  
(4 hrs/wk lab, 30 clock hrs)

CHEM207 Lab accompanies CHEM203S Organic Chemistry lecture. This laboratory course is an introduction to the techniques commonly used in the organic chemistry laboratory, an introduction to the synthesis of organic molecules, and an introduction to basic laboratory techniques; such as distillation, melting point, extraction of known and unknown mixtures, recrystallization, synthesis of compounds, and experiments utilizing basic organic techniques.

Prerequisite: CHEM201S and CHEM206

Co-requisite: CHEM203S

**CHEM301** **Biochemistry** **Credits 4.0**  
(4 hrs/wk lecture, 60 clock hours)

This course focuses on the chemistry of amino acids, carbohydrates, lipids, and nucleic acids, with special emphasis on representative proteins and enzymes, including hemoglobin, myoglobin, and cytochromes P450.

Prerequisite: BIOL203 or any biology course

**PHYS111S** **Physics I** **Credits 3.0**  
(3 hrs/wk lecture, 45 clock hours)

Non-calculus-based study of classical linear and rotational kinematics and dynamics (including work, energy, impulse, momentum, and collisions), fluids, periodic motion, sound and wave motion.

Prerequisite: College Algebra (MATH135) or equivalent

**PHYS113S** **Physics 2** **Credits 3.0**  
(3 hrs/wk lecture, 45 clock hours)

Non-calculus-based study of electrostatics, electric fields, Gauss' law, capacitance, current, resistance, magnetic forces and fields, electromagnetic induction, DC and AC circuits, electromagnetic waves, optics, and modern physics, as well as an introduction to quantum physics.

Prerequisite: PHYS111S

**PHYS115 (Online)** **General Physics Laboratory** **Credit 1.0**  
(4 hrs/wk lab, 30 clock hours)

Non-calculus-based virtual lab study of classical linear mechanics and dynamics (including work, energy, impulse, momentum and collisions), periodic motion, sound and wave motion, electricity and circuits.

Prerequisite / Co-requisite: MATH135, PHYS111S

Offered: Spring, Summer, Fall

**PHYS117** **Physics 2 Laboratory** **Credit 1.0**  
(2 hrs/wk lab, 30 clock hours)

This is a course that will allow students to learn/experience a "hands-on" approach to physics. The lab will comprise those experiments that are important to the understanding of the Laws and Concepts of College Physics as it prepares the students for a course in science that furthers their education, or prepares them for a career in the arena of science-based health care.

Prerequisite or Co-requisite: PHYS111S

**PHYS211****Kinesiology****Credits 3.0**

(3 hrs/wk lecture, 45 clock hours)

Understanding human activity from a mechanical and physiological perspective so to address major issues, which include reducing the risk of injury, optimizing exercise prescription, and understanding clinical evaluations. Functional anatomy, muscle and passive tissue mechanics, anthropometry, electromyography, and linked segment mechanics are introduced and applied to clinical, occupational, and athletic situations. Basic concepts of cardiovascular, respiratory, and thermoregulatory responses to physical activity.

Prerequisite: None



## **Graduate Degree Programs**

### **Master of Science Degrees**

*Dean – Assistant Professor, Candace Passi, PhD, College of Allied Health Sciences and Distance Education*

National University of Health Sciences' College of Allied Health Science and Distance Education offers the Master of Science Degree in Advanced Clinical Practice to first professional degree holders as a distance learning program. The college also offers a Master of Science Degree in Diagnostic Imaging with the completion of 49 credit hours earned in conjunction with and by the end of the three year, full-time residency in diagnostic imaging.

### **Admission Requirements**

The prospective student for master of science degrees must apply for admission through the Admissions Office of National University of Health Sciences. Applications for admission should include:

- formal application to the program;
- a non-refundable application fee of \$55
- a bachelor's degree from an accredited institution;
- successful completion of a first professional degree with a minimum overall GPA of 2.50 or better on a 4.0 scale;
- official transcripts from all post-secondary institutions.

### **Notification of Acceptance**

Those applicants accepted by the University will be notified promptly. Upon receipt of notice of acceptance, applicants shall remit a matriculation fee of \$225. This includes a \$150 tuition deposit (applicable toward the first trimester tuition) and a \$75 reservation fee. Generally, the deposit is due within 20 days from the date posted on the applicant's official letter of acceptance to the program. However, if the application is received close to the application deadline date(s), the deposit may be due before the 20-day time period. The matriculation deposit is required to reserve a seat in the desired class and is paid with the understanding that it will not be refunded if the applicant fails to report for registration to the University.

### **General Policies**

The master of science degree programs follow the basic policies found in the Student Life section and the Financial Aid and Academic Policy sections of the College of Professional Studies programs of this Bulletin.

### **Student Enrollment**

Students who are enrolled for at least 5 and up to 10 credits per trimester are considered half-time, and therefore eligible to apply for federal student aid programs. Should enrollment drop below half-time during any trimester of study, the student may apply for non-federal credit-based loans.

## **Master of Science – Advanced Clinical Practice (MSACP) (Online)**

The Master of Science Degree in Advanced Clinical Practice is granted upon satisfactory completion of 36 credit hours over a two-year period. The student must successfully complete all required coursework with a grade of “C” or better in all attempted courses and must enroll in a minimum of five credit hours per trimester.

### **Graduation Requirements**

The degree of Master of Science in Advanced Clinical Practice is conferred on the individual who: meets all the stipulated academic requirements for the degree and has been a resident or part-time student at NUHS for at least two years (six trimesters) of study;

1. has successfully completed all required courses, laboratories, and research requirements;
2. has successfully completed all required Co-Curricular Learning assignments;
3. is in good academic standing;
4. is recommended for the degree by the Dean of the College of Allied Health Sciences and Distance Education;
5. has met all financial obligations to the university;
6. has submitted a completed and signed Petition for Degree Completion Form.

### **Educational Objectives**

- Graduates of the Master of Science Degree in Advanced Clinical Practice program will have superior skills in diagnosis, clinical care, and scientific writing.
- Graduates of the Master of Science Degree in Advanced Clinical Practice program will be prepared for professional leadership positions.

### **Advanced Clinical Practice Curriculum**

#### **Year 1**

MSACP 501 – Functional Nutrition in a Clinical Setting  
MSACP 511 – Clinical Pharmacology  
MSACP 521 – Research Methodology and Biostatistics  
MSACP 531 – Advanced Clinical Laboratory Functional Medicine  
MSACP 541 – Clinical Neurophysiology  
MSACP 551 – Clinical Neurology

#### **Year 2**

MSACP 601 – Clinical Problem Solving for the Primary Care Physician  
MSACP 611 – Advanced Diagnostic Imaging – Special Populations  
MSACP 621 – Clinical Injectables and IV Functional Nutrition  
MSACP 631 – Advanced Clinical Applications in Special Populations  
MSACP 641 – Psychological Issues of Chronic Illness and Disease  
MSACP 651 – Independent Research

# Master of Science - Advanced Clinical Practice (MSACP) Course Descriptions

## Year 1

### **MSACP 501                                      Functional Nutrition in a Clinical Setting                                      Credits 3.0**

The purpose of this course is to develop a detailed understanding of how the underlying metabolic dysfunction in various body systems are interconnected, as well as treatment methods to reduce such dysfunction. We will explore current evidence-based nutritional literature as a foundation for the clinical application of appropriate dietary changes and key nutritional supplements.

### **MSACP 511                                      Clinical Pharmacology                                      Credits 3.0**

The purpose of this course is to review common pharmacologic agents utilized in the primary care setting related to various medical diagnoses. Discussion will include an overview of various clinical conditions and the related pharmacologic agents, classifications, mechanisms of action, and appropriate utilizations. Common drug reactions and interactions will be discussed, including interactions with botanicals and other over-the-counter dietary supplements.

### **MSACP 521                                      Research Methodology and Biostatistics                                      Credits 4.0**

This course will increase the knowledge regarding critical appraisal of research articles including accessing articles, assessing the research methods and results, and determining potential biases. Emphasis will be placed on preparing students to identify pertinent research findings that may enhance clinical outcomes. The student will learn to write succinct critiques and discuss research articles in a scientific manner.

### **MSACP 531                                      Advanced Clinical Laboratory Functional Medicine                                      Credits 2.0**

The purpose of this course is to review common laboratory tests, procedures, and appropriate utilization in the primary care setting. Current reference ranges for blood (cells and chemistries), urine, and other serous fluids will be reviewed. Also, essential functional lab testing such as heavy metal, organic acid, and salivary/hormonal testing will be presented. This course will also provide an advanced understanding of clinical laboratory medicine through detailed case review and algorithms for medical conditions in which abnormal laboratory values occur.

Prerequisite: MSACP501, MSACP511

### **MSACP 541                                      Clinical Neurophysiology                                      Credits 3.0**

This course will explore the clinical significance and functional activities of peripheral nerve fibers, the spinal cord, brainstem, and brain in the context of visceral and musculoskeletal disorders. The student will gain an advanced understanding of the anatomy, genetics, biochemistry, and physiology of pain in relation to various clinical syndromes. Nutritional biochemistry related to nociception and pain will be incorporated. Implementation of this information into therapeutic programs will be emphasized.

### **MSACP 551                                      Clinical Neurology                                      Credits 3.0**

The purpose of this course is to provide an advanced understanding of the systematic investigation of common and complex neurological complaints including headache, dizziness, weakness, numbness, and ataxia. This course will focus on the pathophysiology, symptomatology, and management of pain in relation to headache and other neurologic conditions, with the capacity to distinguish serious from benign pain syndromes.

## Year 2

### **MSACP 601                                      Clinical Problem Solving for the Primary Care Physician                                      Credits 3.0**

The purpose of this course is to enhance comprehensive history taking and regional physical examination skills in the context of common and complex internal disorders. The student will be able to effectively develop an accurate differential diagnosis with consideration of appropriate documentation, diagnostic testing, and follow-up.

Prerequisite: MSACP 521, MSACP 531, MSACP 541, MSACP 551

**MSACP 611** **Advanced Diagnostic Imaging** **Credits 3.0**

The purpose of this course is to study utility and limitations of the various diagnostic imaging modalities, including conventional radiography, computed tomography, magnetic resonance imaging, and nuclear imaging. The student will also improve their interpretation of diagnostic imaging reports, define effective imaging strategies in specific clinical scenarios, approach an imaging study with greater confidence, and determine referral decisions and prognostic indicators.

**MSACP 621** **Clinical Injectables and IV Functional Medicine** **Credits 3.0**

This course will provide a description of the importance of nutrients that can be injected to prevent, control, and cure certain conditions in patients. It will include a case-based description of the condition and explanation of the technique used by the clinician to administer each nutrient via intravenous, intramuscular, and subcutaneous means. The mechanisms of action of these substances will be discussed.

Prerequisite: MSACP 501, MSACP 511

**MSACP 631** **Advanced Clinical Applications in Special Populations** **Credits 3.0**

This course offers an overview of subgroups that have been identified as special populations, such as pediatric and geriatric populations. The main focus will be on common medical concerns in terms of pathophysiology, differential diagnosis, and effective integrative treatment strategies.

**MSACP 641** **Psychological Issues of Chronic Illness and Disease** **Credits 2.0**

The purpose of this course is to present the ways in which psychological issues influence illness. The course will present information relative to the proper probing for psychosocial areas of concern and understanding how and when to refer to a mental health professional. The value of proper recognition and the process of appropriate patient communication regarding referral to a mental health care professional will be emphasized through various case studies. The individual roles of the various mental health care professionals and the current mental health statistics in the United States will be outlined.

**MSACP 651** **Independent Research** **Credits 4.0**

This course, as a Capstone Project, reinforces exploration in critical appraisal of published research and discussion of journal articles in a scientific manner. Students will be expected to choose a topic of interest from previously presented material in relation to a selected clinical case in order to write a case report for publication.

Prerequisite: MSACP 521

## **Master of Science – Diagnostic Imaging (MSDI)**

### **Program Summary**

**Overview: 51 credit hours completed in conjunction with and by the end of the three year, full-time residency in diagnostic imaging.**

The Master of Science Degree in Diagnostic Imaging is granted upon satisfactory completion of 51 credit hours consisting of core and research courses and the Capstone Project, in conjunction with and by the end of a three-year, full-time residency in diagnostic imaging at National University of Health Sciences.

Upon admission to the program, the master's student will complete a minimum of four credit hours per trimester consisting of core courses and a research course. The core courses and research courses may be taken in any sequence. In addition to the core courses and research coursework, the master's student will be involved in daily film readout sessions and interpretation, radiological technology work, large and small group teaching experiences, and personal study. Opportunities for further clinical imaging elective rotations are being added to the program to expand the elective catalog and opportunities for students.

The student must successfully complete all required coursework with a grade of "C" or better in all attempted courses. For core courses, students will be assessed at the end of each trimester with essay questions and practical view box interpretation stations. Research courses must have advisor-approved examinations, case study papers, teaching file portfolios, and a written and orally presented Capstone Project, with defense in front of the Capstone Project Committee for final approval.

### **Admission Requirements**

The prospective student for this degree program must apply for admission through the Admissions Office of National University of Health Sciences. The application process must be completed 15 weeks prior to the expected matriculation date. The process includes:

1. formal application to the program;
2. successful completion of a first professional degree with an overall GPA of 2.75 or better on a 4.0 scale;
3. complete transcripts from all post-secondary institutions;
4. three letters of recommendation from individuals who are well acquainted with the prospective student;
5. a complete curriculum vitae;
6. a detailed letter of application indicating the reason for interest in candidacy and expectations of the program;
7. submission to a background check (including criminal conviction history, malpractice, and physician databank inquiries) initiated by the university; and
8. payment of application fees.

### **Notification of Acceptance**

After the university has obtained the application and supporting documents, the Admissions Committee will evaluate the prospective student for admission. The Admissions Committee will contact references and verify credentials. Upon completion of this process, the committee shall make a recommendation for or against acceptance. The accepted student shall be notified in writing six weeks prior to the trimester in which the student will enter the program. The decision of the committee is final. Upon acceptance, the student will be informed of the assigned faculty advisor for their program. The faculty advisor will guide the student through their program of study and serve as a member of the Capstone Project Committee.

## **Graduation Requirements**

The Master of Science Degree in Diagnostic Imaging is conferred on the individual who:

1. meets all the stipulated academic requirements for the degree and has been a resident student at National University of Health Sciences for at least eight trimesters of study;
2. has successfully completed all the required core courses and research courses including written case studies, pathology file portfolio, and Capstone Project;
3. has successfully completed all required Co-Curricular Learning assignments;
4. is in good academic standing;
5. is recommended for the degree by the faculty advisor of the university;
6. has met all financial obligations to the university;
7. has submitted a completed and signed Petition for Degree Completion Form; and participates in the commencement ceremony in the trimester the degree is to be granted.

## **Educational Objectives**

- Graduates of the Master of Science in Diagnostic Imaging Program will be able to provide knowledgeable, appropriate, and safe services as a radiologist.
- Graduates of the Master of Science in Diagnostic Imaging Program will be able to apply knowledge in radiologic and clinical settings, evaluate diagnostic images, and provide medically accurate diagnostic imaging reports and patient recommendations.

## Course Listings

MSDI	500	Diagnostic Imaging Overview	1 Credit Hour
MSDI	501	Hematopoietic Disturbances of Bone	2 Credit Hours
MSDI	502	Infectious Disorders of Bone	2 Credit Hours
MSDI	503	Congenital Anomalies and Skeletal Dysplasias	2 Credit Hours
MSDI	504	Arthritides	2 Credit Hours
MSDI	505	Physical Injury of the Skeletal System	2 Credit Hours
MSDI	506	Internal Derangements of Joints	2 Credit Hours
MSDI	507	Neoplastic and Neoplastic-like Lesions of Bone	2 Credit Hours
MSDI	508	Metabolic, Endocrine, and Nutritional Disorders	2 Credit Hours
MSDI	509	Neuroradiology	4 Credit Hours
MSDI	510	Chest Imaging	4 Credit Hours
MSDI	511	GI/GU Imaging	4 Credit Hours
MSDI	512	Principals of Diagnostic Imaging and Radiation Health 1	1 Credit Hour
MSDI	513	Principals of Diagnostic Imaging and Radiation Health 2	1 Credit Hour
MSDI	530	Medical Ethics	2 Credit Hours
MSDI	650	Pathology Teaching File Portfolio 1	5 Credit Hours
MSDI	651	Pathology Teaching File Portfolio 2	5 Credit Hours

## 43 Credits

## Research Requirements

*(Must complete these courses sequentially).*

MSDI	620	Independent Research 1	2 Credit Hours
MSDI	621	Independent Research 2	2 Credit Hours
MSDI	622	Independent Research 3	2 Credit Hours
MSDI	623	Independent Research 4	2 Credit Hours

## 8 Credits

## Diagnostic Imaging Residency Program Summary

1. Academic: Completion of core radiology courses and research requirements. Course material for core courses will be delivered in small group format in daily one- to two-hour sessions with five hours of didactic education and five hours practical interpretation sessions per week. Assessment for core and elective courses will include a final examination including both essay and multiple choice questions and film interpretation practical stations.
2. Clinical: Participation in daily film read-out sessions of NUHS clinic studies, NUHS Interpretation Service consultation, as well as radiological technical work as needed.
3. Education: The master's student may be assigned to teach diagnostic imaging lectures, national board reviews, and diagnostic imaging laboratories as assigned by the director of the master's program.
4. Scholarly Work: Preparation of two (2) case study articles with submission to peer-reviewed journals. (Independent Research course). Produce four pathology teaching file cases with oral presentation.
5. Complete Capstone Project, which will require developing either (1) a thorough literature review (annotated bibliography), OR (2) original research project to be submitted to a peer-reviewed journal. Written and oral components will need approval of the Capstone Project Assessment Committee.

## Diagnostic Imaging Course Descriptions

*NOTE: Core courses do not have specific prerequisites and may be completed in any order. The order determined by timing of entrance into the program and will be sequenced in the most appropriate and in an individualized manner with the counsel of the MS Diagnostic Imaging Advisor / Chair of Diagnostic Imaging.*

### **MSDI 500** **Diagnostic Imaging Overview** **Credits 1.0**

The purpose of this course is to review key utility and anatomy of the radiographic examination and introduce diagnostic imaging residents to special imaging modalities such as magnet resonance imaging (MRI), computerized tomography (CT) scanning, diagnostic medical sonography (US) and nuclear medicine modalities. The course will also introduce diagnostic imaging residents to key criteria and purpose of the radiological reports and “resident-level” introduction to essentials of radiological diagnosis of the abnormalities of the vertebral column, hip and pelvis, upper and lower extremities along with the fundamentals of the abnormalities of the cranium, chest and abdomen and the radiological approach to the pediatric patient.

### **MSDI 501** **Hematopoietic Disturbances of Bone** **Credits 2.0**

This course outlines the key clinical and imaging manifestations of disease resulting from abnormal blood cells and marrow replacement disorders, both benign and malignant. The specific characteristics of marrow imaging are emphasized including the common and often overlooked entity of avascular necrosis. The master’s student will learn to develop a reasonable differential diagnosis for hematopoietic disturbances of bone, and will learn proper follow-up and management of these disorders.

### **MSDI 502** **Infectious Disorders of Bone** **Credits 2.0**

Specific infectious organisms, route of contamination, and spread of infectious disease are discussed in addition to specific radiographic patterns of osteomyelitis, septic arthritis, and soft tissue infection exhibited by conventional radiography, CT, MRI, and nuclear imaging. The master’s student will become familiar with clinical and radiographic findings that will expedite further investigation with special imaging procedures necessary for proper and adequate diagnosis of osteomyelitis, septic arthritis, and soft tissue infection.

### **MSDI 503** **Congenital Anomalies and Skeletal Dysplasias** **Credits 2.0**

This course covers musculoskeletal developmental defects manifested at birth and later in life, categorized by spinal or extremity involvement. Key associations and complications of these disease processes are emphasized making their distinction significant in patient management. Findings rendered from conventional radiography, CT, and MR imaging are emphasized.

### **MSDI 504** **Arthritides** **Credits 2.0**

This course highlights the clinical, pathologic, and radiographic patterns of articular pathology. The student will learn to classify different joint pathologies into categories — degenerative, inflammatory, and crystal-induced disorders. Pathologic processes of articular disease are studied in conjunction with radiologic disease patterns so as to facilitate an understanding of articular disease.

### **MSDI 505** **Physical Injury of the Skeletal System** **Credits 2.0**

This course covers important features of fracture analysis including: mechanism of injury, specifics of alignment, complications, and evaluation for stability. The student will become skilled at identifying fractures and dislocations and associated soft tissue injury. Conservative and invasive surgical procedures in the treatment of fractures and dislocations will be studied in order to direct the clinician towards the appropriate standard of care and treatment of physical injuries.

### **MSDI 506** **Internal Derangements of Joints** **Credits 2.0**

A detailed joint-by-joint analysis of internal derangements includes detailed study of anatomical structures and an in-depth study of various manifestations of joint injury demonstrated on advanced imaging, with an emphasis on Magnetic Resonance Imaging. Injury of internal and external ligamentous restraints, changes of the appearance of



bone marrow, and analysis of muscular and tendinous structures and the evaluation of articular cartilage injury will be studied.

<b>MSDI 507</b>	<b>Neoplastic and Neoplastic-like Lesions of Bone</b>	<b>Credits 2.0</b>
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This course provides the master's student with the fundamentals of imaging of both benign and malignant neoplasms of the musculoskeletal system, emphasizing the key distinction between aggressive and non-aggressive pathology. Specific entities will be presented by their cellular origin and will have the following components: introduction, clinical findings, location, radiographic abnormalities, pathological abnormalities, natural history, and differential diagnosis. The master's student will learn to develop a reasonable differential diagnosis for blastic, lytic, and soft tissue lesions of the musculoskeletal system.

<b>MSDI 508</b>	<b>Metabolic, Endocrine and Nutritional Disorders</b>	<b>Credits 2.0</b>
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This course outlines the key clinical and imaging manifestations of hypervitaminoses, heavy metal poisoning, and various endogenous and exogenous toxicities. Specific entities will be presented by their category of origin and will have the following components: introduction, clinical findings, location, radiographic abnormalities, natural history, and differential diagnosis.

<b>MSDI 509</b>	<b>Neuroradiology</b>	<b>Credits 4.0</b>
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In this course, the master's student will develop a sound knowledge of the normal radiological neurology and gross anatomy of the central nervous system and its surrounding osseous and soft tissue structures. The student will learn to recognize and diagnose various categories of pathology related to the central nervous system on plain film, CT, and MR imaging. The master's student will be able to incorporate this new knowledge base into their musculoskeletal imaging skills to become comfortable with neuroradiology, particularly in spinal imaging.

<b>MSDI 510</b>	<b>Chest Imaging</b>	<b>Credits 4.0</b>
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This course provides the master's student with working knowledge of chest imaging, including: chest imaging modalities, categories of disease affecting this region, and classical imaging findings of these conditions. Both plain film and advanced imaging modalities will be studied with emphasis on recognizing classic patterns of disease in the chest. The master's student will develop an understanding of various cardiovascular and pulmonary disease processes.

<b>MSDI 511</b>	<b>Gastrointestinal and Genitourinary Imaging</b>	<b>Credits 4 .0</b>
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This course will focus on the diagnostic imaging of the gastrointestinal and genitourinary systems. The master's student will study underlying disease processes, correlating them with imaging findings. They will learn to correlate, describe, and interpret plain film and advanced imaging findings in these systems, with special emphasis on the neuro-musculoskeletal disorders that manifest in the gastrointestinal and genitourinary systems.

## MSDI 512 Principles of Diagnostic Imaging and Radiation Health I Credits 1.0

In this course, the master's student will develop a working knowledge of the practical parameters of X-ray technology, including patient positioning, technique calculation, instrument operation, film processing, physics, radiation protection, and other pertinent phases of plain film technology. The student will also acquire an understanding of the physics of CT, MR, US, and other forms of advanced imaging.

<b>MSDI 513</b>	<b>Principles of Diagnostic Imaging and Radiation Health II</b>	<b>Credits 1.0</b>
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In this course, the master's student will continue to develop a working knowledge of the practical parameters of X-ray technology, including patient positioning, technique calculation, instrument operation, film processing, physics, radiation protection, and other pertinent phases of plain film technology. The student will also acquire an understanding of the physics of CT, MR, US, and other forms of advanced imaging.

<b>MSDI 530</b>	<b>Medical Ethics</b>	<b>Credits 2.0</b>
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Master's students will study concepts of medical law and administrative ethics. Ongoing technical advances in the field of diagnostic imaging require radiologists to perform their job in an ethical fashion. Radiologists will be required

to render decisions regarding proper patient care requiring a thorough understanding of medical ethics. This course is designed to prepare radiologists to solve everyday and complex ethical problems encountered during the practice of radiology.

**MSDI 650**

**Pathology Teaching File Portfolio I**

**Credits 5.0**

In this course, students must select four specific topics of interest for further study and presentation as their Capstone Project. The topics should be based upon a clinical case with imaging, and must include the following: three musculoskeletal case studies, all of which must have plain films and at least one of which must be of the spine, and at least one of which must have advanced imaging; and one other case study, in either chest, abdomen, or neuroradiology topic areas. In this first course of two, the student will be expected to choose the cases and conduct a literature review of each case-driven topic area.

**MSDI 651**

**Pathology Teaching File Portfolio II**

**Credits 5.0**

In the previous course, students selected four specific topics of interest for further study and presentation as their Capstone Project. The topics are based upon a clinical case with imaging and must include the following: three musculoskeletal case studies all of which must have plain films and at least one of which must be of the spine, and at least one of which must have advanced imaging; and one other case study, in either chest, abdomen, or neuroradiology topic areas. In the first course, the student chose the cases and conduct a literature review of each case-driven topic area. In this second course, the student will prepare four clinical case presentations based on their previous work, each presentation organized in a specific format that includes pertinent patient history, clinical, radiographic, and follow-up information. The student must present and defend their cases before a review panel selected by the Chair of Diagnostic Imaging. The collective scoring of this panel will determine the final grade for the Capstone Project.

Prerequisites / Corequisites: MSDI 650

## Research Courses

### **MSDI 620** **Independent Research I** **Credits 2.0**

The student will locate and evaluate multiple patient cases that may be utilized for their MSDI capstone project thesis defense. The student will learn to perform critical appraisals that will enable the student to acquire pertinent peer reviewed journal articles to develop a case study manuscript, which leads to the capstone project. Students will obtain and complete the necessary HIPAA compliant medical release forms to procure patient medical information.

### **MSDI 621** **Independent Research II** **Credits 2.0**

Building upon MSDI 620, the student will locate and evaluate multiple patient cases that may be utilized for their MSDI capstone project thesis defense. The student will learn to perform critical appraisals that will enable the student to acquire pertinent peer reviewed journal articles to develop a case study manuscript, which leads to the capstone project. Students will obtain and complete the necessary HIPAA compliant medical release forms to procure patient medical information.

Pre-Requisites / Co-Requisites: MSDI61

### **MSDI 622** **Independent Research III** **Credits 2.0**

Building upon MSDI 620 and 621 the student will locate and evaluate multiple patient cases that will be utilized for their MSDI capstone project thesis defense. By now the student has selected all four patient case studies for the capstone project theses defense. All patient cases should include the history and physical information, and all imaging studies including reports. All pertinent supporting peer reviewed journal articles and texts for the four case studies in the portfolio will have been obtained. These articles will support the topics covered in the case studies contained in the portfolio. This will culminate in a presentation before the capstone project panel.

Pre-Requisites / Co-Requisites: MSDI620 and MSDI621

### **MSDI 623** **Independent Research IV** **Credits 2.0**

Building upon MSDI 620, 621, and 622, the student has selected all four patient case studies for the capstone project theses defense. For each case, the completed portfolio will include the history and physical exam information, all imaging studies and reports, citations of all pertinent peer-reviewed journal articles and texts, and the presentation slides. The capstone committee will assess the student on their final portfolio submission and defense of the four cases.

Pre-Requisites / Co-Requisites: MSDI620, MSDI621, MSDI623



# Bulletin

## 2022-2023



**LINCOLN COLLEGE OF POSTPROFESSIONAL,  
GRADUATE & CONTINUING EDUCATION**

## **Lincoln College of Post-graduate and Continuing Education**

*Jenna Glenn, MS, DC, ND — Dean of Lincoln College*

The Lincoln College of Post-professional, Graduate and Continuing Education offers accredited post-professional educational programs that allow licensees with a professional degree to maintain their license, practice expertise, and develop clinical specialty advancement.

### **Post-professional Education**

Since the early 1900s, National has provided post-professional educational opportunities to assist doctors in keeping abreast of developments in the clinical sciences, expanding their undergraduate education, and providing good service to their patients. The need for excellent post-professional programs continues and is ever increasing. Those who pursue advanced education and specialty training are leaders. As the economy fluctuates, technology progresses and the health care industry is more closely examined, the physician must proactively prepare for the specific challenges of today by being enriched with the most current information and abilities.

Many professionals participate in post-professional programs to learn a variety of skills and knowledge from several specialty areas. These professionals seek specific information for their practices rather than seeking a specialty diplomate. First professional degree holders are required to participate in post-professional activities approved by state boards for re-licensure and these requirements vary with each state. Post-professional activities for re-licensure can include specialty programs, topics of interest, conventional education programs, new topic areas, clinical skills, basic science concepts, and specific procedures for outcome measurement.

After graduation, a doctor of chiropractic (DC) may elect to complete a full-time post-professional residency program for three years to gain specialty training in clinical research, diagnostic imaging, or family practice. The residents attend classes, workshops and clinical training sessions, and have written and clinical examinations. These doctor of chiropractic residents become eligible to sit for specialty board examinations leading to diplomate status in the chosen discipline.

### **Programs Offered**

The following courses and programs are available through Lincoln College of Postgraduate and Continuing Education. For detailed program information, please contact Lincoln College or our website at <http://www.nuhs.edu/academics/college-of-continuing-education/>.

### **Continuing Education**

Programs Leading to Diplomate Certification: Acupuncture, Rehabilitation, Sports Physician.

Specialty Programs: Acupuncture, Traditional Chinese Medicine, Dry Needling, Clinical Nutrition, Diagnostic Imaging, Disability Assessment and Impairment Rating, Hot Stone Massage, Improving Documentation, Functional Rehabilitation, Headaches and Head Trauma, Joint Manipulation, Myofascial Taping, Pediatrics, Pain Mechanisms, Post-Surgical Spine, Sports Physician.

## Licensure Information

Professional licensure has different rules and procedures depending on your state, country, or international region of practice. The accredited educational programs at the National University of Health Sciences (NUHS) meet the educational requirements of many licensing boards. For each NUHS clinical program, we have noted whether the program meets educational requirements for licensure, does not meet educational requirements for licensure, or that a determination has not yet been made. Other requirements for licensure may include professional board examinations, background checks, and/or fingerprints. Program completion does not guarantee licensure. Students are encouraged to check their state's information and contact the appropriate licensing agency to seek information and additional guidance before applying for licensure. The information presented below is current as of April 24, 2022.

### Chiropractic Medicine (DC degree)

If you plan to practice chiropractic medicine in the U.S., you are required to pass four board examinations administered by the [National Board of Chiropractic Examiners \(NBCE\)](#). Other licensure requirements vary by state and can be found on the American Chiropractic Association's [State Licensing Boards](#) website.

States for which the chiropractic medicine program <b>meets</b> educational requirements for licensure:	All 50 states.
States for which the chiropractic medicine program <b>does not meet</b> educational requirements for licensure:	None
States for which a <b>determination has not yet been made</b> regarding the chiropractic medicine program	None

### Naturopathic Medicine (ND degree)

To practice as a naturopathic physician in the U.S. or Canada, you must pass the Naturopathic Physicians Licensing Exam (NPLEX) conducted by the North American Board of Naturopathic Examiners (NABNE). State-specific licensure requirements can be found on the Association of Accredited Naturopathic Medical Colleges (AANMC) website.

States for which the naturopathic medicine program <b>meets</b> educational requirements for licensure:	AK, AZ, CA, CO, CT, HI, ID, KS, MA, MD, ME, MN, MT, ND, NH, NM, OR, PA, RI, UT, VT, WA, WI
States for which the naturopathic medicine program <b>does not meet</b> educational requirements for licensure:	None
States for which a <b>determination has not yet been made</b> regarding the naturopathic medicine program (due to ND practice not regulated and/or no licensure available):	AL, AR, DE, FA, FL, IA, IL, IN, KY, LA, MI, MO, MS, NC, NE, NJ, NV, NY, OH, OK, SC, SD, TN, TX, VA, WV, WY

## Acupuncture (MSAc degree)

Most states require the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM) examination and/or certification for licensing. For information on state-specific requirements, consult the National Certification Commission for Acupuncture and Oriental Medicine.

States for which the acupuncture program <b>meets</b> educational requirements for licensure:	AK, AR, AZ, CO, CT, GA, HI, IA, ID, IL, IN, KS, KY, LA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NY, OH, OR, PA, RI, SC, TN, UT, VA, VT, WA, WI, WV, WY, DC
States for which the acupuncture program <b>does not meet</b> educational requirements for licensure:	CA, FL, MA, NJ, NM, NV, TX
States for which a <b>determination has not yet been made</b> regarding the acupuncture program (due to acupuncture practice not regulated and/or no licensure available):	AL, DE, OK, SD

## Oriental Medicine (MSOM degree)

Most states require the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM) examination and/or certification for licensing. For information on state-specific requirements, consult the National Certification Commission for Acupuncture and Oriental Medicine.

States for which the Oriental medicine program <b>meets</b> educational requirements for licensure:	AK, AR, AZ, CO, CT, GA, HI, IA, ID, IL, IN, KS, KY, LA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NY, OH, OR, PA, RI, SC, TN, TX, UT, VA, VT, WA, WI, WV, WY, DC
States for which the Oriental medicine program <b>does not meet</b> educational requirements for licensure:	CA, FL, MA, NJ, NM, NV
States for which a <b>determination has not yet been made</b> regarding the Oriental medicine program (due to Oriental medicine practice not regulated and/or no licensure available):	AL, DE, OK, SD

While we are confident that successfully completing each of our programs' requirements will prepare you for your career, completion of an NUHS program does not guarantee licensure or certification to practice, nor does the university or any of its agents guarantee employment upon program completion.

## **Websites of Interest**

### **Websites for Chiropractic Students**

- American Chiropractic Association  
<http://www.acatoday.org>
- Student American Chiropractic Association  
<http://www.amerchiro.org/students>
- The National Board of Chiropractic Examiners  
<http://www.nbce.org>
- The Federation of Chiropractic Licensing Boards  
<http://www.fclb.org>
- World Federation of Chiropractic (WFC)  
<http://www.wfc.org>

### **Websites for Naturopathic Students**

- The American Association of Naturopathic Physicians  
<http://www.naturopathic.org>
- The North American Board of Naturopathic Examiners  
<http://www.nabne.org>
- Illinois Association of Naturopathic Physicians  
<http://www.ilanp.org>
- Council on Naturopathic Medical Education  
<http://www.cnme.org>
- Canadian Association of Naturopathic Doctors  
<http://www.cand.ca>

### **Websites for Oriental Medicine and Acupuncture Students**

- Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM)  
<http://www.acaom.org>
- National Certification Commission for Acupuncture and Oriental Medicine  
<http://www.nccaom.org>
- Council of Colleges of Acupuncture and Oriental Medicine  
<http://www.ccaom.org>
- American Association of Acupuncture and Oriental Medicine  
<http://www.aaaomonline.org>



## Websites for Massage Therapy Graduates

- American Massage Therapy Association  
<http://www.amtamassage.org>
- Associated Bodywork & Massage Professionals  
<http://www.abmp.com>
- Commission on Massage Therapy Accreditation  
<http://www.comta.org>
- Massage Therapy Foundation  
<http://www.massagetherapyfoundation.org>
- Federation of State Massage Therapy Boards (FSMTB) and Massage and Bodywork Licensing Examination (MBLEx)  
<http://www.fsmtb.org>

## **Examining Boards**

### **National Board of Chiropractic Examiners**

The National Board of Chiropractic Examiners (NBCE) was incorporated June 19, 1963. The national board is composed of 11 members. The board employs the services of a specialist in measurement and statistics who assists the board in the preparation of the examination and evaluation of the scores.

#### **Purpose of Program**

The purpose for conducting a chiropractic examination program at the national level is to provide a service to the state boards of examiners, the chiropractic colleges, and the doctor of chiropractic.

#### **Requirements for Participation**

Students are eligible to take the examination only when certified by the dean, registrar, or vice president of their college. Doctors of Chiropractic who possess a chiropractic college diploma acceptable to the national board, but issued more than eight months prior to the date of application for examination, must present evidence of professional and moral fitness by means of a letter from either a state society in which they practice or from the secretary of the board of examiners of the state in which they practice or have practiced.

#### **Application**

Students that are applying to sit for NBCE examination should visit the NBCE website at [nbce.org](http://nbce.org) when planning to take each examination Part. Application for examination involves NBCE verifying eligibility with NUHS that the student qualifies to sit for the particular board exam (Part 1-4, PHT) by completing the associated courses and time requirements specific to the assessment. Eligibility verification is completed within one or two business days and the student will be notified by NBCE when this process is complete. After verification of eligibility is completed, the student may then apply for a specific time and location of the board exam which he or she has been approved. Licensing board examination dates, times and locations are entirely determined by NBCE. The method of assessment, topics covered, examination review opportunities and eligibility questions may be addressed to the Assistant Dean – Chiropractic Medicine or by visiting [nbce.org](http://nbce.org).

#### **Acceptance of the Program**

All 50 states and the District of Columbia require Parts I through IV of the NBCE examinations. The minimum passing score for each part/section is 375. Some state boards do require higher scores in order to obtain licensure in those states.

#### **Performance Disclosures**

In keeping with the Council on Chiropractic Education Standards requirements concerning public disclosure of student performance on national board examinations, up-to-date student performance on national board examinations must be disclosed on each chiropractic program's website. NBCE data must be updated for public disclosure by August 1 annually.

### **North American Board of Naturopathic Examiners**

NPLEX (Naturopathic Physicians Licensing Examination) is the standard examination used by all licensing jurisdictions for naturopathic physicians in North America. NPLEX's sole focus is the development and production of a transnational board licensing examination.

The North American Board of Naturopathic Examiners (NABNE) is responsible for gathering input from the various constituencies involved in the profession (jurisdictions, schools, associations, etc.). The NABNE board will be responsive to the input of an advisory committee comprised of appointees from the jurisdictions, the schools, the Council on Naturopathic Medical Education (CNME), the Federation of Naturopathic Physicians Licensing Authorities

(FNPLA), and the national associations, as well as several public members. Input from the advisory committee will be critical for setting examining standards and for coordinating the effort.

NABNE is the point of application for students and candidates who want to take the NPLEX. NABNE also sets up testing centers in the U.S. and Canada for administration of the exams.

For information on Naturopathic Physicians Licensing Examination Board (NPLEX):

<https://www.nabne.org/home/exam-overview/>

For information on the North American Board of Naturopathic Examiners (NABNE):

NABNE

Suite 119, #321

9220 S.W. Barbur Blvd.

Portland, OR 97219

Phone message line: 503-246-0694

[info@nabne.org](mailto:info@nabne.org)

## **National Certification Commission for Acupuncture and Oriental Medicine**

The NCCAOM is a non-profit organization that was established in 1982. Its mission is to establish and promote recognized standards of competence and safety in acupuncture and oriental medicine for the protection and benefit of the public.

NCCAOM offers four distinct national certification programs in Oriental Medicine, Acupuncture, Chinese Herbology, and Asian Bodywork Therapy. Certification is granted to those who meet the eligibility criteria and pass the examinations. Requirements vary for each program. Examinations are administered during the year at various test sites in North America and consist of two days of testing. Depending upon which certification you are applying for, the variety of exams that are given include: Foundations of Oriental Medicine Module; Acupuncture Module; Point Location Module; Biomedicine Module; Chinese Herbology Module; Asian Bodywork Therapy Exam.

NCCAOM certification is the only nationally recognized certification available to qualified practitioners of Acupuncture and Oriental Medicine; it is a requirement for licensure in most states.

Contact information for the NCCAOM:

NCCAOM

2001 K Street, NW, 3<sup>rd</sup> Floor North

Washington, DC 20006

888-381-1140

[www.nccaom.org](http://www.nccaom.org)

## **Federation of State Massage Therapy Boards**

The Massage and Bodywork Licensing Examination (MBLEx) is the nationally accredited exam that is accepted for licensure requirements in Illinois. The program was accredited by the Federation of State Massage Therapy Boards (FSMTB).

FSMTB serves the massage therapy and regulatory communities as the most appropriate, lone entry-level licensure examination. The MBLEx is currently utilized for licensure in 44 of the 48 regulated states, the District of Columbia, as well as the territories of Puerto Rico and the U.S. Virgin Islands. Please note, passing the MBLEx is only one of the steps necessary for licensure in your state. Please check with the state licensing board or agency regarding the licensure requirements for where you plan to practice.

To ensure MBLEx reflects current practice, 50 content experts, with the guidance of 15 testing and psychometric experts, developed a Job Task Analysis Survey (JTS). The JTA was validated by input from 7,646 massage, bodywork,

and somatic professionals from across the United States. Accordingly, the MBLEx is administered through Pearson VUE at high-security test centers located throughout all 50 states, the District of Columbia, and U.S. territories.

For more information, please contact:

Massage & Bodywork Licensing Examination Office (MBLEx)  
Phone: 866-962-3926  
Email: [mblex@fsmtb.org](mailto:mblex@fsmtb.org)

Federation of State Massage Therapy Boards (FSMTB)  
7300 College Blvd, Suite 650  
Overland Park, KS 66210  
Phone: 913-681-0380  
Email: [info@fsmtb.org](mailto:info@fsmtb.org)



# Bulletin

## 2022-2023



UNIVERSITY PERSONNEL

## **Personnel**

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Yesenia Maldonado, MBA.....Dean of Students  
Candace Passi, MS, MEd, PhD.....Dean of the College of Allied Health Sciences & Distance Education  
Sandra Chimon-Rogers, PhD.....Dean, College of Professional Studies  
Fraser Smith, MA, ND.....Assistant Dean, Naturopathic Medicine  
Daniel Strauss, DC.....Dean of the College of Professional Studies – Florida  
George Stretch, DN, DAOM, LAc.....Assistant Dean, Acupuncture & Oriental Medicine  
Jeffrey Ware, MS, DC, DABCI.....Assistant Dean & Chief Administrative Officer, DCP

## Administrative Faculty

William Bogar, DC, DACBR.....Chair, Diagnostic Imaging  
Steven Freeman, DC.....Chair, Department of Clinical Sciences–Florida  
Frank Frydrych, DC, MSACP.....Chief Clinician, DC Program  
Bart Green, MEd, PhD, DC.....Associate Editor, NUHS Journals  
Jennifer Green, ND, DC.....Chief Clinician, ND Program  
Moira Jenkins, DC, MS.....Chair, Department of Basic Sciences–Illinois  
Claire Johnson, MEd, PhD, DC.....Editor-in-Chief, NUHS Journals  
Hyundo Kim, PhD, MSOM.....Chief Clinician, AOM Program  
Mackenzie Ott, PhD.....Chair, Department of Basic Sciences - Florida  
Nakiesha Pearson, DC, ND, MS.....Chair, Department of Clinical Sciences–Illinois

## Administrative Staff

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Josie Extrom, BA.....Assistant Director – Financial Aid  
Kurt Faler, AAS.....Assistant Director of Management Information Services  
Mark Galvanoni, BS.....Director of Facilities & Security  
Patricia Genardo, MA, MLIS.....Director, Learning Resource Center  
Lorae Kornaus, BS.....Comptroller  
Tracy McHugh, MBA.....Director of Alumni & Development

Ron Mensching, BS.....Director, MIS  
 Katrina Rieger, BS.....Assistant Director of Alumni & Development  
 Victoria Sweeney, MEd.....Director of Communications & Enrollment Services  
 Sue Unger, CPA.....Director of Financial Services  
 Vacant.....Assistant Director of Admissions  
 Andrew Wozniak, BS.....Director of Human Resources  
 Marc Yambao, BA.....Director of Financial Aid

## Faculty and Administrators Emeriti

Robert Appleyard, PhD.....Professor Emeritus  
 William Bachop, PhD.....Professor Emeritus  
 William Hogan, DC, DABCI.....Professor Emeritus  
 Robert Shiel, PhD.....Professor Emeritus

## Faculty

*Faculty who teach at National's Florida site are indicated with "– Florida" after their academic rank.*

Christina Acampora.....Lecturer, Clinical Sciences  
 BS, San Jose State University, 1989  
 DC, Palmer College of Chiropractic – West, 1992  
 Kristine Aikenhead.....Professor, Clinical Sciences  
 BS (Biology), Loyola University, 1979  
 BS, DC, National College of Chiropractic, 1982, 1983  
 Family Practice Residency (Board Qualified), National College of Chiropractic, 1983-85  
 Brian Anderson.....Lecturer, Allied Health Sciences  
 BS, Northern Illinois University, 1999  
 DC, MS, National University of Health Sciences, 2004, 2014  
 MPH, Benedictine University, 2008  
 PhD, Northern Illinois University, 2019  
 Molly C. Avola.....Floating Clinician, DC-Florida  
 Associate of Science-Biology, Moraine Valley Community College, 2009  
 BS, Loyola University, 2011  
 DC, Palmer College of Chiropractic-Florida Campus, 2018  
 Kenton Anderson.....Lecturer, Clinical Sciences  
 BS, Northern Illinois University, 1984  
 ND, National University of Health Sciences, 2012  
 Robert L. Arnold.....Lecturer, Clinical Sciences – Florida  
 BS, University of South Florida, 1990  
 MA, University of South Florida, 1993  
 EdD, University of Sarasota, 2000  
 Eric Baker.....Lecturer, Clinical Sciences  
 BS, University of Illinois at Chicago, 1994  
 MSOM, Midwest College of Oriental Medicine, 2000  
 G. Brian Batenchuk.....Associate Professor, Clinical Sciences–Florida  
 BS, Colorado State University, 1980  
 DC, Palmer College of Chiropractic, 1979  
 Diplomate: American Chiropractic Board of Radiology, 1993



Antonio Bifero.....Assistant Professor, Basic Sciences  
 BS, University of Illinois at Chicago, 1995  
 MBA, Dominican University, 1999  
 BS, DC, National University of Health Sciences, 2002, 2003  
 MS, Illinois Institute of Technology, 2013  
 Diplomate: American Association for Integrative Medicine

Edward J. Bifulco.....Assistant Professor, Clinical Sciences  
 AB, Cornell University, 1982  
 BS, DC, National College of Chiropractic, 1985, 1987

Katherine Bogaard.....Lecturer, ND Program  
 BA, Whittier College, 2007  
 ND, National University of Health Sciences, 2012

William C. Bogar.....Professor, Clinical Sciences  
 BS, DC, National College of Chiropractic, 1982, 1984  
 Diplomate: American Chiropractic Board of Radiology

Jerrilyn A. Cambron.....Professor, Institutional Effectiveness and Research  
 BS, DC, National College of Chiropractic, 1989, 1991  
 MPH, University of Illinois at Chicago, 1999  
 PhD, University of Illinois at Chicago, 2005  
 CMT, National University of Health Sciences, 2006  
 Certified in Public Health

Ryan D. Cedermark.....Lecturer, Allied Health Sciences  
 DC, Life University, 2011  
 Diplomate of Neurology, Carrick Institute, 2013  
 BS, Duke University, 2014  
 Certified Functional Medicine Practitioner, Functional Medicine University, 2014  
 MS, Georgia State University, 2015

William Chromey.....Assistant Professor, Clinical Sciences-Florida  
 BS, East Stroudsburg University, 1987  
 DC, New York Chiropractic, 1998  
 MSACP, National University of Health Sciences, 2022

Simona Ciobanu.....Lecturer, Clinical Sciences  
 BLAS, University of Illinois at Chicago, 2003  
 ND, National University of Health Sciences, 2010

Patricia A. Coe.....Instructor  
 BS, University of Pittsburgh, 1992  
 BS, DC, National College of Chiropractic, 1995, 1997  
 MS, ND, National University of Health Sciences, 2011, 2012  
 Massage Therapist

Daniel J. Cooper.....Assistant Professor, Clinical Sciences-Florida  
 BS, Florida State University, 2005  
 DC, Palmer College of Chiropractic Florida, 2011

Gregory D. Cramer.....Professor, Research and Basic Sciences  
 BS, DC, National College of Chiropractic, 1977, 1979  
 PhD, Medical College of Ohio, 1987

Kevin J. Curtin.....Associate Professor, Clinical Sciences  
 BS, Governors State University, 2004  
 BS, DC, National University of Health Sciences, 2005, 2007

Daniel R. Driscoll.....Professor, Clinical Sciences  
 BA, George Williams College, 1973  
 BS, DC, National College of Chiropractic, 1977, 1978

Melissa Dybala.....Assistant Professor, Clinical Sciences  
 BS, Governors State University, 2006  
 ND, DC, National University of Health Sciences, 2010, 2012

Terry M. Elder.....Instructor, Basic and Clinical Sciences  
 DC, Cleveland Chiropractic College, 1987

Colleen Fairbanks.....Lecturer, Allied Health Sciences  
 BS, Illinois State University, 2001  
 MS, PhD, Indiana State University, 2003, 2007

Robin Fan.....Assistant Professor, Clinical Sciences  
 MD (China), Hunan College of Traditional Chinese Medicine, 1982  
 Licensed Acupuncturist

Bi Lin Feng.....Lecturer, Acupuncture and Oriental Medicine  
 BS, University of Illinois-Chicago, 2011  
 MSOM, National University of Health Sciences, 2016

Julie Alison Figgins.....Lecturer, Clinical Sciences  
 BS, Gonzaga University, 2000  
 ND, Bastyr University, 2005

Steven Freeman.....Associate Professor, Clinical Sciences–Florida  
 BA, Rutgers University, 1988  
 DC, Life College, 1992

Frank Frydrych..... Instructor, Clinical Practice  
 BS, University of Illinois at Urbana-Champaign, 1999  
 BS, DC, MSACP, National University of Health Sciences, 2007, 2007, 2022

Jennifer Gantzer.....Instructor, Chiropractic Medicine-Florida  
 DC, National University of Sciences, 2014  
 DACBN, 2016  
 LAc, 2019  
 MS, University of Bridgeport, 2020  
 Fellow, American College of Nutrition (FACN), 2020

David A. Gidcumb.....Instructor, Clinical Sciences  
 AB, Augustana College, 1974  
 BS, DC, National College of Chiropractic, 1977, 1979  
 Diplomate: American Board of Chiropractic Orthopedists

Jenna Glenn.....Assistant Professor, Lincoln College  
 BS, Pennsylvania State University, Erie, 2006  
 DC, MS, ND, National University of Health Sciences, 2009, 2012, 2012

Bart Green.....Lecturer, NUHS Journals  
 DC, Los Angeles College of Chiropractic, 1992  
 MEd, University of Southern California, 2000  
 PhD, Public Health, Epidemiology, Walden University, 2016  
 Diplomate: American Chiropractic Board of Sports Physicians

Jennifer Green.....Assistant Professor, Clinical Practice  
 BS, Loyola University, 2004  
 ND, DC, National University of Health Sciences, 2010, 2021

A. Carlo Guadagno.....Associate Professor, Clinical Sciences-Florida  
 BS, University of Miami, 1984  
 DC, Palmer College of Chiropractic – Iowa, 1988  
 Certified Chiropractic Sports Physician, 1992, 2009  
 Diplomate: American Chiropractic Board of Sports Physicians

Erika J. Haire-Niño.....Instructor, Clinical Practice-Florida  
 Liberal Studies, History Salem International University (Formerly Salem-Teikyo University), 1997  
 DC, New York Chiropractic College, 2009

Melodie Hammer.....Instructor, Basic Sciences-Florida  
 BS, Colorado State University, 1983  
 DC, National University of Health Sciences-Florida, 2014

Debbi Hanson.....Lecturer, Clinical Sciences – Florida  
 BA, Carson-Newman College, 1997  
 Master of Clinical Medical Science, Barry University, 2002

Keith Hartley.....Lecturer, Allied Health Sciences  
 BA, Lake Forest College, 2005  
 DC, National University of Health Sciences, 2008

David Hopper.....Lecturer, Basic Sciences  
 BS, MS, Northern Illinois University, 2008, 2011  
 DC, National University of Health Sciences, 2015

Tawainna Houston.....Lecturer, Naturopathic Medicine  
 BA, Sociology, Howard University, 1995  
 MDiv, Princeton Theological Seminary, 1998  
 ND, National University of Health Sciences, 2014

Russell A. Iwami.....Associate Professor, Learning Resource Center  
 BA, Northern Illinois University, 1976  
 MALS, University of Illinois, 1979

Moirra Jenkins.....Assistant Professor, Basic Sciences  
 BS, DC, National College of Chiropractic, 1986, 1988  
 MS, Northern Illinois University-DeKalb, 2010  
 Certified Chiropractic Acupuncturist, National College of Chiropractic, 1988

James R. Jenkins.....Lecturer, Clinical Sciences  
 BS, Otterbein College, 1983  
 BS, DC, National College of Chiropractic, 1986, 1988  
 Certified Strength & Conditioning Specialist, National Strength and Conditioning Association, 1999  
 MSACP, National University of Health Sciences, 2009

Claire Johnson.....Professor and Editor, NUHS Journals  
 BA, University of California - San Diego, Revelle, 1987  
 DC, Los Angeles College of Chiropractic, 1991  
 MEd, University of Southern California, 2000  
 PhD, Public Health, Epidemiology, Walden University, 2016  
 Diplomate, American Chiropractic Board of Sports Physicians

Theodore L. Johnson, Jr.....Professor, Clinical Practice  
 BS, Jackson State University, 1984  
 BS, DC, National College of Chiropractic, 1986, 1988  
 MS, National University of Health Sciences, 2009  
 Diplomate: American Board of Chiropractic Internists

Simone J. Joseph.....Lecturer, Basic Sciences, Allied Health Sciences  
 BS, University of Toronto, 1997  
 BS, DC, National University of Health Sciences, 2000, 2002  
 Diplomate: Academy of Chiropractic Orthopedists

Sonia V. Joubert.....Associate Professor, Clinical Practice  
 BS, Empire State College, State University of New York, 1992  
 DC, New York Chiropractic College, 1996  
 MS, ND, National University of Health Sciences, 2014, 2022

Michelle D. Jourdan.....Professor, Clinical Sciences – Florida  
 BS, University of Michigan, 1990  
 BS, DC, National University of Health Sciences, 1997, 1999  
 Diplomate: American Board of Chiropractic Internists  
 MS, University of Science, Arts and Technology-Montserrat, 2018

Anna Jurik.....Professor, Clinical Practice  
 BS, University of Illinois at Chicago, 1994  
 BSc, University of Kentucky, 1998  
 DC, National University of Health Sciences, 2005  
 Licensed Dietitian, Nutritionist  
 Registered Dietician

Sarah K. Kelly..... Assistant Professor, Clinical Practice  
 BS, Northern Illinois University, 1995  
 BS, DC, National College of Chiropractic, 1997, 1999  
 MSACP, National University of Health Sciences, 2021

Muhammad A. Khan.....Professor, Basic Sciences  
 MD (Pakistan), Dow Medical College and University of Karachi, 1978  
 DTCD, University of Karachi, Pakistan, 1981  
 MCPS, College of Physicians and Surgeons of Pakistan, 1983

Hyundo Franz Kim.....Assistant Professor, Clinical Sciences  
 BA, University of Illinois at Urbana-Champaign, 1992  
 PhD, Sangji University, Wonju, Korea, 2006  
 MSOM, Emperor's College of Traditional Oriental Medicine, California, 1998  
 Licensed Acupuncturist

Nelson Klahr.....Instructor, Basic Sciences – Florida  
 BS, University of Miami, 1997  
 PhD, University of Florida–Gainesville, 2011

Rachel Klein.....Lecturer, Allied Health Sciences  
 BA, University of Hawaii at Hilo, 2007  
 CMT, DC, ND, National University of Health Sciences, 2011, 2012, 2013  
 Diplomate in Functional Neurology, 2013  
 Fellow-Childhood Neurodevelopmental Disorders Diploma, International Board of Functional Neurology, 2018

Yuri Korvatko.....Professor, Clinical Practice, Allied Health Sciences  
 BS, The London School of Osteopathy, 1999  
 DC, MS, National University of Health Sciences, 2011, 2014  
 Diplomate: American Chiropractic Board of Radiology , 2014

Lisa Glowiak.....Lecturer, Clinical Sciences  
 BA, Illinois Wesleyan University, 2006  
 ND, National University of Health Sciences, 2016

Yihyun Kwon.....Professor, Clinical Sciences  
 BSc, MSc, Chung Ang University, 1989, 1991  
 BS, DC, National University of Health Sciences, 2001, 2002  
 BSc, MSOM, Midwest College of Oriental Medicine, 2002, 2002  
 PhD (China), Tianjian University of Traditional Chinese Medicine, 2010

Miranda LaBant.....Lecturer, Naturopathic Medicine  
 BS, MS Cleveland State University, 2010, 2011  
 ND, National University of Health Sciences, 2016  
 Residency, Lokahi Health Center (Integrative Oncology), 2018

Sandra A. Lambatos.....Lecturer, Clinical Sciences  
 BS and DC, National University of Health Sciences, 2011, 2015

Peter Lamkin.....Lecturer, Allied Health Sciences  
 BS, Purdue University, 1990

Yubin Lu.....Lecturer, Clinical Sciences  
 Bachelor, Master, PhD of Medicine, Shandong University, 1986, 1990, 1993,

Marina Machini.....Assistant Professor, Basic Sciences–Florida  
 MAN, Professional Training Hospital Center, Kirovsk Central District Hospital, 1990  
 MD (Russia), St. Petersburg State Pediatric Medical Academy, 1997

Dana Madigan.....Lecturer, College of Allied Health Sciences and Distance Education  
 BS, University of Illinois at Urbana-Champaign, 2008  
 DC, National University of Health Sciences, 2013  
 MPH, PhD, University of Illinois at Chicago, 2013, 2020

Sridharan Manavalan.....Assistant Professor, Basic Sciences – Florida  
 BSc, MSc, University of Madras, 1994, 1997

Brett R. Martin.....Professor, Basic Sciences–Florida  
 BS, Northern Illinois University, 2006  
 DC, National University of Health Sciences, 2009  
 MSAC, National University of Health Sciences, 2011  
 MPH, Purdue University Global, 2018

David Mayer.....Lecturer, Acupuncture and Oriental Medicine  
 BS, MS, Northern Illinois University, 1989, 1994  
 Certified Personal Trainer, Aerobic and Fitness Association of America, 1998  
 Certified Personal Trainer, American College of Sports Medicine, 2012  
 MSOM, National University of Health Sciences, 2015  
 DAc, Pacific College of Health Sciences, 2020  
 Certified Nutrition Coach, National Association of Sports Medicine, 2021

Marc McRae.....Professor, Basic Science  
 BS, BA, University of Waterloo, 1991, 1997  
 BS, DC, National University of Health Sciences, 1999, 2001  
 MSc, University of Bridgeport, 2002  
 Certified Nutrition Specialist  
 Licensed Dietician, Nutritionist  
 Diplomate: American Clinical Board of Nutrition  
 Fellow: American College of Nutrition

Earnest Mounce.....Lecturer, Clinical Sciences  
 BA, University of Mississippi, 1991  
 Massage Therapy Certificate, National University of Health Sciences, 2006  
 MSAC, National University of Health Sciences, 2009  
 PhD Candidate in Traditional Chinese Medicine, Nanjing University of Traditional Chinese Medicine

Hasan Nazik.....Assistant Professor, Basic Sciences-Florida  
 MD, Cerrahpasa School of Medicine (Turkey), 2001  
 Residency, Istanbul University (Turkey), 2005

Christopher Olsen.....Assistant Professor, Instructional Designer  
 BS, MS, Western Illinois University, 2000, 2006

Daniel R. Olson.....Associate Professor, Basic Science  
 BS, University of Nebraska-Lincoln, 1979  
 MS, University of Nebraska Medical Center, 1983  
 EdD, Northern Illinois University, 1996

Mackenzie M. Ott.....Professor; Chair–Basic Sciences – Florida  
 BA, MS, PhD, University of South Florida, 2000, 2007, 2010

Candace Passi.....Assistant Professor; Dean, College of Allied Health Sciences & Distance Education  
 BS, MS, Loyola University of Chicago, 1980, 1983  
 MS, PhD, Northwestern University, 1988, 1995

Patricia Pearce.....Instructor, Clinical Sciences and Clinical Practice  
 BS, University of West Florida, 2009  
 ND, National University of Health Sciences, 2016

Nakiesha Pearson.....Associate Professor, Chair–Clinical Sciences  
 BS, Indiana University, 2003  
 DC, ND, MS, National University of Health Sciences, 2010, 2013, 2013  
 Family Practice Residency, National University of Health Sciences, 2011-2014

Jodi E. Perrin.....Assistant Professor, Clinical Sciences  
 BS, Aurora University, 2000  
 DC, Palmer College of Chiropractic, 2004  
 ND, National University of Health Sciences, 2014

Jeri Petz.....Lecturer, Clinical Sciences  
 BS, University of Oregon, 1975  
 MSOM, Midwest College of Oriental Medicine, 2007  
 Licensed Acupuncturist

Jaya Prakash.....Lecturer, Allied Health Sciences  
 MBBS (India), University of Poona, 1983  
 MD (India), University of Poona, 1986  
 Specialist Microbiologist: American Academy of Microbiology, 1995

Tari S. Reinke.....Associate Professor, Clinical Practice  
 DC, Northwestern College of Chiropractic, 1986  
 MS, National University of Health Sciences, 2011

Kathryn Rioch.....Lecturer, Allied Health Sciences, Clinical Sciences  
 BA, Illinois Wesleyan University, 2000  
 RDN, University of Illinois, 2002  
 MS, Benedictine University, 2014  
 Licensed Dietician-Nutritionist, 2014  
 EdD, Maryville University, 2021

Pedro Rivera.....Lecturer, Research  
 BS, DVM, Purdue University, 1985, 1986  
 Fellow, American College of Functional Neurology

Polina Robinson.....Instructor, Clinical Sciences  
 BS, ND, National University of Health Sciences, 2014, 2019  
 MS, Northeast College of Health Sciences, 2019  
 Certified Nutrition Specialist & Licensed Dietitian/Nutritionist

Sandra C. Rogers.....Professor, College of Professional Studies  
 BS, PhD, Post-doctorate, University of Illinois-Chicago, 2001, 2006, 2007

James Salvatore.....Instructor, Basic Sciences  
 BS, Saint Joseph's College, 2000  
 MS, Northern Illinois University, 2013  
 DC, National University of Health Sciences, 2005

Terry D. Sandman.....Lecturer, Clinical Sciences – Florida  
 BS, DC, National College of Chiropractic, 1975, 1977  
 MPH, Northern Illinois University, 1997  
 Diplomate: American Chiropractic Board of Radiologists

Paul Richard Saunders.....Lecturer, Clinical Sciences  
 BS, MS, Purdue University, 1972  
 PhD, Duke University, 1979  
 ND, Ontario (now Canadian) College of Naturopathic Medicine, 1990  
 ND, National College of Naturopathic Medicine, 1991

Matthew Schipma.....Lecturer, Allied Health Sciences  
 BA, Trinity Christian College, 1998  
 MS, DePaul University, 2004  
 PhD, Loyola University, 2004

Andrew B. Serlin.....Instructor, DC  
 BA, University of Wisconsin, 1986  
 JD, University of Illinois – College of Law, 1989  
 DC, National University of Health Sciences, 2005

Roy Settergren.....Lecturer, Allied Health Sciences  
 BS, MS, Eastern Illinois University, 2003, 2005  
 DC, MSACP, National University of Health Sciences, 2009, 2012  
 MD, International University of Health Sciences, 2017

Jamie Shish.....Lecturer, Allied Health Sciences  
 BS, University of Illinois at Chicago, 1999  
 RDN/LDN, University of Illinois at Chicago, 2002

Fraser Smith.....Associate Professor, Clinical Sciences  
 BA, University of Toronto, 1991  
 ND, Canadian College of Naturopathic Medicine, 1997  
 MA, Roosevelt University, 2014

Pamela Snider.....Lecturer, Naturopathic Medicine  
 ND, Bastyr University, 1982  
 Postgraduate Fellowship, Canadian Academy of Homeopathy, 1989

Lorinda Sorensen.....Lecturer, Clinical Sciences  
 BS (Natural Health Sciences), Bastyr University, 1998  
 MS (Acupuncture), Bastyr University, 1999  
 ND, Bastyr University, 2000

Nancy Steinke.....Lecturer, Allied Health Sciences  
 BS, Anderson University, 1959  
 MS, Southeast Missouri State University, 1971

Joseph Stiefel.....Professor, Clinical Sciences  
 BS, Ball State University, 1995  
 BS, DC, MS, National University of Health Sciences, 2002, 2004, 2007  
 EdD, Argosy University, 2013

Daniel Strauss.....Associate Professor, Clinical Sciences–Florida  
 BS, State University of New York College at Brockport, 1998  
 DC, New York Chiropractic College, 2001

George Stretch.....Assistant Dean, Clinical Sciences  
 DN, National College of Naprapathic Medicine, 1988  
 LAc, Midwest College of Acupuncture and Oriental Medicine, 1992

Randy L. Swenson.....Professor, Clinical Sciences  
 BS, DC, National College of Chiropractic, 1977, 1977  
 MHPE, University of Illinois-Chicago, 1991

Joseph Vazquez.....Lecturer, Clinical Sciences  
 BS, Austin Peay State University, 2008  
 ND, National University of Health Sciences, 2013

Todd VanAuken.....Lecturer, Basic Sciences – Florida  
 BA, Eckerd College, 2005  
 MA, University of South Florida, 2008  
 PhD, University of South Florida, 2022

Zhanxiang Wang.....Professor, Clinical Sciences  
 MD (China), Beijing University of Chinese Medicine, 1989  
 PhD, China Academy of Chinese Medicine Sciences, Beijing, 2001  
 Licensed Acupuncturist  
 Certified Chinese Herbologist

Krista Ward.....Lecturer, Allied Health Sciences  
 BA, Colby College, 1999  
 DC, Palmer College of Chiropractic-West, 2003  
 MPH, San Francisco University, 2009

Jeffrey Ware.....Associate Professor, Clinical Sciences  
 DC, Certified Insurance Consultant, MS Nutrition, Logan College of Chiropractic, 1989, 2012, 2013  
 Diplomate, American Board of Chiropractic Internist, 1998  
 Certified Acupuncturist, National Board of Chiropractic Examiners, 2012

Melodie Hammer-Wakefield.....Instructor, Basic Sciences  
 BS, Colorado State University, 1983  
 DC, National University of Health Sciences-Florida, 2014

Krista Ward.....Lecturer, Allied Health Sciences  
 BS, Colby College, 1999  
 DC, Palmer College of Chiropractic-West, 2003  
 MPH, San Francisco State University, 2009

Leah Weber.....Assistant Professor, Institutional Effectiveness  
 BS, DC, National University of Health Sciences, 1994, 1996

Mark Wieland.....Assistant Professor, Clinical Sciences – Florida  
 BS, DC, National College of Chiropractic, 1983, 1985

Holly Wurtz.....Lecturer, Naturopathic Medicine  
 BA, University of Minnesota, 1999  
 ND, National University of Health Sciences, 2015

Jia Xu.....Lecturer, Clinical Sciences  
 BS, Liaoning University, China, 1982  
 MSOM, Midwest College of Oriental Medicine, Racine, Wisconsin, 2000  
 PhD, Guang Zhou University of Traditional Chinese Medicine, 2013  
 Licensed Acupuncturist

Steven Yingling.....Assistant Professor, Clinical Sciences  
 BS, University of New Mexico, 2000  
 DC, National University of Health Sciences, 2007

Thomas Young.....Lecturer, Clinical Sciences – Florida  
 BS, Gannon University, 2000  
 DC, Palmer College of Chiropractic Florida, 2006  
 Diplomate: American Chiropractic Board of Sports Physicians

Frank Yurasek.....Lecturer, AOM  
 BA, MA, Notre Dame University, 1961, 1963  
 MSOM, Midwest College of Oriental Medicine, 1999  
 PhD (China), Guang Zhou University of Traditional Chinese Medicine, 2002

## Post-professional Faculty

Greg Abbott.....General Chiropractic  
 BS, Elon University, 2007  
 DC, Life University, 2011

Brian Anderson.....Lecturer, Allied Health Sciences  
 BS, Northern Illinois University, 1999  
 DC, MS, National University of Health Sciences, 2004, 2014  
 MPH, Benedictine University, 2008  
 PhD, Northern Illinois University, 2019

Delilah Anderson.....Internal Disorders  
 BA, University of Central Florida, 1985  
 BS, DC, MS, National University of Health Sciences, 1987, 1988, 2011

Eric F. Baker.....Acupuncture  
 BS, University of Illinois, 1994  
 MSOM, Midwest College of Oriental Medicine, 2000

Sarah Ballantyne.....Nutrition  
 PhD, Western University, Ontario, 2003



Brandon Brock.....Functional Medicine, Neurology  
 DC, Parker University, 1999  
 BSN, Hardin-Simmons University, 2009  
 MSN, NP-C, Samford University, 2011  
 RN, Duke University, 2017  
 Diplomate: American Board of Chiropractic Acupuncture  
 Diplomate: American Board of Chiropractic Neurology

Shawn Burger.....Graston Technique  
 BS, MPT, Loma Linda University, 1998, 1998  
 DPT, The College of St. Scholastica, 2015

J. Richard Burns.....Biomechanics, Imaging  
 DC, Palmer College of Chiropractic, 1973

Zach Bush.....Nutrition  
 BA, University of Colorado, 1997  
 MD, University of Colorado, 2002

Michelle Butler.....Documentation, Compliance  
 James Madison High School, 1988

Jerrilyn Cambron.....Research  
 BS, DC, National College of Chiropractic, 1989, 1991  
 MPH, University of Illinois at Chicago, 1999  
 PhD, University of Illinois at Chicago, 2005  
 CMT, National University of Health Sciences, 2006  
 Certified in Public Health

Ryan D. Cedermark.....Nutrition  
 DC, Life University, 2011  
 BSN, Duke University, 2014

Patricia Coe.....Allied Health Sciences  
 BS, University of Pittsburgh, 1992  
 BS, DC, National College of Chiropractic, 1995, 1997  
 MS, ND, National University of Health Sciences, 2011, 2012  
 Massage Therapist

Gregory D. Cramer.....Anatomy, Neurology  
 BS, DC, National College of Chiropractic, 1977, 1979  
 PhD, Medical College of Ohio, 1987

Kevin Curtin.....Clinical Sciences  
 BS, Governors State University, 2004  
 BS, DC, National University of Health Sciences, 2005, 2007

John Dang.....Graston Technique  
 BSc, University of Alberta, 1998  
 DC, Life Chiropractic College West, 2002  
 RMT, Northwestern School of Massage & Stillpoints Clinics, 2002

Dennis DiGiorgi.....Compliance  
 BA, Queens College, 1992  
 DC, New York Chiropractic College, 1996

Manuel A. Duarte.....Orthotics, Sports Injuries  
 BS, Brooklyn College, 1977  
 MS, Long Island University, 1978  
 BS, DC, National College of Chiropractic, 1984, 1986  
 MSAC, National University of Health Sciences, 2013  
 Diplomate: American Board of Chiropractic Orthopedists  
 Diplomate: American Chiropractic Board of Sports Physicians  
 Diplomate: American Board of Chiropractic Acupuncture

Robin Fan.....Acupuncture  
MD (China) Hunan College of Traditional Chinese Medicine, 1983  
Licensed Acupuncturist

Ted Forcum.....Graston Technique  
BS, Willamette University, 1984  
DC, Western States Chiropractic College, 1988  
Diplomate, American Chiropractic Board of Sports Physicians

Mario Fucinari.....Compliance  
South Macomb School of Radiological Technology, 1976  
BA, Wayne State University, 1983  
DC, Palmer College of Chiropractic, 1986  
Certified Chiropractic Sports Physician  
Certified Professional Compliance Officer

Alan Goldhamer.....Nutrition  
DC, Western States Chiropractic College, 1983

Sara Gottfried.....Nutrition  
BS, University of California, 1998  
MD, Harvard Medical School and Massachusetts Institute of Technology, 2004

A. Carlo Guadagno.....Clinical Sciences, Rehabilitation, Sports  
BS, University of Miami, 1984  
DC, Palmer College of Chiropractic – Iowa, 1988  
Certified Chiropractic Sports Physician, 1992, 2009  
Diplomate: American Chiropractic Board of Sports Physicians

Maruti Ram Gudavalli.....Cox Technique  
BSc, Andhra University, India, 1970  
DMIT, Madras Institute of Technology, India, 1974  
MTech, Indian Institute of Technology, India, 1975  
MEng, McMaster University, 1980  
PhD, University of Cincinnati, 1989

Warren Hammer.....Fascial Manipulation  
BA, Brooklyn College, 1955  
DC, Lincoln Chiropractic College, 1958  
MS, University of Bridgeport, 1979  
Diplomate, American Board of Chiropractic Orthopedists

Cindy Howard.....Nutrition, Women’s Health, Pediatrics  
BS, University of Wisconsin, 1991  
BS, DC, National University of Health Sciences, 1996, 1998

Katie Johnson.....Family Medicine, Acupuncture  
BS, Oklahoma Baptist University, 2005  
DC, MS, National University of Health Sciences, 2008, 2011

Datis Kharrazian.....Functional Medicine, Neurology  
BS, University of the State of New York, 1999  
DC, Southern California University of Health Sciences (Los Angeles College of Chiropractic), 1999  
MS, University of Bridgeport, 2001  
DHSc, Nova Southeastern University, 2007  
MS, Carrick Institute of Graduate Studies, 2009  
Diplomate: American Board of Chiropractic Neurology  
Diplomate: American Clinical Board of Nutrition  
Diplomate: American Board of Chiropractic Neurology

Yihyun Kwon.....	Acupuncture
BSc, Chung Ang University, Korea, 1989	
MSc, Chung Ang University, Korea, 1992	
DC, National University of Health Sciences, 2002	
MSOM, Midwest College of Oriental Medicine, 2003	
PhD (China), Tiajin University of Chinese Medicine, 2019	
Robert J. Melillo.....	Functional Medicine, Neurology, Pediatrics
BS, Southern Connecticut University, 1981	
DC, New York Chiropractic College, 1985	
Diplomate: American Board of Chiropractic Neurology	
Michael T. Nelson.....	Nutrition
BA, College of St. Scholastica, 1995	
MS, Michigan Technology University, 1999	
PhD, University of Minnesota, 2014	
Thomas O'Bryan.....	Nutrition
BS, University of Michigan, 1974	
BS, National University of Health Sciences, 1979	
DC, National University of Health Sciences, 1981	
Stephen D. Phinney.....	Nutrition
BS, Antioch College, 1968	
MD, Stanford University, 1973	
PhD, Massachusetts Institute of Technology, 1981	
Maria Rago.....	Nutrition
BA, University of Illinois, 1987	
PhD, Southern Illinois University, 1992	
Allison Siebecker.....	Functional Medicine
BA, Rutgers University, 1991	
ND, MSOM, National College of Naturopathic Medicine, 2005, 2005	
Timothy Stark.....	Graston Technique
BS, North Dakota State University, 1990	
DC, Northwestern Health Sciences University, 1996	
Diplomate: American Chiropractic Board of Physicians	
R. Shane Steadman.....	Functional Neurology
DC, Parker College of Chiropractic, 2002	
Diplomate: American Chiropractic Neurology Board	
Diplomate: College of Clinical Nutrition	
Diplomate: Chiropractic Board of Clinical Nutrition	
George G. Stretch.....	Acupuncture
DN, National College of Naprapathic Medicine, 1998	
DAOM, American College of Traditional Chinese Medicine, 2011	
Licensed Acupuncturist	
Gary Tarola.....	Chiropractic Orthopedics
BA, Marshall University, 1973	
DC, Palmer College of Chiropractic, 1976	
Kristine Tohtz.....	Pediatrics, Acupuncture
BS, University of Illinois, Urbana-Champaign, 1996	
BS, DC, MAC, National University of Health Sciences, 1999, 2001, 2014	
MTOM, Pacific College of Oriental Medicine, 2005	
Certified, Pediatrics, Academy of Family Practice in Pregnancy, ICPA	
Diplomate: American Board of Chiropractic Acupuncture	

Richard Ulm.....	Functional Rehabilitation
BS, Ashland University, 2000	
MS, Emporia State University, 2003	
DC, National University of Health Sciences, 2011	
Certified Strength and Conditioning Specialist	
Aristo Vojdani.....	Functional Neurology
BS, MSc, PhD, Bar Ilan University (Israel), 1970, 1972, 1976	
Zhanxiang Wang.....	Acupuncture
MD (China), Beijing University of Chinese Medicine, 1989	
PhD (China) China Academy of Chinese Medicine Sciences, 2001	
Licensed Acupuncturist	
Guang Xie.....	Acupuncture
MD (China), Gansu College of Traditional Chinese Medicine, 1983	
Hongji Zhang.....	Acupuncture
MD (China), Beijing University of Chinese Medicine, 1989	
MS (China), China Academy of Chinese Medicine Sciences, 1994	
Licensed Acupuncturist	
Yu Zhu.....	Acupuncture
MD (China), Gansu College of Traditional Chinese Medicine, 1983	
Licensed Acupuncturist	

## Adjunct and Visiting Faculty

Ryan Diana.....	Chiropractic Practice
BPS, DC, New York Chiropractic College, 2010, 2012	
Timothy W. Fior.....	Clinical Practice
BS, Loyola Marymount University-Los Angeles, California, 1981	
MD, Michigan State University-College of Human Medicine, 1985	
Family Practice Residency, Saginaw Cooperative Hospitals, 1988	
Jason Gibson.....	Chiropractic Practice
BGS, Indiana University, 2005	
DC, National University of Health Sciences, 2010	
Jeffrey A. King.....	Chiropractic Practice
BA, Augustana College, 2008	
DC, MS, Logan University, 2011, 2012	
Janet Lintala.....	Chiropractic Practice
BS, The Ohio State University, 1981	
DC, National University of Health Sciences, 1994	
Heather R. Loska-Mendez.....	Chiropractic Practice
BS, Roosevelt University-Chicago, 2009	
DC, National University of Health Sciences-Illinois, 2012	
Jude Miller.....	Chiropractic Practice
BS, University of Tennessee, 2007	
BS, MS, DC, Logan University, 2009, 2011, 2011	
Michael D. Mortenson.....	Chiropractic Practice
BS, State Community and Technical College-Minnesota, 1996	
BS, North Dakota State College of Science, 1996	
DC, Northwestern Health Sciences University, 2000	
Boyd M. Peterson.....	Chiropractic Practice
BS, DC, National College of Chiropractic, 1991	

Charles R. Portwood.....Chiropractic Practice  
 BS, Oklahoma Christian University of Science and Arts, 1984  
 BS, DC, Logan College of Chiropractic, 1991

Gregory Reed.....Chiropractic Practice  
 BS, University of Buffalo, 2012  
 New York Chiropractic College, 2015

Gary Ross.....Chiropractic Practice  
 BS, Excelsior College  
 DC, Parker College of Chiropractic, 1996

Joel Shepperd.....Clinical Practice  
 BA, University of California at Santa Cruz, 1969  
 MD, University of Illinois College of Medicine, 1973

Peter Szykowitz.....Clinical Practice  
 BS, Fordham University, 1982  
 DC, New York Chiropractic College, 1986  
 MS, University of Bridgeport, 2012

Kristine Tohtz.....Pediatrics/Acupuncture  
 BS, University of Illinois, Urbana-Champaign, 1996  
 BS, DC, MAC, National University of Health Sciences, 1999, 2001, 2014  
 Certified, Pediatrics, Academy of Family Practice in Pregnancy, ICPA  
 Diplomate: American Board of Chiropractic Acupuncture

Daniel V. Tominello.....Chiropractic Practice  
 Associates, Oakland Community College, 1989  
 DC, MS, Life University, 1994, 1995

Brian Webster.....Chiropractic Practice  
 BS, Colorado State University, 2004  
 DC, Parker University College of Chiropractic, 2011

## Students with Instructional Duties

### Residents

Jocelyn Faydenko .....Research  
ND, DC National University of Health Sciences, 2019, 2020

### Fellows

Emily Doudlah.....Anatomy  
BS, National University of Health Sciences, 2017  
BA, University of Wisconsin-Madison, 2016

Tessaundra Sidden.....Research  
BA, Oregon Institute of Technology, 2017

## Standing Committees of the University

The President of the University is an ex-officio member of all committees.

### President's Alumni Advisory Council

Shawn Breton, DC, Chair  
Richard Fay, DC  
Olivia Friedman, LAc, MSOM

#### Administrative Liaisons:

Daniel Driscoll, DC  
Tracy McHugh, MBA  
Ron Mensching, BS  
Randy Swenson, DC, MHPE

### University Council

Tracy McHugh, MBA, Co-Chair  
Randy Swenson, DC, MHPE, Co-Chair  
Ron Mensching, BS, Vice-Chair  
Jerrilyn Cambron, DC, MPH, PhD, LMT  
Gregory Cramer, DC, PhD  
Daniel Driscoll, DC  
Izabela Dubak, MBA  
Mark Galvanoni, BS  
Patricia Genardo, MA, MLIS  
Jenna Glenn, MS, DC, ND  
Claire Johnson, MEd, DC, PhD  
Theodore Johnson, DC, MS, DABCI  
Yesenia Maldonado, MBA  
Candace Passi, MS, MEd, PhD  
Sandra Rogers, PhD  
Daniel Strauss, DC  
Victoria Sweeney, MEd  
Sue Unger, CPA  
Marc Yambao, BS  
Andrew Wozniak, BS  
Faculty Member-at-Large  
Faculty Senate Chair  
Student Council President

### Faculty Senate

14 elected faculty members

### Academic Assessment

Candace Passi, MS, MEd, PhD, Co-Chair  
Fraser Smith, MA, ND, Co-Chair  
George Stretch, DN, DAOM, LAc, Co-Chair  
Jeffrey Ware, DC, Co-Chair  
Kevin Curtin, DC  
Robin Fan, MD (China)  
Brett Martin, DC  
Marc McRae, MSc, DC  
Sarah Kelly, DC  
Nakiesha Pearson, MS, ND, DC

#### Consultants:

Chris Olsen, MS  
Jerrilyn Cambron, DC, MPH, PhD, LMT

### Academic Standards, Grades & Records

Marc McRae, DC, Chair  
Daniel Cooper, DC  
Erika Haire-Nino, DC  
Michelle Jourdan, DC  
Muhammad Khan, MD (Pakistan)  
Yuri Korvatko, DC  
Mackenzie Ott, PhD  
Patricia Pearce, ND  
Steven Yingling, DC  
Faculty-at-Large Member

#### Alternates:

Edward Bifulco, DC  
William Chromey, DC  
Yihyun Kwon, DC, MSOM, PhD (China)  
Marina Machini, MD (Russia)  
Mark Wieland, DC

#### Consultants:

Izabela Dubak, MBA  
Yesenia Maldonado, MBA  
Candace Passi, MS, MEd, PhD  
Sandra Rogers, PhD  
Daniel Strauss, DC  
Marc Yambao, BS

### Admissions

Victoria Sweeney, MEd, Chair  
Cassandra Canchola, BS  
Patricia Coe, DC, MSACP, ND  
Marina Machini, MD (Russia)  
Yesenia Maldonado, MBA  
Mackenzie Ott, PhD  
Candace Passi, MS, MEd, PhD  
Fraser Smith, ND, MA  
George Stretch, DN, DAOM, LAc  
Jeffrey Ware, DC  
Marc Yambao, BS

#### Consultant:

Izabela Dubak, MBA

*Continued >*

**Animal Care & Use**

Gregory Cramer, DC, PhD, Chair  
Antonio Bifero, DC, MS, MBA  
Patricia Coe, DC, MSACP, ND  
2 Public Members  
Pedro Rivera, DVM  
Student

**Clinic Systems Risk Management**

Frank Frydrych, DC, MSACP, Chair  
Jennifer Green, ND  
Erika Haire-Nino, DC  
Brett Martin, DC  
Sandra Rogers, PhD  
Consultant:  
Ron Menching, BS

**Preceptorship Committee**

Theodore Johnson, DC, MS, DABCI, Chair  
Jerrilyn Cambron, DC, MPH, PhD, LMT  
Patricia Coe, DC, MSACP, ND  
Frank Frydrych, DC, MSACP  
Jennifer Green, ND, DC  
Sarah Kelly, DC  
Hyundo Kim, PhD, MSOM, LAC  
Tracy McHugh, MBA  
Tari Reinke, DC, MS  
Fraser Smith, ND, MA  
George Stretch, DN, DAOM, LAC  
Jeffrey Ware, DC

**Clinical Quality Management**

Theodore Johnson, DC, MS, DABCI, Chair  
Patricia Coe, DC, MSACP, ND  
Sarah Kelly, DC, MSACP  
Hyundo Kim, PhD, MSOM, LAC  
Lorae Kornaus, BS  
Patricia Pearce, ND  
Andrew Serlin, JD, DC  
Fraser Smith, ND, MA  
George Stretch, DN, DAOM, LAC  
Jeffrey Ware, DC

**Curriculum**

Jenna Glenn, MS, DC, ND, Co-Chair  
Candace Passi, MS, MSED, PhD, Co-Chair  
Sandra Rogers, PhD, Co-Chair  
Daniel Strauss, DC, Co-Chair  
Jerrilyn Cambron, DC, MPH, PhD, LMT  
Gregory Cramer, DC, PhD  
Steven Freeman, DC  
Moir Jenkins, DC, MS  
Theodore Johnson, DC, MS, DABCI

Christopher Olsen, MS  
Mackenzie Ott, PhD  
Nakiesha Pearson, DC, ND  
Fraser Smith, ND, MA  
George Stretch, DN, DAOM, LAC  
Jeffrey Ware, DC  
Student (Allied Health)  
Student (First Professional)  
Student (Lincoln College)  
Consultant:  
Izabela Dubak, MBA  
Randy Swenson, DC, MPHE  
Observer:  
Patricia Genardo, MA, MLIS

**Faculty & Staff Development**

Chris Olsen, MS, Co-Chair  
Jennifer Gantzer, DC, Co-Chair  
Aga Dabek  
Lauren Evitt  
Patricia Genardo, MA, MLIS  
Jennifer Green, ND  
Pam Jones, BA, MFA  
Sonia Joubert, DC, MSc, ND  
Krissé Lively, BA  
Donn Nelson  
Andrew Wozniak, BS

**Financial Assistance & Scholarships**

Marc Yambao, BS, Chair  
Cassandra Canchola, BS  
Izabela Dubak, MBA  
Terry Elder, DC  
Nelson Klahr, PhD  
Alex Payton, BA  
Katrina Rieger, BS  
Sue Unger, CPA  
Consultant:  
Tracy McHugh, MBA

**Financial Aid / Satisfactory Academic Progress**

Ron Mensching, BS, Chair  
Moir Jenkins, DC, MS  
Mackenzie Ott, PhD  
Candace Passi, MS, MSED, PhD  
Marc Yambao, BS

*Continued >*



**Infection Control & Chemical Safety**

Mark Wieland, DC, Chair  
Antonio Bifero, MBA, DC, MS  
Melissa Dybala, ND, DC  
Mark Galvanoni, BS  
Hasan Nazik, MD (Turkey)  
Andrew Wozniak, BS  
Public Member  
Consultant:  
Theodore Johnson, DC, MS, DABCI

**Institutional Review Board**

Jerrilyn Cambron, DC, MPH, PhD, LMT, Chair  
Brett Martin, DC  
Patricia Genardo, MA, MLIS  
Jennifer Green, ND  
Leah Weber, DC  
Public Members - 2  
Student Representative

**James F. Winterstein Library**

Patricia Genardo, MA, MLIS, Chair  
Patricia Coe, DC, MSACP, ND  
Robin Fan, MD (China)  
Russ Iwami, MALS  
Ron Mensching, BS  
Alex Payton, BA  
Polina Robinson, MS, ND  
Student  
Consultants:  
Yesenia Maldonado, MBA  
Claire Johnson, DC, MEd, PhD

**Lecture & Cultural Affairs**

Pam Jones, BA, MFA, Chair  
Diana Bacigalupo  
Mark Galvanoni, BS  
Colin Meier, BS  
Donn Nelson  
Patricia Pearce, ND  
Colleen Schopa  
Kailee Shlensky, BS  
Andrew Wozniak, BS  
Student

**Post-professional, Graduate & Continuing Education**

Jenna Glenn, MS, DC, ND, Chair  
William Bogar, DC, DACBR  
Frank Frydrych, DC, MSACP  
Carlo Guadagno, DC, DACBSP  
Jodi Perrin, DC, ND  
George Stretch, DN, DAOM, LAc

**Rank & Promotion**

William Bogar, DC, DACBR, Chair  
Carlo Guadagno, DC, DACBSP  
Michelle Jourdan, DC  
Muhammad Khan, MD (Pakistan)  
Brett Martin, DC  
Jeffrey Ware, DC  
Alternates  
Yihyun Kwon, DC, PhD (China)  
Tari Reinke, DC

**Research**

Gregory Cramer, DC, PhD, Chair  
Jerrilyn Cambron, DC, MPH, PhD, LMT  
Jennifer Green, ND, DC  
Claire Johnson, MEd, DC, PhD  
Hasan Nazik, MD (Turkey)  
Consultants:  
Michelle Jourdan, DC  
Yihyun Kwon, DC, MSOM, LAc, PhD

**Residency**

Sandra Rogers, PhD, Chair  
Brian Batenchuk, DC  
William Bogar, DC, DACBR  
Greg Cramer, DC, PhD  
Frank Frydrych, DC, MSACP  
Jennifer Green, ND, DC  
Theodore Johnson, DC, MS, DABCI  
Yuri Korvatko, DC, MS  
Fraser Smith, ND, MA  
George Stretch, DN, DAOM, LAc  
Jeffrey Ware, DC

**Safety**

Daniel Driscoll, DC, Co-Chair  
Ron Mensching, BS, Co-Chair  
Kristine Aikenhead, DC  
Mark Galvanoni, BS  
Theodore Johnson, DC, MS, DABCI  
Pam Jones, BA, MFA  
Marina Machini, MD (Russia)  
Yesenia Maldonado, MBA  
Victoria Sweeney, MEd  
Andrew Wozniak, BS  
Consultants:  
Krisse Lively, BA  
Tracy McHugh, MBA

*Continued >*

**Self-Study Committee**

Leah Weber, DC, Chair  
Yesenia Maldonado, MBA  
Candace Passi, MS, MEd, PhD  
Fraser Smith, ND, MA  
Daniel Strauss, DC  
George Stretch, DN, DAOM, LAc  
Jeffrey Ware, DC  
Student Representative  
Consultant:  
Jerrilyn Cambron, DC, MPH, PhD, LMT

**Title IX Employee Hearing Committee**

Sandra Rogers, PhD, Chair  
Jerrilyn Cambron, DC, MPH PhD, LMT  
Mark Galvanoni, BS  
Patricia Genardo, MA, MLIS  
Tracy McHugh, MBA  
Candace Passi, MS, MEd, PhD  
Daniel Strauss, DC  
Victoria Sweeney, MEd  
Randy Swenson, DC, MHPE  
Sue Unger, CPA  
Andrew Wozniak, BS  
Marc Yambao, BS  
Dean of Institutional Effectiveness  
Consultant:  
Daniel Driscoll, DC

**Tenure**

Marc McRae, DC, Chair  
Greg Cramer, DC, PhD  
Kevin Curtin, DC  
Daniel Driscoll, DC  
Russ Iwami, MALS  
MacKenzie Ott, PhD  
Alternates:  
Kristine Aikenhead, DC  
Yuri Korvatko, DC, MS

**University Discipline**

Daniel Driscoll, DC, Chair  
Patricia Coe, DC, MSACP, ND  
Theodore Johnson, DC, MS, DABCI  
Mackenzie Ott, PhD  
George Stretch, DN, DAOM, LAc  
Student Council Officer  
Alternates:  
Steven Freeman, DC, CHCQM  
Nakiesha Pearson, DC, ND  
Consultants:  
Izabela Dubak, MBA  
Yesenia Maldonado, MBA



# Bulletin

## 2022-2023



**CALENDAR & MAPS**

# Fall 2022 Trimester

SEPTEMBER							OCTOBER						
SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA
				1	2	3							1
4	5	6	7	8	9	10	2	3	4	5	6	7	8
11	12	13	14	15	16	17	9	10	11	12	13	14	15
18	19	20	21	22	23	24	16	17	18	19	20	21	22
25	26	27	28	29	30		23	24	25	26	27	28	29
							30	31					
NOVEMBER							DECEMBER						
SU	MO	TU	WE	TH	FR	SA	SU	MO	TU	WE	TH	FR	SA
		1	2	3	4	5					1	2	3
6	7	8	9	10	11	12	4	5	6	7	8	9	10
13	14	15	16	17	18	19	11	12	13	14	15	16	17
20	21	22	23	24	25	26	18	19	20	21	22	23	24
27	28	29	30				25	26	27	28	29	30	31

Sept. 1.....	New Student Orientation - CAHS
Sept. 2.....	New Student Orientation - CPS
Sept. 5.....	Labor Day Holiday
Sept. 6.....	Start of Fall Trimester
Sept. 9.....	Last day to add classes. No admission to classes after this date.
Oct. 14.....	Last day to drop CAHS Session I courses (by 5pm CST)
Oct. 24-25.....	CAHS Fall I accelerated courses final exams
Oct. 26.....	CAHS Fall II accelerated courses start
Nov. 7.....	Registration for Spring Trimester begins
Nov. 11.....	Veteran's Day Holiday
Nov. 24-25.....	Thanksgiving Holiday
Nov. 25.....	Last day to drop 15-week courses (by 5pm CST)
Dec. 9.....	Last day to drop CAHS Session II courses (by 5pm CST)
Dec. 15-16.....	CAHS Fall II accelerated courses final exams
Dec. 16.....	Commencement
Dec. 16.....	End of trimester
Dec. 19.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*

# Spring 2023 Trimester

## JANUARY

SU	MO	TU	WE	TH	FR	SA
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## FEBRUARY

SU	MO	TU	WE	TH	FR	SA
			1	2	3	4
5	6	7	8	8	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

## MARCH

SU	MO	TU	WE	TH	FR	SA
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## APRIL

SU	MO	TU	WE	TH	FR	SA
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Jan 5.....	New Student Orientation - CAHS
Jan. 6.....	New Student Orientation - CPS
Jan. 9.....	Start of Spring Trimester
Jan. 13.....	Last day to add classes. No admission to classes after this date.
Jan. 16.....	Martin Luther King Day Holiday
Feb. 17.....	Last day to drop CAHS Session I courses (by 5pm CST)
Feb. 20.....	President's Day Holiday
Feb. 27-28.....	CAHS Spring I accelerated courses final exams
March 1.....	CAHS Spring II accelerated courses start
March 13.....	Registration for Summer Trimester begins
March 31.....	Last day to drop 15-week courses (by 5pm CST)
April 14.....	Last day to drop CAHS Session II courses (by 5pm CST)
April 20-21.....	CAHS Spring II accelerated courses final exams
April 21.....	Commencement
April 21.....	End of trimester
April 25.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*

# Summer 2023 Trimester

## MAY

SU	MO	TU	WE	TH	FR	SA
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## JUNE

SU	MO	TU	WE	TH	FR	SA
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

## JULY

SU	MO	TU	WE	TH	FR	SA
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## AUGUST

SU	MO	TU	WE	TH	FR	SA
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

May 4.....	New Student Orientation - CAHS
May 5.....	New Student Orientation - CPS
May 8.....	Start of Summer Trimester
May 12.....	Last day to add classes. No admission to classes after this date.
May 29.....	Memorial Day Holiday
June 19.....	Juneteenth (Observed)
June 16.....	Last day to drop CAHS Session I courses (by 5pm CST)
June 26-27.....	CAHS Summer I accelerated courses final exams
June 28.....	CAHS Summer II accelerated courses start
July 4.....	Independence Day Holiday (Observed)
July 10.....	Registration for Fall Trimester begins
July 28.....	Last day to drop 15-week courses (by 5pm CST)
Aug. 11.....	Last day to drop CAHS Session II courses (by 5pm CST)
Aug. 17-18.....	CAHS Summer II accelerated courses final exams
Aug. 18.....	Commencement
Aug. 18.....	End of trimester
Aug. 22.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*

# Fall 2023 Trimester

## SEPTEMBER

SU	MO	TU	WE	TH	FR	SA
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

## OCTOBER

SU	MO	TU	WE	TH	FR	SA
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## NOVEMBER

SU	MO	TU	WE	TH	FR	SA
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

## DECEMBER

SU	MO	TU	WE	TH	FR	SA
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Aug. 31.....	New Student Orientation - CAHS
Sept. 1.....	New Student Orientation - CPS
Sept. 4.....	Labor Day Holiday
Sept. 5.....	Start of Fall Trimester
Sept. 8.....	Last day to add classes. No admission to classes after this date.
Oct. 13.....	Last day to drop CAHS Session I courses (by 5pm CST)
Oct. 23-24.....	CAHS Fall I accelerated courses final exams
Oct. 25.....	CAHS Fall II accelerated courses start
Nov. 6.....	Registration for Spring Trimester begins
Nov. 10.....	Veteran's Day Holiday (Observed)
Nov. 22.....	Last day to drop 15-week courses (by 5pm CST)
Nov. 23-24.....	Thanksgiving Holiday
Dec. 8.....	Last day to drop CAHS Session II courses (by 5pm CST)
Dec. 14-15.....	CAHS Fall II accelerated courses final exams
Dec. 15.....	Commencement
Dec. 15.....	End of trimester
Dec. 18.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*

# Spring 2024 Trimester

## JANUARY

SU	MO	TU	WE	TH	FR	SA
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## FEBRUARY

SU	MO	TU	WE	TH	FR	SA
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		

## MARCH

SU	MO	TU	WE	TH	FR	SA
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## APRIL

SU	MO	TU	WE	TH	FR	SA
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Jan. 4.....	New Student Orientation - CAHS
Jan. 5.....	New Student Orientation - CPS
Jan. 8.....	Start of Spring Trimester
Jan. 12.....	Last day to add classes. No admission to classes after this date.
Jan. 15.....	Martin Luther King Day Holiday
Feb. 16.....	Last day to drop CAHS Session I courses (by 5pm CST)
Feb. 19.....	President's Day Holiday
Feb. 26-27.....	CAHS Spring I accelerated courses final exams
Feb 28.....	CAHS Spring II accelerated courses start
March 11.....	Registration for Summer Trimester begins
March 29.....	Last day to drop 15-week courses (by 5pm CST)
April 12.....	Last day to drop CAHS Session II courses (by 5pm CST)
April 18-19.....	CAHS Spring II accelerated courses final exams
April 19.....	Commencement
April 19.....	End of trimester
April 23.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*



# Summer 2024 Trimester

## MAY

SU	MO	TU	WE	TH	FR	SA
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## JUNE

SU	MO	TU	WE	TH	FR	SA
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## JULY

SU	MO	TU	WE	TH	FR	SA
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## AUGUST

SU	MO	TU	WE	TH	FR	SA
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

May 2.....	New Student Orientation - CAHS
May 3.....	New Student Orientation - CPS
May 6.....	Start of Summer Trimester
May 10.....	Last day to add classes. No admission to classes after this date.
May 27.....	Memorial Day Holiday
June 14.....	Last day to drop CAHS Session I courses (by 5pm CST)
June 19.....	Juneteenth (Observed)
June 24-25.....	CAHS Summer I accelerated courses final exams
June 26.....	CAHS Summer II accelerated courses start
July 4.....	Independence Day Holiday (Observed)
July 8.....	Registration for Fall Trimester begins
July 26.....	Last day to drop 15-week courses (by 5pm CST)
Aug. 9.....	Last day to drop CAHS Session II courses (by 5pm CST)
Aug. 15-16.....	CAHS Summer II accelerated courses final exams
Aug. 16.....	Commencement
Aug. 16.....	End of trimester
Aug. 20.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*

# Fall 2024 Trimester

## SEPTEMBER

SU	MO	TU	WE	TH	FR	SA
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

## OCTOBER

SU	MO	TU	WE	TH	FR	SA
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

## NOVEMBER

SU	MO	TU	WE	TH	FR	SA
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

## DECEMBER

SU	MO	TU	WE	TH	FR	SA
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Aug. 29.....	New Student Orientation - CAHS
Aug. 30.....	New Student Orientation—CPS
Sept. 2.....	Labor Day Holiday
Sept. 3.....	Start of Fall Trimester
Sept. 6.....	Last day to add classes. No admission to classes after this date.
Oct. 11.....	Last day to drop CAHS Session I courses (by 5pm CST)
Oct. 21-22.....	CAHS Fall I accelerated courses final exams
Oct. 23.....	CAHS Fall II accelerated courses start
Nov. 4.....	Registration for Spring Trimester begins
Nov. 11.....	Veteran's Day Holiday (Observed)
Nov. 22.....	Last day to drop 15-week courses (by 5pm CST)
Nov. 28-29.....	Thanksgiving Holiday
Dec. 6.....	Last day to drop CAHS Session II courses (by 5pm CST)
Dec. 12-13.....	CAHS Fall II accelerated courses final exams
Dec. 13.....	Commencement
Dec. 13.....	End of trimester
Dec. 16.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*

# Spring 2025 Trimester

## JANUARY

SU	MO	TU	WE	TH	FR	SA
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## FEBRUARY

SU	MO	TU	WE	TH	FR	SA
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

## MARCH

SU	MO	TU	WE	TH	FR	SA
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## APRIL

SU	MO	TU	WE	TH	FR	SA
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

Jan 2.....	New Student Orientation - CAHS
Jan. 3.....	New Student Orientation - CPS
Jan. 6.....	Start of Spring Trimester
Jan. 10.....	Last day to add classes. No admission to classes after this date.
Jan. 20.....	Martin Luther King Day Holiday
Feb. 14.....	Last day to drop CAHS Session I courses (by 5pm CST)
Feb. 17.....	President's Day Holiday
Feb. 24-25.....	CAHS Spring I accelerated courses final exams
Feb 26.....	CAHS Spring II accelerated courses start
March 10.....	Registration for Summer Trimester begins
March 28.....	Last day to drop 15-week courses (by 5pm CST)
April 11.....	Last day to drop CAHS Session II courses (by 5pm CST)
April 17-18.....	CAHS Spring II accelerated courses final exams
April 18.....	Commencement
April 18.....	End of trimester
April 22.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*

# Summer 2025 Trimester

## MAY

SU	MO	TU	WE	TH	FR	SA
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

## JUNE

SU	MO	TU	WE	TH	FR	SA
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

## JULY

SU	MO	TU	WE	TH	FR	SA
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

## AUGUST

SU	MO	TU	WE	TH	FR	SA
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

May 1.....	New Student Orientation - CAHS
May 2.....	New Student Orientation - CPS
May 5.....	Start of Summer Trimester
May 9.....	Last day to add classes. No admission to classes after this date
May 26.....	Memorial Day Holiday
June 13.....	Last day to drop CAHS Session I courses (by 5pm CST)
June 19.....	Juneteenth (Observed)
June 23-24.....	CAHS Summer I accelerated courses final exams
June 25.....	CAHS Summer II accelerated courses start
July 4.....	Independence Day Holiday (Observed)
July 7.....	Registration for Fall Trimester begins
July 25.....	Last day to drop 15-week courses (by 5pm CST)
Aug. 8.....	Last day to drop CAHS Session II courses (by 5pm CST)
Aug. 14-15.....	CAHS Summer II accelerated courses final exams
Aug. 15.....	Commencement
Aug. 15.....	End of trimester
Aug. 19.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*

# Fall 2025 Trimester

## SEPTEMBER

SU	MO	TU	WE	TH	FR	SA
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

## OCTOBER

SU	MO	TU	WE	TH	FR	SA
			1	2	3	4
5	6	8	9	10	11	12
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## NOVEMBER

SU	MO	TU	WE	TH	FR	SA
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## DECEMBER

SU	MO	TU	WE	TH	FR	SA
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Aug. 28.....	New Student Orientation - CAHS
Aug. 29.....	New Student Orientation - CPS
Sept. 1.....	Labor Day Holiday
Sept. 2.....	Start of Fall Trimester
Sept. 5.....	Last day to add classes. No admission to classes after this date
Oct. 10.....	Last day to drop CAHS Session I courses (by 5pm CST)
Oct. 20-21.....	CAHS Fall I accelerated courses final exams
Oct. 22.....	CAHS Fall II accelerated courses start
Nov. 3.....	Registration for Spring Trimester begins
Nov. 11.....	Veteran's Day Holiday (Observed)
Nov. 21.....	Last day to drop 15-week courses (by 5pm CST)
Nov. 27-28.....	Thanksgiving Holiday
Dec. 5.....	Last day to drop CAHS Session II courses (by 5pm CST)
Dec. 11-12.....	CAHS Fall II accelerated courses final exams
Dec. 12.....	Commencement
Dec. 12.....	End of trimester
Dec. 15.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*

# Spring 2026 Trimester

## JANUARY

SU	MO	TU	WE	TH	FR	SA
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

## FEBRUARY

SU	MO	TU	WE	TH	FR	SA
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

## MARCH

SU	MO	TU	WE	TH	FR	SA
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## APRIL

SU	MO	TU	WE	TH	FR	SA
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Jan. 8.....	New Student Orientation - CAHS
Jan 9.....	New Student Orientation - CPS
Jan. 12.....	Start of Spring Trimester
Jan 16.....	Last day to add classes. No admission to classes after this date
Jan 19.....	Martin Luther King Day Holiday
Feb. 20.....	Last day to drop CAHS Session I courses (by 5pm CST)
Feb. 16.....	President's Day Holiday
March 2-3.....	CAHS Spring I accelerated courses final exams
March 4.....	CAHS Spring II accelerated courses start
March 16.....	Registration for Summer Trimester begins
April 3.....	Last day to drop 15-week courses (by 5pm CST)
April 17.....	Last day to drop CAHS Session II courses (by 5pm CST)
April 23-24.....	CAHS Spring II accelerated courses final exams
April 24.....	Commencement
April 24.....	End of trimester
April 28.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*

# Summer 2026 Trimester

## MAY

SU	MO	TU	WE	TH	FR	SA
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## JUNE

SU	MO	TU	WE	TH	FR	SA
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

## JULY

SU	MO	TU	WE	TH	FR	SA
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## AUGUST

SU	MO	TU	WE	TH	FR	SA
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

May 7.....	New Student Orientation – CAHS
May 8.....	New Student Orientation - CPS
May 11.....	Start of Summer Trimester
May 15.....	Last day to add classes. No admission to classes after this date
May 25.....	Memorial Day Holiday
June 12.....	Last day to drop CAHS Session I courses (by 5pm CST)
June 19.....	Juneteenth (Observed)
June 22-23.....	CAHS Summer I accelerated courses final exams
June 24.....	CAHS Summer II accelerated courses start
July 3.....	Independence Day Holiday (Observed)
July 13.....	Registration for Fall Trimester begins
July 31.....	Last day to drop 15-week courses (by 5pm CST)
Aug. 14.....	Last day to drop CAHS Session II courses (by 5pm CST)
Aug. 20-21.....	CAHS Summer II accelerated courses final exams
Aug. 21.....	Commencement
Aug. 21.....	End of trimester
Aug. 25.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*

# Fall 2026 Trimester

## SEPTEMBER

SU	MO	TU	WE	TH	FR	SA
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

## OCTOBER

SU	MO	TU	WE	TH	FR	SA
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

## NOVEMBER

SU	MO	TU	WE	TH	FR	SA
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

## DECEMBER

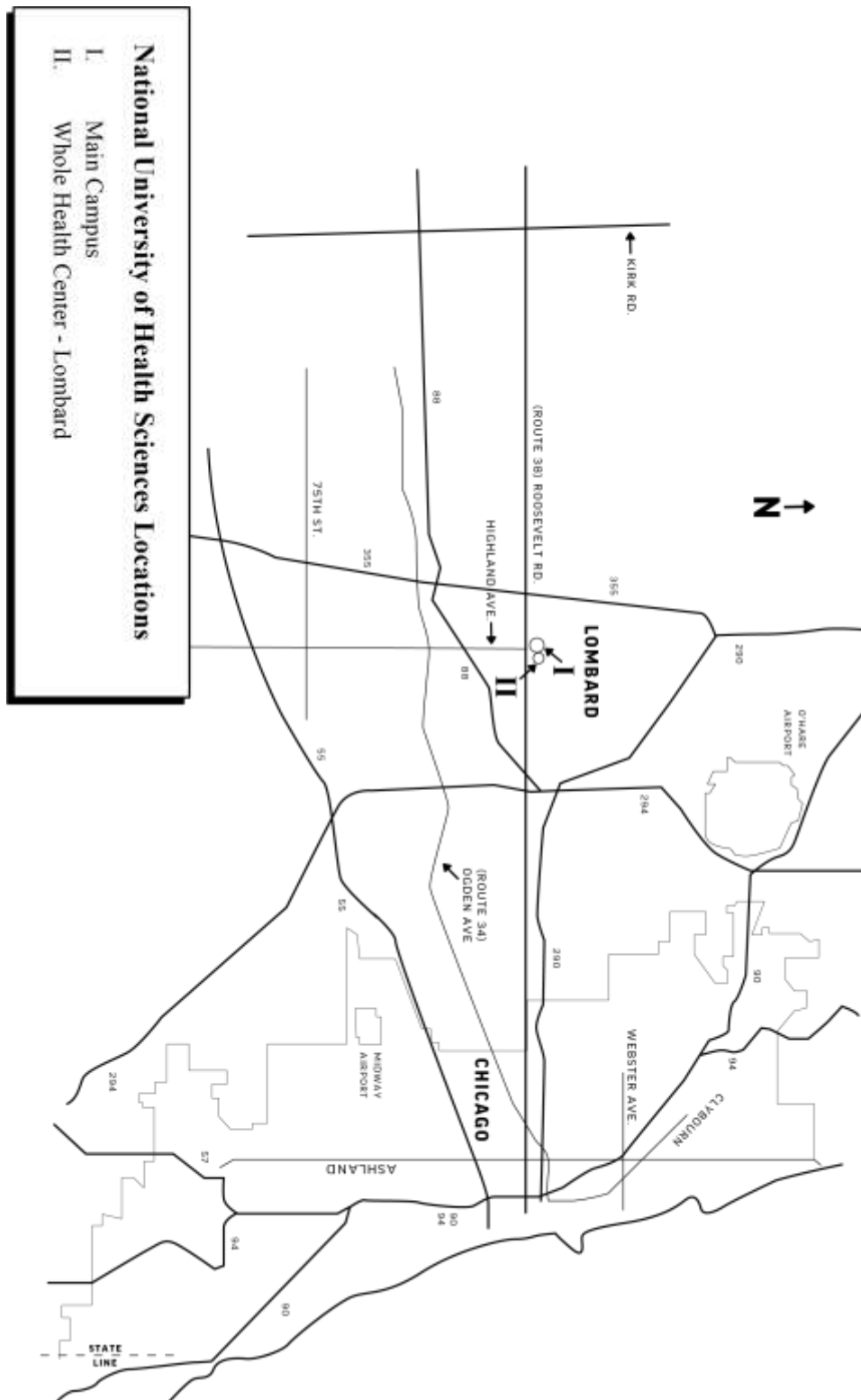
SU	MO	TU	WE	TH	FR	SA
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

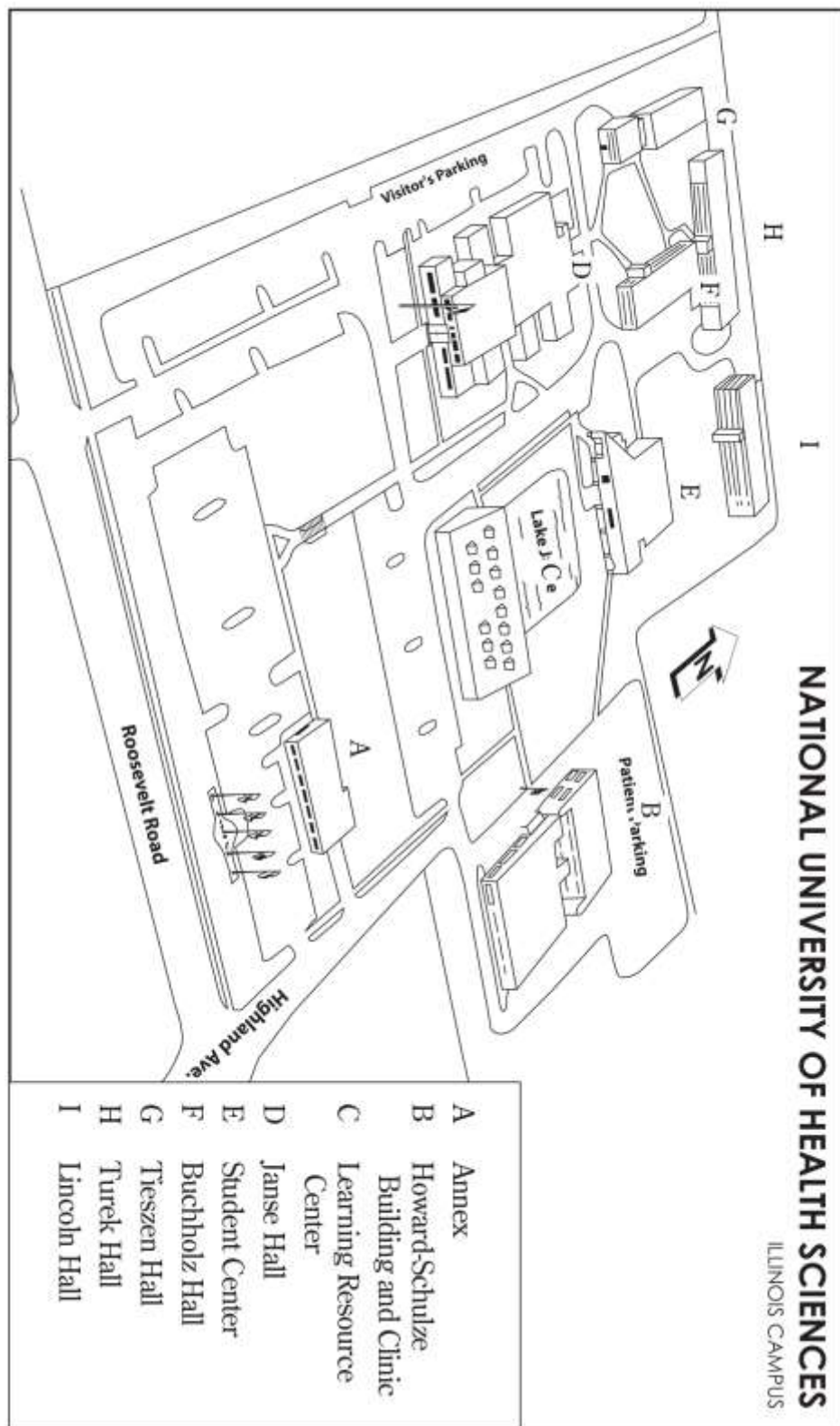
Sept. 3.....	New Student Orientation - CAHS
Sept. 4.....	New Student Orientation—CPS
Sept. 7.....	Labor Day Holiday
Sept. 8.....	Start of Fall Trimester
Sept. 11.....	Last day to add classes. No admission to classes after this date
Oct. 16.....	Last day to drop CAHS Session I courses (by 5pm CST)
Oct. 26-27.....	CAHS Fall I accelerated courses final exams
Oct. 28.....	CAHS Fall II accelerated courses start
Nov. 9.....	Registration for Spring Trimester begins
Nov. 11.....	Veteran's Day Holiday (Observed)
Nov. 25.....	Last day to drop 15-week courses (by 5pm CST)
Nov. 26-27.....	Thanksgiving Holiday
Dec. 11.....	Last day to drop CAHS Session II courses (by 5pm CST)
Dec. 17-18.....	CAHS Fall II accelerated courses final exams
Dec. 18.....	Commencement
Dec. 18.....	End of trimester
Dec. 21.....	End of trimester grades due

*\*Please note that these dates may be subject to change.*



# MAPS





**National University of Health Sciences Florida locations  
on the campuses of St. Petersburg College  
in conjunction with the SPC University Partnership Center**

1. Dean's Office  
9200 113th Street N  
Seminole, FL 33772-2800  
1-727-394-6217

2. Caruth Health Education Center  
7200 66th Street N  
Pinellas Park, FL 33781-4005  
1-727-341-3760

3. Health Education Center Annex  
6698 68th Avenue N  
Pinellas Park, FL 33781-5015  
1-727-803-6120

4. NUHS Whole Health Center – Pinellas Park  
6630 78th Avenue N  
Pinellas Park, FL 33781  
1-727-873-7870



**St. Petersburg College**

